Mesolithic to Post-medieval archaeology on the route of the Chelmsford Effluent Pipeline, Essex

Excavation Report

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Mesolithic to Post-medieval archaeology on the route of the Chelmsford Effluent Pipeline, Essex

Archaeological Excavation

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Summary

Between 12th March and 22nd May 2014 Oxford Archaeology East carried out archaeological work in advance of the construction of a new effluent pipeline, between Chelmsford and Langford, Essex. This involved the excavation of five areas, totalling 2.4ha, along with four evaluation trenches and a borehole survey. The excavation areas revealed features dating from most periods between the Mesolithic and modern.

A Mesolithic deposit of cremated human bone in a pit was the first cremated human bone from this period to be identified in Britain. This deposit included 118g of cremated bone, along with three stuck flints. This was complemented by the discovery of further Mesolithic flints across the site.

Three Early Neolithic pits, containing pottery and flint were excavated, along with several Middle Neolithic pits, which contained Peterbrough Ware pottery. A single pit also contained a substantial quantity of Beaker pottery and flint.

A largely ploughed-out barrow was investigated and the primary unurned cremation was dated to 1872-1639 calBC. Five further urned cremations were later inserted into this barrow during the Middle Bronze Age.

Part of an Early Roman field system, which had previously been identified from cropmarks, was also investigated. These ditches seem to have related to a settlement, just outside of the excavated area.

A substantial Early Saxon settlement, including at least seven halls and two sunken-featured buildings, was excavated at the eastern end of the pipeline route, close to Langford. Although finds from this area were quite scarce, the pottery recovered dates from the 6th to 7th centuries AD.

Part of a medieval building platform was also uncovered, along with ditches and pits of the same date. Although no definite buildings were visible, structural remains including postholes and beamslots were found. Activity in this area appears to have begun during the 12th or 13th century AD and continued at varying levels of intensity throughout the medieval and post-medieval periods.

1 Introduction

1.1 Location and scope of work

1.1.1 Archaeological investigations were conducted along the route of an additional effluent pipeline from the east of Chelmsford (TL 74005 07519) to Langford (TL 83474 08648), Essex (Fig. 1). The work included five open area excavations, along with an evaluation and a borehole survey (see Table 1).

Site Name	Site code	Grid reference (centre point)	Description
Area A	CMEP14.1	TL 74770 07875	0.63ha excavation
Area B	CMEP14.2	TL 75023 07936	0.18ha excavation
Area C	CMEP14.3	TL 75481 08044	0.19ha excavation
Evaluation	CMEP14.4	TL 75853 08128	4 trenches, 30m long
Borehole survey	CMEP14.5	TL 76129 08270	6 boreholes
Area D	CMEP14.6	TL 81024 08747	0.11ha excavation
Area E	CMEP14.7	TL 82123 08869	1.28ha excavation

Table 1: Summary of archaeological investigations carried out on the route of the Chelmsford effluent pipeline.

1.1.2 These archaeological investigations was undertaken in accordance with a written scheme of investigation (Mott Macdonald 2014) following a brief issued by Maria Medlycott of Essex County Council (ECC), supplemented by a Specification prepared by OA East.

1.1.3 The site archive is currently held by OA East and will be deposited with the appropriate county stores in due course.

1.2 Geology and topography

1.2.1 The following text is taken from Mott MacDonald (2012a, 7). The British Geological Survey Map shows the site is located on bedrock geology comprising London Clay Formation clay, silt and sand overlain by various superficial deposits. Alluvium comprising clay, silt, sand and gravel is present along the Chelmer and Ter Valleys and is surrounded by River Terrace Deposits 1 – sand and gravel, River Terrace Deposits 2 – sand and gravel. Head deposits of silt, sand and gravel are located to the south of Springfield and Boreham as well as to the west of the River Ter, and to the south-east of Nounsley. The superficial deposit to the south of the River Chelmer, around Little Baddow, is mid Pleistocene, glaciofluvial sand and gravel. Tidal Flat deposits are present to the north-west of Maldon, at the end of the Blackwater Estuary. Pockets, sometimes large, of brickearth are present to the east of Boreham and south-east of Nounsley. Detailed descriptions of the local geology and ground conditions are presented in the geotechnical report for the study area (Mott MacDonald 2011).

1.2.2 The proposed new pipeline route is situated on the northern side of the Chelmer Valley between Chelmsford and Maldon/Heybridge. The land surrounding Brookend Sewage Treatment Works lies between the 15m and 20m OD contours and rises to the west. The remainder of the new pipeline is proposed on land between 5m and 20m OD along the northern floodplain and valley side of the River Chelmer, with the exception of the eastern end which is situated on land lying lower than 5m OD. The existing pipeline is

situated much closer to the river channel and therefore lies at an average 5m OD throughout.

1.2.3 The site runs through the Chelmer and Blackwater Navigation Conservation Area which crosses from Chelmsford Borough Council in the west to Maldon District Council in the east. A high number of listed buildings and industrial sites associated with the Chelmer and Blackwater Navigation are located on both banks of the canalised river and several man-made feeder courses of historic significance run through the proposed pipeline route towards the Chelmer.

1.2.4 The Chelmer Valley is an area of high archaeological potential with evidence for human activity from the early prehistoric period onwards. This will be discussed in more detail below.

1.3 Archaeological and historical background

1.3.1 A full desk-based assessment and aerial photographic survey have previously been carried out (Mott MacDonald 2012a, 2012b). These highlighted the area as containing significant archaeology, particularly of prehistoric date. The summary from the desk-based assessment (Mott MacDonald 2012a) is given below:

1.3.2 The proposed pipeline will run through the largely rural landscape of the Chelmer Valley. Archaeological investigations in the area have revealed a number of important prehistoric sites, for example the Springfield Cursus, the causewayed enclosure at Springfield Lyons and the Scheduled Monument at Hoe Mill Barns. Aerial photographs have revealed a plethora of cropmarks along the proposed route, including ring ditches and barrows of probable prehistoric date, along the valley, with a topographic distinction between funerary monuments which have been located at levels below 20m OD and settlement features above 20m OD.

1.3.3 There are large gaps in the cropmark data and, while the reasons for this are unknown, it is likely to be a combination of unsuitable crops/landuse at the time of capturing the photographs; underlying features being masked by alluvial build-up; and areas where either archaeological features do not survive or have never existed.

1.3.4 The pipeline route has a high potential to contain prehistoric remains (dating in particular to the Bronze Age), medieval and post-medieval remains. There is a low potential for Roman and Saxon remains.

1.3.5 An archaeological evaluation of the route was conducted in June 2013 (Gilmour 2013). This revealed Bronze Age barrows, Iron Age and Roman field systems and medieval activity.

1.4 Acknowledgements

1.4.1 The author would like to thank Mott MacDonald, particularly Maurice Hopper, who commissioned the work on behalf of Northumbrian Water. Thanks also go to John Lowne and Paul Grimwood of Essex and Suffolk Water for their assistance and understanding on site. The fieldwork was supervised by the author, with the assistance of Nick Cox, Hannah Cutler, Jack Easen, Mike Green, Malgorzata Kwiatkowska, Steve Morgan, Ashley Pooley, Diogo Silva, Helen Stocks-Morgan, Julie Walker, Tam Webster and Rob Wiseman. The site survey was carried out by Louise Bush and Pat Moan. Maria Medlycott monitored the site on behalf of Essex County Council.

2 Aims and Methodology

2.1 Aims

2.1.1 The original aims of the project were set out in the Written Scheme of Investigation (Mott MacDonald 2013).

2.1.2 The main aims of this excavation were:

- To mitigate the impact of the development on the surviving archaeological remains. The development would have severely impacted upon these remains and as a result a full excavation was required, targeting the areas of archaeological interest highlighted by the previous phases of evaluation.
- To preserve the archaeological evidence contained within the excavation area by record and to attempt a reconstruction of the history and use of the site.

2.1.3 The aims and objectives of the excavation were developed with reference to National, Regional and Local Research Agendas (Brown and Glazebrook 2000, Medlycott 2011).

2.2 Original Research Objectives

2.2.1 The original research aims listed below are those taken from the Written Scheme of Investigation (Mott MacDonald 2013).

- Establish the nature, relationship and the phasing (Iron Age to Anglo-Saxon) of the occupation features identified in the evaluation trenches 1-6 in Area A;
- Establish the relationship of the Iron Age/Roman boundary ditches identified in trench 9 in Area B and there potential relationship (phasing) association with the features in Area A;
- Establish the nature and use of the late medieval/post-medieval features (including building material) of the features identified in trench 11 in Area C;
- Establish the relationship of the features, buried soil/colluvium and the Mesolithic flints identified in trench 37 Area D; and
- Identify whether any prehistoric funerary remains associated with the Bronze Age barrows identified trenches 42-42 are present in Area E.

2.3 Updated Research Objectives

2.3.1 Some of the original aims and objectives stated above could be met through the analysis of the excavated materials. In addition new objectives can now be addressed, these are outlined below:

- Investigate the nature of Mesolithic mortuary practice in Britain.
- Seek to improve our understanding of Neolithic activity, with particular reference to deposition of material in pits.
- Enhance understanding of Bronze Age burial practices.
- Improve knowledge of Anglo-Saxon settlement patters and development.
- Investigate medieval rural occupation.

2.4 Methodology

2.4.1 The methodology used followed that outlined in the Brief and detailed in the Written Scheme of Investigation (Mott MacDonald 2013).

2.4.2 Machine excavation was carried out by 20 Ton tracked excavators using 2m wide flat bladed ditching buckets, under constant supervision of a suitably qualified and experienced archaeologist. Topsoil bunds were moved and compacted using a D6 bulldozer, which was also used to remove vegetation from the western section of Area E.

2.4.3 Spoil, exposed surfaces and features were scanned with a metal detector. All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern.

2.4.4 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales and monochrome and digital photographs were taken of all relevant features and deposits.

2.4.5 Bulk soil samples were taken for the recovery of charred plant remains from a variety of features, which either contained charcoal, or were of particular interest. All Neolithic pits and all cremation deposits were 100% sampled for the recovery of artefacts and ecofacts.

2.4.6 Site conditions were generally good, although bright sunshine caused some problems.

3 Results

3.1 Introduction

3.1.1 The results from all of the investigation are presented below by area (east to west) and by phase within each area . A summary of the evaluation trenches is given in Appendix A and a full context list in Appendix B. A brief summary of each area and the archaeology within it is given in table 2 below. Area E was split into three sections during post-excavation analysis. These sections correspond to breaks in the excavation area that were necessary to avoid current obstacles.

Site Name	Site code	Brief summary of archaeology
Area A	CMEP14.1	Beaker pit and Roman activity
Area B	CMEP14.2	Early Neolithic pits and Roman activity
Area C	CMEP14.3	Medieval and post-medieval structures and associated activity
Evaluation	CMEP14.4	No archaeological features
Borehole survey	CMEP14.5	
Area D	CMEP14.6	Bronze Age barrow, with associated features, Roman ditch
Area E	CMEP14.7	Mesolithic cremation, Neolithic pits, Bronze Age pits, Saxon settlement

Table 2: Summary of archaeological activity by area

3.1.2 Features spanning the Early Neolithic to post-medieval periods were identified across the different areas. This activity has been divided into several phases, listed below (Table 3). This phasing is based on the artefacts within features, along with their stratigraphic and spacial relationships to each other, as well as radiocarbon dates.

Period 1: Mesolithic and Neolithic (c.10,000-2500BC)	1.1	Mesolithic
	1.2	Earlier Neolithic
	1.3	Middle Neolithic
Period 2: Bronze Age (c.2500-800BC)	2.1	Early Bronze Age
	2.2	Middle Bronze Age
	2.3	Late Bronze Age
Period 3: Iron Age and Roman (*c.* 800BC- AD 450)	3.1	Earlier Iron Age
	3.2	Later Iron Age
	3.3	Late Pre-Roman Iron Age
	3.4	Early Romano-British
	3.5	Romano-British
Period 4: Early Saxon (*c.* AD 450-650)	4	Early Saxon

Period 5: medieval (AD 1066-*c.*1500)	5.1	Medieval
	5.2	Medieval
Period 6: Post-medieval and modern (*c.* AD 1500-present)	6.1	Late medieval
	6.2	Post-medieval
	6.3	Modern
Period 7: Unphased Natural features	7	

3.2 Area A (Figs 2-4)

3.2.1 Area A was at the western end of the pipeline route. Cropmark evidence (Mott MacDonald 2012b) suggested the presence of enclosures, which evaluation (Gilmour 2013) indicated may be of Early Roman date. Excavation showed that the majority of the features were indeed of Early Roman date, and probably represent a small farmstead and associated field system, the centre of which was possibly just outside the pipeline route. In addition, some Romano-British features and a single Beaker pit were located.

Period 2.1: Early Bronze Age

3.2.2 Only a single feature of Early Bronze Age date was identified in Area A; pit **221**. This pit contained a significant quantity of Beaker pottery.

Pit 221 (Fig. 3; Fig. 4 S.69)

3.2.3 Pit **221** was located close to the middle of Area A. It was circular in plan, with a bowl shaped profile. It had a diameter of 0.74m and was 0.18m deep. A single deposit (220) filled this pit, it was a dark brownish grey, silty sand. The pit was fully excavated and all of the fill was sampled for the recovery of artefacts and environmental remains. The finds assemblage from this pit was extremely large, comprising 1887g of Beaker, 143 struck flints and an unidentified ceramic pierced artefact.

Period 3.4 Early Romano-British

3.2.4 The majority of the features identified in Area A were of Early Roman date. They appeared to represent part of the remains of a small farmstead and fields associated with this. The centre of occupation of this site was probably just to the south-west of the excavation area, outside of the area affected by the pipeline.

Ditches 215, 303, 306, 320, 334

3.2.5 Close to the eastern end of Area A were several ditches, which formed a further part of an Early Roman field system. Ditch **215** (**215**, **318**, **324**, **332**, Fig.4 S.119) crossed the excavation area on a northeast to southwest orientation. It was between 1.06m and 1.50m wide and had a depth ranging from 0.32m to 0.44m. It had a flat base, with steeply sloping sides. Along most of the length of ditch **215** it was filled by a single deposit (319, 325, 214, 331, 336), which was a mid brownish grey, silty sand. At the southern end of the ditch there was an additional fill (335), which appeared to represent a deliberate dump of material. Fill 335 was a mid brownish grey, silty sand and a total of 508 sherds (4769g) of Early Roman pottery was retrieved from this deposit. The finds assemblage from the rest of the ditch comprised 32 sherds (539g) of Early Roman pottery, along with five residual struck flints.

3.2.6 Ditches **306** (**306**, **310**, **322**) and **334** both appeared to be cut by ditch **215**, however, these relationships were not clear and it is possible that the ditches were contemporary.

Ditch **334** extended from the southern limit of excavation for just over 8m before terminating. This terminal appeared to represent the truncated end of the ditch, as opposed to its true end. Ditch **334** was up to 0.98m wide and 0.14m deep, with moderately sloping sides and a flat base. It was filled by a single deposit (333), which was a pale brownish grey, sandy silt. No finds were recovered from this feature. Ditch **306** had a concave base, with gently sloping sides. It was between 0.90 and 1.18m wide, with a depth ranging from 0.10m to 0.26m. A single deposit filled the ditch (307, 311, 323), which was a mid brownish grey, sandy silt. A total of just two sherds (40g) of Early Roman pottery was found within this feature.

3.2.7 Ditch **303** (**303**, **308**, **316**) appeared to be a later replacement for ditch **215**, being on the same alignment, just to the west. Ditch **303** cut both ditches **306** and **334**. It was between 1.00m and 1.10m wide, with gently sloping sides and a concave base. It was filled by a single deposit (304, 309, 317) which was a mid orangey grey, silty sand. The only find recovered from this ditch was a single residual struck flint.

3.2.8 Ditch **320** continued from the southern edge of excavation for *c.*2m on the same northeast to southwest orientation as ditches **215** and **303**. It had moderately sloping sides and a concave base, with a width of 0.66m wide and a depth of 0.33m. A single fill (321) was identified within this feature, which was a pale brownish grey, sandy silt. No finds were recovered from ditch **320**.

Ditches 224, 227, 249 and 327

3.2.9 A series of ditches were located close to the middle of excavation Area A, some of which were inter-cutting. Ditch **227** continued for c. 6m before being truncated by ditch **224**. Ditch **227** was 0.70m wide and 0.32m deep, with moderately sloping sides and a concave base. It was filled by two deposits, the basal fill (226) was a dark greyish brown, sandy silt. This was overlain by a mid greyish brown sandy silt (225). A single sherd (1g) of Early Roman pottery, along with three fragments (12g) of burnt flint, were recovered from this feature.

3.2.10 Ditch **224** (**224**, **260**, **262**, **296**) continued for *c.*15.5m from the southern limit of excavation on a north-south alignment, before turning to a northwest to southeast orientation. It had moderately sloping sides and a concave base, with a width between 1.20m and 1.50m. It was between 0.28m and 0.45m deep and was filled by two deposits. The basal fill (222, 258, 261, 294) was a pale greyish brown, sandy silt, which was overlain by a mid greyish brown, sandy silt (223, 259, 295). The finds assemblage from this feature comprised 40 sherds (511g) of Early Roman pottery, along with 43g of fired clay, nine struck flints and 30 fragments (351g) of burnt flint. Ditch **224** cut ditch **227** and was cut by ditch **249**.

3.2.11 Ditch **249** (**249**, **276**) extended from the northern edge of the excavation for *c.*2.5m on a northeast to southwest alignment, before turning a right angle. It then continued on a northwest to southeast orientation for a further *c.*10.50m before terminating. Ditch **249** was between 0.32m and 0.52m wide, with a depth between 0.04m and 0.17m. It had gently sloping sides, with a flat base and was filled by a single deposit (248, 275). This fill was a mid brownish grey, sandy silt. Finds from this ditch comprised four sherds (50g) of Early Roman pottery, along with a single residual struck flint.

3.2.12 A short length of ditch (**327**) extended from the northern edge of excavation in the same area as the ditches discussed above. It was only visible for just over 2.50m and may actually have been a pit or a tree throw. Ditch **327** was 1.06m wide and 0.72m deep, with moderately sloping sides and a concave base. It was filled by a single deposit

(326), which was a pale brownish grey, silty sand, with frequent iron panning. The only find from this feature was a single residual struck flint.

Ditch 288

3.2.13 Ditch **288** continued from the southern limit of excavation, in a north-easterly direction, for a distance of approximately 4.60m before terminating. The ditch contained no datable finds. It was 0.60m wide and 0.10m deep with gently sloping sides and a concave base. It was filled by a light grey, fine sandy silt (289). The alignment of the feature was similar to posthole line **263** and it may represent a continuation of the same boundary.

Posthole lines 232 (232, 234, 236, 238, 240,242, 244,246) and 263 (263, 269, 271) Fig.3

3.2.14 A line of eight postholes (**232**, **234**, **236**, **238**, **240**, **242**, **244** and **246**) crossed near the middle of Area A on a north-northwest to south-southeast alignment. Each posthole had a similar form, with steep sides and a concave base. They were all circular or sub-circular in plan, with diameters between 0.30m and 0.50m and depths between 0.09m and 0.27m. Each posthole was filled by a single similar deposit; a mid brownish grey, sandy silt. None of the postholes contained any finds, however, their alignment matched that of Early Roman ditch **201**, immediately to the east.

3.2.15 A further line of three postholes (**263**, **269**, **271**) lay just to the west of line **232** and was perpendicular to it. The postholes in line **263** were sub-circular in plan, with steeply sloping sides and concave bases. Their diameters ranged between 0.40m and 0.56m, while their depths varied from 0.08m to 0.32m. Each was filled by a single deposit (264, 270, 272) which was a pale brownish grey, sandy silt. The only find from any of these postholes was a single struck flint from **271**.

Ditches 201 and 268 (Fig. 3)

3.2.16 Ditch **268** (**268**, **284**) continued for *c.*6m from the southern limit of the excavation, before being totally truncated by ditch **201**. Ditch **268** was 1.50m wide and 0.40m deep, with moderately sloping sides and a concave base. It was filled by a single deposit (267, 283), which was a pale greyish brown, sandy silt. A total of 438g of Early Roman pottery, along with a single struck flint was recovered from this ditch.

3.2.17 Ditch **201** (**201**, **266**, **287**) crossed through the middle of Area A on a north-northwest to south-southeast alignment. It was between 1.60m and 1.10m wide, with a depth between 0.27m and 0.40m. Ditch **201** had moderately sloping sides with a concave base and was filled by a single deposit for most of its length (200, 265, 286), which was a mid brownish grey, sandy silt. A second, upper fill (285) was noted in one excavated slot and this was a pale brownish grey, sandy silt. Finds from this ditch comprised 14 sherds (429g) of Early Roman pottery, along with three fragments (83g) of Roman ceramic building material, seven struck flints and eight fragments (106g) of burnt flint.

Droveway ditches 312 and 314 (Fig. 3 Fig. 4 S.108 and S.109)

3.2.18 Two parallel ditches (**312** and **314**), just over 4m apart, crossed Area A on a north-east to south-west alignment and they appear to have defined a track or droveway. Both ditches had similar profiles, with gently sloping sides and concave bases. Ditch **312** (**312**, **343**, **339**), was the southernmost of the two ditches. It had a width of 0.90m and was between 0.15m and 0.19m deep. Ditch **314** (**314**, **341**, **345**, **365**) had similar dimensions, with a width of between 0.80m and 0.90m and a depth of between 0.14m and 0.15m. Both ditches were filled by similar single deposits of a pale yellowish brown, sandy silt. Finds from both ditches comprised seven sherds (74g) of Early Roman

pottery, five residual struck flints and a large assemblage of 168 fragments (1496g) of burnt flint.

Ditch 354 (Fig.3, Fig.4 S.128)

3.2.19 At the eastern end of the excavation area there were three parallel ditches (**354**, **357** **363**), each was on a north-northwest to south-southeast alignment. Ditches **357** and **363** were post-medieval in date and they are discussed below. Ditch **354** (**354**, **355**) was the furthest to the west. It was between 1.40m and 1.82m wide and 0.60m and 0.68m deep, with steeply sloping sides and a concave base. It was filled by a series of silty sand deposits (351, 352, 353, 356), which contained eleven residual struck flints. Although it shared the same alignment as the later ditches, cropmark evidence shows it to be part of a larger enclosure, within the Early Roman ditch system.

Isolated post holes 213, 257, 302, 338

3.2.20 Four postholes (**213**, **257**, **302**, **338**) were scattered across Area A. Although only one of these (**338**) contained any finds, they have been included in the Early Roman phase due to their proximity to other features of this date. All were circular in plan, with moderately sloping sides and concave bases.

3.2.21 Posthole **213** was located towards the centre of the area, to the north of posthole lines **232** and **263**. It had a diameter of 0.22m and was 0.07m deep. A single deposit (212) filled this posthole, which was a mid brownish grey, silty sand.

3.2.22 Feature **257** was adjacent to the southern edge of the excavated area, adjacent to ditch **251**. It was 0.30m deep and had a diameter of 0.60m. The single deposit (256) which filled this posthole was a mid orangey grey, silty sand.

3.2.23 Postholes **302** and **338** were close to each other, to the west of ditch **251**. Posthole **302** was filled by 301, a dark greyish brown, sandy silt. It had a diameter of 0.34m and was 0.12m deep. Posthole **338** was *c.*3m to the west of **302** and had a depth of 0.13m, with a diameter of 0.37m. Deposit 337 filled this posthole and this was a dark brownish grey, sandy silt. Just two sherds (8g) of Early Roman pottery were recovered from this feature.

Period 3.5 Romano-British

3.2.24 Very few features of Romano-British date were identified in Area A. Their presence suggests that there may have been some continuity of use, however, activity was less intensive then during the Early Roman period. Small quantities of Romano-British pottery were used to date these features, along with stratigraphic relationships.

Structural group 203 (203, 205, 207, 209, 211)

3.2.25 A group of five postholes (**203**, **205**, **207**, **209**, **211**) was located towards the middle of the area. These formed no clear pattern and so it is uncertain if they belonged to a single structure. The postholes were all circular in plan, with steeply sloping sides and concave bases. They had diameters between 0.22m and 0.30m, with depths between 0.05m and 0.14m. Each posthole contained a single fill (202, 204, 206, 208, 210), which was mid brownish grey, clayey silt. The only find from this group of postholes was 7g of fired clay. Four of these postholes cut Early Roman ditches making it likely that they belong to the Romano-British phase, although they could be later in date.

Ditch 251

3.2.26 Ditch **251** (**251**, **253**, **255**) ran from the south east to the northwest for 24.5m where it terminated before reaching the edge of excavation. It varied slightly along its length

from 0.70m to 0.85m wide and from 0.09m to 0.18m in depth. The sides were fairly steep and the base was concave. The fills (250, 252 and 254) were a consistent mid orangey grey silty sand. Finds retrieved comprised a single sherd (53g) of pottery dating to the 2nd -3rd century AD, a single serrated flint blade and a single fragment (38g) of Roman ceramic building material.

Period 6.2 Post-medieval

3.2.27 The only post-medieval features identified in this area were four ditches, that were probably field boundaries.

Ditch 217

3.2.28 Ditch **217** (**217**, **219**, **231**) ran approximately south to north across the full width of the excavated area, some 21.3m. The ditch was filled by a single deposit, a mid brownish grey, clayey sand (216, 218, 230). It varied along its length between 1.54m to 1.86m in width and 0.28m to 0.64m in depth, with steep sides and a concave base. Finds recovered included four fragments (856g) of 14th to 16th century brick, along with 3g of residual Early Romano-British pottery.

Ditch 328

3.2.29 Ditch **328** (**328**, **347**) cut Early Romano-British ditches **312** and **314.** It crossed the entire excavated area from south to north. The ditch was consistently 0.70m wide and 0.30m deep with gently sloping sides and a concave base. It was filled by a single deposit (329, 348), which was a mid reddish brown, sandy silt. Finds recovered consisted of a single piece (261g) of 14th to 16th century brick, together with a further fragment (53g) of tile.

Ditches 357 and 363

3.2.30 Ditches **357** and **363** were situated adjacent to Early Roman ditch **354**, towards the eastern end of the site. Ditch **357** (**357**, **359**) had gently sloping sides and a concave base. It was 1.02m wide and had a depth between 0.24m and 0.29m. A single deposit (358, 360) filled this feature, which was a pale greyish brown, sandy silt. A single large fragment (445g) of late medieval or early post-medieval ceramic building material, was recovered from this feature.

3.2.31 Ditch **363** was 1.35m wide and 0.45m deep, with moderately sloping sides and a concave base. It was filled by two deposits - the basal fill (362) was a dark greyish brown, sandy silt, while the upper fill (361) was a dark brownish grey, sandy silt. No finds were recovered from either of these deposits.

Period 7 Un-phased natural features

3.2.32 A total of nine tree throws (**274**, **278**, **280**, **281**, **290**, **300**, **350**, **367**, **369**) were excavated across Area A, which did not contain any datable finds.

3.3 Area B (Figs 5-7)

3.3.1 Area B was located just over 100m to the east of Area A, at the western end of the pipeline route. It was positioned to investigate part of the same cropmark site as that identified in Area A. A small group of Early Neolithic pits were found, along with three Early Roman ditches and a single post-medieval ditch.

Period 1.2: Earlier Neolithic

3.3.2 Three pits located in Area B were a small group of Early Neolithic features. Although these had been truncated by ploughing, a reasonably large assemblage of pottery and struck flint was still recovered from them.

Pit group 1025 (1025, 1027, 1029)

3.3.3 Three pits (**1025**, **1027** and **1029**) were located in a group in the eastern part of Area B. Finds recovered from these suggest that they are contemporary and date to the Early Neolithic period (Table 3).

Cut	Fill	Pottery weight (g)	Pottery number	Flint number
1025	1024	228	28	50
1027	1026	261	27	46
1029	1028	94	19	7

Table 3: Finds from Early Neolithic pits in Area B

3.3.4 Each was circular in plan, with gently sloping sides and a concave base. They also had similar dimensions; Pit **1025** (Fig. 7 S.210) had a diameter of 0.60m and survived to a depth of 0.08m, Pit **1027** (Fig. 7 S.211) measured 0.60m across and 0.12m deep, while pit **1029** (Fig. 7 S.212) measured 0.8m across and 0.08m deep. The pits were all filled by similar deposits, which were dark greyish brown, silty sands.

Period 3.4: Early Romano-British

3.3.5 Three ditches recorded in this area did not contain any dating evidence. However, their alignment and cropmark plots suggests that they formed part of the same Early Roman system identified in Area A, just to the west of this area.

Ditches 1003, 1009

3.3.6 Two parallel ditches (**1003** and **1009**) crossed Area B on a north-west to south-east alignment. They were just over 4m apart and are likely to have formed a trackway or droveway. Although the only finds from these ditches were three struck flints, their alignment suggests they were part of the same Early Roman system identified in Area A. Both ditches had similar profiles, with moderately sloping sides and flat bases. Ditch **1003** (**1003**, **1005**, **1007**) was between 0.90 and 1.10m wide and between 0.12m and 0.15m deep. Ditch **1009** (**1009**, **1021**, **1023**) had similar dimensions, with a width between 0.80m and 0.95m and a depth between 0.15m and 0.16m. Both ditches were filled by a similar mid orangey grey, sandy loam.

Ditch 1013

3.3.7 Ditch **1013** continued for 14.4m from the eastern edge of excavation, in a south westerly direction before terminating. The ditch was 0.90m wide and between 0.18m and 0.25m deep, with fairly steep sides and a concave base. Ditch **1013** contained two fills (1012 and 1014), which were reddish brown sandy silts. No finds were recovered.

Period 6.2: 6.2 post-medieval

3.3.8 Only a single post-medieval feature was identified in Area B; ditch **1011**. This almost certainly reflects a disused field boundary and it was on the same alignment as other post-medieval boundaries identified in Area A.

Ditch 1011

3.3.9 Ditch **1011** (**1011**, **1017**) crossed the entire excavation area on an approximately south to north alignment. The ditch varied in width from 1.30m to 1.50m and between 0.33m and 0.65m in depth. It had steeply sloping sides, with a concave base. The fill (1010 and 1016) was a dark brownish black silty sand. Finds from this ditch comprised 190g of tile, along with 125g of animal bone.

3.4 Area C (Figs 8-10)

3.4.1 Area C was a small excavation area adjacent to Hammonds Road, *c.*400m to the east of Area B. Aerial photographic survey had revealed a potential feature in this location (Mott MacDonald 2012b), which evaluation showed to be a large medieval ditch (Gilmour 2013). The excavation revealed mainly medieval archaeology, consisting of a potential building platform, ditches, pits and structural features. The site continued to be occupied into the post-medieval period.

Period 5.1: medieval

3.4.2 The majority of the features identified in Area C were of medieval date. The pottery suggests that the site was occupied during the 12th to 14th centuries, however as only a small part of the occupied area was excavated it was hard to separate features within this period. Features which were stratigraphically later have been placed in Period 5.2.

Deposits 1609, 1656,1663, 1699 and 1700

3.4.3 A series of layers had been deposited on the north-east part of Area C, and appeared to represent the remains of a building platform of medieval date. Layer 1699 (not illustrated) was at the base of this sequence. It was a pale reddish grey, silty clay, which contained five sherds (998g) of pottery produced *c.* AD 1200 and a single fragment (14g) of brick. This was overlain by 1700, a dark brownish grey, sandy clay. Seven sherds (71g) of pottery, produced around AD 1200, were recovered from this deposit. It is possible that both deposits 1699 and 1700 were the fill of a shallow pit.

3.4.4 Overlaying this was a substantial deposit 1609 (1609 and 1697), which was a pale greyish brown, sandy clay, which continued out of the excavated area to the north. It had a visible length of 23m and width of 7.30m, with a depth of 0.37m. Layer 1609 was truncated to the west by Period 6.2 pond **1504**. Eight sherds (178g) of pottery of early to middle 13th-century date were recovered from this layer, along with 6g of animal bone and a fragment of lava quern (157g; SF113).

3.4.5 To the east Layer 1609 was overlain by deposit 1663, which was pale reddish grey, silty clay, from which no finds were recovered. Deposit 1663 was in turn overlain by the final deposit in the platform sequence (1656). Deposit 1656 was a dark reddish grey, silty clay. The finds assemblage from this layer comprised 44 sherds (805g) of pottery dating around AD 1200, two fragments (275g) of brick, three fragments (364g) of tile and 181g of animal bone.

Floor 1610

3.4.6 Deposit 1610 overlay deposit 1609 and continued out of the northern edge of excavation. This deposit appeared to represent the remains of an earth floor and was a mid greyish brown, sandy clay. It was 0.07m thick and 9.30m long, with a maximum visible width of 4.05m. Finds from this deposit consisted of 48 sherds (327g) of pottery of late 13th to 14th century date, along with 9g of animal bone. There was no surviving evidence for walls surrounding floor 1610, but its rectangular shape in plan and the compact nature of the deposit both support the interpretation of this feature as a floor.

Structural group 1625

3.4.7 A group of seven features (**1625**, **1627**, **1629**, **1631**, **1633**, **1637** and **1639**), located just to the south of the potential building platform, were the remains of a structure or structures. Beamslot **1625** (**1625** and **1649**) was aligned north to south and had gently sloping sides, with a concave base. It was up to 0.60m wide and 0.07m deep. A single deposit (1626 and 1650) filled beamslot **1625**, which was a mid brownish grey, sandy loam. Finds from this feature comprised 14 sherds (208g) of later 14th-century pottery.

3.4.8 Just to the south of beamslot **1625** and on the same alignment was beamslot **1627**. Beamslot **1627** had moderately sloping sides, with a concave base and was 0.80m wide, with a depth of 0.17m. It was filled by a single deposit (1628), which was a mid brownish grey, silty loam. A total of 51 sherds (497g) of late 13th-to14th-century pottery were the only finds from this feature.

3.4.9 Postholes **1629**, **1631** and **1633** appeared to form a line that was almost parallel to beamslot **1625**, just 1.25m to the west. However, the distance between these postholes and the beamslots makes it unlikely that they relate to the same building. The postholes were circular in plan, with moderately sloping sides and concave bases. They had diameters between 0.40m and 0.80m, with depths from 0.09m to 0.18m. Each was filled by a single deposit, which was a mid brownish grey, silty loam. Posthole **1629** contained only two sherds (9g) of medieval pottery and a single fragment of tile (42g), while posthole **1633** contained no finds. However, posthole **1631** contained a larger finds assemblage, comprising eight sherds (92g) of 13th-century pottery and five fragments (155g) of tile.

3.4.10 Posthole **1637** lay just to the east of beamslot **1625** and was circular in plan with moderately sloping sides and a concave base. It had a diameter of 0.40m and was 0.14m deep. The single deposit which fill it (1638) was a mid brownish grey, silty loam. Finds from this feature consisted of a single sherd (20g) of late 13th- to 14th-century pottery and three fragments (49g) of tile

3.4.11 Posthole **1639** was located directly adjacent to the end of beamslot **1625**. It was circular in plan, with moderately sloping sides and a flat base. It had a diameter of 0.36m and was 0.09m deep. It was filled by deposit 1640, which was a mid brownish grey, silty loam, from which 26 sherds (366g) of mid 13th- to 14th-century pottery was recovered.

Possible beamslot 1539

3.4.12 A further possible beamslot (**1539** and **1583**) was identified just to the south of structural group **1625**. Feature **1539** was 6.80m long, 0.48m wide and 0.10m deep. It had gently sloping sides and a flat base. It was filled by a single deposit (1540 and 1584), which was a pale reddish grey, silty clay. The only finds from this feature were seven sherds (34g) of mid 12th to 14th century pottery.

Posthole group 1558

3.4.13 A group of nine postholes (**1558**, **1577**, **1697**, **1701**, **1703**, **1706**, **1711**, **1713** and **1724**) may have formed a rectangular structure, close to the southern limit of excavation. If these features did form a structure, then it would have measured 7.10m long, with a width of 4.70m. Such a small structure is most likely to represent a small outbuilding.

3.4.14 These postholes had varying shapes in plan, being circular, sub-circular, sub-rectangular and irregular. However, each had steeply sloping or vertical sides and a flat base. They had widths between 0.22m and 0.89m and depths from 0.17m to 0.41m. Each feature was filled by a single similar deposit, which was a mid brownish grey, silty

sand. Finds from these features were scarce, with a total of 22 sherds (161g) of pottery from between the 12th and 14th centuries. The only other finds were 30 fragments (665g) of tile from posthole **1697**.

Ditches 1718 and 1720

3.4.15 Two ditches (**1718** and **1720**) continued from the southern edge of excavation, on a north-west to south-east alignment, before being truncated by Period 5.1 ditch **1529**. Ditch **1718** was 0.70m wide and 0.13m deep, with gently sloping sides and a flat base. It was filled by deposit 1719, which was a mid grey, clayey sand. Finds from this feature comprised a single sherd (6g) of mid 12th-to 14th-century pottery, three fragments (232g) of tile, along with 32g of animal bone.

3.4.16 Ditch **1720** was parallel and just to the south of ditch **1718**. It had steeply sloping sides and a concave base, with a width of 0.55m and a depth of 0.35m. Deposit 1721 filled this ditch and it was a dark grey, clayey silt. The finds assemblage from this feature consisted of eight sherds (75g) of 13th-century pottery, a single fragment (49g) of tile, along with 30g of animal bone.

Ditch 1529 (Fig. 9, Fig. 10 S.309)

3.4.17 A large ditch **1529** (**1529** and **1585**) continued from the southern edge of excavation for 8.80m before being truncated by Period 6.2 pond **1504**. Ditch **1529** may have acted as a boundary against a building located on the platform to the east (layers 1609, 1656,1663, 1699 and 1700) and it is possible that it originally surrounded this building. The surviving section of ditch was 3.30m wide and 0.96m deep. It had steeply sloping sides and a concave base. It was filled by five deposits, the basal fill (1530 and 1596) was a dark grey, silty clay a total of 13 sherds (402g) of 12th- to 13th-century pottery and 77g of animal bone were recovered from this primary fill. This was overlain by deposit 1531, a mid greyish brown, sandy silt, which contained no finds. Above this was deposit 1532 (equivalent to 1586), which was a dark brownish grey, sandy silt. Thirty-four sherds (998g) of 13th-century pottery, along with 192g of animal bone were recovered from this fill. Overlaying this was deposit 1533 (equivalent to 1588), which was a pale grey, silty sand. A large assemblage of finds was recovered from this deposit, comprising 31 sherds (1160g) of mixed 12th- and 14th-to 15th-century pottery, 31 fragments (1160g) of brick, 130 pieces (8170g) of tile, a fragment of lava quern (171g; SF111) and 292g of animal bone. The final fill (1534) was a mid reddish grey, clayey sand. Finds from the uppermost fill comprised nine sherds (114g) of 15th- to 16th-century pottery, three fragments (269g) of brick, 96 pieces (3421g) of tile, a fragment of lava quern (174g; SF110) and 68g of animal bone.

Ditch 1594

3.4.18 Ditch **1594** (**1594** and **1664**) continued from the northern edge of excavation, on a slightly curving north-west to south-east alignment, for 13.20m before being truncated by Period 6.2 pond **1504**. Ditch **1594** was between 0.89m and 0.97m wide, with a depth from 0.18m to 0.21m. It had moderately sloping sides and a flat base. The single deposit (1595 and 1665) which filled this feature was a mid brownish grey, clayey loam. No finds were recovered from this feature.

Ditch 1693

3.4.19 Ditch **1693** was on a north-east to south-west orientation and ran across the area for only 6.10m before being truncated by Period 6.2 pond **1504**. It was 1.15m wide and 0.35m deep, with steeply sloping sides and a flat base. It was filled by two deposits (1694 and 1695). The primary fill (1694) was a dark greenish grey, silty sand, which

contained four sherds (93g) of 12th- to 13th-century pottery, along with 7g of animal bone. The upper fill (1695) was a mid greenish grey, silty sand, from which 17 sherds (243g) of early to mid 13th-century pottery and 13g of animal bone were recovered.

Ditch 1593

3.4.20 A short length of ditch (**1593**) continued from the souther edge of excavation for 4.30m before terminating. Ditch **1593** was 0.60m wide and 0.12m deep, with moderately sloping sides and a concave base. It was filled by a single deposit (1592), which was a mid greyish brown, clayey silt. Finds from this feature comprised 16 sherds (208g) of pottery, produced around AD 1200, along with 1g of animal bone.

Ditch 1535 and 1537

3.4.21 Ditch **1537** (**1537** and **1601**) crossed the eastern part of Area C on an almost north to south alignment. It continued out of the excavated area to the south and was covered by layer 1656 to the north. Ditch **1537** was between 1.37m and 2.17m wide, with a depth ranging from 0.28m to 0.58m. It had steeply sloping sides, with a rounded base and was filled by up to three deposits. The basal fill (1604) was a mid greyish brown, silty clay. This was overlain by deposit 1603, a pale reddish brown, silty clay. The final fill of the feature (1538 and 1602) was a mid greyish brown, silty clay. The only finds recovered from this feature came from the uppermost fill and they comprised six sherds (106g) of 12th- to 13th-century pottery, together with 87g of animal bone.

3.4.22 Ditch **1535** (**1535** and **1597**) cut ditch **1537** and was on a similar alignment, just to the east. Ditch **1535** had steeply sloping sides and a concave base. It was filled by up to three deposits. The basal fill (1600) was a pale reddish grey, clayey sand, from which two sherds (101g) of 13th- to 14th-century pottery were recovered. This was overlain by deposit 1599, a mid reddish brown, silty clay, which contained no finds. The final fill (1536 and 1598) was a dark greyish brown, silty clay. Finds from this uppermost fill comprised four sherds (185g) of pottery, produced around AD 1200, and 146g of animal bone.

Pits 1509, 1511, 1513, 1520, 1524 and 1611

3.4.23 A series of six pits (**1509**, **1511**, **1513**, **1520**, **1524** and **1611**) were located in the western part of the site and they all appeared to represent small quarry pits. These pits were either sub-circular or irregular in plan, with maximum widths of between 0.90m and 2.50m, with the exeption of pit **1611**, which was 6.22m long. They had depths from 0.16m to 0.36m and each was filled by a single deposit. These deposits were all similar mid greyish brown, silty sands. The only finds from any of these features were three sherds (10g) of mid 12th- to 14th-century pottery from feature **1509** and eight sherds (41g) of early to mid 13th-century pottery from feature **1611**.

Pit 1580 and 1726

3.4.24 Two similar sub-rectangular pits (**1580** and **1726**) were located close to each other within Area C. Pit **1580** was 1.08m long, 0.86m wide and 0.38m deep, with near vertical sides and a flat base. It was filled by two deposits. The primary fill (1579) was a dark brownish grey, silty sand, which contained 5 sherds (190g) of early to mid 13th century pottery. This was overlain by 1578, a mid greyish brown, silty sand, which contained no finds.

3.4.25 Pit **1726** (Fig. 10 S.407) was 1.07m long, 0.85m wide and 0.45m deep, with vertical sides and a flat base. It was filled by a single deposit (1727), which was a pale brownish grey, silty sand. Finds from this feature comprised a single sherd (11g) of 11th- to 13th-century pottery, along with 606g of burnt stone. The shape and profile of

these features suggest that they may have functioned as tanks. The vertical sides and flat bases may suggest that they were lined with wooden planks.

Pit 1582

3.4.26 Pit **1582** was located close to the terminal of contemporary ditch **1593**. It was sub-circular in plan, with moderately sloping sides and a flat base. It was filled by deposit 1581, which was a mid brown, clayey silt. The only finds from this feature were 14 fragments (446g) of tile.

Pits 1685, 1687 and 1689

3.4.27 A group of three similar pits (**1685**, **1687** and **1689**) was located close to the terminal of contemporary ditch **1693**. Pit **1685** was circular in plan, with steeply sloping sides and a concave base. It had a diameter of 0.70m, with a depth of 0.22m and was filled by a single deposit. Fill 1686 was a mid greyish brown, sandy silt, from which four sherds (51g) of mid 12th- to 13th-century pottery were recovered.

3.4.28 Pit **1687** cut pit **1685** and it was also circular in plan, but with gently sloping sides and a flat base. Pit **1687** had a diameter of 1.20m, with a depth of 0.18m and was filled by a single deposit. Fill 1688 was a mid greyish brown, sandy silt, which contained no finds.

3.4.29 Pit **1689** was located just to the south of inter-cutting pits **1685** and **1687**. Pit **1689** was sub-circular in plan, with moderately sloping sides and a concave base. It was 0.75m long, 0.40m wide and 0.17m deep. It was filled by a single deposit (1690), which was a dark grey, sandy silt. Finds from this feature comprised seven sherds (59g) of mid 13th- to 14th-century pottery, two fragments (65g) of brick, 27 pieces (832g) of tile and 64g of animal bone.

Pits 1563 and 1565

3.4.30 Two pits (**1563** and **1565**) were located close to the southern limit of excavation. Pit **1563** was circular in plan, with a diameter of 0.30m and a depth of only 0.16m. It had gently sloping sides, with a flat base and was filled by deposit 1564. Fill 1564 was a mid reddish grey, silty clay, which contained four fragments (325g) of tile.

3.4.31 Pit **1565** cut pit **1563** and was oval in plan, with gently sloping sides and a rounded base. It had a diameter of 0.86m and was 0.21m deep. Deposit 1566 filled this feature and it was a dark reddish brown, silty clay. A single sherd (10g) of mid 12th- to 14th-century pottery, along with six fragments (354g) of tile, was recovered from this feature.

Layer 1722

3.4.32 A spread of material (1722) was located to the south-east of Period 6.2 pond **1504** and appeared to be cut by it. Layer 1722 was a dark brownish grey, sandy silt, which was 0.18m deep. Finds retrieved from a slot through this deposit comprised 22 sherds (239g) of 13th- to14th-century pottery and 30g of bone.

Period 5.2: medieval

3.4.33 Features were only attributed to this phase based on their stratigraphic relationship to other medieval features. Although the small area excavated made it difficult to separate features into sub-phases within the medieval period, the presence of a limited number of stratigraphically later features and a range of pottery spanning the medieval period, suggests longer term occupation of the site.

Beamslots 1623 and 1683

3.4.34 Two beamslots (**1623** and **1683**) were recorded cutting across Period 5.1 floor 1610, at right angles to east other. Beamslot **1623** also cut Period 5.1 beamslot **1625** and had

steeply sloping sides and a flat base. Beamslot **1623** survived to a length of 1.30m and was 0.60m wide and 0.15m deep. A single deposit (1624) filled this feature and it was a mid orangey grey, silty clay. A total of 83 sherds (877g) of late 13th- to 14th-century pottery was recovered from this beamslot.

3.4.35 Beamslot **1683** was 0.45m wide, with a depth of 0.08m and survived to a length of 3.50m. It had steeply sloping sides, with a flat base and was filled by a single deposit (1684). Fill 1684 was a pale brownish grey, silty clay, which contained no finds.

Period 6.1: late medieval

3.4.36 Few features could be attributed to the late medieval phase, and comparatively little of the pottery recovered dates to this period, suggesting that occupation was less intensive at this time.

Brick deposit 1502

3.4.37 Brick deposit 1502 consisted of a single layer of brick fragments directly on the surface of the natural. This deposit was sub-rectangular in plan, with a length of 1.20m and a width of 0.50m. The brick which formed this deposit was of 14th- to 16th-century date, but may have been reused as none of the bricks was complete. It is possible that this feature represents a post pad, or a small surviving patch of a wider surfaced area.

Posthole group 1541 and pit 1567

3.4.38 A group of eight postholes (**1541**, **1543**, **1545**, **1547**, **1551**, **1553**, **1555** and **1708**) and a single pit (**1567**), were located in the south-east corner of the area. These features could represent the remains of a building. Postholes **1541**, **1543**, **1551**, **1553** and **1708** formed a line on a north to south orientation, that was 9.30m long. Postholes **1454** and **1457** may have formed part of a second line at right angles to this longer line.

3.4.39 The postholes were circular in plan, with gently sloping sides and flat bases. They were generally small, with diameters ranging from 0.26m to 0.44m and depths between 0.05m and 0.22m. Each was filled by a single deposit, which was a mid brownish grey, silty clay. Finds from these features comprised two sherds (52g) of late 15th- to mid 16th-century pottery and three fragments (154g) of tile.

3.4.40 Pit **1567** was also circular in plan, with gently sloping sides and a concave base. It was located to the south-west of the main posthole group and may have been a larger posthole rather than a pit. Feature **1567** had a diameter of 0.36m, with a depth of 0.28m and was filled by a single deposit (1568). Fill 1568 was a mid brownish grey, silty clay. The only finds retrieved from this feature were a comparatively large assemblage of ceramic building material, consisting of eight fragments (1080g) of brick and 22 pieces (950g) of tile.

Period 6.2: post-medieval

3.4.41 Activity continued on the site into the post-medieval period, although evidence for occupation is less certain. It appears that the area returned to agricultural use, with a pond and ditches recorded. However, the presence of pits and a possible tank suggest other activities may also have been taking place.

Pond 1504

3.4.42 Pond **1504** (**1504** and **1526**) was a large oval feature, with a width of 10.50m and a length exceeding 19.90m. It continued out of the excavated area to the north, and followed the line of Period 5.1 ditch **1529**, which it truncated. Pond **1504** had gently sloping sides, with a flat base and was up to 0.90m deep. It was filled by up to four

deposits. The primary fill (1505), which was only identified at the northern end of the feature, may represent a deliberate clay lining. It was a pale grey, silty clay, which was only 0.05m thick. Overlying this was fill 1506, which was also only present in the deeper northern end of the feature, it was a mid yellowish grey silty sand. Above this was a further deposit (1507, 1527 and 1590), which was a dark brownish grey, sandy silt. The final fill of the pond (1508, 1528 and 1591) was a mid reddish grey, sandy silt. Finds from this feature comprised 15 sherds (224g) of pottery of mixed 15th- to 19th-century date, 57 fragments (7239g) of brick, 205 pieces (9275g) of tile and 369g of animal bone.

Ditches 1515, 1517 and 1652

3.4.43 Ditch **1515** (**1515** and **1618**) crossed the south-east corner of Area C on a north to south alignment. It had gently sloping sides, with a concave base and was up to 2.14m wide and up to 0.60m deep. It was filled by two deposits. The basal fill (1618) was only present in the southern extent of the ditch, and was a dark brownish grey, sandy silt, which contained no finds. The upper fill (1516 and 1620) was a dark reddish grey, silty clay. Finds from this upper fill comprised three sherds (319g) of 17th-century or later pottery, four fragments (2679g) of brick, two fragments (504g) of tile, 155g of animal bone and a fragment of lava quern (956g; SF112).

3.4.44 Ditch **1652** was perpendicular to ditch **1515**, and continued from this ditch to the eastern edge of excavation. These two ditches appeared to be contemporary. Ditch **1652** was 1.22m wide and 0.28m deep, with sloping sides, with a flat base. It was filled by a single deposit (1651), which was a dark brownish grey, silty sand. This feature contained a variety of finds, comprising two sherds (16g) of pottery (dating from between the late 18th century and 1830), three fragments of brick (574g), eight pieces of tile (752g) and 49g of animal bone.

3.4.45 Ditch **1517** (**1517** and **1615**) was parallel to and cut ditch **1515**, while also being cut by Period 6.3 drain **1519**. Ditch **1517** had steeply sloping sides, with a concave base and was up to 1.82m wide and 0.90m deep. Up to three deposits filled this feature. The primary fill (1616 and 1717) was a dark brownish grey, silty clay. This was overlain by a mid brownish grey, silty clay (1518 and 1617). The final fill (1503) was only present in the northern part of the ditch, it was also a mid brownish grey, silty clay, but it also contained a large quantity of brick. This final deposit appears to represent the deliberate dumping of rubble into the largely in-filled ditch, perhaps so that it could continue to provide drainage when covered over. It was originally thought that this deposit of brick could have formed the foundation for a wooden structure but this is believed to be unlikely due to the overall size of the feature, compared to the quantity of brick. Finds from this feature comprised 18 sherds (567g) of mid 16th- to 17th-century pottery, 11 fragments (9317g) of 14th- to 16th-century brick, nine fragments (2688g) of tile and 277g of animal bone.

Pits 1559 and 1561

3.4.46 Two inter-cutting pits (**1559** and **1561**) were located close to the southern limit of excavation. Pit **1559** was circular in plan, with moderately sloping sides and a concave base. It had a diameter of 0.27m, with a depth of 0.38m and was filled by a single deposit (1560). Deposit 1560 was a mid reddish brown, silty clay. Finds from this feature comprised a single sherd (12g) of pottery that was produced between 1625 and the mid 18th century, along with two fragments (38g) of brick and six fragments (215g) of tile.

3.4.47 Pit **1561** cut pit **1559** and was oval in plan, with gently sloping sides and a flat base. It had a length of 1.02m, a width of 0.94m and was 0.18m deep. The single deposit which filled this feature (1562) was a dark reddish brown, silty clay. The only finds from this feature were two fragments (176g) of tile.

Tank 1657

3.4.48 Pit **1657** was located close to the north-east corner of Area C, where it cut through layer 1663. The rectangular shape in plan, together with its vertical sides and flat base, suggest that it may have functioned as a tank. It was 1.80m long, 0.70m wide and 0.50m deep. A single deposit (1658) filled this feature and it was a dark reddish brown, clayey silt. Finds from this feature comprised, two fragments (162g) of 14th to 16th century brick, a single fragment (44g) of tile and 35g of animal bone.

Pit 1716

3.4.49 Pit **1716** was located in the south-east corner of the site and continued out of the excavated area to the south. It appeared to have been circular in plan and had steeply sloping sides, with a flat base. It had a diameter of 0.92m, with a depth of 0.34m and was filled by a single deposit (1715). Deposit 1715 was a dark brownish grey, sandy loam. Finds from this feature consisted of 3 sherds (19g) of 16th- to 17th-century pottery, along with nine fragments (694g) of brick and three fragments (151g) of tile.

Period 6.3: modern

3.4.50 Several features relating to the areas recent agricultural use were also recorded. These included a fence line and a drain.

Drain 1519

3.4.51 Drain **1519** was located in the south-east corner of Area C. It cut Period 6.2 ditches **1515** and **1517**. Drain **1519** had a large ceramic pipe at the base. Finds from this feature comprised four sherds (156g) of 16th-century pottery, a single fragment (45g) of tile, 152g of animal bone and a pewter fork (SF100). This fork bears the monogram GR and is likely to date to the reign of George V (1910-1936) (AppC.1).

Fence line 1682

3.4.52 A line of twelve postholes (**1635**, **1641**, **1643**, **1666**, **1668**, **1670**, **1672**, **1674**, **1676**, **1678**, **1680**, **1691**) crossed Area C on a north-west to south-east orientation from the northern edge of the site, before turning a right angle and continuing back out of the northern edge of excavation. These postholes were all circular or sub-circular in plan, with steeply sloping or vertical sides and concave bases. They had diameters between 0.16m and 0.44m, with depths from 0.10m to 0.36m. Each was filled by a single deposit, which was a dark brownish grey, silty sand. Finds from these features comprised four sherds (106g) of residual medieval pottery, along with 14 fragments (601g) of tile. Two of these postholes (**1672** and **1674**) cut Period 6.2 pond **1504**.

Unphased features

3.4.53 Four ditches were excavated which could not be dated by the limited material they contained, or their relationship to other features. It seems most likely that these features are of medieval or later date, as with the other features in this area. However, it is possible that they are earlier are relate to the Roman field systems identified in Areas A and B to the east of this site.

Ditches 1645 and 1647

3.4.54 Two ditches (**1645** and **1647**) lay parallel and adjacent to each other, on a north to south alignment, across the western part of Area C. Ditch **1645** (**1645** and **1659**) was between 0.46 and 0.50m wide, with a depth from 0.14m to 0.21m. It had moderately sloping sides, with a flat base and was filled by a single deposit. This fill (1646 and 1660) was a pale brown, silty sand. The only finds from this feature were two struck flints.

3.4.55 Ditch **1647** (**1647** and **1661**) had moderately sloping sides and a flat base. It was between 0.42m and 0.46m wide, with a depth of 0.14m. The single deposit which filled this feature (1648 and 1662) was a pale greyish brown silty sand. No finds were retrieved from this feature.

Ditches 1569 and 1572

3.4.56 Two short lengths of ditch (**1569** and **1572**) continued from the northern edge of excavation before terminating. Ditch **1569** terminated after a shorter distance and appeared to be a later replacement of ditch **1572**. Ditch **1572** was 0.50m wide and 0.14m deep, with gently sloping sides and a flat base. It was filled by deposit 1573, which was a mid brownish grey, silty sand, which contained no finds.

3.4.57 Ditch **1569** was 0.90m wide and 0.43m deep. It had steeply sloping sides, with a flat base and was filled by two deposits. The primary fill (1570) was a mid greyish brown, sandy silt. The upper fill (1571) was a mid brownish grey, clayey loam. No finds were recovered from this feature.

Unphased natural features

3.4.58 Two tree throws, which did not contain any closely datable material, were identified in area C.

Tree throws 1522, 1709

3.4.59 Only two tree throws (**1522** and **1709**) were located in Area C. Tree throw **1522** was identified close to the western edge of the area. It was irregular in plan, with shallow sides and a flat base. It was 1.60m long, 0.66m wide and 0.17m deep. A single deposit (1523) filled this feature, which was a mid brownish grey, silty sand. No finds were recovered from this feature.

3.4.60 Tree throw **1709** was cut by Period 5.1 posthole **1711** (part of posthole group **1558**). This tree throw had an irregular shape in plan, with steeply sloping sides and an uneven base. It was 1.56m long, 0.78m wide and 0.32m deep. The single fill of this feature (1710) was a mid greyish brown, silty sand. The only finds from this feature were several fragments of fired clay (106g).

3.5 Area D (Figs 11-13)

3.5.1 Area D was a considerable distance (*c.* 5.5km) to the east of Area C. It was a comparitively small excavation area, within which a potential barrow had been identified by aerial photograph (Mott Macdonald 2012b). Evaluation of this area proved inconclusive, but resulted in the discovery of several Mesolithic flints, prehistoric ditches and a spread of material.

Period 1.3: Middle Neolithic

3.5.2 Only a single feature was identified in Area D which may pre-date the Early Bronze Age, due to its stratigraphic relationship with Period 2.1 barrow ditch **2536**.

Tree throw 2561

3.5.3 Tree throw **2561** was located close to the middle of Area D. It had an oval shape in plan, with moderately sloping sides and a concave base. It was large for a tree throw, with a length of 3.50m, a width of 2.20m and a depth of 0.65m. Three deposits filled the tree throw, the basal fill (2560) being a pale greyish brown, silty sand. This was overlain by 2559, a mid greyish brown, silty sand. The final fill (2558) was a dark reddish brown, silty sand. A large quantity of burnt flint was recovered from this feature, with 159 fragments (3730g) from deposit 2558 and a further 20 fragments (257g) from deposit 2559. Six struck flints were also recovered, which are likely to be residual and are typologically of Late Mesolithic or Early Neolithic date. In addition, 1524g of burnt soil or subsoil was retrieved, which may have resulted from the burning of the tree (see App. C.10).

Period 2.1: Early Bronze Age

3.5.4 During the Early Bronze Age, a circular barrow ditch appears to have been dug, with an unurned cremation burial placed close to its centre. The ditch is difficult to date precisely as it contained few finds and it need not be contemporary with the cremation. However, on balance the barrow is likely to have been constructed during this period.

Tree throw 2662

3.5.5 An extremely large tree throw (**2662**) was excavated in the centre of where circular barrow ditch **2536** would later be dug. Tree throw **2662** was sub-circular in plan, with moderately sloping sides and a flat base. It was very large, with a length of 4.15m, a width of 3.90m and a depth of 0.65m. A series of three deposits filled the tree throw. The basal fill (2661) was a pale grey, sandy silt, from which 12 struck flints and two sherds (10g) of Earlier Neolithic pottery were recovered. This was overlain by 2660, a dark brownish grey, sandy silt, which contained a single sherd (2g) of Earlier Neolithic Age pottery, along with three struck flints and six pieces (105g) of burnt flint. The final fill (2659) was a pale brownish grey sandy silt. A total of 19 struck flints, a single sherd of early Bronze Age pottery (2g), along with 24 fragments (176g) of burnt flint was recovered from this final fill.

Barrow ditch 2536 (Fig. 13 S.527)

3.5.6 Ditch **2536** (**2523**, **2528**, **2588**, **2611** and **2622**) appears to have formed a complete circle, although it continued out of the excavation area to the north. The ditch was between 1.21m and 2.10m wide, with a depth ranging from 0.60m to 0.74m. It had steeply sloping sides and a flat base. Ditch **2536** was filled by a series of silty sand deposits, which did not provide an indication as to the position of any possible bank or mound. Each excavated slot showed there to have been a sequence of between three and five deposits filling the ditch, with most slots containing four fills. A total of 46 struck flints, which appear to be residual along with 20 sherds (132g) of Middle Bronze Age pottery was recovered from the fills of this ditch.

Soil layers 2537 and 2587

3.5.7 Two soil layers (2537 and 2587) were identified in the area of barrow ditch **2536**. These represent the extremely truncated remains of a barrow mound, or else thin layers of buried soil preserved from truncation by the barrow mound. The mixed nature of the finds within these layers strongly suggests that they were disturbed by later ploughing. Both layers were fully excavated in one square metre sections. Layer 2587 (2506, 2508, 2510, 2512, 2514, 3548, 2550, 2552, 2570 and 2572) was a mid yellowish brown, silty sand, with frequent gravel inclusions. This was overlain by layer 2537

(2504, 2505, 2507, 2509, 2511, 2513, 2512, 2516, 2517, 2535, 2538, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2549, 2551, 2553, 2571, 2573, 2574, 2575 and 2576), which was a mid brownish grey, silty sand.

3.5.8 Layer 2587 contained a moderate finds assemblage, with a total of 21 sherds (51g) of pottery, 14 struck flints and 65 fragments (430g) of burnt flint. The pottery was of mixed date, with 13 sherds (24g) of Beaker period, five sherds (18g) of Middle Bronze Age, a single sherd (5g) of Iron Age, a single sherd (3g) of AD 1st century date, while a further single sherd (1g) was not closely datable.

3.5.9 Layer 2537 also contained a mixed pottery assemblage, with 16 sherds (91g) of Middle Bronze Age date, a single sherd (3g) of Iron Age date and three sherds (1g) that are not closely datable. In addition, 28 struck flints and 24 fragments (306g) of burnt flint were recovered.

Cremation 2598

3.5.10 Cremation pit **2598** was located close to the middle of the area defined by barrow ditch **2536**. It was oval in plan, with a length of 1.20m, a width of 1.10m and a depth of 0.30m. It had moderately sloping sides, with a concave base and was filled by three deposits. The primary fill (2614) was a dark brownish grey, silty sand. This was overlain by a dark brownish grey, sandy silt deposit, which contained very frequent charcoal and was excavated in two equal spits (2599 overlain by 2597). The final fill (2596) was a mid greyish brown, sandy silt. Three sherds (15g) of intrusive Middle Bronze Age pottery were recovered from the final fill of this cremation. A radiocarbon date obtained from cremated bone returned a result of 1872-1639 cal BC (3423±29 BP; GU35119).

Period 2.2: Middle Bronze Age

3.5.11 During the Middle Bronze Age, five further cremations were inserted into the barrow. A further pit in a similar location may have contained redeposited pyre debris. Several other small features also contained Middle Bronze Age pottery.

Cremations 2500, 2578, 2621, 2636 and 2639

3.5.12 A group of five cremations were located just to the south-east of the centre of barrow ditch **2536**, adjacent to the earlier cremation (**2598**). All five of these burials were deposited in urns and had been truncated by ploughing. They formed a tight group, that was presumably inserted into an existing mound, and they appeared to cut soil layers 2537 and 2587 (Period 21.). The contents of each cremation deposit is listed in Table 4.

Cut	Urn SF no	Fills	Bone weight	Total bone weight	Calibrated C14 date at 95% confidence
2500	154	2501	100	118	1504-1406 cal BC
		2502	18		
2578	150	2577	0	214	1406-1229 cal BC
		2579	214		
2598	Unurned	2596		739	1872-1639 cal BC
		2597			
		2599			
		2614			
2621	151	2620	0	1971	1393-1133 cal BC
		2667	1971		
2636	152	2635	42	42	
2639	153	2637	30	104	
		2638	74		

Table 4: Summary of cremation deposits recovered from within barrow ditch **2536**.

3.5.13 Cremation pit **2500** was sub-circular in plan, with vertical sides and a concave base. It had a length of 0.75m and a width of 0.57m, with a depth of 0.28m. Vessel SF154 had been placed inverted into the ground. The vessel was filled by deposit 2501, which was a mid greyish brown, sandy silt. Deposit 2502 surrounded the vessel and this was a mid brown, sandy silt.

3.5.14 Cremation pit **2578** was circular in plan, with steeply sloping sides and a flat base. It had a diameter of 0.44m and was just 0.16m deep. Although cremation vessel SF150 had been severely damaged by truncation, it appeared to have been inverted. The urn was filled by deposit 2579, which was a dark brownish grey, silty sand. The vessel was surrounded by deposit 2577, a mid greyish brown, silty sand.

3.5.15 Cremation pit **2621** was oval in plan, with steeply sloping sides and a flat base. It was 0.72m long, 0.53m wide and survived to a depth of 0.10m. Pottery vessel SF151 was lifted with its contents and excavated at the Oxford Archaeology East office. The vessel was considerably larger than any of the others and had been placed into the pit inverted. The fill of this urn (2667) was a mid greyish brown, sandy silt. The backfill of the pit around the pottery vessel (2620) was a dark greyish brown, sandy silt.

3.5.16 Cremation pit **2636** was sub-circular in plan, with moderately sloping sides and a concave base. It had a diameter of 0.40m and was heavily truncated, with a surviving depth of just 0.01m. Pottery vessel SF121 was recovered from this pit, but it had been broken up by ploughing. The surviving fragments suggest that it was deposited inverted as only the rim survived. The single mixed fill of the pit (2635) was a mid reddish brown, sandy silt.

3.5.17 Cremation pit **2639** was circular in plan, with moderately sloping sides and a flat base. It had a diameter of 0.50m and was 0.15m deep. Urn SF153 had been placed inverted into this pit. The pottery vessel was filled by deposit 2637, which was a mid brownish grey, sandy silt. The rest of the pit was filled by deposit 2638, a dark brownish grey, sandy silt.

Pit 2585 (Fig. 13, S.517)

3.5.18 Pit **2585** was located close to the centre of barrow ditch **2536**. It was oval in plan, with steeply sloping sides and a flat base. It was 1.0m long, 0.70m wide and 0.25m deep. Three deposits filled pit **2585** - the primary fill (2584) was a dark greyish brown, sandy silt, with frequent grit inclusions and occasional charcoal. This was overlain by deposit 2583, which was a dark brownish grey, sandy silt, which contained abundant charcoal. The final fill of the feature (2582) was a mid greyish brown, sandy silt, with occasional charcoal inclusions. Although bulk soil samples were taken, no cremated human bone was recovered from this feature. It seems most likely that the material in this pit represents a deposit of pyre debris, intentionally buried in the vicinity of several cremations. The finds from this feature comprised three sherds (11g) of Later Iron Age pottery (from the from charcoal rich fill 2583) along with 41 fragments (372g) of burnt flint. The pottery is probably intrustive and the burnt material relates to the cremations, however, it is possible that pit **2585** was actually significantly later than the other features in this vicinity.

Feature 2658

3.5.19 Feature **2658** was located just to the south of the group of urned cremations (**2500**, **2578**, **2621**, **2636**, **2639**) and may represent a further, very heavily truncated cremation. Alternatively, it may have been a posthole, with the post acting as a marker of the cemetery. It was circular in plan, with steeply sloping sides and a concave base. It had a diameter of 0.50m and was 0.56m deep. The deposit which entirely filled this feature (2657) was a mid to dark brownish grey, sandy silt. The finds assemblage from this feature comprised two sherds (20g) of pottery that was not closely dateable, two struck flints and 14 fragments (139g) of burnt flint.

Pit 2534

3.5.20 A small pit (**2534**) was located just inside barrow ditch **2536**. It contained no datable finds, but three fragments (34g) of burnt flint were recovered from it. The pit had a diameter of 0.34m and was 0.24m deep. It was circular in plan, with vertical sides and a flat base. It was filled by deposit 2533, which was a dark brownish grey, silty sand, containing moderate charcoal. The presence of burnt flint and charcoal in this feature suggest that it may be related to the nearby cremations (see above).

Pit 2652

3.5.21 Pit **2652** was identified close to the western edge of the site. It appeared to be cut by post-medieval ditch **2654**, however this relationship was not clear. Pit **2652** had an oval shape in plan, with near vertical sides and a flat base. It was filled by three deposits. The primary fill (2651) was a dark brownish grey, silty sand. This was overlain by deposit 2650, a slump along the north west edge, which was a mid brownish grey silty sand. The final fill (2649) was a dark brownish grey, silty sand. The only find from this feature was a single sherd (11g) of Middle Bronze Age pottery, from the final fill (2649).

Period 6.2: Post-medieval

3.5.22 Two ditches and a pit within Area D were phased to the post-medieval period. The ditches are likely to have formed field boundaries.

Ditch 2654

3.5.23 Although ditch **2654** did not contain any datable material, it has been phased to the post-medieval period due to the similarly of its alignment to that of **2518** and the current

field boundaries. Ditch **2654** was 0.38m wide and 0.04m deep, with gently sloping sides and flat base. It was filled by deposit 2653, which was a pale brownish grey, slity sand.

Ditch 2518

3.5.24 Ditch **2518** (**2518** and **2521**) crossed the area on an almost north to south alignment, continuing out of the excavation to both the north and south. It was between 0.67m and 0.72m wide and between 0.20 and 0.25m deep. The sides of this ditch were moderately sloping and the base was flat. It was filled by a single deposit, which was a mid brownish grey, silty sand. A single sherd (17g) of later Iron Age pottery, along with a single fragment (137g) of post-medieval tile and three residual stuck flints, was recovered from this feature.

Pit 2606

3.5.25 Pit **2606** was oval in plan, with moderately sloping sides and a flat base. It was 0.96m long, 0.77m wide and 0.21m deep. The only fill within this feature was deposit 2605, a dark greyish brown, silty clay. A single fragment (74g) of post-medieval brick, along with a further fragment of tile (21g) was recovered from this feature.

Unphased features

3.5.26 Three features were excavated within Area D which could not be assigned to a specific phase, either by the material they contained, or their relationship to other features.

Pits 2580 and 2595

3.5.27 Two pits excavated within Area D (**2580** and **2594**) contained burnt stone, but no datable finds. They are likely to be prehistoric in origin, but a more precise date is difficult to determine. Pit **2580** was located within the circumference of barrow ditch **2536**, close to the northern limit of excavation. It was sub-circular in plan, with moderately sloping sides and a concave base. It had a diameter of 0.53m and was 0.12m deep. Deposit 2581 filled this pit and it was a mid brownish grey, sandy silt. The only finds from this feature were 12 fragments (72g) of burnt flint.

3.5.28 Pit **2595** was located adjacent to and continued beyond the southern limit of excavation. It had an oval shape in plan, with gradually sloping sides and a flat base. The deposit which filled it (2594) was a dark brownish grey, silty sand. The only finds from this feature were 58 fragments (182g) of burnt flint.

Possible Pit 2593

3.5.29 Feature **2593** was located within barrow ditch **2536**, although the relationship of the feature to soil layers 2537 and 2587 was not clear. Feature **2593** may have been a pit, although the slightly irregular profile suggests that it may have had a natural origin. It was oval in plan, with gently sloping sides and a flat base. It had a length of 0.76m, with a width of 0.42m and a depth of 0.09m. The single deposit which filled the feature (2592) was a pale yellowish brown, sandy silt, from which no finds were recovered.

Unphased natural features

3.5.30 Several features that appear to have been of natural origin could not be dated by the material they contained. However, it is possible that the significant number of tree throws recorded relate to prehistoric land clearance.

Tree throws 2540, 2554, 2556, 2563, 2565, 2567, 2568, 2600, 2618, 2630, 2631, 2633, 2640, 2643, 2645, 2646, 2666

3.5.31 A total of 17 tree throws were identified across Area D, which is quite a large number for such a small area. These tree throws (**2540**, **2554**, **2556**, **2563**, **2565**, **2567**, **2568**,

2600, **2618**, **2630**, **2631**, **2633**, **2640**, **2643**, **2645**, **2646** and **2666**) were similar in character, they were all irregular, or crescent shaped in plan, with lengths between 0.90m and 2.04m and depths from 0.21m to 0.54m. A total of 15 struck flints, along with 14 fragments (90g) of burnt flint was recovered from these features. Ceramic finds were limited, however, to two sherds (6g) of Early Bronze Age pottery, together with a single sherd (4g) of Early Iron Age pottery and a further sherd (1g) of post-medieval pottery were recovered from feature **2567**. In addition, three sherds (13g) of Middle Bronze Age pottery and a single fragment (48g) of post-medieval tile was found within tree throw **2618**. A single sherd (9g) of Middle Bronze Age pottery was also retrieved from feature **2643**.

Hollow 2613

3.5.32 Hollow **2613** appeared to be cut by barrow ditch **2536**, suggesting that it dates to a period prior to the Early Bronze Age, however, this relationship was not clear. Hollow **2613** was sub-circular in plan, with steeply sloping sides and a flat base. It had a diameter of 2.48m and a depth of just 0.20m. It was filled by a single deposit (2612), which was a mid greyish brown, silty sand. A total of six struck flints was recovered from this feature, although they were not very diagnostic and probably of mixed date.

3.6 Area E (Figs 14-26)

3.6.1 Area E was excavated in three parts; E1, E2 and E3. E1 was the westernmost area and was separated from the central area (E2) by a large active drainage ditch. Area E3 was the easternmost part, which was split fro E2 by a large electricity cable that was being laid at the same time as excavation was ongoing. The features within all parts of Area E are discussed in the same way as the preceding areas, with the parts used to more readily located the features being discussed.

3.6.2 Area E1 contained few archaeological features and those which were present were either post-medieval or could not be dated.

3.6.3 Within Area E2 was a Mesolithic cremation related deposit, the first to have been definitively dated to this period in Britain. Middle Neolithic and Early Bronze Age pits were also identified in E2. The majority of the features within Area E were of Anglo-Saxon date and related to a settlement. This included at least seven post-built structures and two sunken featured buildings. This settlement covered parts of Areas E2 and E3.

Period 1.1: Mesolithic

3.6.4 A single feature was dated with certainty to the Mesolithic period; cremation deposit **3761**. In addition, many flints of Mesolithic date were recovered, both from natural features and as residual finds within later features. Any cut features from this period in Britain are extremely rare and human remains are also very unusual finds. Cremation deposit **3761** was the first deposit of cremated human remains identified from the British Mesolithic.

Cremation 3761

3.6.5 Feature **3761** was located close to the north-east corner of Area E2. It was a sub-circular feature, with a length of 0.90m, a width of 0.81m and a depth of 0.26m. It had steeply sloping sides and a flat base. The primary fill (3760) was a dark brownish black silty sand, which contained abundant charcoal fragments. Within this deposit was 118g of cremated human bone, this deposit appears to represent a collection of pyre debris. Overlaying this was deposit 3759, a dark brownish grey, silty sand. The final fill (3758) was a pale orangey brown sand, with frequent gravel inclusions. Deposit 3758 was

almost identical to the surrounding natural and probably represents the rapid re-deposition of the original material removed from the feature.

3.6.6 All of the fills of this feature was retained and processed by floatation, for the recovery of artefacts and ecofacts. The cremated human bone recovered from this feature represents the partial remains of at least one adult individual. In addition to this, three struck flints (a flake, a blake-like-flake and a prysmatic blade) were also recovered from primary fill 3760. These are compatible with a Mesolithic date, although they do not appear to be deliberate inclusions. They are not thought to be grave goods as all three were un-retouched and only one may have been utilised. A significant quantity of charcoal, which is likely to have originated from the cremation pyre, was recovered from bulk soil samples taken from the cremation. In addition, 14 charred tubers of false oat grass (*Arrhenatherum elatius* var. *bulbosus*) were also retrieved, along with a single charred grain of wheat, three indeterminate grain fragments and five seeds of knotgrass family (*Polygonum* sp.).

3.6.7 Two samples of bone and one of charcoal were submitted for radiocarbon dating, the results of which are shown in Table 5 below. These results agree very well to show that this deposit is of Mesolithic date. One of the wheat grains was also dated as this seemed likely to be intrusive and the radiocarbon determination showed that this was the case (Table 5).

Material	Laboratory code	Radiocarbon age BP	Calibrated age at 68%probability	Calibrated date at 95% probability	δ^{13} relative to VPDB
Cremated bone	GU35121	6680±28	5632-5565 calBC	5645-5544calBC	19.5‰
Cremated bone	GU36754	6695±31	5641-5567 calBC	5666-5556 calBC	-18.0‰
Charcoal (*Quercus sp.*)	GU36753	6660±30	5625-5561 calBC	5635-5532 calBC	-25.8‰
Charred wheat grain (*Triticum sp)*	GU37855	134±30	1681-1938 calAD	1672-1943 calAD	-22.3‰

Table 5: Radiocarbon results from cremation deposit 3761.

Period 1.2: Earlier Neolithic

3.6.8 Only a single tree throw has been phased to the Earlier Neolithic period in Area E.

Tree throw 3581

3.6.9 Tree throw **3581** was found close to the eastern end of Area E3, it was 1.13m long, 0.87m wide and 0.26m deep. It had a sub-circular shape in plan, with moderately sloping sides and an irregular base. It was filled by a single deposit (3582), which was a pale greyish brown, sandy silt. A single sherd (6g) of Earlier Neolithic pottery, along with a single struck flint were recovered from this feature.

Period 1.3: Middle Neolithic

3.6.10 Four pits dating to the Middle Neolithic were recorded in Area E, along with a natural hollow. All of these contained small quantities of pottery, apart from one (**3665**) which contained a substantial assemblage of over 1kg of Peterborough Ware. These pits are likely to relate to sporadic occupation on the site during the Middle Neolithic period.

Pit 3665 (Fig. 25, S.775)

3.6.11 Pit **3665**, located in Area E2, was circular in plan, with moderately sloping sides and a concave base. It had a diameter of 0.76m and was 0.19m deep. Deposit 3666 filled this feature, and it was a pale yellowish brown, sandy silt. A total of 78 sherds (1161g) of Peterborough Ware pottery was recovered from this pit. This pottery was spread throughout the fill of the pit, with no obvious sign of deliberate placement.

Pit 3756

3.6.12 Pit **3756** was located 23m to the north-east of contemporary pit **3665**. Pit **3756** was sub-circular in plan, with moderately sloping sides and a flat base. It was 0.82m long and 0.80m wide, with a depth of 0.21m. A single deposit (3757) filled this feature and this was a pale brown, silty sand. Two sherds (19g) of Middle Neolithic pottery, along with two undiagnostic struck flints were found within this feature.

Pit 3622 (Fig. 25 S.755)

3.6.13 This feature was located close to the middle of Area E3. It had a sub-circular shape in plan, with steeply sloping sides and a rounded base. Pit **3622** was 0.52m long, 0.44m wide and 0.22m deep. A single deposit (3621) filled this feature and it was a pale brownish grey, silty sand. A single sherd (13g) of Peterborough Ware pottery was recovered from this feature.

Pit 3652

3.6.14 Pit **3652** was positioned 3.50m to the south-east of contemporary feature **3622**. Pit **3652** was sub-circular in plan, with very steeply sloping sides and a flat base. It had a length of 0.58m, a width of 0.49m and was 0.18m deep. The pit was filled by two deposits, the primary fill (3635) was a dark greyish brown, clayey sand. This was overlain by deposit 3651, a dark greyish brown, sandy silt. A single sherd (14g) of Peterborough Ware pottery, along with 39 struck flints and 180g of unworked burnt flint, was found within this feature. The flints were largely of Later Neolithic date, although some earlier material was included, which suggests that it may have been gathered up for deposition in this pit.

Natural hollow 3660

3.6.15 A shallow natural hollow (**3660**) was identified in Area E3. It had an irregular shape in plan and was 2.24m long, 1.50m wide and 0.16m deep. Hollow **3660** had gently sloping sides, with a flat base and was filled by a single deposit (3659). Fill 3659 was a pale greyish brown, sandy silt. A total of three sherds (13g) of Middle Neolithic pottery was recovered from this feature.

Period 2.1: Early Bronze Age

3.6.16 In spite of the proximity of a number of barrows to the excavation area (e.g. Gilmour 2013), only two pits of Early Bronze Age date were identified. Only a small amount of pottery was recovered from them, however, a considerable quantity of flint was also found.

Pits 3995 and 3997

3.6.17 Two pits (**3995** and **3997**) were positioned 0.62m apart in Area E2. Both pits were sub-circular in plan, with gently sloping sides and flat bases. Pit **3995** (Fig. 25, S.903) had a diameter of 0.68m and was 0.15m deep. It was filled by a single deposit (3994) which was a dark brownish grey, silty sand. Thirteen struck flints, along with 307g of burnt stone were found within this pit.

3.6.18 Pit **3997** (Fig. 25, S.904) was slightly larger, with a diameter of 0.78m and a depth of 0.16m. It was filled by two deposits (3996 and 4011). The basal fill (4011) was a mid greyish brown, silty sand, which contained no finds. The upper fill (3996) was a dark brownish grey, silty sand. Seventy-five struck flints, along with four sherds (6g) of Early Bronze Age pottery were recovered from this fill.

Period 2.2: Middle Bronze Age

3.6.19 A single pit in Area E may date to this period and be related to funerary activity identified immediately to the south of the excavation area.

Possible cremation related feature 3772

3.6.20 Situated towards the middle of the central part of Area E, feature **3772** may have contained a deposit of cremation related material. This feature was located *c.*12m to the north-east of a triple ditched barrow, shown to contain several Middle Bronze Age urned cremations (Gilmour 2013). Feature **3772** was sub-circular in plan, with a length of 0.80m, a width of 0.68m and a depth of 0.10m. It had moderately sloping sides, with a concave base and was filled by a single deposit (3773). Fill 3773 was a dark greyish brown, sandy silt, with frequent charcoal inclusions. All of this fill was retained and processed by flotation, but this did not result in the recovery or any artefacts or cremated bone.

Period 2.3: Late Bronze Age

3.6.21 Only a single pit contained any Late Bronze Age pottery in Area E, making it difficult to draw many conclusions, beyond showing activity in this area during this period.

Pit 3587

3.6.22 Pit **3587** was located close to the southern limit of excavation, in the middle of Area E3. It was circular in plan, with vertical sides and a rounded base. Two deposits filled the pit. The basal fill (3586) was a mid greyish brown, sandy silt. This was overlain by fill 3595, which was a dark greyish brown, sandy silty. Fourteen sherds (284g) of pottery were recovered from the basal fill and a further 12 sherds (277g) from the upper fill. This pottery was of Late Bronze Age date.

Period 3.1: Earlier Iron Age

3.6.23 Only two features that could be attributed to the Earlier Iron Age, were identified in this area. Both of these may be of natural origin and were dated to this period by the small quantities of pottery they contained.

Feature 3610

3.6.24 A small sub-circular feature, located close to the southern limit of excavation, in the centre of Area E3, may represent a pit, or may have been a natural feature. Feature **3610** was 0.42m long, 0.26m wide and 0.21m deep, with gently sloping sides and a rounded base. It was filled by a single deposit (3609) which was a dark greyish brown, clayey sand. Finds from this feature comprised a single sherd (10g) of Earlier Iron Age pottery, along with a single struck flint.

Tree throw 3602

3.6.25 Three throw **3602** was located *c.*25m to the north of contemporary feature **3610**. Tree throw **3602** had an irregular shape in plan, with moderately sloping sides and an irregular base. It was 1.55m long, 0.80m wide and 0.30m deep. A single deposit (3601) filled this feature. Deposit 3601 was a mid brown sandy silt, which contained two sherds (8g) of Earlier Iron Age pottery, along with three struck flints.

Period 4: Early Saxon

3.6.26 Part of a substantial Early Saxon settlement was uncovered in Areas E2 and E3. At least seven post-built structures and two sunken-featured buildings were excavated and this likely represents only a part of the original settlement. The Early-Saxon features in this area are discussed from West to East, regardless of feature type.

Trackway 3679 and ditch 3684 (Fig. 18)

3.6.27 Close to the western end of Area E2, was a wide shallow feature, on a north-west to south-east alignment (**3679**). This is believed to represent a trackway and was bounded by a ditch (**3684**) on its eastern side. Trackway **3679** (**3679** and **3747**) was up to 6.75m wide and 0.24m deep. It was filled by two deposits, the basal fill (3678) was a mid grey, silty sand. This was overlain by the upper fill (3677 and 3746), which was a mid greyish brown, sandy silt.

3.6.28 Trackway **3679** was cut by post-medieval ditches **3787** and **3791**. It may have originated in the Roman period, but appears to have been present during the Anglo-Saxon phase as all of the structures recorded are on a very similar alignment to it.

Building 4120 (Fig. 18)

3.6.29 Building **4120** was located close to the western end of the central part of Area E. It was formed by 16 surviving postholes (**4126**, **4128**, **4130**, **4132**, **4134**, **4136**, **4138**, **4140**, **4142**, **4144**, **4146**, **4148**, **4150**, **4152**, **4154** and **4202**). These postholes were all circular in plan, with vertical sides and flat bases. They had diameters between 0.20m and 0.65m, with depths ranging from 0.04m to 0.20m. Each was filled by a similar single deposit, which was a mid greyish brown, silty sand. Finds from this building comprised 12g of fired clay from posthole **4148** and a single residual struck flint from posthole **4146**.

3.6.30 The western end of the building had been lost to truncation, but remains of the other three sides were visible. These showed the building to have been 4.50m wide and at least 8.60m long. An internal division (postholes **4144**, **4146** and **4148**) was present close to the western end of the structure. Posthole **4202** appeared to be outside of the northern end of the building and it is possible that this was part of a porch structure, or an annex to the eastern end of the building.

Sunken-featured building 4213 (Fig. 18)

3.6.31 Located just to the east of building **4120**, sunken-featured building (SFB) **4213** (**4179**, **4181**, **4207** and **4209**) had been heavily truncated. SFB **4213** was fully excavated in quadrants, which showed it to have been a rectangular building, with a posthole in the middle of each end. The main pit (**4179** and **4207**) survived to a maximum depth of only 0.15m, and had been completely truncated in places, with a surviving length of 3.75m and width of 3.05m. The single fill of this pit (4180, 4208, 4245, 4247) was a mid greyish brown, silty sand.

3.6.32 The posthole at the western end (**4181**) was circular in plan, with vertical sides and a flat base. It had a diameter of 0.45m and a depth of 0.42m. It was filled by a single deposit (4182 and 4248) of mid greyish brown, silty sand. The opposing posthole **4209** was also circular in plan, with vertical sides and a flat base. It had a diameter of 0.49m and a depth of 0.54m. It was also filled by a single deposit (4210 and 4246), which was a mid greyish brown, silty sand.

3.6.33 Finds from this SFB comprised 56 sherds (323g) of pottery, likely to be of 7th-century date, together with 85g of fired clay and a fragment of a clay spindle whorl. This material is quite fragmented and seems most likely to have been deposited into the

feature after it went out of use, as opposed to being directly related to the use of the structure, however with the feature having been so heavily truncated, this was not entirely clear.

Sunken-featured building 3798 and posthole 3800 (Fig. 18)

3.6.34 Just under 15m to the south of SFB **4213** was a second SFB (**3798**). Only a small part of SFB **3798** was visible in the excavated area, as it continued past the edge of excavation to the south. The pit had a maximum visible length of 2.35m and width of 1.78m, with a surviving depth of 0.15m. It had a flat base, with gently sloping sides. A single deposit (3799 and 3904) filled this feature, which was a mid brownish grey, sandy silt. At the eastern edge of the feature was a posthole (**3906**), which was oval in plan, with vertical sides and a flat base. It had a diameter of 0.46m and was 0.40m deep. A single deposit (3905) filled this posthole and it was a mid brownish grey, sandy silt. Finds from this feature comprised 17 sherds (348g) of 5th- to 6th-century pottery, together with three fragments (219g) of Roman ceramic building material.

3.6.35 An additional posthole (**3800**) was located directly adjacent to this feature and may have been part of the structure. Posthole **3800** was circular in plan, with vertical sides and a flat base. It had a diameter of 0.22m and was 0.24m deep. The single deposit (2801) which filled this feature was a mid brownish grey, silty sand. No finds were recovered from this feature.

Pits 4109 and 4196 (Fig. 15)

3.6.36 Two pits (**4109** and **4196**) were found just to the north of SFB **4213**. Pit **4109** was oval in plan, with gently sloping sides and a concave base. It was 1.54m long and 1.42m wide, with a depth of 0.24m. This pit was filled by two deposits (4107, 4108). The primary fill (4108) was a mid greyish brown, silty sand. This was overlain by deposit 4107, a dark brownish grey, silty sand. Pit **4109**, contained a moderate finds assemblage, comprising 12 sherds (105g) of 6th-century pottery, together with 44g of fired clay, a single fragment (40g) of Roman ceramic building material, five residual struck flints and a single piece (18g) of burnt flint.

3.6.37 Pit **4196** was circular in plan, with a diameter of 2.70m and a depth of 0.32m. It had steeply sloping sides, with a flat base and was filled by three deposits (4193, 4194, 4195, 4197 and 4198). The primary fill (4195) was only present against the eastern edge of the pit and was a mid orangey brown silty sand. This was overlain by deposit 4194 and 4197, which was a dark brownish grey, silty sand. The uppermost fill (4193 and 4198) was a mid orangey brown, silty sand. Pit **4196** contained by far the largest assemblage of Anglo-Saxon pottery of any feature on the site, with 135 sherds (2130g), dated to 7th century AD. In addition 281g of fired clay, 30g of animal bone and a single fragment (377g) of Roman ceramic building material were recovered from this feature.

Postholes 4203 and 4205 (Fig 15)

3.6.38 Two postholes (**4203** and **4205**) were located to the east of pits **4109** and **4196**, close to SFB **4213**. The function of any posts which these features may have held is difficult to determine, but they may well be related to the adjacent structure. Posthole **4203** was circular in plan, with steeply sloping sides and a concave base. It had a diameter of 0.45m, with a depth of 0.28m and was filled by a single deposit (4204). Fill 4204 was a dark yellowish brown, silty sand, which contained no finds.

3.6.39 Posthole **4205** was sub-circular in plan, with gently sloping sides and a concave base. It had a length of 0.61m, a width of 0.55m and a depth of 0.16m. The single deposit

(4206) which filled this feature was a dark greyish brown, silty sand. Four residual struck flints were recovered from this feature.

Pit 3764 (Fig. 15)

3.6.40 Pit **3764** was located to the south of SFB **4123**. This pit was circular in plan, with gently sloping sides and a concave base. It had a diameter of 0.75m and was 0.20m deep. A single deposit (3765) filled this feature and it as a dark greyish brown, sandy silt. Finds from this pit comprised a single sherd (6g) of Early-Middle Saxon pottery, 7g of burnt animal bone, three residual struck flints and two fragments (8g) of burnt flint.

Posthole group 3806 (Fig. 18)

3.6.41 A large group of 22 postholes (**3806**, **3808**, **3810**, **3815**, **3817**, **3819**, **3821**, **3823**, **3825**, **3828**, **3830**, **3832**, **3834**, **3836**, **3838**, **3840**, **3842**, **3844**, **3846**, **3848**, **3850**, **3852**) was located to the west of building **4156** and posthole group **3774**. It is not clear if these features represent the remains on one or more buildings, or else potentially fences or stock enclosures. There was little pattern to their arrangement, although two short lines are visible (both **3806**, **3808**, **3810**, **3850** and **3821**, **3823** and **3825**).

3.6.42 The postholes in group **3806** were circular or sub-circular in plan, with steeply sloping or vertical sides and flat bases. They had diameters between 0.20m and 0.52m and depths between 0.04m and 0.18m. Each posthole was filled by a single deposit, which was a dark or mid brownish grey, sandy silt. The only finds from any of these postholes were a single struck flint from feature **3819** and two pieces (23g) of burnt flint from feature **3815**.

Post hole group 3774 (Fig. 18)

3.6.43 A group of five postholes (**3774**, **3776**, **3778**, **3780** and **3782**) formed an approximate circle just to the north of building **4156**. These may have been the remains of a truncated structure. The postholes were circular or oval in plan, with moderately or steeply sloping sides and flat bases. They had diameters between 0.22m and 0.34m, with depths between 0.07m and 0.38m. Each was filled by a single deposit and these were mid or dark greyish brown, sandy silts. The only find recovered from this group was a single sherd (15g) of Early to Middle Saxon pottery, from posthole **3782**.

Building 4156 (Fig. 18)

3.6.44 Building **4156** was located adjacent to the southern limit of excavation and almost certainly continued beyond it. Six postholes (**4158**, **4160**, **4162**, **4164**, **4166** and **4168**) were visible from this structure, which were all circular in plan, with vertical sides and flat bases. These postholes had diameters ranging from 0.29m to 0.39m, with depths between 0.09m and 0.17m. Each posthole was filled by a single deposit of mid greyish brown, silty sand. The only finds from these postholes were a single residual struck flint and a single fragment (29g) of unworked burnt flint.

3.6.45 As only a small part of this building was visible in the excavation area, making it impossible to discuss its structure. However, part of both the northern wall (**4158**, **4160** and **4168**) and eastern wall (**4162** and **4164**) were visible and these showed that the structure may have been on a slightly different alignment to the other buildings. The north-east to south-west alignment of building **4156** may have been related to triple ditched barrow located immediately to the south-east.

Buildings 3952 and 4000 (Figs 18 and 21)

3.6.46 Two buildings (**3952** and **4000**) were located directly adjacent to one another, at the eastern end of the central part of Area E. Building **3952** was the easternmost of these

two buildings and it was defined by a total of 18 surviving postholes (**3694**, **3696**, **3698**, **3700**, **3702**, **3750**, **3912**, **3914**, **3916**, **3918**, **3920**, **3922**, **3924**, **3926**, **3928**, **3930**, **3934**, **4009**). It had a rectangular shape in plan, with a surviving internal length of 6.80m and an internal width of 3.80m. The eastern wall, together with the eastern ends of the north and south wall, of this building had been completely lost to truncation. The remaining walls were formed from closely set postholes. Two postholes (**3750** and **3920**) inside of the building might have been the remains of internal divisions.

3.6.47 The postholes which made up building **3952** were all circular in plan, with either vertical or moderately sloping sides and flat bases. They had diameters between 0.17m and 0.50m, with depths between 0.06m and 0.25m. Each was filled by a single deposit, which was a mid greyish brown, silty sand. The only finds from these postholes were four residual struck flints and 3g of fired clay.

3.6.48 Building **4000** was directly to the west of building **3952**. The remains of Building **4000** consisted of 14 postholes (**3686**, **3688**, **3690**, **3692**, **3936**, **3938**, **3940**, **3942**, **3944**, **3948**, **4001**, **4003**, **4005** and **4007**). These were all circular in plan, with vertical sides and flat bases. Their diameters were between 0.15m and 0.39m, while their depths were between 0.04m and 0.20m. Each was filled by a single deposit and there were mid greyish brown, silty sands. Finds from these postholes comprised 6g of fired clay, along with a single residual struck flint.

3.6.49 Most of the southern wall of building **4000** had been lost to truncation, along with some elements of the other walls. However, the complete dimensions were still visible, showing the building to have had an internal length of 9.30m and width of 4.40m. There was no evidence for internal divisions.

3.6.50 It is possible that buildings **3952** and **4000** were contemporary and potentially joined to each other. They were both on the same orientation, although they were slightly off-set from one another. Postholes **3696** and **3936** were both situated in the narrow gap between the two buildings and, although they may represent repairs to the separate buildings, they may have supported a structure joining the two buildings.

Post hole line 3714 (Fig. 18)

3.6.51 A line of five postholes (**3714**, **3716**, **3718**, **3720** and **3722**), on a north-north-east to south-south-west orientation, was located just to the south of buildings **3952** and **4000**. Posthole line **3714** probably represents the remains of a fence line associated with these buildings. The postholes which formed this line were circular in plan, with vertical sides and concave bases. They had diameters between 0.27m and 0.48m, with depths of between 0.08m and 0.24m. Each posthole was filled by a single deposit and these were mid orangey brown, sandy silts. No finds were recovered from any of these features.

Post holes 3706, 3708, 3710 and 3712 (Fig. 15)

3.6.52 A group of four postholes (**3706**, **3708**, **3710** and **3712**), located just to the south west of posthole line **3714**, may represent the remains of a small structure, or a fence line. These postholes were circular in plan, with moderately sloping sides and concave bases. They had diameters between 0.26m and 0.32m, with depths ranging from 0.08m to 0.19m. A single deposit filled each postholes, which in each case was a pale grey, sandy silt. The only finds from any of these features was a single, residual, stuck flint from posthole **3708**.

Postholes 3734, 3736, 3738 and 3740 (Fig. 15)

3.6.53 Four postholes (**3734**, **3736**, **3738** and **3740**) were located to the east of building **3952**. There was no pattern to the relationship of these features and the function of any posts they contained is unclear. The postholes were circular or oval in plan, with steeply sloping or vertical sides and concave bases. They had diameters between 0.40m and 0.68m, with depths from 0.16m to 0.35m. The deposits which filled each of these features were different. Posthole **3734** was filled by 3735, which was a pale grey sandy silt. Deposit 3737 filled feature **3736** and this was a mid greyish brown, sandy silt. Posthole **3738** was filled by 3739, a dark orangey brown silty sand. The final posthole **3740**) was filled by deposit 3741, which was a mid brown sandy silt. The only find from these features was a single residual struck flint from posthole **3734**.

Postholes 3724, 3726 and 3749 (Fig. 15)

3.6.54 Three postholes (**3724**, **3726** and **3749**) may have formed a line at the eastern end of area E2. These were circular or sub-circular in plan, with gently sloping sides and concave bases. They had diameters ranging from 0.48m to 0.64m, with depths between 0.06m and 0.27m. A single deposit filled each posthole, and these were mid to dark greyish brown, sandy silts. The only finds from these features were two residual struck flints.

Pit 3683 (Fig.15)

3.6.55 Pit **3683** was located 15m to the south-east of Period 1.1 cremation deposit **3761**. It may be related to this feature as it contained a very small amount of cremated bone (1g). Pit **3683** appeared circular in plan, although it continued out of the excavated area to the east. It had a diameter of 0.60m and was 0.22m deep, with gently sloping sides and a concave base. A single deposit (3682) filled this feature and it was a mid greyish brown, sandy silt. Along with the bone a single sherd (1g) of pottery, which may be of Anglo-Saxon date was recovered from this pit.

Postholes 3728, 3730 and 3732 (Fig. 15)

3.6.56 A further group of three postholes (**3728**, **3730** and **3732**) may represent the truncated remains of a building. They were located at the very eastern end of Area E2 and further related features may have existed to the east. The postholes were circular or oval in plan, with moderately sloping sides and concave bases. Each posthole was filled by a single deposit and these were mid reddish brown, sandy silts. No finds were recovered from any of these features.

Building 3827 (Figs 19 and 22)

3.6.57 Building **3827** was made up of 28 postholes; **3639**, **3641**, **3855 3857**, **3859**, **3861**, **3863**, **3865**, **3867**, **3869**, **3871**, **3873**, **3875**, **3877**, **3879**, **3881**, **3883**, **3885**, **3887**, **3889**, **3891**, **3895**, **3897**, **3899**, **3901**, **3903**, **3908**, **3910**. These postholes formed a rectangular structure, with an internal length of 8.10m and a width of 3.95m. The postholes formed a fairly continuous and evenly spaced lines around all four sides of the structure. An entrance may have been present on the northern wall between postholes **3879** and **3881** where there is a larger gap between postholes. An internal division, shown by postholes **3899** and **3910**, was present 2.35m from the eastern end of the building. Two postholes outside of the main structure (**3901** and **3908**) may represent repairs or strengthening of the original structure.

3.6.58 Almost all of the postholes that made up this building were circular in plan, with some being sub-circular. They had moderate or steeply sloping sides, with flat or concave bases. Each was filled by a single deposit, which were all mid greyish brown, silty

sands. The postholes had diameters ranging from 0.17m to 0.80m and depths of 0.05m to 0.32m. Finds from this building comprised two sherds (16g) of residual Early Bronze Age pottery, a single sherd (5g) of Early to Middle Saxon pottery, three residual struck flints and 9g of burnt flint.

Post hole line 3643 (Fig. 19)

3.6.59 Fourteen postholes (**3643**, **3654**, **4014**, **4016**, **4018**, **4020**, **4022**, **4024**, **4026**, **4028**, **4030**, **4032**, **4034**, **4036**) formed a line extending from the western end of building **3827** to the southern limit of excavations. These features probably formed a substantial fence. The postholes were circular in plan, with moderately sloping sides and flat bases. Each was filled by a single deposit, which was a mid greyish brown, silty sand. They had diameters between 0.15m and 0.54m, with depths between 0.10 and 0.34m. The only find from any of these features was a single fragment (13g) of unworked burnt flint.

Post hole line 4050 (Fig. 19)

3.6.60 Eleven postholes (**3650**, **4050**, **4052**, **4054**, **5046**, **5058**, **4060**, **4062**, **4064**, **4066**, **4068**) made up this line, which was parallel to posthole line **3643**. Posthole line **4050** continued for 22m from the southern limit of excavation, although it was not a continuous line, with some postholes having presumably been lost to truncation. The postholes were circular in plan, with vertical sides and flat bases. They had diameters between 0.15m and 0.40m, with depths from 0.07m to 0.28m. Each feature was filled by a single deposit, which was a mid greyish brown, silty sand. No finds were recovered from any of the postholes in this group.

Posthole line 4038 (Fig. 19)

3.6.61 This line of postholes began adjacent to and was perpendicular to posthole line **3643**, and continued for 10.50m, terminating adjacent to posthole line **4050**. It consisted of five postholes (**4038**, **4040**, **4042**, **4044**, **4046**), which were circular in plan, with vertical sides and flat bases. They had diameters varying from 0.17m to 0.29m and depths between 0.07m and 0.20m. Each was filled by a single deposit, which was a mid greyish brown, silty sand. No finds were recovered from any of these postholes.

Postholes 4070, 4072, 4110 and 4112, 4114 (Fig. 16)

3.6.62 A group of postholes (**4070**, **4072**, **4110**, **4112** and **4144**) was located around the intersection of posthole lines **3643** and **4038** and may relate to these fences. The postholes were all circular in plan, with moderately sloping or vertical sides and flat bases. They had depths of between 0.06m and 0.45m, with diameters from 0.18m to 0.52m. A single deposit filled each feature, which was a mid greyish brown, silty sand. The only material recovered from any of these features was a single fragment (15g) of unworked burnt flint.

Building 3955 (Figs. 19 and 23)

3.6.63 This structure was located just to the west of building **4075** and was of similar shape and size, and on the same alignment. A total of 25 postholes (**3628**, **3630**, **3632**, **3634**, **3956**, **3958**, **3960**, **3962**, **3964**, **3966**, **3968**, **3970**, **3972**, **3974**, **3976**, **3978**, **3980**, **3982**, **3984**, **3986**, **3988**, **3990**, **3992**, **4116**, **4118**) made up the building. Each of these postholes was circular in plan, with steeply sloping or vertical sides and flat bases. They had diameters between 0.28m and 0.66m, with depths between 0.07m and 0.32m. Each posthole was filled by a single deposit, which was a mid greyish brown, silty sand. A total of two sherds (14g) of Early to Middle Saxon pottery was recovered from postholes **3962** and **3972**.

3.6.64 The southern, northern and western walls of building **3955** were made up of evenly spaced postholes (*c.*0.55m apart on average). The eastern wall had been lost to truncation, but the surviving internal dimensions of the building were 7.90m long and 3.60m wide. It is possible that postholes **3630** and **3964** formed part of an internal dividing wall, located 2.20m from the western end of the building. Further postholes (**3962**, **4116**) may represent repairs to the external walls.

Building 4075 (Figs 19 and 23)

3.6.65 Building **4075** was the most Easterly of the certain Anglo-Saxon buildings identified. It was made up of a total of 18 postholes (**4075**, **4077**, **4079**, **4081**, **4083**, **4085**, **4087**, **4089**, **4091**, **4093**, **4095**, **4097**, **4099**, **4101**, **4103**, **4105**, **4122**, **4124**). These formed an approximate rectangle, on a west-north-west to east-south-east orientation, although it appears that some of the structure was lost to truncation. The southern wall was formed of a line of postholes, each *c.*0.70m apart, while the northern wall was not as even. Both the end walls of the building were lost. The internal area of the surviving building remains measured 3.95m wide and 10.45m long.

3.6.66 The postholes were all circular in plan, with flat bases and moderately sloping to vertical sides. They had diameters between 0.15m and 0.75m, with depths between 0.05m and 0.32m. Similar deposits of mid greyish brown, silty sand filled each posthole. In total two sherds (2g) of not closely datable pottery, along with three residual struck flints and 36g of burnt flint were recovered from these 18 postholes.

Possible structural group 3546 and posthole 3603 (Fig. 19)

3.6.67 A group of ten postholes (**3546**, **3548**, **3550**, **3552**, **3554**, **3556**, **3558**, **3578**, **3597**, **3599**), located to the west of posthole line **3520** may represent the truncated remains of a building. It is possible that postholes **3552**, **3554**, **3556**, **3558**, **3597** and **3599** were the southern wall of a structure, with postholes **3546** and **3548** as the remains of the eastern end of the building. This suggestion is supported by the fact that the proposed southern wall would be on the same alignment as all of the other post-built structures on the site.

3.6.68 The postholes in this group were all circular in plan, apart from **3578** which was sub-rectangular. They had steeply sloping sides, with flat bases and each was filled by a single deposit. These fills were all mid or dark greyish brown, silty sands, from which no finds were recovered.

3.6.69 Posthole **3603** was located 5.80m to the west of possible structure **3546** and may have been related to it. Posthole **3603** was sub-circular in plan, with steeply sloping sides and a flat base. It was 0.47m long, 0.43m wide and 0.34m deep. The single deposit which filled this feature (3604) was a pale brownish grey, sandy silt, which contained no finds.

Post hole line 3520 (Fig. 19)

3.6.70 A line of five postholes (**3520**, **3522**, **3524**, **3526** and **3528**) was located close to the eastern end of Area E3. This line of postholes continued from the northern limit of excavation on a north-north-east to south-south-west alignment for 13.90m. Each of the postholes was circular in plan, with steeply sloping sides and a flat base. They had diameters between 0.31m and 0.55m, with depths between 0.05m and 0.08m. They were all filled by single deposits, which were all dark brownish grey, sandy silts. No finds were retrieved from any of these features.

Other postholes; 3511, 3531, 3533, 3535, 3537, 3648, 3792, 3802, 3804, 4012, 4049 and 4202

3.6.71 Several other postholes (**3511**, **3531**, **3533**, **3535**, **3537**, **3589**, **3648**, **3792**, **3802**, **3804**, **4012**, **4049**, **4202**) were scattered across Area E. These have been placed into the Early Saxon phase as they were located within areas of activity of this date. None of these features contained any finds.

Period 6.2: post-medieval

3.6.72 Several ditches and postholes were phased to this period. Some features were placed in this phase due to the finds they contained, along with their stratigraphic and spacial relationship to other features. Other features have been dated to this period due to the generally much darker deposits which filled them.

Ditch 4234 (Fig. 17)

3.6.73 Ditch **4234** was located at the western end of Area E1. It crossed the area on a north-east to south-west orientation, continuing out of the area to the south. It terminated on the line of a modern ditch to the north. Ditch **4234** had moderately sloping sides and a concave base, with a width of 0.80m and a depth of 0.29m. Deposit 4235 filled this ditch and it was a pale blueish grey, sandy silt. No finds were recovered from it.

Posthole line 4216 (Fig. 17)

3.6.74 A line of six postholes (**4216**, **4218**, **4220**, **4222**, **4224** and **4226**) was present parallel to ditch **4234**. These postholes appear to have formed a fence. They were circular or sub-circular in plan, with steeply sloping side and flat or concave bases. They had diameters between 0.26m and 0.55m, with depths ranging from 0.07m to 0.18m. Each was filled by a similar deposit, which was a mid greyish brown, sandy silt. No finds were recovered from any of these postholes.

Postholes 4215, 4230, 4232 and 4240 (Fig. 17)

3.6.75 Four further postholes (**4215**, **4230**, **4232** and **4240**) were spread across the western end of Area E1. Each posthole was circular or sub-circular in plan, with moderately sloping sides and a concave base. They had diameters between 0.35m and 0.54m, with depths from 0.15m to 0.20m. They were all filled by single deposits, which were mid greyish brown, sandy silts. No finds were recovered from any of these features.

Ditches 4171, 4173, 4175, 4177 (Fig. 17)

3.6.76 Four ditches (**4171**, **4173**, **4175**, **4177**) were located towards the eastern end of Area E1. These ditches all appeared to be contemporary, with ditches **4173**, **4175** and **4177** perpendicular to and joining ditch **4171**. Ditch **4171** was visible for *c.*120m as it crossed the site on a north-west to south-east orientation, continuing beyond the excavated area at both ends. It was 2.20m wide and was excavated to a maximum depth of 0.50m before the rapid ingress of water prevented further work. Ditch **4171** had moderately sloping sides and only a single fill (4172) was identified within it, although more may have been present in the un-excavated part. Fill 4172 was a mid yellowish grey, silty clay. Three fragments (350g) of brick were recovered from this feature, along with a single fragment (33g) of post-medieval or modern green vessel glass.

3.6.77 Ditch **4173** continued to both sides of ditch **4171**. It had gently sloping sides and a flat base, with a width of 1.10m and a depth of just 0.03m. The ditch was entirely filled by deposit 4174, a mid yellowish brown, silty clay. Two fragments (93g) of post-medieval tile were recovered from this ditch.

3.6.78 Ditch **4175** continued from the northern edge of excavation for *c.*9m, before joining ditch **4171**. Ditch **4175** had gently sloping sides, with a flat base and was filled by a single deposit (4176). Fill 4176 was a pale yellowish brown, silty clay, from which no finds were recovered. Ditch **4175** was 0.90m wide and only 0.02m deep.

3.6.79 The final ditch in this group (**4177**) also continued from the northern edge of excavation before joining ditch **4171**. Ditch **4177** was filled by deposit 4178, which was a mid reddish grey, clayey silt. No finds were recovered from ditch **4177**, which had gently sloping sides and a concave base. It was 0.90m wide and 0.18m deep.

Ditches 3787 and 3791 (Fig. 18)

3.6.80 Two ditches (**3787** and **3791**) crossed the western end of Area E2 on a north-north-east to south-south-west orientation. Ditch **3791** was 1.95m wide and 0.55m deep, with moderately sloping sides and a concave base. It was filled by three deposits. The primary fill (3790) was a mid to light grey, sandy silt. This was overlain by deposit 3789, a mid brownish grey, sandy silt. The final fill (3788) was a mid greyish brown, sandy silt. A single fragment (64g) of undiagnostic brick, along with a single worked and burnt flint, was recovered from this ditch.

3.6.81 Ditch **3787** cut ditch **3791**, along with Early Saxon trackway **3679**. Ditch **3787** was 1.85m wide and 0.50m deep. It had moderately sloping sides, with a concave base and was filled by three deposits. The basal fill (3786) was a mid brownish grey, silty sand. This was overlain by deposit 3785, which was a mid greyish brown, sandy silt. The final fill of this ditch (3784) was a mid greyish brown, sandy silt. A single sherd (2g) of pottery of 17th- to 18th-century date was recovered from this feature, along with two residual struck flints.

Ditches 3505 and 3638 (Fig. 19)

3.6.82 Ditches **3505** and **3638** both crossed Area E3 on a north to south orientation. Ditch **3505** (**3505** and **3507**) was up to 0.95m wide and 0.11m deep, with gently sloping sides and a flat base. A single deposit (3506, 3508) filled this ditch and this deposit was a dark greyish brown, silty sand. Finds from this ditch comprised six fragments (93g) of undiagnostic brick, along with four residual struck flints.

3.6.83 Ditch **3638** had a width of 1.80m, with a depth of 0.80m. It had steeply sloping sides, with a rounded base and was filled by a single deposit (3637). Fill 3637 was a dark greyish brown, sandy silt. Two fragments (155g) of undiagnostic brick were recovered from this feature, along with four residual struck flints.

Natural features

3.6.84 A large number of tree throws was recorded across Area E. It is possible that these relate to prehistoric tree clearance in the area, however, few of these features contained any finds to confirm this.

Tree throws 3509, 3530, 3539, 3541, 3565, 3567, 3569, 3571, 3573, 3575, 3579, 3592, 3594, 3606, 3607, 3612, 3624, 3625, 3646, 3656, 3657, 3662, 3664, 3668, 3670 and 3672 (Fig. 16)

3.6.85 A total of 26 tree throws were present in the eastern part of Area E. These features were all irregular or crescent shaped in plan. Finds from these features are detailed in Table 6 below.

Cut number	Fill number	Arfefact type	Quantity	Weight (g)	Comments
3530	3529	Struck flint	2	16	Prismatic blade, flake
3573	3572	Struck flint	1	2	Flake
3575	3574	Struck flint	1	1	Flake fragment
3594	3593	Struck flint	3	13	2 decortication flake, flake fragment
		Pottery	1	3	Not closely datable
3623	3624	Struck flint	5	84	3 flakes, 1 flake fragment, 1 retouched flake

Table 6: Finds from tree throws in Area E1

Tree throws in centre section of site 3704, 3742, 3752, 3754, 3763, 3770, 3794, 3812, 3950, 3953, 4200 and 4211 (Fig. 15)

3.6.86 A further 12 tree throws were present in Area E2. These had similar shapes in plan and profiles to those across the rest of the area. The finds recovered from them are listed in Table 7 below.

Cut number	Fill number	Arfefact type	Quantity	Weight (g)	Comments
3704	3705	Struck flint	1	5	Flake
3752	3753	Struck flint	9	62	Mixed
3754	3755	Burnt flint	1	28	Not worked
3763	3762	Struck flint	2	125	Blade like flake, flake core
3812	3813	Burnt flint	12	132	Not worked
3853	3954	Struck flint	2	12	Flake, non-prismatic blade
4211	4212	Burnt flint	1	15	Not worked

Table 7: finds from tree throws in Area E2

Tree throws 4228 and 4236 (Fig. 14)

3.6.87 Only two tree throws were identified in Area E1. In common with the other tree throws, they both had an irregular shape in plan and profile. Neither of these contained any finds.

Un-phased features

Ditch 3513 and pit 3504 (Fig. 19)

3.6.88 Ditch **3513** (**3513**, **3515** and **3518**) continued across the very eastern end of Area E3 on a north-east to south-west alignment. It was between 0.85m and 1.01m wide, with a depth ranging from 0.25m to 0.35m. The ditch had moderately sloping sides and a flat base. It was filled by a pale brownish grey, sandy silt, from which a single struck flint was recovered. Although no other dating evidence was recovered from this feature, it may be of prehistoric date as it does not share the alignment of either the Anglo-Saxon or post-medieval features.

3.6.89 Ditch **3513** was cut by pit **3504** which was sub-circular in plan, with moderately sloping sides and a concave base. Pit **3504** was 0.80m long, with a width of 0.64m and a depth of 0.12m. Two deposits (3502 and 3503) filled this feature. The primary fill (3503) was a mid greyish brown clayey silt. The upper fill (3502) was a dark brownish grey, silty clay. No finds were recovered from his pit.

Pits 3616 and 3619 (Fig. 16)

3.6.90 Pits **3616** and **3619** were located close to the centre of Area E3. Pit **3616** was sub-circular in plan, with moderately sloping sides and a concave base. It was 0.54m long and 0.46m wide, with a depth of 0.09m. A single deposit (3715) filled the pit, and this was a mid greyish brown, sandy silt.

3.6.91 Pit **3619** was recorded *c.*20m to the south-west of pit **3616**. It was circular in plan, with a flat base and steeply sloping sides. It had a diameter of 0.59m, with a depth of 0.31m and was filled by a single deposit (3620). Fill 3620 was a pale brown, sandy clay. No finds were recovered from either pit.

Pits 3544, 3561, 3563, 3583, 3617 and 3675 (Fig. 16)

3.6.92 Six pits (**3544**, **3561**, **3563**, **3583**, **3617** and **3675**) which contained burnt stone were excavated across the area. None of these contained any pottery or closely datable artefacts, however, they are likely to be prehistoric in origin.

3.6.93 Pit **3544** was located close to the eastern end of Area E3. It was circular in plan, with near vertical sides and a flat base. It had a diameter of 0.62m and was 0.16m deep. The single deposit which filled this feature (3543) was a mid greyish brown, silty sand. A total of 136g of fragmented burnt sandstone cobbles was recovered from this feature.

3.6.94 Pit **3561** was positioned *c.*3.5m to the north-east of pit **3544**. It was also circular in plan, with a flat base, but had moderately sloping sides. It was filled by deposit 3560, a dark greyish brown, clayey sand. A total of 122g of fragmented burnt sandstone cobbles was recovered from this feature, along with a single struck flint.

3.6.95 Pit **3583** was *c.*6m to the north-west of pit **3561**. It was sub-circular in plan, with steeply sloping sides and an irregular base. It had a diameter of 1.20m, with a depth of 0.48m and was filled by two deposits. The basal fill (3585) was a pale greyish brown, sandy silt. The upper fill (3584) was a dark brownish grey, sandy silt. Thirty-three fragments (1343g) of burnt flint were recovered from the upper fill of this feature.

3.6.96 Pit **3563** was identified close to the southern limit of excavation, close to the middle of Area E3. It was circular in plan, with moderately sloping sides and a flat base. It had a diameter of 0.82m and was 0.13m deep. The single fill of this pit (3562) was a dark brownish grey, sandy silt. A total of five fragments (89g) of burnt unworked flint was recovered from this feature.

3.6.97 Pit **3617** was located just to the north of un-phased pit **3619**, close to the middle of Area E3. It was sub-circular in plan, with gently sloping sides and a flat base. It was 0.97m long, 0.84m wide and 0.16m deep. It was filled by deposit 3618, a dark brownish grey, sandy silt. A total of 70 fragments (893g) of burnt flint were retrieved from this feature.

3.6.98 Pit **3675** was located close to the western end of Area E3. It was sub-circular in plan with moderately sloping sides and an irregular base. It had a length of 1.07m, a width of 1.03m and a depth of 0.46m. A single deposit (3676) filled this pit and it was a mid brownish black, sandy silt. A very large quantity (1,260 fragments weighing 21,554g) of burnt flint was recovered from this feature.

Pit 3767 and posthole 3769 (Fig. 15)

3.6.99 Pit **3767** and posthole **3769** were located adjacent to each other, close to the middle of Area E2. Pit **3767** was sub-circular in plan, with steeply sloping sides and an irregular base. I had a width of 0.56m, with a depth of 0.28m and was filled by a single deposit (3766). fill 3766 was a dark brownish grey, silty sand, which contained no finds.

3.6.100 Posthole **3769** was circular in plan, with a flat base and vertical sides. It was only 0.24m deep and had a diameter of 0.26m. The deposit which filled it (3768) was a dark brownish grey, silty sand. No finds were recovered from posthole **3769**.

3.7 Evaluation

3.7.1 Four evaluation trenches, each 30m long, were excavated to the east of Hammond's Road (Fig. 1). This work was carried out at the same time as the excavations and borehole survey and was in addition to earlier evaluation along the pipeline route (Gilmour 2103). No archaeological features were present in any of these trenches, and no finds were present. Details of the trench dimensions are given in Appendix A.

3.8 Borehole survey

3.8.1 Six exploratory boreholes were sunk to the west of Church Road, Little Baddow, directly to the east was the current course of the Sandon Brook (Fig.27). The full report on these is presented in Appendix D.4. In summary, the palynological investigation of the basal silt-rich sediment contained in a small palaeochannel beneath the Sandon Brook floodplain has produced evidence for the transition from mostly pastoral farming to a more mixed landscape with arable crops. This sequence spanned the Roman to Anglo-Saxon periods.

3.9 Finds Summary

3.9.1 Full reports are given on the finds in Appendix C, with summaries below.

Metal small finds

3.9.2 Only two metal small finds were recovered during this fieldwork; a modern dinner fork and a bell which could not be closely dated.

Worked stone

3.9.3 A total of 8.249kg of stone was collected from 22 excavated contexts. The assemblage comprises a quantity of heat Affected pebbles and 2kg of lava derived from quern or millstones.

Struck lithics

3.9.4 The archaeological investigations resulted in the recovery of 870 struck flints and more than 36kg of unworked burnt stone. The lithic material indicates the widespread and, in some locations, intensive working and use of flint. A number of individual assemblages are regionally significant and have the potential to contribute considerably to broader understandings of flintworking traditions, deposition practices and landscape occupation. In particular the assemblages from the prehistoric pits that range in date from the Early Neolithic through to the Early Bronze Age in Areas A, B and E contain closed and closely dateable assemblage of regional importance, whilst the small assemblage from the Mesolithic cremation in Area E could be regarded as of particular importance due to its association with this nationally unique feature.

Glass

3.9.5 The excavation produced an assemblage of vessel glass weighing 0.581kg in total, recovered from four contexts in Trench C. With the exception of one fragment, which could not be closely dated, all of the glass is of late 18th century or later date.

Prehistoric pottery

3.9.6 A total of 597 sherds of prehistoric pottery, weighing 6039g were collected during the excavations. This included pottery of Earlier Neolithic, Middle Neolithic, Beaker, Early

Bronze Age, Middle Bronze Age, Late Bronze Age, Earlier Iron Age and Later Iron Age date.

Roman pottery

3.9.7 A total of 623 sherds, weighing 6925g, of early Romano-British pottery were found. This material was recovered almost exclusively from a relict field system, indeed over 68% (by weight) of the assemblage was recovered from a single ditch (**332**: RB pot table 1). All of the pottery of this date was found within Area A

Anglo-Saxon pottery

3.9.8 The Anglo-Saxon pottery assemblage comprised 223 sherds with a total weight of 2,989g. These are believed to be largely of 7th-century date, with some potentially of 5th- to 6th-century date.

Medieval and post-medieval pottery

3.9.9 A total of 661 sherds weighing 11.087kg was excavated, most of which is medieval, spanning the 12th to 14th centuries. The medieval assemblage appears to be entirely domestic and largely typical of central Essex, although there is slight evidence that dairying was taking place. There are also small late medieval and post-medieval assemblages.

Ceramic building material

3.9.10 A moderate assemblage of CBM comprising 834 fragments (69.71kg) was recovered from both the evaluation and excavation phases. The large majority of the CBM was recovered from Area C with a background scatter found in the other areas. Most of the CBM is of late medieval date, although smaller quantities of both Roman and post-medieval material are present.

Fired clay

3.9.11 A modest assemblage of fired clay amounting to 374 fragments (5.33kg) was recovered from Areas A, C, D and E. The majority of the material is undiagnostic and as such undateable. It probably originates from ovens and hearths or associated portable furniture. The largest group was found in Area E associated with Anglo-Saxon features and included hearth floor, oven/hearth structure, possible oven/hearth furniture and a spindle whorl. The assemblage from Area A is smaller and associated with the Early Roman settlement, except for a perforated clay object from a Beaker pit.

3.10 Environmental Summary

3.10.1 Full reports of the environmental remains recovered are given in Appendix D with summaries below.

Human skeletal remains

3.10.2 All of the human skeletal remains recovered had been cremated. In total, five urned and two ununrned deposits were excavated. Within Area D, all of the cremation deposits were associated with a barrow ditch and included a single unurned cremation of Early Bronze Age date and five Middle Bronze Age urned cremations. In Area D a single ununred deposit was identified and has been shown to be of Mesolithic date.

Faunal remains

3.10.3 A small quantity (2.8kg) of animal bone was recovered, with the domestic assemblage from all phases representing initial processing of complete carcasses with further butchery taking place elsewhere.

Environmental samples

3.10.4 A total of 147 bulk soil samples were taken for the recovery of charred plant remains and artefacts. These generally produced sparse charred plant remains.

4 Discussion and Conclusions

4.1 Mesolithic Cremation Area E

4.1.1 The deposits within cremation pit **3761** represent the first positively identified cremated human remains from the Mesolithic in Britain. However, it seems likely that more similar deposits will be found, or have already been excavated but not radiocarbon dated. Cremated human bone is known from the Mesolithic in Ireland (Collins and Coyne 2003) and elsewhere across Europe (*e.g*. Petersen and Meiklejohn 2003).

4.1.2 Recent research has indicated a total of just 20 sites from which Mesolithic human bone has been recovered within Britain, (Meiklejohn *et al* 2011), thus this find is an important addition to a limited corpus. Of these examples 16 are cave sites, three shell middens and one an open air location (*ibid*). The open air location of the Chelmsford site is therefore unusual, as is the deliberate deposition of human remains into an excavated feature.

4.1.3 Further work still remains to be done on this find, especially comparing the nature of the material in contained with other European examples and situating the find within the wider Mesolithic landscape.

4.2 Prehistoric pits Areas A, B and E

4.2.1 The presence of prehistoric pits scattered along the terrace gravels adjacent to the River Chelmer is not surprising. The prehistoric pits identified vary in date from the Early Neolithic to Late Bronze Age, but they all share similar morphology.

Neolithic pits

4.2.2 The Early Neolithic pits in Area B contained relatively small quantities of pottery and struck flint. The abraded nature of these finds suggest that the material was gathered from a midden deposit prior to deposition. This practice has been extensively studied and demonstrated in the large Neolithic pit complex at Kilverstone, Norfolk (Garrow *et al* 2006).

4.2.3 Earlier Neolithic pits have been found elsewhere in this area, including in association with a causewayed enclosure at Springfield Lyons (Brown and Medlycott 2013) and at Elm's farm, Heybridge (Atkinson and Preston 2001). Slightly further afield to the north-east, further pits were excavated at Lodge Farm, St Osyth (Germany 2007).

4.2.4 The Middle Neolithic pits, located in Area E, also contained relatively small quantities of pottery and struck flint, with the exception of pit **3665**, which contained over 1kg of Peterborough Ware.

4.2.5 The function of Neolithic Pits has been much discussed (*e.g*. Garrow *et al* 2006; Anderson-Whymark and Thomas 2012), with a general consensus that they do not represent simply a convenient way to dispose of rubbish.

Beaker and Early Bronze Age pits

4.2.6 The single Beaker pit identified in Area A contained a significant assemblage of pottery (127 sherds, 1887g). This is unusually high for Beaker pits (Garrow 2006, 128). However, isolated Beaker pits are not uncommon, and this location of this feature close to a river is similar to the majority of similar pits across East Anglia (Garrow 2006, 119).

4.2.7 The two Early Bronze Age pit (**3995** and **3997**) located in Area E, only contained small quantities of pottery and flint. Their location is likely to have been influenced by several

ring-ditches known to exist within the same field (Mott MacDonald 2012b, Gilmour 2013).

4.2.8 Late Neolithic and Early Bronze Age pits are increasingly being identifed across Essex, including several at Springfield Lyons, to the east of the pipeline route (Brown and Medlycot 2013). These pits, along with ring ditches, are often the only evidence for occupation during this period.

Late Bronze Age Pit

4.2.9 The presence of a single Later Bronze Age pit in Area E is surprising, given the lack of other material of this date from the site. However, other Late Bronze Age activity is known locally, including pits a Great Holts Farm, Boreham (Germany 2003). It is likely that there was further Late Bronze Age activity around Area E, either outside of the excavated area, of that has been lost to truncation.

4.3 Barrow and Middle Bronze Age cremations Area D

4.3.1 The circular ditch **2536** identified in Area D almost certainly represents the remains of a ploughed-out round barrow. The primary burial within this features appears to have been un-urned cremation **2598**, which has been radiocarbon dated to 1872-1639 calBC (3423±29 BP GU35119). This burial was inserted into the top of a large in-filled tree throw (**2561**).

4.3.2 The construction history of this barrow is not clear. It seems probable that the very large tree throw (**2561**) was the earliest feature and influenced the location of the barrow. However, whether ditch **2536** was dug prior to, at the same time as, or after the insertion of burial **2598** is not known. It is clear that several urned cremations were deposited within the barrow ditch at a later date. Three of these urned burials were radiocarbon dated, providing dates of: 1504-1406 cal BC (GU35117, 3174±29 BP); 1406-1229 cal BC (GU35118, 3054±29 BP) and 1393-1133 cal BC (GU35120, 3024±29 BP. These dates suggest that placing of cremated remains at this location potentially continued for centuries.

The Prehistoric Landscape

4.3.3 The barrow excavated in Area D is one of several Bronze Age circular monuments which are known along this part of the Chelmer Valley. Just to the east, around Area E, crop-marks of several ring-ditches were recorded. Trenches were excavated across two of these during the archaeological evaluation of this pipeline route (Gilmour 2013). One ring-ditch was a simple circular ditch, with an external diameter of *c.*18m, while the other was a triple ring-ditch, with an external diameter of *c.*16m (*ibid.*). Slightly further to the east (TL841093 adjacent to Langford Road); two further ring-ditches were excavated in advance of the construction of a reservoir at Langford Hall Farm (Essex SMR 45968). Further cropmarks of ring ditches lie *c.*2km to the north-east at Stock Hall Farm (Essex SMR 7962). Further downriver, *c.*3.5km to the east of Area D, another ring ditch has also been excavated (Atkinson and Preston 2001).

4.3.4 Some of these ring-ditches, as with that in Area D, are likely to represent the remains of ploughed out barrows, while others included rings of posts. As such, they would have formed a very visible part of the prehistoric landscape. These monuments appears to form a line, along the edge of the River Chelmer. Such linear arrangements of barrows along river valleys are known from elsewhere (*e.g*. Watson 2001, 211; Tilley 1999).

4.3.5 However, It is of note that both the Area D barrow, and those around Area E are not located at the top of the slope to the north of the River Chelmer. This may imply that

they were positioned to be seen from the River Chelmer and any routeway associated with it.

4.4 Roman Activity Areas A and B

4.4.1 Roman Chelmsford (*Caesaromagus*) was a small town located at Moulsham, *c.*4km to the south-west of Area A. The town was situated on the road between London (*Londinium*) to Colchester (*Camulodunum)*, roughly halfway between these two towns (Kemble 2001, 99). Chelmsford was established during the 1st century AD and extensively altered during the Hadrianic/early Antonine period (*c*. AD120-150), when a *mansio* was established there (Medlycott and Atkinson 2012, 74).

4.4.2 The Roman material uncovered in Area A appears to relate to a small farmstead, with the main area of occupation probably just to the south-west. None of the finds suggest particularly high status activity, while the pottery implies that occupation was relatively short lived during the Early Roman period.

4.4.3 The layout of this farmstead was not clear within the excavated area, but cropmark evidence adds greatly to our understanding. It would appear that a rectangular enclosure was situated within the western end of a large sub-triangular enclosure. The larger enclosure covering an area of *c.*2.8ha and the rectangular enclose *c.*0.5ha. A droveway (ditches **312** and **314**) passed through the middle of the larger enclosure, and may have met a second, perpendicular droveway (**1003** and **1009**) to the north of the excavated area.

4.4.4 The visible elements of the farmstead discussed above are likely to represent only a part of the complete layout of the site. Nevertheless, it is possible to compare this to other local examples and it does appear similar to other small farmsteads in Essex (*e.g*. Medlycott and Atkinson 2012, 85).

4.4.5 The ditches recorded in Areas A and B appear to have been longer lived then the adjacent occupation, as there was evidence of re-cutting and re-alignment of ditches. This suggests that the field system continued in use after the abandonment of the farmstead, perhaps suggesting that this occupation moved elsewhere in the vicinity.

4.5 Anglo-Saxon Activity Area E

4.5.1 The Anglo-Saxon settlement identified in Area E was quite extensive, consisting of at least seven halls and two sunken-featured buildings. As the excavation area represents only a strip through this settlement, it is extremely likely that more structures were located to the north and south, although the original scale of occupation cannot be known without further excavation.

4.5.2 The terrace gravels along the River Chelmer would offer favourable conditions for Saxon occupation and Early Saxon occupation is not uncommon on the terrace gravel of Essex (*e.g*. Welch 2012, 116). However, excavation of seven halls and two sunken-featured buildings in a single location is less frequent. The most well known comparison in Essex, although considerably more extensive and longer lived is at Mucking (Hamerow 1993). Closer to the site, Anglo-Saxon occupation was recorded at Elms Farm, Heybridge (Essex SMR 17446), *c*. 2.5km to the east of Area E. There, the evidence included three sunken-featured buildings, but no post-built structures.

4.5.3 Pollen analysis, carried out as part of this project, *c.*6 km to the west of Area E, showed a surprising increase in arable agriculture in the post-Roman period. This implies that the Area E settlement sits within a wider landscape that was being increasingly turned over to arable cultivation.

Posthole buildings

4.5.4 Although truncation prevented the full plan of all of the buildings from being revealed, it seems they were all of similar size (Table 8). Each building consisted of a rectangle of closely spaced posts, without any evidence of external raking timbers. The lack of beamslots, is typical for their Early Saxon date (Addyman 1972, 304; Hamerow 2014, 22). There were no traces of original floor surfaces. Finds from these structures were extremely rare and environmental remains were poor.

Building number	Length (m)	Width (m)	Internal division size (m)	Other notable feature
4075	3.95	>10.45	-	-
3955	3.60	>7.90	2.20	
3827	3.95	8.10	2.35	
3952	3.80	>6.80	-	
4000	4.40	9.30	-	
4120	4.5	>8.60	>2.40	Annex?
4156	Unknown	Unknown	-	

Table 8: Summary of Anglo-Saxon buildings in Area E

4.5.5 Three of the buildings had clear evidence for an internal division, which separated off a small portion of one end of the building. Similar internal divisions were present within several of the buildings at Mucking (Hamerow 1993; 105-6). Such a small separated area may have been used for sleeping, the keeping of animals, or storage (Hamerow 1993, 8). Rectangular post-built structures are still not very common in Essex, however known examples are increasing, with examples such as that at Clements Park, Southend-On-Sea (Chaffey *et al* 2013) adding to the corpus.

4.5.6 The evidence for entrances to the buildings is limited, although occasionally slightly larger gaps between posts may demonstrate their location. The only potential elaboration outside of a standard rectangular building plan was a single posthole to the north-east of building **4120**. This may be part of an annex, however it was right at the edge of excavation making this interpretation very tentative.

Sunken-featured buildings

4.5.7 Both of the sunken-featured buildings identified had been heavily truncated. In spite of this, the majority of the Anglo-Saxon finds were still retrieved from these structures. This is likely to be the result of material having been dumped into the disused structure, as opposed to accumulating during the use of the building.

4.5.8 Only one of the two buildings (**4213**) was fully visible within the excavated area and this had a standard layout for such buildings, consisting of a shallow sub-rectangular pit, with a central posthole at either end (*e.g*. Hamerow 1993, 193-83). the size of sunken-featured building **4213**, with a length of 3.75m and width of 3.05m, was also close to the average size for such structures (Tipper 2004, 64).

Settlement layout

4.5.9 The settlement identified in Area E would appear to have been relatively short lived, with no Middle or Late Saxon pottery identified. However, it should be noted that at Mucking, the Early Saxon settlement shifted several hundred metres to the north by the 7th century (Hamerow 1993, 86-91). It is entirely possible that a similar situation

occurred within the Area E settlement, with settlement moving away from the River Chelmer.

4.5.10 As the entire settlement was not revealed in this excavation, it is difficult to discuss its precise layout. However, it is clear that the settlement was not enclosed by ditches, although there were fences dividing up the space within the occupied area.

4.5.11 A trackway, leading towards the River Chelmer at the Western end of the settlement, may have led down to a ford across the river. It is possible, although impossible to prove, that it was the presence of this trackway or crossing point, that resulted in the settlement being located on this site.

4.6 Medieval and post-medieval activity Area C

4.6.1 Although no specific building plans were revealed, the medieval and post-medieval activity on Area C clearly relates to occupation. Only part of the occupied area was revealed within the pipeline easement, which does make interpretation difficult. However, it would appear that the site was most intensely occupied during the 12th to 14th centuries. A platform appears to have been constructed, to raise buildings above the surrounding flood plain and there may have been a ditch surrounding this.

4.6.2 There is little evidence for high status occupation at any stage of the occupation of this site. The site seems most likely to have been at the centre of a farmstead, with pottery evidence suggesting that dairy farming was important. The goods produced here were probably taken to market in the nearby and growing town of Chelmsford.

4.6.3 Such medieval buildings on platforms, of varying scales and both with and without moats are known from elsewhere in the area. Two have recently been identified on the Beaulieu Park development in Chelmsford (Stocks 2013) and a further large example was investigated at Woodham Ferrers (Ennis 2005).

4.7 Publication

4.7.1 A short note has already been included in *Mesolithic Miscellany*, detailing the contents and dating of cremation 3761 (Gilmour and Loe 2015). It is proposed to produce an Article for inclusion in the *Transactions of the Essex Society for Archaeology and History*, including details of all of the excavation areas. A further article, specifically about cremation 3761, including a full discussion of its regional, national and European context, will then be produced.

Appendix A. Evaluation Trench Descriptions

Trench 51						
General description					**Orientation**	E-W
Trench devoid of archaeology. Consists of soil and subsoil overlying a natural of silty sand and gravels.					**Max. depth (m)**	0.38
					Width (m)	1.5
					Length (m)	30
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
	Layer	-	0.24	Topsoil	-	-
	Layer	-	0.12	Subsoil	-	-

Trench 52						
General description					**Orientation**	E-W
Trench devoid of archaeology. Consists of soil and subsoil overlying a natural of silty sand and gravels.					**Max. depth (m)**	0.48
					Width (m)	1.5
					Length (m)	30
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
	Layer	-	0.32	Topsoil	-	-
	Layer	-	0.16	Subsoil	-	-

Trench 53						
General description					**Orientation**	E-W
Trench devoid of archaeology. Consists of soil and subsoil overlying a natural of silty sand and gravels.					**Max. depth (m)**	0.48
					Width (m)	1.5
					Length (m)	30
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
	Layer	-	0.30	Topsoil	-	-
	Layer	-	0.18	Subsoil	-	-

Trench 54						
General description					**Orientation**	E-W
Trench devoid of archaeology. Consists of soil and subsoil overlying a natural of silty sand and gravels.					**Max. depth (m)**	0.56
					Width (m)	1.5
					Length (m)	30
Contexts						
context no	**type**	**Width (m)**	**Depth (m)**	**comment**	**finds**	**date**
	Layer	-	0.34	Topsoil	-	-
	Layer	-	0.22	Subsoil	-	-

Appendix B. Context Inventory

Context	Cut	Master Number	Category	Feature Type	Phase
200	201	201	fill	ditch	3.4
201	201	201	cut	ditch	3.4
202	203	203	fill	post hole	3.4
203	203	203	cut	post hole	3.4
204	205	203	fill	post pipe?	3.4
205	205	203	cut	post hole	3.4
206	207	203	fill	post hole	3.4
207	207	203	cut	post hole	3.4
208	209	203	fill	post hole	3.4
209	209	203	cut	post hole	3.4
210	211	203	fill	post hole	3.4
211	211	203	cut	post hole	3.4
212	213	0	fill	post hole	3.4
213	213	0	cut	post hole	3.4
214	215	215	fill	ditch	3.4
215	215	215	cut	ditch	3.4
216	217	217	fill	ditch	6.2
217	217	217	cut	ditch	6.2
218	219	217	fill	ditch	6.2
219	219	217	cut	ditch	6.2
220	221	221	fill	pit	2.1
221	221	221	cut	pit	2.1
222	224	224	fill	ditch	3.4
223	224	224	fill	ditch	3.4
224	224	224	cut	ditch	3.4
225	227	227	fill	ditch	3.4
226	227	227	fill	ditch	3.4
227	227	227	cut	ditch	3.4
228	0	0	VOID		0
229	0	0	VOID		0
230	231	217	fill	ditch	6.2
231	231	217	cut	ditch	6.2
232	232	232	cut	post hole	3.4
233	232	232	fill	post hole	3.4
234	234	232	cut	post hole	3.4
235	234	232	fill	post hole	3.4
236	236	232	cut	post hole	3.4
237	236	232	fill	post hole	3.4
238	238	232	cut	post hole	3.4
239	238	232	fill	post hole	3.4
240	240	232	cut	post hole	3.4
241	240	232	fill	post hole	3.4
242	242	232	cut	post hole	3.4

Context	Cut	Master Number	Category	Feature Type	Phase
243	242	232	fill	post hole	3.4
244	244	232	cut	post hole	3.4
245	244	232	fill	post hole	3.4
246	246	232	cut	post hole	3.4
247	246	232	fill	post hole	3.4
248	249	249	fill	ditch	3.4
249	249	249	cut	ditch	3.4
250	251	251	fill	ditch	3.5
251	251	251	cut	ditch	3.5
252	253	251	fill	ditch	3.5
253	253	251	cut	ditch	3.5
254	255	251	fill	ditch	3.5
255	255	251	cut	ditch	3.5
256	257	0	fill	post hole	3.4
257	257	0	cut	post hole	3.4
258	260	224	fill	ditch	3.4
259	260	224	fill	ditch	3.4
260	260	224	cut	ditch	3.4
261	262	224	fill	ditch	3.4
262	262	224	cut	ditch	3.4
263	263	263	cut	post hole	3.4
264	263	263	fill	post hole	3.4
265	266	201	fill	ditch	3.4
266	266	201	cut	ditch	3.4
267	268	268	fill	ditch	3.4
268	268	268	cut	ditch	3.4
269	269	263	cut	post hole	3.4
270	269	263	fill	post hole	3.4
271	271	263	cut	post hole	3.4
272	271	263	fill	post hole	3.4
273	274	0	fill	tree throw	7
274	274	0	cut	tree throw	7
275	276	249	fill	ditch	3.4
276	276	249	cut	ditch	3.4
277	278	0	fill	tree throw	7
278	278	0	cut	tree throw	7
279	280	0	fill	tree throw	7
280	280	0	cut	tree throw	7
281	281	0	cut	tree throw	7
282	281	0	fill	tree throw	7
283	284	268	fill	ditch	3.4
284	284	268	cut	ditch	3.4
285	287	201	fill	ditch	3.4
286	287	201	fill	ditch	3.4
287	287	201	cut	ditch	3.4

Context	Cut	Master Number	Category	Feature Type	Phase
288	288	288	cut	ditch	3.4
289	288	288	fill	ditch	3.4
290	290	0	cut	tree throw	7
291	290	0	fill	tree throw	7
292	292	0	cut	tree throw	7
293	292	0	fill	tree throw	7
294	296	224	fill	ditch	3.4
295	296	224	fill	ditch	3.4
296	296	224	cut	ditch	3.4
297	298	249	fill	ditch	3.4
298	298	249	cut	gully	3.4
299	300	0	fill	tree throw	7
300	300	0	cut	tree throw	7
301	302	0	fill	post hole	3.4
302	302	0	cut	post hole	3.4
303	303	303	cut	ditch	3.4
304	303	303	fill	ditch	3.4
305	284	268	fill	ditch	3.4
306	306	306	cut	ditch	3.4
307	306	306	fill	ditch	3.4
308	308	303	cut	ditch	3.4
309	308	303	fill	ditch	3.4
310	310	306	cut	ditch	3.4
311	310	306	fill	ditch	3.4
312	312	312	cut	ditch	3.4
313	312	312	fill	ditch	3.4
314	0	314	cut	ditch	3.4
315	314	314	fill	ditch	3.4
316	316	303	cut	ditch	3.4
317	316	303	fill	ditch	3.4
318	318	215	cut	ditch	3.4
319	318	215	fill	ditch	3.4
320	320	320	cut	ditch	3.4
321	320	320	fill	ditch	3.4
322	322	306	cut	ditch	3.4
323	322	306	fill	ditch	3.4
324	324	215	cut	ditch	3.4
325	324	215	fill	ditch	3.4
326	327	327	fill	ditch	3.4
327	327	327	cut	ditch	3.4
328	328	328	cut	ditch	6.2
329	328	328	fill	ditch	6.2
330	0	0		VOID	0
331	332	215	fill	ditch	3.4
332	332	215	cut	ditch	3.4

Context	Cut	Master Number	Category	Feature Type	Phase
333	334	334	fill	ditch	3.4
334	334	334	cut	ditch	3.4
335	332	215	fill	ditch	3.4
336	332	215	fill	ditch	3.4
337	338	0	fill	post hole	3.4
338	338	0	cut	post hole	3.4
339	339	312	cut	ditch	3.4
340	339	312	fill	ditch	3.4
341	341	314	cut	ditch	3.4
342	341	314	fill	ditch	3.4
343	343	312	cut	ditch	3.4
344	343	312	fill	ditch	3.4
345	345	314	cut	ditch	3.4
346	345	314	fill	ditch	3.4
347	347	328	cut	ditch	6.2
348	347	328	fill	ditch	6.2
349	350	0	fill	tree throw?	7
350	350	0	cut	tree throw?	7
351	354	354	fill	ditch	3.4
352	354	354	fill	ditch	3.4
353	354	354	fill	ditch	3.4
354	354	354	cut	ditch	3.4
355	355	354	cut	ditch	3.4
356	355	354	fill	ditch	3.4
357	357	357	cut	ditch	6.2
358	357	357	fill	ditch	6.2
359	359	357	cut	ditch	6.2
360	359	357	fill	ditch	6.2
361	363	363	fill	ditch	6.2
362	363	363	fill	ditch	6.2
363	363	363	cut	ditch	6.2
364	365	314	fill	ditch	3.4
365	365	314	cut	ditch	3.4
366	367	0	fill	tree throw	7
367	367	0	cut	tree throw	7
368	369	0	fill	tree throw	7
369	369	0	cut	tree throw	7
1000	0	0	layer	topsoil	0
1001	0	0	layer	subsoil	0
1002	1003	1003	fill	ditch	3.4
1003	1003	1003	cut	ditch	3.4
1004	1005	1003	fill	ditch	3.4
1005	1005	1003	cut	ditch	3.4
1006	1007	1003	fill	ditch	3.4
1007	1007	1003	cut	ditch	3.4

Context	Cut	Master Number	Category	Feature Type	Phase
1008	1009	1003	fill	ditch	3.4
1009	1009	1009	cut	ditch	3.2
1010	1011	1011	fill	ditch	6.2
1011	1011	1011	cut	ditch	6.2
1012	1013	1013	fill	ditch	3.4
1013	1013	1013	cut	ditch	3.4
1014	1015	1013	fill	ditch	3.4
1015	1015	1013	cut	ditch	3.4
1016	1017	1011	fill	ditch	6.2
1017	1017	1011	cut	ditch	6.2
1018	0	0	VOID		0
1019	0	0	VOID		0
1020	1021	1009	fill	ditch	3.4
1021	1021	1009	cut	ditch	3.4
1022	1023	1009	fill	ditch	3.4
1023	1023	1009	cut	ditch	3.4
1024	1025	1025	fill	pit	1.2
1025	1025	1025	cut	pit	1.2
1026	1027	1025	fill	pit	1.2
1027	1027	1025	cut	pit	1.2
1028	1029	1025	fill	pit	1.2
1029	1025	1025	cut	pit	1.2
1500	0	0	layer	topsoil	0
1501	0	0	layer	subsoil	0
1502	0	0	masonry	layer of bricks	6.1
1503	1517	1517	masonry	dump	6.3
1504	1504	1504	cut	pond	6.2
1505	1504	1504	fill	pond	6.2
1506	1504	1504	fill	pond	6.2
1507	1504	1504	fill	pond	6.2
1508	1504	1504	fill	pond	6.2
1509	1509	0	cut	pit	5.1
1510	1509	0	fill	pit	5.1
1511	1511	0	cut	pit	5.1
1512	1511	0	fill	pit	5.1
1513	1513	0	cut	pit	5.1
1514	1513	0	fill	pit	5.1
1515	1515	1515	cut	ditch	6.2
1516	1515	1515	fill	ditch	6.2
1517	1517	1517	cut	ditch	6.3
1518	1517	1517	fill	ditch	6.3
1519	0	0	fill	drain	6.3
1520	1520	0	cut	pit	5.1
1521	1520	0	fill	pit	5.1
1522	1522	0	cut	tree bole	7

Context	Cut	Master Number	Category	Feature Type	Phase
1523	1522	0	fill	tree bole	7
1524	1524	0	cut	pit	5.1
1525	1524	0	fill	pit	5.1
1526	1526	1504	cut	pond	6.2
1527	1526	1504	fill	pond	6.2
1528	1526	1504	fill	pond	6.2
1529	1529	1529	cut	ditch	5.1
1530	1529	1529	fill	ditch	5.1
1531	1529	1529	fill	ditch	5.1
1532	1529	1529	fill	ditch	5.1
1533	1529	1529	fill	ditch	5.1
1534	1529	1529	fill	ditch	5.1
1535	1535	1535	cut	ditch	5.1
1536	1535	1535	fill	ditch	5.1
1537	1537	1537	cut	ditch	5.1
1538	1537	1537	fill	ditch	5.1
1539	1539	1539	cut	gully	5.1
1540	1539	1539	fill	gully	5.1
1541	1541	1541	cut	post hole	6.1
1542	1541	1541	fill	post hole	6.1
1543	1543	1541	cut	post hole	6.1
1544	1543	1541	fill	post hole	6.1
1545	1545	1541	cut	post hole	6.1
1546	1545	1541	fill	post hole	6.1
1547	1547	1541	cut	post hole	6.1
1548	1547	1541	fill	post hole	6.1
1549		0	VOID		0
1550		0	VOID		0
1551	1551	1541	cut	post hole	6.1
1552	1551	1541	fill	post hole	6.1
1553	1553	1541	cut	post hole	6.1
1554	1553	1541	fill	post hole	6.1
1555	1555	1541	cut	post hole	6.1
1556	1555	1541	fill	post hole	6.1
1557	1558	1558	fill	post hole	5.1
1558	1558	1558	cut	post hole	5.1
1559	1559	0	cut	pit	6.2
1560	1559	0	fill	pit	6.2
1561	1561	0	cut	pit	6.2
1562	1561	0	fill	pit	6.2
1563	1563	0	cut	pit	5.1
1564	1563	0	fill	pit	5.1
1565	1565	0	cut	pit	5.1
1566	1565	0	fill	pit	5.1
1567	1567	0	cut	pit	6.1

Context	Cut	Master Number	Category	Feature Type	Phase
1568	1567	0	fill	pit	6.1
1569	1569	0	cut	ditch	0
1570	1569	0	fill	ditch	0
1571	1569	0	fill	ditch	0
1572	1572	0	cut	ditch	0
1573	1572	0	fill	ditch	0
1574	1558	0	fill	post hole	5.1
1575	1558	0	fill	post hole	5.1
1576	1577	1558	fill	post hole	5.1
1577	1577	1558	cut	post hole	5.1
1578	1580	0	fill	pit	5.1
1579	1580	0	fill	pit	5.1
1580	1580	0	cut	pit	5.1
1581	1582	0	fill	pit	5.1
1582	1582	0	cut	pit	5.1
1583	1583	1539	cut	ditch	5.1
1584	1583	1539	fill	ditch	5.1
1585	1585	1529	cut	ditch	5.1
1586	1585	1529	fill	ditch	5.1
1587	1585	1529	fill	ditch	5.1
1588	1585	1529	fill	ditch	5.1
1589	1729	1504	fill	pond	6.1
1590	1729	1504	fill	pond	6.1
1591	1729	1504	fill	pond	6.1
1592	1593	0	fill	ditch	5.1
1593	1593	0	cut	ditch	5.1
1594	1594	1594	cut	ditch	5.1
1595	1594	1594	fill	ditch	5.1
1596	1585	0	fill	ditch	5.1
1597	1597	1535	cut	ditch	5.1
1598	1597	1535	fill	ditch	5.1
1599	1597	1535	fill	ditch	5.1
1600	1597	1535	fill	ditch	5.1
1601	1601	1537	cut	ditch	5.1
1602	1601	1537	fill	ditch	5.1
1603	1601	1537	fill	ditch	5.1
1604	1601	1537	fill	ditch	5.1
1605	1605	0	cut	ditch	5.1
1606	1605	0	fill	ditch	5.1
1607	1605	0	fill	ditch	5.1
1608	0	0	VOID		0
1609	0	1608	layer	structure	5.1
1610	0	1608	layer	floor	5.1
1611	1611	0	cut	pit	5.1
1612	1611	0	fill	pit	5.1

Context	Cut	Master Number	Category	Feature Type	Phase
1613	1611	0	fill	pit	5.1
1614	0	0	VOID		0
1615	1615	1517	cut	ditch	6.3
1616	1615	1517	fill	ditch	6.3
1617	1615	1517	fill	ditch	6.3
1618	1618	1515	cut	ditch	6.2
1619	1618	1515	fill	ditch	6.2
1620	1618	1515	fill	ditch	6.2
1621	0	1608	layer	cleaning layer	5.1
1622	0	1608	layer	cleaning layer	5.1
1623	1623	0	cut	beam slot	5.2
1624	1623	0	fill	beam slot	5.2
1625	1625	1625	cut	beam slot	5.1
1626	1625	1625	fill	beamslot	5.1
1627	1627	1625	cut	beam slot	5.1
1628	1627	1625	fill	beam slot	5.1
1629	1629	1625	cut	post hole	5.1
1630	1629	1625	fill	post hole	5.1
1631	1631	1625	cut	pit	5.1
1632	1631	1625	fill	pit	5.1
1633	1633	1625	cut	post hole	5.1
1634	1633	1625	fill	post hole	5.1
1635	1635	1682	cut	post hole	6.3
1636	1635	1682	fill	post hole	6.3
1637	1637	1625	cut	post hole	5.1
1638	1637	1625	fill	post hole	5.1
1639	1639	1625	cut	post hole	5.1
1640	1639	1625	fill	post hole	5.1
1641	1641	1682	cut	post hole	6.3
1642	1641	1682	fill	post hole	6.3
1643	1643	1682	cut	post hole	6.3
1644	1643	1682	fill	post hole	6.3
1645	1645	1645	cut	ditch	0
1646	1645	1645	fill	ditch	0
1647	1647	1647	cut	ditch	0
1648	1647	1647	fill	ditch	0
1649	1649	1625	cut	beam slot	5.1
1650	1649	1625	fill	beam slot	5.1
1651	1652	0	fill	ditch	6.2
1652	1652	0	cut	ditch	6.2
1653	1655	0	fill	pit	6.1
1654	1655	0	fill	pit	6.1
1655	1655	0	cut	pit	6.1
1656	0	0	layer	dump deposit	5.1
1657	1657	0	cut	tank	6.2

Context	Cut	Master Number	Category	Feature Type	Phase
1658	1657	0	fill	tank	6.2
1659	1659	1645	cut	ditch	0
1660	1659	1645	fill	ditch	0
1661	1661	1647	cut	ditch	0
1662	1661	1647	fill	ditch	0
1663	0	0	layer	dump	5.1
1664	1664	1594	cut	ditch	5.1
1665	1664	1594	fill	ditch	5.1
1666	1666	1682	cut	post hole	6.2
1667	1666	1682	fill	post hole	6.2
1668	1668	1682	cut	post hole	6.2
1669	1668	1682	fill	post hole	6.2
1670	1670	1682	cut	post hole	6.3
1671	1670	1682	fill	post hole	6.3
1672	1672	1682	cut	post hole	6.3
1673	1672	1682	fill	post hole	6.3
1674	1674	1682	cut	post hole	6.3
1675	1674	1682	fill	post hole	6.3
1676	1676	1682	cut	post hole	6.3
1677	1676	1682	fill	post hole	6.3
1678	1678	1682	cut	post hole	6.3
1679	1678	1682	fill	post hole	6.3
1680	1680	1682	cut	post hole	6.3
1681	1680	1682	fill	post hole	6.3
1682	0	1682			6.3
1683	1683	0	cut	beam slot	5.2
1684	1683	0	fill	beam slot	5.2
1685	1685	0	cut	pit	5.1
1686	1685	0	fill	pit	5.1
1687	1687	0	cut	pit	5.1
1688	1687	0	fill	pit	5.1
1689	1689	0	cut	pit	5.1
1690	1689	0	fill	pit	5.1
1691	1691	1682	cut	pit	6.3
1692	1691	1682	fill	pit	6.3
1693	1693	0	cut	ditch	5.1
1694	1693	0	fill	ditch	5.1
1695	1693	0	fill	ditch	5.1
1696	0	1609	layer	dump deposit	5.1
1697	1697	1558	cut	post hole	5.1
1698	1697	1558	fill	post hole	5.1
1699	0	1609	layer	dump deposit	5.1
1700	0	1609	layer	dump deposit	5.1
1701	1701	1558	cut	post hole	5.1
1702	1701	1558	fill	post hole	5.1

Context	Cut	Master Number	Category	Feature Type	Phase
1703	1703	1558	cut	tree bole	5.1
1704	1703	1558	fill	tree bole	5.1
1705	1706	1558	fill	post hole	5.1
1706	1706	1558	cut	post hole	5.1
1707	1708	1541	fill	post hole	6.1
1708	1708	1541	cut	post hole	6.1
1709	1709	0	cut	tree bole	7
1710	1709	0	fill	tree bole	7
1711	1711	1558	cut	post hole	5.1
1712	1711	1558	fill	post hole	5.1
1713	1713	1558	cut	pit	5.1
1714	1713	1558	fill	pit	5.1
1715	1716	0	fill	pit	6.2
1716	1716	0	cut	pit	6.2
1717	1517	1517	fill	ditch	6.3
1718	1718	0	cut	ditch	5.1
1719	1718	0	fill	ditch	5,.1
1720	1720	0	cut	ditch	5.1
1721	1720	0	fill	ditch	5.1
1722	1722	0	VOID		0
1723	1722	0	layer	slot	5.1
1724	1724	1558	cut	post hole/ pit	5.1
1725	1724	1558	fill	post hole/ pit	5.1
1726	1726	0	cut	pit	5.1
1727	1726	0	fill	pit	5.1
1728	1526	1504	layer	slot	6.2
2500	2500	0	cut	pit	2.2
2501	2500	0	fill	cremation	2.2
2502	2500	0	fill	cremation	2.2
2503	0	0	finds unit	topsoil	
2504	0	2537	layer		2.1
2505	0	2537	layer		2.1
2506	0	2587	layer		2.1
2507	0	2537	layer		2.1
2508	0	2587	layer		2.1
2509	0	2537	layer		2.1
2510	0	2587	layer		2.1
2511	0	2537	layer		2.1
2512	0	2587	layer		2.1
2513	0	2537	layer		2.1
2514	0	2587	layer		2.1
2515	0	2537	layer		2.1
2516	0	0			
2518	2518	2518	cut	ditch	3.4
2519	2518	2518	fill	ditch	3.4

Context	Cut	Master Number	Category	Feature Type	Phase
2520	2521	2518	fill	ditch	3.4
2521	2521	2518	cut	ditch	3.4
2522	0	0	layer	subsoil	0
2523	2523	2536	cut	ditch	2.1
2524	2523	2536	fill	ditch	2.1
2525	2523	2536	fill	ditch	2.1
2526	2523	2536	fill	ditch	2.1
2527	2523	2536	fill	ditch	2.1
2528	2528	2536	cut	ditch	2.1
2529	2528	2536	fill	ditch	2.1
2530	2528	2536	fill	ditch	2.1
2531	2528	2536	fill	ditch	2.1
2532	2528	2536	fill	ditch	2.1
2533	2534	0	fill	post hole	2.1
2534	2534	0	cut	post hole	2.1
2535	0	2537	layer		2.1
2536	0	2536	master no	barrow	2.1
2537	0	2537	master no	layer	2.1
2538	0	2537	layer		2.1
2539	2540	0	fill	tree throw	7
2540	2540	0	cut	tree throw	7
2541	0	2537	layer		2.1
2542	0	2537	layer		2.1
2543	0	2537	layer		2.1
2544	0	2537	layer		2.1
2545	0	2537	layer		2.1
2546	0	2537	layer		2.1
2547	0	2537	layer		2.1
2548	0	2587	layer		2.1
2549	0	2537	layer		2.1
2550	0	2587	layer		2.1
2551	0	2537	layer		2.1
2552	0	2587	layer		2.1
2553	0	2537	layer		2.1
2554	2554	0	cut	tree bole	7
2555	2554	0	fill	tree bole	7
2556	2556	0	cut	tree bole	7
2557	2556	0	fill	tree bole	7
2558	2561	0	fill	tree throw	7
2559	2561	0	fill	three throw	7
2560	2561	0	fill	tree throw	7
2561	2561	0	cut	tree throw	7
2562	2563	0	fill	tree throw	7
2563	2563	0	cut	tree throw	7
2564	2565	0	fill	tree throw	7

Context	Cut	Master Number	Category	Feature Type	Phase
2565	2565	0	cut	tree throw	7
2566	2567	0	fill	tree throw	7
2567	2567	0	cut	tree throw	7
2568	2568	0	cut	tree bole	7
2569	2568	0	fill	tree bole	7
2570	0	2587	layer		2.1
2571	0	2537	layer		2.1
2572	0	2587	layer		2.1
2573	0	2537	layer		2.1
2574	0	2537	layer		2.1
2575	0	2537	layer		2.1
2576	0	2537	layer		2.1
2577	2578	0	fill	cremation	2.2
2578	2578	0	cut	cremation	2.2
2579	2578	0	fill	cremation	2.2
2580	2580	0	cut	pit	0
2581	2580	0	fill	pit	0
2582	2585	0	fill	pit	2.2
2583	2585	0	fill	pit	2.2
2584	2585	0	fill	pit	2.2
2585	2585	0	cut	pit	2.2
2586	0	2587	layer		2.1
2587	0	0	master no	layer	2587
2588	2588	2536	cut	barrow ditch	2.1
2589	2588	2536	fill	barrow ditch	2.1
2590	2588	2536	fill	barrow ditch	2.1
2591	2588	2536	fill	barrow ditch	2.1
2592	2593	0	fill	pit	0
2593	2593	0	cut	pit	0
2594	2595	0	fill	pit	0
2595	2595	0	cut	pit	0
2596	2598	0	fill	cremation	2.1
2597	2598	0	fill	cremation	2.1
2598	2598	0	cut	pit	2.1
2599	2598	0	fill	cremation	2.1
2600	2600	0	cut	natural	7
2601	2600	0	fill	natural	7
2602	2600	0	fill	natural	7
2603	2600	0	fill	natural	7
2604	2600	0	fill	natural	7
2605	2606	0	fill	pit	6.2
2606	2606	0	cut	pit	6.2
2607	2611	2536	fill	ditch	2.1
2608	2611	2536	fill	ditch	2.1
2609	2611	2536	fill	ditch	2.1

Context	Cut	Master Number	Category	Feature Type	Phase
2610	2611	2536	fill	ditch	2.1
2611	2611	2536	cut	ditch	2.1
2612	2613	0	fill	natural	7
2613	2613	0	cut	natural	7
2614	2615	0	fill	cremation	2.1
2615	2615	0	cut	cremation	2.1
2616	2617	0	fill	natural	7
2617	2617	0	cut	natural	7
2618	2618	0	cut	natural	7
2619	2618	0	fill	natural	7
2620	2621	0	fill	cremation	2.2
2621	2621	0	cut	pit	2.2
2622	2622	2536	cut	barrow ditch	2.1
2623	2622	2536	fill	barrow ditch	2.1
2624	2622	2536	fill	barrow ditch	2.1
2625	2622	2536	fill	barrow ditch	2.1
2626	2622	2536	fill	barrow ditch	2.1
2627	2622	2536	fill	barrow ditch	2.1
2628	2611	2536	fill	ditch	2.1
2629	2630	0	fill	natural	7
2630	2630	0	cut	natural	7
2631	2631	0	cut	natural	7
2632	2631	0	fill	natural	7
2633	2633	0	cut	natural	7
2634	2633	0	fill	natural	7
2635	2636	0	fill	cremation	2.2
2636	2636	0	cut	cremation	2.2
2637	2639	0	fill	cremation	2.2
2638	2639	0	fill	cremation	2.2
2639	2639	0	cut	cremation pit	2.2
2640	2640	0	cut	natural	7
2641	2640	0	fill	natural	7
2642	2643	0	fill	natural	7
2643	2643	0	cut	natural	7
2644	2645	0	fill	natural	7
2645	2645	0	cut	natural	7
2646	2646	0	cut	natural	7
2647	2646	0	fill	natural	7
2648	0	0	layer	topsoil	0
2649	2652	0	fill	pit	0
2650	2652	0	fill	pit	0
2651	2652	0	fill	pit	0
2652	2652	0	cut	pit	0
2653	2654	0	fill	ditch	3.4
2654	2654	0	cut	ditch	3.4

Context	Cut	Master Number	Category	Feature Type	Phase
2655	0	0	VOID		0
2656	2662	0	fill	secondary	2.1
2657	2658	0	fill	post hole	2.2
2658	2658	0	cut	post hole	2.2
2659	2662	0	fill	natural	2.1
2660	2662	0	fill	natural	2.1
2661	2662	0	fill	natural	2.1
2662	2662	0	cut	natural	2.1
2663	2666	0	fill	natural	7
2664	2666	0	fill	natural	7
2665	2666	0	fill	natural	7
2666	2666	0	cut	natural	7
2667	2621	0	spit	cremation	2.2
3501	0	0	finds unit		0
3502	3504	0	fill	pit	0
3503	3504	0	fill	pit	0
3504	3504	0	cut	pit	0
3505	3505	3505	cut	ditch	6.2
3506	3505	3505	fill	ditch	6.2
3507	3507	3505	cut	ditch	6.2
3508	3507	3505	fill	ditch	6.2
3509	3509	0	cut	tree throw	7
3510	3509	0	fill	tree throw	7
3511	3511	0	cut	post hole	4
3512	3511	0	fill	post hole	4
3513	3513	3513	cut	ditch	0
3514	3513	3513	fill	ditch	0
3515	3515	3513	cut	ditch	0
3516	3515	3513	fill	ditch	0
3517	3518	3513	fill	ditch	0
3518	3518	3513	fill	ditch	0
3519	3520	3520	fill	post hole	4
3520	3520	3520	cut	post hole	4
3521	3522	3520	fill	post hole	4
3522	3522	3520	cut	post hole	4
3523	3524	3520	fill	post hole	4
3524	3524	3520	cut	post hole	4
3525	3526	3520	fill	post hole	4
3526	3526	3520	cut	post hole	4
3527	3528	3520	fill	post hole	4
3528	3528	3520	cut	post hole	4
3529	3530	0	fill	tree throw	7
3530	3530	0	cut	tree throw	7
3531	3531	0	cut	post hole?	4
3532	3531	0	fill	post hole?	4

Context	Cut	Master Number	Category	Feature Type	Phase
3533	3533	0	cut	post hole	4
3534	3533	0	fill	post hole	4
3535	3535	0	cut	post hole	4
3536	3535	0	fill	post hole	4
3537	3537	0	cut	post hole?	4
3538	3537	0	fill	post hole?	4
3539	3539	0	cut	tree throw	7
3540	3539	0	fill	tree throw	7
3541	3541	0	cut	tree throw	7
3542	3541	0	fill	tree throw	7
3543	3544	0	fill	pit	0
3544	3544	0	cut	pit	0
3545	3546	3546	fill	post hole?	4
3546	3546	3546	cut	post hole	4
3547	3548	3546	fill	post hole	4
3548	3548	3546	cut	post hole	4
3549	3550	3546	fill	post hole	4
3550	3550	3546	cut	post hole	4
3551	3552	3546	fill	post hole	4
3552	3552	3546	cut	post hole	4
3553	3554	3546	fill	post hole	4
3554	3554	3546	cut	post hole	4
3555	3556	3546	fill	post hole	4
3556	3556	3546	cut	post hole	4
3557	3558	3546	fill	post hole?	4
3558	3558	3546	cut	post hole?	4
3559	0	0	finds unit	topsoil middle of area E	0
3560	3561	0	fill	pit	0
3561	3561	0	cut	pit	0
3562	3563	0	fill	pit	0
3563	3563	0	cut	pit	0
3564	3565	0	fill	pit	7
3565	3565	0	cut	tree throw	7
3566	3567	0	fill	tree throw	7
3567	3567	0	cut	tree throw	7
3568	3569	0	fill	tree throw	7
3569	3569	0	cut	tree throw	7
3570	3571	0	fill	tree throw	7
3571	3571	0	cut	tree throw	7
3572	3573	0	fill	tree throw	7
3573	3573	0	cut	tree throw	7
3574	3575	0	fill	tree throw	7
3575	3575	0	cut	tree throw	7
3577	3578	3546	fill	post hole	4
3578	3578	3546	cut	post hole	4

Context	Cut	Master Number	Category	Feature Type	Phase
3579	3579	0	cut	tree throw	7
3580	3579	0	fill	tree throw	7
3581	3581	0	cut	tree throw	1.2
3582	3581	0	fill	tree throw	1.2
3583	3583	0	cut	pit	0
3584	3583	0	fill	pit	0
3585	3583	0	fill	pit	0
3586	3587	0	fill	pit	2.3
3587	3587	0	cut	pit	2.3
3588	3589	0	fill	post hole?	0
3589	3589	0	cut	pit	0
3591	3592	0	fill	tree throw	7
3592	3592	0	cut	tree throw	7
3593	3594	0	fill	tree throw	7
3594	3594	0	cut	tree throw	7
3595	3587	0	fill	pit	2.3
3596	0	0	VOID		0
3597	3597	3546	cut	post hole	4
3598	3597	3546	fill	post hole	4
3599	3599	3546	cut	post hole	4
3600	3599	3546	fill	post hole	4
3601	3602	0	fill	tree throw	3.1
3602	3602	0	cut	tree throw	3.1
3603	3603	0	cut	post hole?	4
3604	3603	0	fill	post hole	4
3605	3606	0	fill	tree throw	7
3606	3606	0	cut	tree throw	7
3607	3607	0	cut	tree throw	7
3608	3607	0	fill	tree throw	7
3609	3610	0	fill	pit?	3.1
3610	3610	0	cut	pit?	3.1
3611	3612	0	fill	tree throw	7
3612	3612	0	cut	tree throw	7
3613	3614	0	fill	tree throw	7
3614	3614	0	cut	tree throw	7
3615	3616	0	fill	pit	0
3616	3616	0	cut	pit	0
3617	3617	0	cut	pit	0
3618	3617	0	fill	pit	0
3619	3619	0	cut	pit	0
3620	3619	0	fill	pit	0
3621	3622	0	fill	pit	1.3
3622	3622	0	cut	pit	1.3
3623	3624	0	fill	tree throw	7
3624	3624	0	cut	tree throw	7

Context	Cut	Master Number	Category	Feature Type	Phase
3625	3625	0	cut	tree throw	7
3626	3625	0	fill	tree throw	7
3627	3628	3955	fill	pit	4
3628	3628	3955	cut	pit	4
3629	3630	3955	fill	pit	4
3630	3630	3955	cut	pit	4
3631	3632	3955	fill	post hole	4
3632	3632	3955	cut	post hole	4
3633	3634	3955	fill	post hole	4
3634	3634	3955	cut	post hole	4
3635	3652	0	fill	pit	1.3
3636		0	VOID		0
3637	3638	3638	fill	ditch	6.2
3638	3638	3638	cut	ditch	6.2
3639	3639	3827	cut	post hole	4
3640	3639	3827	fill	post hole	4
3641	3641	3827	cut	post hole	4
3642	3641	3827	fill	post hole	4
3643	3643	3643	cut	post hole	4
3644	3643	3643	fill	post hole	4
3645	3646	0	fill	tree throw	7
3646	3646	0	cut	tree throw	7
3647	3648	0	fill	post hole	4
3648	3648	0	cut	post hole	4
3649	3650	4050	fill	post hole	4
3650	3650	4050	cut	post hole	4
3651	3652	0	fill	pit	1.3
3652	3652	0	cut	pit	1.3
3653	3654	3643	fill	post hole	4
3654	3654	3643	cut	post hole	4
3655	3656	0	fill	tree throw	7
3656	3656	0	cut	tree throw	7
3657	3657	0	cut	tree throw	7
3658	3657	0	fill	tree throw	7
3659	3660	0	fill	natural	1.3
3660	3660	0	cut	natural	1.3
3661	3662	0	fill	tree throw	7
3662	3662	0	cut	tree throw	7
3663	3664	0	fill	tree throw	7
3664	3664	0	cut	tree throw	7
3665	3665	0	cut	pit	1.2
3666	3665	0	fill	pit	1.2
3667	3668	0	fill	tree throw	7
3668	3668	0	cut	tree throw	7
3669	3670	0	fill	tree throw	7

Context	Cut	Master Number	Category	Feature Type	Phase
3670	3670	0	cut	tree throw	7
3671	3672	0	fill	tree throw	7
3672	3672	0	cut	tree throw	7
3673	3672	0	fill	tree throw	7
3674	0	0	VOID		0
3675	3675	0	cut	pit	0
3676	3675	0	fill	pit	0
3677	3679	3679	fill	trackway?	4
3678	3679	3679	fill	trackway?	4
3679	3679	3679	cut	trackway?	4
3680	0	0	VOID		0
3681	0	0	VOID		0
3682	3683	0	fill	pit	1.1?
3683	3683	0	cut	pit	1.1?
3684	3684	3684	cut	ditch	4
3685	3684	3684	fill	ditch	4
3686	3686	4000	cut	post hole	4
3687	3686	4000	fill	post hole	4
3688	3688	4000	cut	post hole	4
3689	3688	4000	fill	post hole	4
3690	3690	4000	cut	post hole?	4
3691	3690	4000	fill	post hole?	4
3692	3692	4000	cut	post hole	4
3693	3692	4000	fill	post hole	4
3694	3694	3952	cut	post hole	4
3695	3694	3952	fill	post hole	4
3696	3696	3952	cut	post hole	4
3697	3696	3952	fill	post hole	4
3698	3698	3952	cut	post hole	4
3699	3698	3952	fill	post hole	4
3700	3700	3952	cut	post hole	4
3701	3700	3952	fill	post hole	4
3702	3702	3952	cut	post hole	4
3703	3702	3952	fill	post hole	4
3704	3704	0	cut	tree bole	7
3705	3704	0	fill	tree bole	7
3706	3706	3706	cut	post hole	4
3707	3706	3706	fill	post hole	4
3708	3708	3706	cut	post hole	4
3709	3708	3706	fill	post hole	4
3710	3710	3706	cut	post hole	4
3711	3710	3706	fill	post hole	4
3712	3712	3706	cut	post hole	4
3713	3712	3706	fill	post hole	4
3714	3714	3714	cut	post hole	4

Context	Cut	Master Number	Category	Feature Type	Phase
3715	3714	3714	fill	post hole	4
3716	3716	3714	cut	post hole	4
3717	3716	3714	fill	post hole	4
3718	3718	3714	cut	post hole	4
3719	3718	3714	fill	post hole	4
3720	3720	3714	cut	post hole	4
3721	3720	3714	fill	post hole	4
3722	3722	3714	cut	post hole	4
3723	3722	3714	fill	post hole	4
3724	3724	0	cut	post hole	4
3725	3724	0	fill	post hole	4
3726	3726	0	cut	post hole	4
3727	3726	0	fill	post hole	4
3728	3728	0	cut	post hole	4
3729	3728	0	fill	post hole	4
3730	3730	0	cut	post hole	4
3731	3730	0	fill	post hole	4
3732	3732	0	cut	post hole	4
3733	3732	0	fill	post hole	4
3734	3734	0	cut	posthole	4
3735	3734	0	fill	post hole	4
3736	3736	0	cut	post hole	4
3737	3736	0	fill	Posthole	4
3738	3738	0	cut	posthole	4
3739	3738	0	fill	posthole	4
3740	3740	0	cut	post hole	4
3741	3740	0	fill	post hole	4
3742	3742	0	cut	natural	7
3743	3742	0	fill	natural	7
3744	3745	3684	fill	ditch	4
3745	3745	3684	cut	ditch	4
3746	3747	3679	fill	trackway	4
3747	3747	3679	cut	trackway	4
3748	3749	0	fill	post hole	4
3749	3749	0	cut	post hole	4
3750	3750	3952	cut	post hole	4
3751	3750	3952	fill	post hole	4
3752	3752	0	cut	natural	7
3753	3752	0	cut	natural	7
3754	3754	0	cut	natural	7
3755	3754	0	fill	natural	7
3756	3756	0	cut	pit	1.3
3757	3756	0	fill	pit	1.3
3758	3761	0	fill	cremation	1.1
3759	3761	0	fill	cremation	1.1

Context	Cut	Master Number	Category	Feature Type	Phase
3760	3761	0	fill	cremation	1.1
3761	3761	0	cut	cremation	1.1
3762	3763	0	fill	natural	7
3763	3763	0	cut	natural	7
3764	3764	0	cut	pit	4
3765	3764	0	fill	pit	4
3766	3767	0	fill	pit	0
3767	3767	0	cut	pit	0
3768	3769	0	fill	post hole	0
3769	3769	0	cut	post hole	0
3770	3770	0	cut	tree throw	7
3771	3770	0	fill	tree throw	7
3772	3772	0	cut	cremation	2.2
3773	3772	0	fill	cremation	2.2
3774	3774	3774	cut	Posthole	4
3775	3774	3774	fill	post hole	4
3776	3776	3774	cut	post hole	4
3777	3776	3774	fill	post hole	4
3778	3778	3774	cut	post hole	4
3779	3778	3774	fill	post hole	4
3780	3780	3774	cut	post hole	4
3781	3780	3774	fill	post hole	4
3782	3782	3774	cut	post hole	4
3783	3782	3774	fill	post hole	4
3784	3787	3787	fill	ditch	6.2
3785	3787	3787	fill	ditch	6.2
3786	3787	3787	fill	ditch	6.2
3787	3787	3787	cut	ditch	6.2
3788	3791	3791	fill	ditch	6.2
3789	3791	3791	fill	ditch	6.2
3790	3791	3791	fill	ditch	6.2
3791	3791	3791	cut	ditch	6.2
3792	3792	0	cut	post hole	4
3793	3792	0	fill	posthole	4
3794	3794	0	cut	tree throw	7
3795	3794	0	fill	tree throw	7
3796	3796	0	cut	tree throw	7
3797	3796	0	fill	tree throw	7
3798	3798	3798	cut	sfb	4
3799	3798	3798	fill	sfb	4
3800	3800	0	cut	post hole	4
3801	3800	0	fill	post hole	4
3802	3802	0	cut	post hole	0
3803	3802	0	fill	post hole	0
3804	3804	0	cut	post hole	0

Context	Cut	Master Number	Category	Feature Type	Phase
3805	3804	0	fill	post hole	0
3806	3806	3806	cut	post hole	4
3807	3806	3806	fill	post hole	4
3808	3808	3806	cut	post hole	4
3809	3808	3806	fill	post hole	4
3810	3810	3806	cut	post hole	4
3811	3810	3806	fill	post hole	4
3812	3812	0	cut	tree throw	7
3813	3812	0	fill	tree throw	7
3814	3812	0	fill	tree throw	7
3815	3815	3806	cut	post hole	4
3816	3815	3806	fill	post hole	4
3817	3817	3806	cut	post hole	4
3818	3817	3806	fill	post hole	4
3819	3819	3806	cut	post hole	4
3820	3819	3806	fill	post hole	4
3821	3821	3806	cut	post hole	4
3822	3821	3806	fill	post hole	4
3823	3823	3806	cut	post hole	4
3824	3823	3806	fill	post hole	4
3825	3825	3806	cut	post hole	4
3826	3825	3806	fill	post hole	4
3827	0	3827	master number	Hall	4
3828	3828	3806	cut	post hole	4
3829	3828	3806	fill	post hole	4
3830	3830	3806	cut	post hole	4
3831	3830	3806	fill	post hole	4
3832	3832	3806	cut	post hole	4
3833	3832	3806	fill	post hole	4
3834	3834	3806	cut	post hole	4
3835	3835	3806	fill	post hole	4
3836	3836	3806	cut	post hole	4
3837	3836	3806	fill	post hole	4
3838	3838	3806	cut	post hole	4
3839	3838	3806	fill	post hole	4
3840	3840	3806	cut	post hole	4
3841	3840	3806	fill	post hole	4
3842	3842	3806	cut	post hole	4
3843	3842	3806	fill	post hole	4
3844	3844	3806	cut	post hole	4
3845	3845	3806	fill	Posthole	4
3846	3846	3806	cut	posthole	4
3847	3846	3806	fill	post hole	4
3848	3848	3806	cut	Posthole	4

Context	Cut	Master Number	Category	Feature Type	Phase
3849	3848	3806	fill	posthole	4
3850	3850	3806	cut	pit	4
3851	3850	3806	fill	pit	4
3852	3852	3806	cut	tree root	4
3853	3852	3806	fill	tree root	4
3854	3855	3827	fill	post hole	4
3855	3855	3827	cut	post hole	4
3856	3857	3827	fill	post hole	4
3857	3857	3827	cut	post hole	4
3858	3859	3827	fill	post hole	4
3859	3859	3827	cut	post hole	4
3860	3861	3827	fill	post hole	4
3861	3861	3827	cut	post hole	4
3862	3863	3827	fill	post hole	4
3863	3863	3827	cut	post hole	4
3864	3865	3827	fill	post hole	4
3865	3865	3827	cut	post hole	4
3866	3867	3827	fill	post hole	4
3867	3867	3827	cut	post hole	4
3868	3869	3827	fill	post hole	4
3869	3869	3827	cut	post hole	4
3870	3871	3827	fill	post hole	4
3871	3871	3827	cut	post hole	4
3872	3873	3827	fill	post hole	4
3873	3873	3827	cut	post hole	4
3874	3875	3827	fill	post hole	4
3875	3875	3827	cut	post hole	4
3876	3877	3827	fill	post hole	4
3877	3877	3827	cut	post hole	4
3878	3879	3827	fill	post hole	4
3879	3879	3827	cut	post hole	4
3880	3881	3827	fill	post hole	4
3881	3881	3827	cut	post hole	4
3882	3883	3827	fill	post hole	4
3883	3883	3827	cut	post hole	4
3884	3885	3827	fill	post hole	4
3885	3885	3827	cut	post hole	4
3886	3887	3827	fill	post hole	4
3887	3887	3827	cut	post hole	4
3888	3889	3827	fill	post hole	4
3889	3889	3827	cut	post hole	4
3890	3891	3827	fill	post hole	4
3891	3891	3827	cut	post hole	4
3892	0	0	VOID		0
3893	0	0	VOID		0

Context	Cut	Master Number	Category	Feature Type	Phase
3894	3895	3827	fill	post hole	4
3895	3895	3827	cut	post hole	4
3896	3897	3827	fill	post hole	4
3897	3897	3827	cut	post hole	4
3898	3899	3827	fill	post hole	4
3899	3899	3827	cut	post hole	4
3900	3901	3827	fill	post hole	4
3901	3901	3827	cut	post hole	4
3902	3903	3827	fill	post hole	4
3903	3903	3827	cut	post hole	4
3904	3798	3798	fill	sfb	4
3905	3906	3798	fill	post hole	4
3906	3906	3798	cut	post hole	4
3907	3908	3827	fill	post hole	4
3908	3908	3827	cut	post hole	4
3909	3910	3827	fill	post hole	4
3910	3910	3827	cut	post hole	4
3912	3912	3952	cut	post hole	4
3913	3912	3952	fill	post hole	4
3914	3914	3952	cut	post hole	4
3915	3914	3952	fill	post hole	4
3916	3916	3952	cut	post hole	4
3917	3916	3952	fill	post hole	4
3918	3918	3952	cut	post hole	4
3919	3918	3952	fill	post hole	4
3920	3920	3952	cut	post hole	4
3921	3920	3952	fill	post hole	4
3922	3922	3952	cut	post hole	4
3923	3922	3952	fill	post hole	4
3924	3924	3952	cut	post hole	4
3925	3924	3952	fill	post hole	4
3926	3926	3952	cut	post hole	4
3927	3926	3952	fill	post hole	4
3928	3928	3952	cut	post hole	4
3929	3928	3952	fill	post hole	4
3930	3930	3952	cut	post hole	4
3931	3930	3952	fill	post hole	4
3932	0	0	VOID		0
3933	0	0	VOID		0
3934	3934	3952	cut	post hole	4
3935	3934	3952	fill	post hole	4
3936	3936	4000	cut	post hole	4
3937	3936	4000	fill	post hole	4
3938	3938	4000	cut	post hole	4
3939	3938	4000	fill	post hole	4

Context	Cut	Master Number	Category	Feature Type	Phase
3940	3940	4000	cut	post hole	4
3941	3940	4000	fill	post hole	4
3942	3942	4000	cut	post hole	4
3943	3942	4000	fill	post hole	4
3944	3944	4000	cut	post hole	4
3945	3944	4000	fill	post hole	4
3946	0	0	VOID		0
3947	0	0	VOID		0
3948	3948	4000	cut	post hole	4
3949	3948	4000	fill	post hole	4
3950	3950	0	cut	tree throw	7
3951	3950	0	fill	tree throw	7
3952	0	3952	Structure	Hall	4
3953	3953	0	cut	tree bole	7
3954	3953	0	fill	Tree bole	7
3955	0	3955	Master Number	Hall	4
3956	3956	3955	cut	post hole	4
3957	3956	3955	fill	post hole	4
3958	3958	3955	cut	post hole	4
3959	3958	3955	fill	post hole	4
3960	3960	3955	cut	post hole	4
3961	3960	3955	fill	post hole	4
3962	3962	3955	cut	post hole	4
3963	3962	3955	fill	post hole	4
3964	3964	3955	cut	post hole	4
3965	3964	3955	fill	post hole	4
3966	3966	3955	cut	post hole	4
3967	3966	3955	fill	post hole	4
3968	3968	3955	cut	post hole	4
3969	3968	3955	fill	post hole	4
3970	3970	3955	cut	post hole	4
3971	3970	3955	fill	post hole	4
3972	3972	3955	cut	post hole	4
3973	3972	3955	fill	post hole	4
3974	3974	3955	cut	post hole	4
3975	3974	3955	fill	post hole	4
3976	3976	3955	cut	post hole	4
3977	3976	3955	fill	post hole	4
3978	3978	3955	cut	post hole	4
3979	3978	3955	fill	post hole	4
3980	3980	3955	cut	post hole	4
3981	3980	3955	fill	post hole	4
3982	3982	3955	cut	post hole	4
3983	3982	3955	fill	post hole	4

Context	Cut	Master Number	Category	Feature Type	Phase
3984	3984	3955	cut	post hole	4
3985	3984	3955	fill	post hole	4
3986	3986	3955	cut	post hole	4
3987	3986	3955	fill	post hole	4
3988	3988	3955	cut	post hole	4
3989	3988	3955	fill	post hole	4
3990	3990	3955	cut	post hole	4
3991	3990	3955	fill	post hole	4
3992	3992	3955	cut	post hole	4
3993	3992	3955	fill	post hole	4
3994	3995	0	fill	pit	2.1
3995	3995	0	cut	pit	2.1
3996	3997	0	fill	pit	2.1
3997	3997	0	cut	pit	2.1
4000	0	4000			4
4001	4001	4000	cut	post hole	4
4002	4001	4000	fill	post hole	4
4003	4003	4000	cut	post hole	4
4004	4003	4000	fill	post hole	4
4005	4005	4000	cut	post hole	4
4006	4005	4000	fill	post hole	4
4007	4007	4000	cut	post hole	4
4008	4007	4000	fill	post hole	4
4009	4009	3952	cut	post hole	4
4010	4009	3952	fill	post hole	4
4011	3997		fill	pit	2.1
4012	4012		cut	post hole	4
4013	4012		fill	post hole	4
4014	4014	3643	cut	post hole	4
4015	4014	3643	fill	post hole	4
4016	4016	3643	cut	post hole	4
4017	4016	3643	fill	post hole	4
4018	4018	3643	cut	post hole	4
4019	4018	3643	fill	post hole	4
4020	4020	3643	cut	post hole	4
4021	4020	3643	fill	post hole	4
4022	4022	3643	cut	post hole	4
4023	4022	3643	fill	post hole	4
4024	4024	3643	cut	post hole	4
4025	4024	3643	fill	post hole	4
4026	4026	3643	cut	post hole	4
4027	4026	3643	fill	post hole	4
4028	4028	3643	cut	post hole	4
4029	4028	3643	fill	post hole	4
4030	4030	3643	cut	post hole	4

Context	Cut	Master Number	Category	Feature Type	Phase
4031	4030	3643	fill	post hole	4
4032	4032	3643	cut	post hole	4
4033	4032	3643	fill	post hole	4
4034	4034	3643	cut	post hole	4
4035	4034	3643	fill	post hole	4
4036	4036	3643	cut	post hole	4
4037	4036	3643	fill	post hole	4
4038	4038	4038	cut	post hole	4
4039	4038	4038	fill	post hole	4
4040	4040	4038	cut	post hole	4
4041	4040	4038	fill	post hole	4
4042	4042	4038	cut	post hole	4
4043	4042	4038	fill	post hole	4
4044	4044	4038	cut	post hole	4
4045	4044	4038	fill	post hole	4
4046	4046	4038	cut	post hole	4
4047	4046	4038	fill	post hole	4
4048	4048	0	cut	pit	4
4049	4048	0	fill	pit	4
4050	4050	4050	cut	post hole	4
4051	4050	4050	fill	post hole	4
4052	4052	4050	cut	post hole	4
4053	4052	4050	fill	post hole	4
4054	4054	4050	cut	post hole	4
4055	4054	4050	fill	post hole	4
4056	4056	4050	cut	post hole	4
4057	4056	4050	fill	post hole	4
4058	4058	4050	cut	post hole	4
4059	4058	4050	fill	post hole	4
4060	4060	4050	cut	post hole	4
4061	4060	4050	fill	post hole	4
4062	4062	4050	cut	post hole	4
4063	4062	4050	fill	post hole	4
4064	4064	4050	cut	post hole	4
4065	4064	4050	fill	post hole	4
4066	4066	4050	cut	post hole	4
4067	4066	4050	fill	post hole	4
4068	4068	4050	cut	post hole	4
4069	4068	4050	fill	post hole	4
4070	4070	0	cut	post hole	4
4071	4070	0	fill	post hole	4
4072	4072	0	cut	post hole	4
4073	4072	0	fill	post hole	4
4074	4075	4075	fill	post hole	4
4075	4075	4075	cut	post hole	4

Context	Cut	Master Number	Category	Feature Type	Phase
4076	4077	4075	fill	post hole	4
4077	4077	4075	cut	post hole	4
4078	4079	4075	fill	post hole	4
4079	4079	4075	cut	post hole	4
4080	4081	4075	fill	post hole	4
4081	4081	4075	cut	post hole	4
4082	4083	4075	fill	post hole	4
4083	4083	4075	cut	post hole	4
4084	4085	4075	fill	post hole	4
4085	4085	4075	cut	post hole	4
4086	4087	4075	fill	post hole	4
4087	4087	4075	cut	post hole	4
4088	4089	4075	fill	post hole	4
4089	4089	4075	cut	post hole	4
4090	4091	4075	fill	post hole	4
4091	4091	4075	cut	post hole	4
4092	4093	4075	fill	post hole	4
4093	4093	4075	cut	post hole	4
4094	4095	4075	fill	post hole	4
4095	4095	4075	cut	post hole	4
4096	4097	4075	fill	post hole	4
4097	4097	4075	cut	post hole	4
4098	4099	4075	fill	post hole	4
4099	4099	4075	cut	post hole	4
4100	4101	4075	fill	post hole	4
4101	4101	4075	cut	post hole	4
4102	4103	4075	fill	post hole	4
4103	4103	4075	cut	post hole	4
4104	4105	4075	fill	post hole	4
4105	4105	4075	cut	oi	4
4107	4109	0	fill	pit	4
4108	4109	0	fill	pit	4
4109	4109	0	cut	pit	4
4110	4110	0	cut	post hole	4
4111	4110	0	fill	post hole	4
4112	4112	0	cut	post hole	4
4113	4112	0	fill	post hole	4
4114	4114	0	cut	post hole	4
4115	4114	0	fill	post hole	4
4116	4116	3955	cut	post hole	4
4117	4116	3955	fill	post hole	4
4118	4118	3955	cut	post hole	4
4119	4118	3955	fill	post hole	4
4120	0	4120	master number		4

Context	Cut	Master Number	Category	Feature Type	Phase
4121	4122	4075	fill	post hole	4
4122	4122	4075	cut	post hole	4
4123	4124	4075	fill	post hole	4
4124	4124	4075	cut	post hole	4
4125	4126	4120	fill	post hole	4
4126	4126	4120	cut	post hole	4
4127	4128	4120	fill	post hole	4
4128	4128	4120	cut	post hole	4
4129	4130	4120	fill	post hole	4
4130	4130	4120	cut	post hole	4
4131	4132	4120	fill	post hole	4
4132	4132	4120	cut	post hole	4
4133	4134	4120	fill	post hole	4
4134	4134	4120	cut	post hole	4
4135	4136	4120	fill	post hole	4
4136	4136	4120	cut	post hole	4
4137	4138	4120	fill	post hole	4
4138	4138	4120	cut	post hole	4
4139	4140	4120	fill	post hole	4
4140	4140	4120	cut	post hole	4
4141	4142	4120	fill	post hole	4
4142	4142	4120	cut	post hole	4
4143	4144	4120	fill	post hole	4
4144	4144	4120	cut	post hole	4
4145	4146	4120	fill	post hole	4
4146	4146	4120	cut	post hole	4
4147	4148	4120	fill	post hole	4
4148	4148	4120	cut	post hole	4
4149	4150	4120	fill	post hole	4
4150	4150	4120	cut	post hole	4
4151	4152	4120	fill	post hole	4
4152	4152	4120	cut	post hole	4
4153	4154	4120	fill	post hole	4
4154	4154	4120	cut	post hole	4
4156					4
4157	4158	4156	fill	post hole	4
4158	4158	4156	cut	post hole	4
4159	4160	4156	fill	post hole	4
4160	4160	4156	cut	post hole	4
4161	4162	4156	fill	post hole	4
4162	4162	4156	cut	post hole	4
4163	4164	4156	fill	post hole	4
4164	4164	4156	cut	post hole	4
4165	4166	4156	fill	post hole	4
4166	4166	4156	cut	post hole	4

Context	Cut	Master Number	Category	Feature Type	Phase
4167	4168	4156	fill	post hole	4
4168	4168	4156	cut	post hole	4
4169	4169	4169	cut	post hole	4
4170	4169	4169	fill	post hole	4
4171	4171	0	cut	ditch	6.2
4172	4171	0	fill	ditch	6.2
4173	4173	0	cut	ditch	6.2
4174	4173	0	fill	ditch	6.2
4175	4175	0	cut	ditch	6.2
4176	4175	0	fill	ditch	6.2
4177	4177	0	cut	ditch	6.2
4178	4177	0	fill	ditch	6.2
4179	4179	4213	cut	SFB	4
4180	4179	4213	fill	SFB	4
4181	4181	4213	cut	post hole of SFB	4
4182	4181	4213	fill	post hole for SFB	4
4183	4184	4169	fill	post hole	4
4184	4184	4169	cut	post hole	4
4185	4186	4169	fill	post hole	4
4186	4186	4169	cut	post hole	4
4187	4188	4169	fill	post hole	4
4188	4188	4169	cut	post hole	4
4189	4190	4169	fill	post hole	4
4190	4190	4169	cut	post hole	4
4191	4192	4169	fill	post hole	4
4192	4192	4169	cut	post hole	4
4193	4196	0	fill	pit	4
4194	4196	0	fill	pit	4
4195	4196	0	fill	pit	4
4196	4196	0	cut	pit	4
4197	4196	0	fill	pit	4
4198	4196	0	fill	pit	4
4199	4200	0	fill	tree throw	7
4200	4200	0	cut	tree throw	7
4201	4202	4120	fill	pit	4
4202	4202	4120	cut	pit	4
4203	4203	0	cut	post hole	4
4204	4203	0	fill	post hole	4
4205	4205	0	cut	post hole	4
4206	4205	0	fill	pit	4
4207	4207	4213	cut	SFB	4
4208	4207	4213	fill	SFB	4
4209	4209	4213	cut	post hole of SFB	4
4210	4209	4213	fill	post hole of SFB	4
4211	4211	0	cut	tree throw	7

Context	Cut	Master Number	Category	Feature Type	Phase
4212	4211	0	fill	tree throw	7
4213	0	4213	master no	SFB	4
4214	4215	0	fill	post hole	6.2
4215	4215	0	cut	post hole	6.2
4216	4216	4216	cut	post hole	6.2
4217	4216	4216	fill	post hole	6.2
4218	4218	4216	cut	post hole	6.2
4219	4218	4216	fill	post hole	6.2
4220	4220	4216	cut	post hole	6.2
4221	4220	4216	fill	post hole	6.2
4222	4222	4216	cut	post hole	6.2
4223	4222	4216	fill	post hole	6.2
4224	4224	4216	cut	post hole	6.2
4225	4224	4216	fill	post hole	6.2
4226	4226	4216	cut	post hole	6.2
4227	4226	4216	fill	secondary backfill	6.2
4228	4228	0	cut	natural	7
4229	4228	0	fill	natural	7
4230	4230	0	cut	post hole	6.2
4231	4230	0	fill	post hole	6.2
4232	4232	0	cut	post hole	6.2
4233	4232	0	fill	post hole	6.2
4234	4234	0	cut	ditch	6.2
4235	4234	0	fill	ditch	6.2
4236	4236	0	cut	tree throw	7
4237	4236	0	fill	tree throw	7
4238	4196	4196	fill	pit	4
4239	4196	4196	fill	pit	4
4240	4240	0	cut	post hole	6.2
4241	4240	0	fill	post hole	6.2
4242	4196	4196	fill	pit	4
4243	4196	4196	fill	pit	4
4244	4196	4196	fill	pit	4
4245	4207	4213	fill	SFB	4
4246	4209	4213	fill	post hole	4
4247	4179	4213	fill	SFB	4
4248	4181	4213	fill	post hole	4

Appendix C. Finds Reports

C.1 Metal Small Finds

By Chris Faine

Introduction

C.1.1 Only two metal small finds were recovered during this fieldwork; a modern dinner fork and a bell which could not be closely dated.

Catalogue

C.1.2 SF **100**. (Context **100**). Pewter four-tined dinner fork. In good condition but bent 180 degrees backwards over at midpoint. "**G R**" with crown above embossed on the handle, with the maker's mark "I**JP**I & I**S**I I**S**I" on the reverse. This "pseudo hallmark" mirrors the company's sliver mark but with the cross pattee omitted. Made by Joseph Parker and Sons of Sheffield, active between 1863 and 1935. Given these dates the spoon is probably from the reign of George V (1910-1936). The form appears to be of the "Hanoverian" type popular during that period but revived from the 19th century up to the present.

C.1.3 SF **50**. (Context **1001**). Iron bell covered with cooper alloy sheeting. Iron clapper in place but heavily corroded. The suspension loop is copper alloy, with around half surviving.

C.2 Stone

By Sarah Percival

Introduction

C.2.1 A total of 8.249kg of stone was collected from 22 excavated contexts. The assemblage comprises a quantity of heat effected pebbles and 2kg of lava derived from quern or millstones.

Heat Cracked Pebbles

C.2.2 A total of 171 fragments of heat effected pebbles weighing 6.125kg were collected from 20 contexts (Table 9). The water-rounded pebbles were probably used during cooking, being selected from the local glacial till for their heat retaining properties.

Context	Feature	Feature type	Quantity	Weight (g)
220	215	Ditch	4	392
222	224	Ditch	2	45
335	332	Ditch	1	27
364	365	Ditch	4	36
366	367	Tree throw	16	117
1589	1729	Ditch	1	123
1727	1726	Pit	1	606
2506	2506	Layer	3	46
2583	2585	Pit	1	19
2659	2662	Natural	1	26
3543	3544	Pit	1	136
3560	3561	Pit	4	122
3637	3638	Ditch	1	27
3651	3652	Pit	1	30
3676	3675	Pit	107	3876
3904	3798	SFB	1	66
3994	3995	Pit	15	307
4107	4109	Pit	1	25
4108	4109	Pit	1	16
4193	4196	Pit	4	47
4194	4196	Pit	1	36
			171	**6125**

Table 9: Quantity and weight of heat effected pebbles by context

Quern/ millstone

C.2.3 A total of 2.124kg of lava was recovered from four excavated contexts and from topsoil (Table 10). The grey, vesicular lava fragments derive from quern or millstones imported into Britain from sources in the Rhineland. With the exception of those fragments from the topsoil the lava was all found in Late Saxon to post-medieval contexts suggesting a Late Saxon or later date for importation of the querns.

Context	Feature	Feature type	Weight (g)
1500	0	Topsoil	666
1534	1529	Ditch	174
1588	1585	Ditch	171
1609	1609	Structure	157
1620	1618	Ditch	956
			2124

Table 10: Weight of lava fragments by context

Discussion

C.2.4 Heat affected pebbles form a common component of prehistoric assemblages and were used in cooking food.

C.2.5 The lava fragments probably represent pieces of quern used in food preparation.

C.3 Struck Lithics

By Barry Bishop

Introduction

C.3.1 The archaeological investigations along the route of the pipeline resulted in the recovery of 870 struck flints and over 36kg of unworked burnt stone from the evaluation trenches and five areas of excavation.

C.3.2 A full catalogue of the material arranged by individual contexts is presented in Table 16 and further details of the cores and implements are provided in Tables 17 and 18. This report summarises the information contained in the catalogues, describing the general characteristics of the assemblages from each of the excavated areas and assesses their wider archaeological significance and potential to contribute to the further understanding of the nature and chronology of activity at the site. It also recommends any further work required to achieve its full research potential. All metrical descriptions follow the methodology established by Saville (1980).

Area Results

Area A

C.3.3 Area A produced 198 pieces of struck flint and just over 1kg of unworked burnt flint (Table 11). The greatest quantity of struck flint and a small amount of unworked burnt flint came from a single feature, pit **221**, the infilling of which can be dated both by lithic technology and its contained pottery to the Early Bronze Age period. Most of the remaining struck flint came from post-prehistoric or unstratified contexts and this can be regarded as residually deposited. Four undated tree-throw hollows produced single pieces of struck flint. The majority of the burnt flint came from two contexts, a tree-throw hollow and a Roman ditch which truncated the tree-throw hollow.

Context	Decortication Flake	Chip (<15mm)	Flake	Blade-like flake	Prismatic blade	Non-prismatic blade	Flake fragment	Flake Core	Blade Core	Conchoidal chunk	Microlith	Retouched flake	**Total**	Burnt Stone (no.)	Burnt Stone (wt:g)
Evaluation Tr 5									1						
EBA Pit 221	16	31	60	1		5	4	2		1		23	**143**	3	54
Roman Features	5	1	26		1	2		2	1		1	3	**42**	217	2066
Tree-throws			2	1	1								**4**	126	1107
Unstrat / Mod Contexts		1	5				1		2				**9**		

Table 11: Lithic material from Area A (including Evaluation Trench 5)

Early Bronze Age Pit

C.3.4 Early Bronze Age pit **221** produced a substantial assemblage of 143 pieces of struck flint, accounting for nearly three-quarters of that found in Area A. The raw materials are

mixed. Translucent dark greyish brown flint with occasional mottling was most commonly used but some coarser-grained opaque mottled grey and semi-opaque greyish brown has also been used. All consist of thermally flawed alluvially transported cobbles, such as can be found underlying the site. Some flakes are likely to have been struck from the same pieces of raw material but none could be made to refit and it is clear that many different cores contributed to the assemblage. Sampling of the pit's fill resulted in the recovery of many small flakes and fragments measuring less than 15mm in maximum dimension (micro-debitage) showing that the assemblage contains knapping debris, although it is unlikely to have been produced *in-situ* but probably presents the collected up residues from knapping. Many pieces are in a sharp condition but most show slight chipping and abrasion which, at least in some cases, is almost certainly due to them having been utilized. Although there are high proportions of potentially utilised flakes as well as retouched pieces, most of the unretouched flakes can be considered as unusable and these include many small flakes and fragments. Generally the flakes of all types are small, thick, often squat and rather carelessly detached.

C.3.5 Retouched implements contribute 16% of this assemblage (20% excluding micro-debitage), a high proportion that is even more remarkable given that there are probably also many utilised flakes present. All but one of the retouched implements have been classified here as scrapers but the nature of the retouch does vary considerably, and in reality the implements probably represent a variety of scraping and / or cutting tools; crushing of some of the edges indicating at least some were used against hard materials. The retouch is variable as to its nature and location although it is nearly always rather perfunctory and shows little finesse in its execution. Some of the smaller scrapers are comparable to 'thumbnail' types, being small and circular or 'D' shaped with relatively shallow retouch, but none have the truly invasive retouch that characterises this type. The blanks chosen for retouch are little different to the unretouched flakes, being variably sized and shaped but usually thick and short, and several exhibit thermal flaws and breaks. Other than their sometimes notably small size, it is clear that the shape of the blank was not an important consideration for its selection. Their condition and often worn edges suggest that most have been used although none have clearly been worn out. The only retouched implement from the pit that is not some form of scraper or cutting tool is a rod-shaped implement. This stands out from the rest of the assemblage in that it is made on a prismatic blade and is therefore likely to be much earlier in date.

C.3.6 In contrast to the high proportions of retouched and utilised flakes, only two cores are present. One is burnt and has been worked on two platforms, the other has multiple platforms, but both had produced wide flakes consistent with Early Bronze Age industries.

C.3.7 The assemblage from pit **221** is notably large for that period but typically for Beaker period assemblages contains both knapping debris and high proportions of retouched pieces that are dominated by a limited range of scrapers and / or cutting tools. This suggests that the flintwork and presumably the other artefacts had been deliberately or formally selected for deposition, the contents possibly reflecting the undertaking of a specific or limited range of activities that no doubt held some significance to those who deposited the debris.

Natural Features

C.3.8 The undated tree-throws produced only four struck pieces. These comprised a blade-core, a prismatic blade that had probably been used as a piercer and two flakes, all of

which are in a reasonably good condition. Whilst these could have been residually deposited, they can all be dated to the Mesolithic or Early Neolithic periods, suggesting the possibility of some clearance at this time. One of the tree-throws, **367**, contained over 1kg of variably but mostly heavily burnt flint, and a further nearly 1.5kg of similarly burnt flint was recovered from a Roman ditch **365** where it had cut the tree-throw and presumably redeposited the burnt flint.

Roman Features and Unstratified Material

C.3.9 Further, but much smaller, quantities of unworked burnt flint were recovered from many of the sections cut through the Roman ditches, indicating a fairly widespread use of hearths across Area A, although the burnt flint cannot be dated and it is likely to have been residually deposited. The ditches also produced 42 struck pieces which had also been residually deposited, and a further nine pieces came from unstratified contexts. This material is dominated by pieces with Mesolithic or Early Neolithic technological characteristics, the former period certainly represented as evidenced by an obliquely truncated microlith recovered from ditch **332** which can be dated to the Early/Middle Mesolithic (Switsur and Jacobi 1979). A few pieces from the ditches are likely to be later in date, which include a side scraper from ditch **251** which is comparable to those from pit **221**, and the presence of a few 'squat' flakes (*cf* Martingell 1990; 2003) may even be indicate Later Bronze Age or Iron Age flintworking occurring in this Area.

Evaluation Trench 5

C.3.10 This trench produced a single fragmented core from unstratified deposits. Although the core had produced some blades, it is not systematically worked and therefore is perhaps more likely to be of Neolithic rather than Mesolithic date.

Summary of Area A

C.3.11 The most notable collection of flintwork came from Early Bronze Age pit **221** which contained a substantial assemblage that includes high proportions of scrapers and which is likely to represent some type of formal or structured deposition. The remaining flintwork from this Area probably represents activity common throughout much of the Holocene but is dominated by pieces dateable to the Mesolithic and perhaps Early Neolithic and represents persistent, if not intense, activity during these periods.

Area B

C.3.12 Area B produced a total of 117 struck flints but no unworked burnt stone. The struck flint predominantly came from three pits which have been dated to the Early Neolithic period with a few pieces also coming from Roman or unstratified features (Table 12).

Context	Decortication Flake	Core tablet	Chip (<15mm)	Flake	Flake from polished implement	Blade-like flake	Prismatic blade	Non-prismatic blade	Flake fragment	Flake Core	Conchoidal chunk	Retouched flake	Total
ENeo Pit 1025	5		4	12	1	8	6	7	3		4		**50**
ENeo Pit 1027	4	1		18		5	5	5	1		3	4	**46**
ENeo Pit 1029	2			2				2			1		**7**
Roman Features				1		1		1					**3**
Unstrat / Mod Contexts	1			2		1	1	1		1		4	**11**

Table 12: Lithic material from Area B

Neolithic Pit Group

C.3.13 The most notable struck flint assemblages from Area B came from three adjacent pits that have been dated to the Early Neolithic period. Two of these, pits **1025** and **1027**, produced substantial and similarly-sized assemblages whilst the other, pit **1029**, contained a much smaller assemblage. All three assemblages share similar characteristics. They are made from alluvially transported cobbles but include flint of a variety of colours and textures and, whilst a few of the flakes may have come from the same cores, it is clear that many different pieces of raw material contributed to the assemblages. The condition of the pieces is also similar in that whilst most are either sharp or only show slight edge chipping and / or abrasion, it does vary with a few being more extensively chipped and some that have been heavily burnt, although no unworked burnt flint fragments are present. The assemblages from the pits also share similar technological attributes, but whilst most of the pieces from all three pits comprise a mix of knapping waste and useable pieces such as blades, only pit **1027** contained any retouched implements, which comprise three serrated blades and a burin, and some of the other blades may also have been utilised. Pit **1025** did, however, produced a flake of opaque grey flint that had been struck from a ground implement, most likely a polished axe.

C.3.14 Taken together, the range of different types of flint, the differences in condition, the inclusion of burnt worked pieces, and the similar but slightly varying technological and typological make-up of the three assemblages suggest that the material had been selected from pre-existing and much larger accumulation of knapping debris and used tools prior to being deposited into the pits, a practice that is widely attested during the Early Neolithic (*e.g*. Garrow 2006). Whether the contents of all three pits came from a single accumulation has not been established but their pre-pit histories could potentially be elucidated through refitting exercises.

Roman and Later Features

C.3.15 Roman and later or unstratified features produced 14 struck pieces that appear to reflect the working of flint over a considerable period. These include a prismatic and a serrated blade of Mesolithic or Early Neolithic date, a domed core that is most typical of Later Neolithic or Early Bronze Age industries and an irregular denticulated tool that is more characteristic of later 2nd or 1st millennia BC industries.

Area C

C.3.16 Area C produced 11 struck pieces and a small quantity of unworked burnt flint, all from unstratified or Medieval and later features, with the latter certainly and the former likely have been residually deposited (Table 13).

Context	Decortication Flake	Crested blade	Flake	Blade-like flake	Prismatic blade	Total	Burnt Stone (no.)	Burnt Stone (wt:g)
Unstrat / Medieval or later features	3	1	4	2	1	**11**	4	76

Table 13: Lithic material from Area C

C.3.17 No cores or retouched implements and very few other diagnostic pieces were recovered from Area C, the technological attributes of the assemblage suggesting it had probably been made over a long period. The majority are perhaps most characteristic of Mesolithic or Early Neolithic industries and suggest widespread but low key activity during these periods.

Area D

C.3.18 Area D produced 191 struck flints and just under 8kg of unworked burnt stone, mostly from a series of tree-throw hollows and also a barrow ditch and associated buried soil (Table 14). A further 11 struck pieces had been found during an earlier evaluation in the area.

Context	Decortication Flake	Core tablet	Chip (<15mm)	Flake	Blade-like flake	Prismatic blade	Non-prismatic blade	Flake fragment	Flake Core	Blade Core	Conchoidal chunk	Microlith	Retouched flake	Total	Burnt Stone (no.)	Burnt Stone (wt:g)
Evaluation Tr. 37	2			2	1	4						1	1	**11**		
Tree-throws / natural features	7		1	25	9	3	2	6	1	1	4	1	4	**64**	280	4879
Buried soil	11	2	2	10	1	2	4	2	1	1	4	1	1	**42**	93	778
Barrow ditch	10	1		16		6		3	1	5	2		2	**46**	11	254
Cremations	1			7					1		2			**11**	123	1031
Other features / Unstrat	3			7	1	2	1	1	1		1			**17**	120	736

Table 14: Lithic material from Area D (including Evaluation Trench 37)

Tree-throws and natural features

C.3.19 Eleven tree-throws and a natural hollow provided 64 struck flints as well as the bulk of the unworked burnt flint from Area D. The largest single assemblage of struck flint came from tree-throw **2662** which provided 37 pieces. The condition of this material is varied and there is nothing to indicate that it represents *in-situ* flintworking. Its technological attributes are also varied and it includes a few pieces that are likely to relate to the Mesolithic or Early Neolithic periods, including a finely edge-trimmed prismatic blade, but the bulk of this material is more typical of Neolithic or Early Bronze Age flintwork, including a characteristically Later Neolithic or Early Bronze Age invasively flaked knife and a 'nosed' scraper. The other hollows only contained small assemblages but these appear to be similarly mixed; the presence of a lanceolate or rod-like microlith from tree-throw **2569** demonstrates a Late Mesolithic presence but many of the pieces would be more at home within later industries. Many of the tree-throw hollows also contained quantities of the unworked burnt flint. The most notable of these is the almost 4kg recovered from hollow **2561**. Hollow **2662** contained a little less than 1kg, whilst another five contained much smaller quantities.

Buried Soil

C.3.20 Layers 2537 and 2587 produced 42 struck flints. These are made from a wide range of raw materials and are in a varied condition, although most show only very slight post-depositional damage and they are likely to have been recovered from close to where originally discarded. Their varied technological attributes indicate that the assemblage as a whole was manufactured over a long period. The earliest pieces include a bi-truncated microlith of Early- to Mid-Mesolithic date and a few other pieces, including blades, blade-like flakes, a blade core and two core tablets, and can be dated to the Mesolithic or Early Neolithic periods. Most pieces, however, are competently but not systematically produced flakes that are more typical of Later Neolithic or Early Bronze Age flintwork, and the presence of a few squat flakes, a minimally worked flake core and an irregular denticulated tool may even suggest flintworking continuing into the later Bronze Age. Small quantities of unworked burnt flint were also found scattered throughout the soil, suggesting that the use of hearths may have accompanied the flintworking.

Barrow Ditch

C.3.21 Barrow ditch **2536** produced 46 struck pieces, the varied condition and range of raw materials suggesting they had been residually deposited. The technological traits suggest that much of this material related to the Mesolithic or Early Neolithic occupation and these include relatively high proportions of prismatic blades and blade cores, a core tablet rejuvenation flake and a classic long-end scraper made on a thick prismatic blade. The presence of less-systematically produced flakes, including a few 'squat' flakes, does suggest that flintworking continued into the later Neolithic or even Bronze Age, and this may be contemporary with the either the use of the barrow or the period when its ditches were infilling. No evidence of *in-situ* flintworking associated with the barrow could be identified, however.

Cremations

C.3.22 Four of the cremations included burnt flint, none of which showed any signs of having been worked. The largest quantity came from cremation **2639** which provided nearly 700g, cremation **2598** produced 330g and **2621** and **2636** also contained small quantities. The burnt flint had been variably heated and it is possible that it was produced during the cremation process. However, with the larger quantities at least it

would appear unlikely that it had been created incidentally, such as through flint pebbles in the soil beneath the cremation pyre being incidentally heated. This would therefore suggest that apparently unworked flint had been deliberately included in the cremation process, although the reasoning behind this is unknown. Two of the cremations, **2598** and **2639**, also contained struck flint. The two pieces from cremation **2639** comprise a burnt minimally reduced flake core and an unburnt but undiagnostic flake, and it is possible that both pieces are at least broadly contemporary with the cremation. Cremation **2598** contained nine struck pieces, all probably later prehistoric in date and potentially contemporary with the cremation, but the assemblage had been produced from a number of different cores and its variable condition suggests residual deposition might be more likely than a deliberately placed 'grave offering'.

Other features and residual material

C.3.23 A further 17 struck pieces were recovered from other contexts in Area D, mostly from unstratified contexts or Roman ditches. This material is similar to that recovered from the other features in the Area and includes material that can be dated to between the Mesolithic and later prehistoric periods.

Evaluation Trench 37

C.3.24 Evaluation Trench 37 produced 11 struck flints from two ditches. Ditch **158** produced seven pieces including an obliquely truncated microlith with additional basal blunting, which can be classed as Clark's (1934) type C2a. These are dateable to the Mesolithic and the size of this example is most comparable to Middle-Late Mesolithic types (Switsur and Jacobi 1979). Also present is a retouched plunged blade, the retouch possibly undertaken to facilitate handling and enabling its use as a cutting implement. All of the pieces from this ditch would comfortably fit into a Mesolithic context although they have presumably been residually deposited. They are in a good or only slightly chipped condition, suggesting that they have not travelled far from where originally deposited. Ditch **164** produced a prismatic blade similar to those from ditch **158**, a decortication flake with blade dimensions and two flakes, one of which has a finely-faceted striking platform. Although not all are as closely dateable as those from ditch **158** they too would not be out-of-place within a Mesolithic context and do suggest extensive flint-using activities of that period in the vicinity.

Area D Summary

C.3.25 Area D clearly witnessed activity involving flintworking which was conducted here over a long period, at least from the Late Mesolithic and perhaps into the later Bronze Age or even Iron Age. It demonstrates that the area in which the barrow was constructed had a considerable history. Flintworking also continued in the area during the period of use of the barrow and cremation cemetery, but there are no indications that any of it directly relates to the funerary or ceremonial activities conducted there.

Area E

C.3.26 Area E produced 321 struck flints and just over 25kg of unworked burnt flint. A nationally important Mesolithic cremation contained three struck pieces. More substantial quantities were present within a small group of prehistoric pits and tree-throw hollows, but nearly half of the struck flint from this area was recovered in small quantities from a wide range of post-prehistoric features or from unstratified deposits (Table 15). Additionally, a further 22 struck flints and a small quantity of unworked burnt flint was recovered from Evaluation Trenches 44, 45 and 48, all located just to the south of Area E.

Context	Decortication Flake	Core tablet	Chip (<15mm)	Flake	Flake from polished implement	Blade-like flake	Prismatic blade	Non-prismatic blade	Flake fragment	Flake Core	Blade Core	Conchoidal chunk	Retouched flake	**Total**	Burnt Stone (no.)	Burnt Stone (wt:g)
Evaluation Trs 44, 45, 48	1			6		1	5			1	2	4	2	**22**	21	87
Mesolithic Cremation				1		1	1							**3**		
Tree-throws	5	1		15		2	3	1	2	5	1		1	**36**	16	200
Neolithic / Early Bronze Age Pits	27		5	57	1	7	6	1	11	5	1	4	4	**129**	32	180
Unstrat / Other features	13	1	1	69		11	16	8	16	2	6	2	8	**153**	1408	24946

Table 15: Lithic material from Area E (including Evaluation Trenches 44, 45 and 48)

Mesolithic Cremation

C.3.27 The Mesolithic cremation produced three struck pieces; a prismatic blade, a blade-like flake and a core trimming flake struck to remove step fractures from the core's face. They were all made from a mottled translucent brown flint and may have been struck from same core although none refitted. Two of the three pieces are still sharp but the blade-like flake has some localised edge damage which may have been caused through being used as a cutting implement. Technologically, they are all typical of Mesolithic or Early Neolithic industries and are entirely consistent with the 6th millennium BC radiocarbon determinations produced by the cremation.

Tree-throw hollows

C.3.28 Twelve tree-throw hollows contained struck flint and a further two produced small quantities of unworked burnt flint. Most of the struck assemblages are small, comprising only one or two pieces. The largest assemblage comprises the nine pieces that came from hollow **3752**. This included some pieces from blade-based reduction, including an extensively worked blade core of probable Mesolithic or Early Neolithic date, but some of the flakes do appear to be later in date and the mix of raw materials and variable condition of the assemblage does suggest residual deposition. This is also broadly true of the material from the tree-throw hollows as a whole. Whilst there are a number of blades of Mesolithic or Early Neolithic date, including a notably large example measuring 73mm in length that had been struck from an opposed platform core as well as other blade-like flakes and a transverse core-rejuvenation flake, many of the pieces were probably manufactured later in the Neolithic or even Bronze Age. These include the remaining three cores, all of which are fairly irregularly reduced flake types, and the only retouched implement, a steeply retouched rod-like tool from tree-throw hollow **3624**.

Prehistoric pits

C.3.29 Four pits in Area E contained pottery that has been dated to the Neolithic or Early Bronze Age. The two fills of pit **3652** produced 39 struck pieces and 180g of unworked burnt flint. The struck material predominantly comprises small core trimming and other waste flakes which, although difficult to date in themselves, were struck from multiplatformed cores that would sit comfortably within Middle to Late Neolithic assemblages. The two cores that are present comprise a 'domed' core and a minimally

reduced keeled core. Only one retouched piece was identified: this comprises an exceptionally large end-and-side scraper which, although not a chronologically diagnostic type, is of a size that is more commonly encountered in Later Neolithic contexts. Some of the flakes are struck from very similar raw materials and may have come from the same cores although no refitting was successful, and it is clear that overall many different knapping episodes are represented. The condition of the material is mostly good with many sharp pieces present but it does vary and two struck pieces have been burnt. There are also two prismatic blades and a blade-like flake that are likely to pre-date the bulk of the assemblage but it is likely that most pieces are contemporary with the pit, although it does seem that they had been gathered up as a whole and redeposited into it.

C.3.30 Pit **3756** contained similar pottery to pit **3652** but produced only two struck flints, an undiagnostic flake and a chipped blade-like flake.

C.3.31 Pits **3995** and **3997** were located close to each other and contained 13 and 75 struck pieces respectively. The assemblage from pit **3997** shows evidence of blade-based reduction in the form of dorsal scar patterns and the presence of a few prismatic blades, but it is dominated by high proportions of primary knapping waste, particularly decortication and core modification flakes, and small, broken or otherwise unusable pieces. Three cores are present, all heavily worked and including one that had produced blades and two that, at least in their latter stages, had produced flakes. The three retouched implements comprise two flakes with slightly invasive edge retouch and a large notch or hollow scraper. The edge-retouched flakes are irregular pieces and may possibly represent attempts at making arrowheads that had been abandoned at an early stage.

C.3.32 The high proportions of primary reduction waste distort to some extent the overall technological character of the assemblage and without truly diagnostic pieces there are difficulties in confidently assigning a date. However, assuming it is predominantly of a single period, its overall characteristics would suggest that a date in the Early to Mid-Neolithic would be most appropriate. It is technologically most comparable to the assemblages from pit **3652** in Area E and also the Early Neolithic pits in Area B. Other similarities to the assemblages from these pits are also apparent. The range of raw materials indicates that, whilst a number of flakes had probably been struck from the same cores, many different knapping episodes are represented within the assemblage. Also the condition of the assemblage is mostly good but does vary and three struck pieces have been burnt, indicating that the material has experienced a complicated history prior to being placed in the pit.

C.3.33 The smaller assemblage from pit **3995** compares well to that from pit **3997** and mostly comprises knapping debris that includes substantial amounts of primary working waste and unusable pieces. The only core found has multiple platforms and produced many small flakes. No retouched pieces are present but there is a flake with polishing on its dorsal surface that indicates the reworking of a polished translucent brown flint implement, most probably an axe. Again, few diagnostic pieces are present but the assemblage's technological traits would be most characteristic of Neolithic industries, and such a date would be supported by the presence of the flake struck from the polished implement.

Burnt stone pits

C.3.34 Small quantities of unworked burnt stone were recovered from a number of features in Area E, testifying to persistent hearth use, but three undated pits produced more-

significant quantities. The most notable of these was pit **3675** which contained an impressive 1,215 pieces weighing 21,544g, this alone accounting for nearly 60% of all unworked burnt stone recovered during the pipeline excavations. All of the burnt stone consists of rounded flint alluvial pebbles and virtually all of the unshattered pieces range in size from between 20mm and 70mm in diameter. They are almost certainly from the local gravel terrace but interestingly, the uniformity of their size range may suggest that they had been carefully selected. They had been moderately to intensively heated, causing them to become fire crazed and change to a reddish or greyish white colour.

C.3.35 Pit **3583** produced a much smaller but still notable collection of burnt stone consisting of 33 pieces weighing 1,3543g. Unlike all of the other burnt stone from the pipeline excavation, this assemblage included a range of different stone types included alluvial flint cobbles and also burnt siliceous sandstone cobbles as well as a fragment of a white quartz cobble. The flint is similar to that from the underlying gravel terraces but the sandstone and quartz had almost certainly been gathered from further afield, probably in the form of erratics from the surrounding glacial tills that mantle the area. Nevertheless, this is an odd collection of burnt stone that has been carefully selected, the reasons for which defy easy interpretation.

C.3.36 Pit **3617** also contained significantly larger than usual quantities of burnt stone, this comprising 70 fragments of burnt flint alluvial cobble fragments weighing 893g.

Other features

C.3.37 The remainder of the assemblage, amounting to 153 struck pieces, came from a variety of undated, Saxon or later features, and unstratified contexts. As might be expected, this material is mostly in a chipped condition, is widely scattered and represents a variety of technological traditions. However, there are significant numbers of prismatic blades and blade-like flakes, and there are six blade cores compared to only two flake-producing types, indicating that a high proportion of this material is of Mesolithic or Early Neolithic date. Retouched implements dating to those periods include a double-ended burin, an edge trimmed implement and a serrate, all made on prismatic blades. The remaining retouched pieces all consist of scrapers that are not precisely dateable but most are well made and probably do not post-date the Early Bronze Age. Additionally, one of the blade cores, from pit **4196**, has very narrow micro-blade removals that form a chisel-like edge comparable to pseudo-burins and which may have been used as a tool.

Evaluation Trenches

C.3.38 A similar picture of widespread and persistent use of flint, particularly during Mesolithic or Early Neolithic, in the vicinity is provided by the assemblages from Evaluation Trenches 44, 45 and 48. These assemblages include high proportions of prismatic blades, blade cores and other blade-based reduction waste with two retouched implements, a serrated blade and an end-scraper, also found.

Significance

C.3.39 The lithic material from along the pipeline indicates the widespread and, in some locations, intensive working and use of flint that in many respects concords with the high density of prehistoric occupation previously recorded throughout the Chelmer valley (*e.g*. Buckley and Hedges 1987; Brown and Lavender 1994; Brown 1997; Buckley *et al.* 2001; Brown and Medlycott forthcoming). A number of individual assemblages are regionally significant and have the potential to contribute considerably to broader understandings of flintworking traditions, deposition practices and landscape occupation. In particular the assemblages from the prehistoric pits that range in date

from the Early Neolithic through to the Early Bronze Age in Areas A, B and E contain closed and closely dateable assemblages of regional importance, whilst the small assemblage from the Mesolithic cremation in Area E could be regarded as of particular importance due to its association with this nationally unique feature. Spreads of knapping debris found both beneath and in association with the barrow and cremation cemetery in Area D are of local if not regional significance in that they provide relatively undisturbed lithic assemblages created before and during the use of the barrow. Other smaller assemblages of importance include a number of prehistoric pits, ditches and tree-throw hollows as well as the burnt stone filled pits in Area E and tree-throw hollows in Area D.

C.3.40 Much of the material from all areas has either been residual deposited in later features or is from topsoil deposits and is likely to represent flintwork that had been discarded directly onto the contemporary ground surface. Whilst the dating of the prehistoric features in these areas varies from the Mesolithic through to the end of the Iron Age, it is notable that much of this surface discarded material belongs to the Mesolithic and Early Neolithic, indicating more widespread and intensive activity during these times that the features alone might suggest.

Context	Ref	Area/Trench	Feature	Decortication Flake	Crested blade	Core tablet	Chip (<15mm)	Flake	Flake from polished implement	Blade-like flake	Prismatic blade	Non-prismatic blade	Flake fragment	Flake Core	Blade Core	Conchoidal chunk	Microlith	Retouched flake	Burnt Stone (no.)	Burnt Stone (wt:g)	Colour	Cortex	Condition	Recortication	Suggested Dating	Comments
200		A	D201															1			Mottled black/light grey	Thick rough slightly weathered	Slightly abraded	None	Meso-EBA	Edge trimmed flake
200		A	D201																2	34	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments
200		A	D201					1													Translucent dark grey	None	Slightly abraded	None	Undated	Small
220		A	P221																1	25	Unknown	Heavily battered	Burnt	Unknown	Undated	Heavily burnt flint fragment
220	<15>	A	P221																2	29	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments
220		A	P221	13				37		1		3	2	1		1		17			Varied	Varied	Varied	None	EBA	See text
220	<15>	A	P221	3			31	23				2	2	1				6			Varied	Varied	Varied	None	EBA	See text
222		A	D224					1													Unknown	Thermal scar	Burnt	Unknown	Meso-EBA	Appears blade-like
222		A	D224																23	277	Unknown	Varied	Burnt	Unknown	Undated	Heavily burnt flint fragments
222		A	D224	1				3													Mottled black/light grey	Worn, rolled	Slightly abraded	None	Meso-EBA	Small but technologically homogeneous assemblage, most likely Meso/ENeo
223		A	D224	1																	Translucent dark brown	Thin rough slightly weathered	Slightly abraded	None	Undated	Distal end
223		A	D224																6	70	Unknown	Thermal scar	Burnt	Unknown	Undated	Heavily burnt flint fragments
225		A	D227																2	9	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments

226		A	D227																1	3	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragment
236		A	PH236																3	19	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments
248		A	D249								1										Mottled dark grey	Thin rough slightly weathered	Chipped	None	Meso-EBA	Thick sturdy blade, possible notch but probably post-depositional damage
250		A	D251														1				Mottled dark grey	None	Chipped	None	Meso/ENeo	Serrated blade
258		A	D260							1											Translucent light brown	Worn, rolled	Chipped	None	Meso/ENeo	Distal end
267		A	D268																1	27	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragment
267		A	D268					1													Mottled dark brown	Worn, rolled	Chipped	None	BA-IA	Thick, not particularly well struck
272		A	PH271					1													Translucent black	Thin rough slightly weathered	Chipped	None	Undated	Small
273		A	TT274							1											Translucent dark brown	Worn, rolled	Chipped	None	Meso-EBA	Blade-like but thick and thermally flawed
277		A	TT278					1													Translucent black	Worn, rolled	Good	None	Meso-EBA	Well struck, almost blade-like
277		A	TT278					1													Mottled dark grey	None	Good	None	Meso-EBA	Well struck, almost blade-like
285		A	D287																6	72	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments
285		A	D287					3			1						1				Translucent black	Varied	Slightly abraded	None	Meso-EBA	Variable but includes LNeo / EBA? side scraper and others flakes could be of similar date
294		A	D396																1	4	Unknown	Heavily battered	Burnt	Unknown	Undated	Heavily burnt flint fragment
294		A	D296	1																	Mottled dark brown	Worn, rolled	Chipped	None	Undated	Large, 'split pebble'
294		A	D296					1													Translucent dark grey	Worn, rolled	Slightly abraded	None	Undated	Small

299		A	TT300								1										Mottled dark grey	Worn, thermal scar	Good	None	Meso/ENeo	Intended to rejuvenate step fractured core? Possibly utilized as piercer. 67x18x10mm
305		A	D284																3	27	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments
308		A	D308					1													Mottled dark brown	Worn, rolled	Good	None	BA-IA	Narrow but wide platform
315		A	D314					1													Translucent black	None	Chipped	None	BA-IA	Broad
319		A	D318											1							Translucent black	Worn, rolled	Slightly abraded	None	Meso-EBA	Front type but with very acute platform
326		A	D/TT327												1						Speckled black	Thick rough slightly weathered	Good	None	Meso/ENeo	Front type
335		A	D332																1	28	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragment
335		A	D332											1							Mottled black/light grey	Worn, rolled	Slightly abraded	None	BA-IA	Irregular, centripetally worked
335		A	D332														1				Translucent light grey	None	Slightly abraded	None	Meso	Obliquely truncated microlith
335		A	D332					1													Mottled dark grey	Thin rough slightly weathered	Good	None	Meso-EBA	Some blade-like scars
335		A	D332					1													Mottled light grey	None	Slightly abraded	None	Undated	Thin but not well struck
346		A	D345					1													Translucent black	Worn, rolled	Chipped	None	BA-IA	Chunky
346		A	D345																10	82	Unknown	Varied	Burnt	Unknown	Undated	Heavily burnt flint fragments
346		A	D345					1													Translucent black	Worn, rolled	Chipped	None	Undated	Small
346		A	D345					1													Translucent light grey	None	Chipped	None	Meso-EBA	Well struck, almost blade-like
351		A	D354					1													Translucent black	Worn, rolled	Slightly abraded	None	BA-IA	Thick, badly detached
351		A	D354				1														Translucent light brown	None	Slightly abraded	None	Meso-EBA	Trimming flake

351		A	D354	1																	Translucent dark grey	Worn, thermal scar	Slightly abraded	None	Undated	
356		A	D355	1				7													Varied	Worn, rolled	Slightly abraded	None	BA-IA	Mixed raw materials but technologically homogeneous, all comprising broad, squat and badly struck flakes
364		A	?					1													Translucent black	Worn, rolled	Slightly abraded	None	BA-IA	Quite 'squat'
364		A	D365																158	1414	Unknown	Varied	Burnt	Unknown	Undated	Variably but mostly heavily burnt flint fragments
366		A	TT367																126	1107	Unknown	Varied	Burnt	Unknown	Undated	Variably but mostly heavily burnt flint fragments
+		A	U/S				1	4					1		1						Varied	Worn, rolled	Chipped	None	Mixed date	Mixed date, mostly crude thick flakes but also a blade core and even a possible gunflint
1000		B	TS	1				1		1	1	1		1				2			Varied	Worn, rolled	Chipped	None	Mixed date	Mixed date, mostly Meso/ENeo but also crude thick flake and two irregular retouched flakes, globular core
1001		B	SS					1										2			Varied	Worn, rolled	Varied	None	Mixed date	Thin flake, inversely retouched flake and a serrated blade fragment
1004		B	D1005					1													Mottled black/light grey	Worn, rolled	Slightly abraded	None	MBA-IA	Rather 'squat'
1004		B	D1005							1											Translucent black	None	Slightly abraded	None	Meso-EBA	Well struck, almost blade-like
1020		B	D1021									1									Semi-opaque light brown	None	Chipped	None	Meso/ENeo	
1024		B	P1025										1								Unknown	Worn, rolled	Burnt	Unknown	Undated	Decortication flake fragment

1024		B	P1025													1					Mottled dark brown	Worn, rolled	Good	None	Undated	Disintegrated core fragment
1024		B	P1025	1																	Semi-opaque light brown	Thin rough slightly weathered	Good	None	Undated	Primary flake
1024	<100>	B	P1025	4			4	12	1	8	6	7	2			3					Varied	Varied	Varied	None	ENeo	See text
1026	<101>	B	P1027	4		1		18		5	5	5	1			3		4			Varied	Varied	Varied	None	ENeo	See text
1028	<102>	B	P1029													1					Unknown	None	Burnt	Unknown	Undated	Fragment of a heavily burnt core
1028		B	P1029	2				2				2									Mottled light grey	Worn, rolled	Good	None	ENeo	See text
1501		C	SS					1													Mottled dark brown	Worn, thermal scar	Chipped	None	Meso-EBA	Some blade-like scars
1576		C	PH1577	1																	Mottled black/light grey	Worn, rolled	Slightly abraded	None	Meso-EBA	Some blade-like scars
1581	<155>	C	P1582																1	3	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragment
1610		C	L1608																1	64	Unknown	Worn, rolled	Burnt	Unknown	Undated	Most of a heavily burnt rounded flint pebble
1624		C	BS1623																1	3	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragment
1632		C	P1631																1	6	Unknown	Thin rough slightly weathered	Burnt	Unknown	Undated	Heavily burnt flint fragment
1646		C	D1645							1											Translucent dark brown	None	Slightly abraded	Incipient	Meso/ENeo	Distal missing
1646		C	D1645								1										Translucent dark brown	None	Chipped	None	Meso/ENeo	Thick but systematically produced
1646		C	D1645	1																	Mottled dark brown	Worn, rolled	Good	None	Undated	
1646		C	D1645							1											Translucent dark brown	None	Slightly abraded	Incipient	Meso/ENeo	
1656		C	L1656		1																Translucent dark brown	Thermal scar	Slightly abraded	None	Meso	Core preparation, some later blade scars

1656		C	L1656					1													Mottled light grey	Thin rough slightly weathered	Good	None	Meso-EBA	Reasonably well struck
1686		C	P1685					1													Translucent black	Worn, rolled	Chipped	None	Meso-EBA	Reasonably well struck
1686		C	P1685	1																	Mottled dark brown	Worn, rolled	Slightly abraded	None	Undated	
1714		C	P1713					1													Translucent black	Worn, thermal scar	Chipped	None	Meso-EBA	Core modification
2503		D	TS																4	9	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2503		D	TS	1				1		1		1	1			1					Varied	Thin rough slightly weathered	Chipped	None	Meso-EBA	Two pieces burnt, chipped condition, mostly blade-based
2504	M2537	D	L2504	1																	Mottled dark grey	Thermal scar	Slightly abraded	None	BA-IA	
2505	M2537	D	L2505	1				1								1					Varied	Thin rough slightly weathered	Slightly abraded	None	BA-IA	Includes a 'squat' flake and a ?blade core fragment
2505	M2537	D	L2505																4	42	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2506	M2587	D	L2506					1							1						Unknown	Thin rough slightly weathered	Varied	None	Meso-EBA	Meso/ENeo micro-blade core and burnt core modification flake of Meso-EBA date
2506	M2587	D	L2506																39	282	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2507	M2537	D	L2507	1			1	3			1	1									Varied	Worn, rolled	Slightly abraded	None	Meso-EBA	Mixed, mostly blade-based, some possibly later pieces
2508	M2587	D	L2508													1					Mottled dark grey	Thin rough slightly weathered	Good	None	Meso/ENeo	Blade core fragment, possibly reused as a scraper
2508	M2587	D	L2508																21	139	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2509	M2537	D	L2509	1													1				Varied	Worn, rolled	Good	None	Meso/ENeo	Bi-truncated microlith and narrow decortication flake

2510	M2587	D	L2510	1		1						1				1					Varied	Varied	Varied	None	Mixed date	Classic core tablet, very thick blade and fragmented core / split pebble
2510	M2587	D	L2510																5	9	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments
2512	M2587	D	L2512					1													Mottled black/light grey	Worn, rolled	Slightly abraded	Incipient	BA-IA	Rather 'squat'
2513	M2537	D	L2513			1															Translucent dark brown	Worn, rolled	Slightly abraded	None	BA-IA	Rather 'squat'
2514	M2537	D	L2514	2			1	2				1									Varied	Worn, rolled	Slightly abraded	None	Meso-EBA	Small pieces all could be Meso/ENeo, blade is small and possibly lightly retouched
2518	M2518	D	D2518								1										Mottled light grey	Worn, rolled	Slightly abraded	None	Meso/ENeo	Proximal end missing
2518	M2518	D	D2518	1																	Mottled dark brown	Worn, rolled	Slightly abraded	None	BA-IA	
2520	M2518	D	D2521					1													Translucent dark grey	Worn, thermal scar	Good	None	BA-IA	Badly detached
2522		D	SS					1						1							Translucent dark brown	Worn, rolled	Slightly abraded	None	BA-IA	Small A2 type flake core and a squat flake
2528	M2536	D	RD2529	2				2			3		1	1	1						Varied	Varied	Varied	None	Meso-EBA	One blade possibly utilized, in chipped condition, flake fragment is burnt, one core is an A2 type, the other multiplatformed blade core
2533	<208>	D	PH2534																3	34	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments
2539		D	TT2540																1	25	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragment
2539		D	TT2540							1											Translucent light grey	None	Slightly abraded	Incipient	Meso/ENeo	Small trimming flake

2541	M2537	D	L2541	1								1			1					Mottled dark grey	Worn, rolled	Slightly abraded	None	Undated	Fragment is possibly part of a blade but nothing very diagnostic
2542	M2537	D	L2542					1												Semi-opaque light brown	Thin rough slightly weathered	Chipped	None	Meso-EBA	Well struck but chipped
2544	M2537	D	L2544								1			1						Translucent black	Varied	Varied	None	Mixed date	Blade is chipped, core is very simple, possibly later prehistoric
2546	M2537	D	L2546					1				1								Varied	Varied	Slightly abraded	None	Mixed date	Blade is probably early, flake is very 'squat' and made of bullhead bed flint
2546	M2537	D	L2546															20	261	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2549	M2537	D	L2549															4	45	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2549	M2537	D	L2549	2													1			Varied	Varied	Varied	None	Mixed date	Two decortication flakes of different raw materials and a simple denticulated scraper, probably later prehistoric
2557		D	TT2556							1				1						Translucent black	Worn, rolled	Slightly abraded	Varied	Meso/ENeo	BLF shows incipient recortication, the core is a single platformed 'front' type
2558		D	TT2561							1		3								Semi-opaque light brown	Thin rough slightly weathered	Slightly abraded	None	Meso/ENeo	FFs burnt, BLF has distal tip missing
2558		D	TT2561															159	3730	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderately burnt flint fragments
2559		D	TT2561					1		1										Mottled black/light grey	Thin rough slightly weathered	Slightly abraded	Varied	Meso/ENeo	Flake is narrow but has wide platform and has started to recorticate, BLF is wide and well struck, no recortication
2559		D	TT2561															20	257	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments

2562		D	TT2563										1								Translucent dark brown	Thin rough slightly weathered	Chipped	None	Meso-EBA	Distal end of thin flake
2566	<211>	D	TT2567																5	28	Unknown	Worn, thermal scar	Burnt	Unknown	Undated	Heavily burnt flint fragments
2566		D	TT2567					1			1					2					Varied	Thin rough slightly weathered	Varied	None	Mixed date	Mixed raw materials, condition - dateable pieces probably Meso/ENeo
2569		D	TT2568	1							1						1				Translucent dark grey	Worn, thermal scar	Slightly abraded	Incipient	Meso/ENeo	Narrow DF, distal end of a PB and a narrow rod-like microlith
2575	M2537	D	L2575										1								Translucent dark brown	Thin rough slightly weathered	Slightly abraded	None	Undated	Distal end of thick flake
2576	M2537	D	L2576	1						1											Translucent dark brown	Worn, rolled	Varied	None	Meso-EBA	Narrow DF and burnt BLF
2581		D	P2580																12	72	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2582		D	P2585																5	37	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2583		D	P2585																24	263	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2591	M2536	D	RD2588																3	41	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2591	M2536	D	RD2588	1				3			1				1						Translucent dark brown	Worn, rolled	Slightly abraded	None	Meso-EBA	Technologically homogeneous mostly small generally small flakes and also PB and core of Meso/ENeo date but condition suggests residual
2594	<217>	D	P2595																58	182	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments
2596		D	CM2598																35	301	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments

2596		D	CM2598	1				6								2					Varied	Varied	Slightly abraded	None	BA-IA	Technologically homogeneous crudely struck flakes and two disintegrated cobbles but mixed raw materials and condition suggests residual
2599		D	CM2598																6	29	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2607	M2636	D	RD2611			1															Unknown	None	Burnt	Unknown	Meso/ENeo	Classic core tablet
2607	M2636	D	RD2611																8	213	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2607	M2636	D	RD2611	3				5			2				2	1					Varied	Worn, rolled	Varied	None	Meso-EBA	Mostly early including PBs and blade cores but condition suggests residual
2609	M2636	D	RD2611	1				3										1			Varied	Varied	Varied	None	Mixed date	Long-end scraper and narrow flake of Meso/ENeo date but also 3 typical 'squat' flakes that look more later prehistoric
2612		D	Hol2613					5		1											Varied	Worn, rolled	Varied	Varied	Mixed date	Nothing very diagnostic but mixed raw materials and variable but generally bad condition mixed date and residual
2620		D	CM2621																3	4	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2623	M2536	D	RD2622	2				2										1			Varied	Varied	Varied	None	Mixed date	Nicely worked end-and-side most typical of the LN/EBA but other flakes are less diagnostic, possibly mixed date

2626	M2536	D	RD2622	1				1					2		1	1					Varied	Worn, rolled	Varied	None	Mixed date	Nothing very diagnostic but mixed raw materials and variable but generally bad condition mixed date and residual. Core is a simple minimally worked flake type that is probably later prehistoric
2629		D	TT2630													1					Speckled black	Worn, rolled	Slightly abraded	None	Undated	Thermally disintegrated minimally worked core - tested piece?
2632		D	TT2631																5	37	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments
2634		D	TT2633																2	12	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments
2635		D	CM2636																10	19	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2637		D	CM2639																23	104	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2638		D	CM2639					1													Mottled black/light grey	Worn, rolled	Slightly abraded	None	BA-IA	Distal missing
2638	<228>	D	CM2639																2	14	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments
2638		D	CM2639											1							Unknown	Worn, rolled	Burnt	Unknown	BA-IA	Minimally reduced
2638		D	CM2639																44	560	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2641		D	TT2640																1	3	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragment
2644		D	TT2645					1		1											Translucent dark grey	Thick rough slightly weathered	Slightly abraded	None	Meso/ENeo	Flake could be later but BLF is possibly a broken PB
2648		D	TS					3			1										Varied	Varied	Varied	Varied	Mixed date	PB and 'squat' flake, all very poor condition
2656		D	TT2662																20	137	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments

2656		D	TT2662					1					1					1			Translucent dark brown	Worn, thermal scar	Chipped	None	Meso-EBA	Well made naturally blunted-back knife, fragment is probably a PB, flake is non-descript
2657		D	PH2658																14	139	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2657		D	PH2658	1				1													Varied	Worn, rolled	Varied	None	Meso-EBA	Probably all residual but early
2659		D	TT2662	3				11		1		1	1	1		1					Varied	Varied	Varied	Varied	Meso-EBA	Mixed raw materials, condition and technology, probably mixed date and residual
2659		D	TT2662																24	176	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2660		D	TT2662	1								1						1			Varied	Varied	Slightly abraded	None	Mixed date	Blade could be Meso/ENeo, Df is quite 'squat' and also a side and end scraper most comparable to LN/EBA types
2660		D	TT2662																6	105	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2661		D	TT2662																37	369	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
2661		D	TT2662	2			1	5		2	1							1			Varied	Varied	Slightly abraded	None	Meso-EBA	Technologically reasonably homogeneous and mostly probably Meso/ENeo, the retouch implement is a finely edge-trimmed blade. Some pieces possibly from the same core but probably not in situ. The
2664		D	TT2666															1			Translucent dark brown	None	Good	None	Meso/ENeo	Finely serrated / edge-trimmed well struck prismatic blade

3500		E	U/S?	1				14		5	5	2	4		4			4			Varied	Varied	Varied	Varied	Meso-EBA	Very poor condition and mixed but mostly Meso/ENeo, retouched include 3 scrapers and a burin
3501		E	Finds					3		1	1	1	1					1			Varied	Varied	Chipped	None	Meso-EBA	Poor condition, mixed raw materials and condition, mostly Meso/ENeo. Includes an end scraper
3506		E	D3505					3						1							Varied	Varied	Chipped	None	BA-IA	Poor condition, mixed raw materials and condition, At least one flake and the core look later prehistoric
3514		E	D3513	1																	Translucent dark brown	Thin rough slightly weathered	Slightly abraded	None	BA-IA	Rather 'squat'
3529		E	TT3530								1										Mottled light grey	None	Slightly abraded	None	Meso/ENeo	Large from opposed platform core. Possibly utilized. 73x22x9mm
3529		E	TT3530					1													Unknown	Worn, rolled	Burnt	Unknown	Meso-EBA	Possibly blade-like
3559		E	Finds	2		1		11		2	2	2	2		1						Varied	Varied	Varied	None	Meso-EBA	Mixed raw materials condition and technology, probably mostly Meso/ENeo. Both blades and possibly some of the flakes could have edge-trimming but uncertain due to post-depositional damage
3560		E	P3561							1											Mottled dark grey	Worn, rolled	Slightly abraded	None	Meso/ENeo	large, well struck
3562		E	P3563																5	89	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments
3572		E	TT3573					1													Translucent black	None	Good	None	Meso-EBA	Well struck
3574		E	TT3575										1								Translucent dark grey	None	Burnt	Unknown	Undated	Fragment of a thin flake

3576		E	Finds					3														Varied	Worn, rolled	Varied	None	Meso-EBA	One of the flakes possibly used as a scraper
3576		E	?					2														Mottled dark grey	Thin rough slightly weathered	Chipped	Unknown	Meso-EBA	Well struck, very chipped
3582		E	TT3581								1											Mottled light grey	None	Lightly burnt	None	Meso/ENeo	Proximal end, very lightly burnt but other good condition
3584		E	P3583																	33	1343	Unknown	Worn, rolled	Burnt	Unknown	Undated	17 fragments of heavily burnt flint @ 864g, 15 fragments of fine grained red and brown siliceous sandstone at 390g and one fragment of a charred but white quartz cobble @ 89g
3593		E	TT3594	2									1									Varied	Worn, rolled	Varied	None	BA-IA	Undiagnostic but rather late looking
3594	<309>	E	TT3594																	3	41	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments
3601		E	TT3602			1		1						1								Mottled black/light grey	Worn, rolled	Varied	None	Meso-EBA	Rather non-descript flake core
3609		E	P3610										1									Translucent light grey	None	Chipped	Incipient	Undated	Distal end
3618		E	P3617																	70	893	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
3623		E	TT3624					3						1				1				Mottled dark grey	Worn, rolled	Slightly abraded	None	Meso-EBA	Well struck flakes, a rod-type implement and a small-flake core
3635		E	P3652																	22	29	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments

3635		E	P3652	1				11					3								Varied	Varied	Varied	None	Meso-EBA	Small but generally well struck flakes, some similar raw materials but condition would suggest residual or selected. Flak fragments burnt, one possibly retouch along a truncation?
3637		E	D3638	2				1					1								Varied	Worn, rolled	Chipped	None	BA-IA	Mixed raw materials, poor condition, not diagnostic
3651		E	P3652	5				10		2	1	1	2	2							Varied	Varied	Varied	None	Mixed date	Mixed raw materials, condition generally good, some similar raw materials but lots of different ones represented. Chronologically mixed but most would be consistent with LN/EBA
3651		E	P3652																10	151	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
3651	SF200	E	P3652															1			Mottled dark grey	Thin rough slightly weathered	Slightly abraded	None	LNeo/EBA	unusually large end and side scraper
3676	<320>	E	P3675																40	223	Unknown	Varied	Burnt	Unknown	Undated	Heavily burnt flint fragments
3676		E	P3675																1216	21544	Unknown	Varied	Burnt	Unknown	Undated	Heavily burnt flint fragments
3677		E	Tw3679																6	39	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments
3677		E	Tw3679	1				6				2									Varied	Thin rough slightly weathered	Chipped	Varied	Mixed date	Chronologically mixed, includes the distal end of a plunged blade struck from a micro-blade core. One or more of the flakes may be lightly retouched or utilized
3689		E	PH3688					1													Mottled dark grey	Worn, rolled	Chipped	None	BA-IA	Narrow but badly struck

3705		E	TT3704					1													Mottled dark brown	Worn, rolled	Chipped	None	Meso-EBA	Core modification
3709		E	PH3708					1													Mottled dark grey	Worn, thermal scar	Slightly abraded	None	Meso-EBA	Thick but well struck
3727		E	PH3726								1										Mottled light grey	None	Chipped	None	Meso/ENeo	Small 24x12x2mm
3735		E	PH3734	1																	Mottled light grey	Worn, thermal scar	Chipped	None	Undated	Fairly 'squat'
3744		E	D3745																7	147	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
3744		E	D3745					1													Translucent black	Worn, rolled	Slightly abraded	None	BA-IA	Rather 'squat' core modification
3746		E	Tw3747																3	19	Unknown	None	Burnt	Unknown	Undated	Heavily burnt flint fragments
3746		E	Tw3747	1																	Translucent dark brown	Worn, rolled	Slightly abraded	None	Undated	
3748		E	PH3749								1										Translucent light grey	None	Slightly abraded	None	Meso/ENeo	Distal missing
3751		E	PH3750					1													Mottled dark grey	Thin rough slightly weathered	Chipped	None	Meso-EBA	Thick core modification
3753		E	TT3752	1				5		1	1				1						Varied	Worn, rolled	Slightly abraded	Varied	Meso-EBA	Mixed condition and raw materials but mostly Meso/ENeo
3755		E	TT3754																1	27	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragment
3757		E	P3756					2													Varied	None	Varied	None	Meso-EBA	Non-descript flake and an almost blade-like flake
3760		E	Cm3761					1													Mottled dark brown	None	Good	None	Meso-EBA	Core-face trimming flake
3760		E	Cm3761							1											Translucent dark brown	None	Varied	None	Meso/ENeo	Small, possibly utilized

3760		E	Cm3761								1										Mottled dark brown	Worn, rolled	Good	None	Meso/ENeo	Thick but prismatic, appears to have been struck from an opposed platform core
3762		E	TT3762							1				1							Mottled dark grey	Varied	Varied	None	Mixed date	BLF possibly utilized, the core is a keeled type comparable to a chopping tool
3765		E	P3764								2		1								Mottled 'stony' grey	None	Chipped	None	Meso/ENeo	FF is narrow and heavily burnt
3765		E	P3764																2	8	Unknown	Worn, thermal scar	Varied	Unknown	Undated	Heavily burnt flint fragments
3783		E	PH3782																1	49	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragment
3784		E	D3787																2	49	Unknown	Worn, thermal scar	Burnt	Unknown	Undated	Heavily burnt flint fragments
3784		E	D3787					1													Translucent dark brown	None	Chipped	None	Meso-EBA	
3786		E	D3787													1					Unknown	None	Burnt	Unknown	Undated	Flake core heavily burnt
3789		E	D3791																5	132	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
3789		E	D3791	1																	Mottled dark brown	Thin rough slightly weathered	Slightly abraded	None	Undated	Narrow
3813		E	TT3812																12	132	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
3816		E	PH3815																2	23	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
3820		E	PH3819							1											Translucent black	None	Slightly abraded	None	Meso/ENeo	
3880		E	PH3881								1										Translucent black	None	Chipped	None	Meso/ENeo	
3888		E	PH3889																2	9	Unknown	Worn, thermal scar	Burnt	Unknown	Undated	Heavily burnt flint fragments

3909		E	PH3910							1		1									Varied	Thin rough slightly weathered	Chipped	None	Meso/ENeo	NPB is a medial section of a partially cortical blade made from Bullhead bed flint
3911		E	?	1				1										1			Varied	Varied	Chipped	None	Mixed date	Chronologically mixed, includes a nice large end scraper
3923		E	PH3922										1								Translucent dark grey	None	Chipped	None	Undated	Proximal end of possible blade
3927		E	PH3926					1													Translucent light brown	None	Slightly abraded	None	Meso-EBA	Small trimming flake
3931		E	PH3930				1														Mottled dark grey	Thin rough slightly weathered	Slightly abraded	None	Undated	
3954		E	TT3953					1				1									Translucent black	None	Slightly abraded	None	Meso-EBA	Plunged blade retaining what looks like the edge of a well used scraper, also a thick and possibly later flake
3994		E	P3995	4				3	1	2			1	1		1					Varied	Varied	Varied	None	Neo	See text
3996		E	P3997	17			5	31		3	5		5	2	1	3		3			Varied	Varied	Varied	None	Neo	See text
4027		E	PH4027																1	130	Unknown	Worn, rolled	Burnt	None	Undated	Moderately burnt large rounded alluvial cobble
4086		E	PH4087																2	13	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragments
4086		E	PH4087					1													Translucent light grey	Worn, rolled	Slightly abraded	None	Meso-EBA	
4096		E	PH4097					1					1								Varied	None	Chipped	None	Meso-EBA	FF is possibly the proximal end of a prismatic blade
4102		E	PH4103																2	23	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderately burnt flint fragments
4107		E	P4109					1			1		1								Translucent black	Thin rough slightly weathered	Slightly abraded	None	Mixed date	F and FF quite chunky, PB Meso/ENeo
4108		E	P4109																1	18	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragment

4108		E	P4109					2													Mottled dark grey	Worn, rolled	Chipped	None	Mixed date	Large fairly 'squat flake and a small trimming flake
4111		E	PH4110																1	15	Unknown	Worn, thermal scar	Burnt	Unknown	Undated	Heavily burnt flint fragment
4145		E	PH4146	1																	Translucent dark grey	Thin rough slightly weathered	Good	None	Meso-EBA	Small with trimmed platform
4161		E	PH4162										1								Translucent black	Thin rough slightly weathered	Burnt	None	Undated	Fragment of a a large flake
4161		E	PH4162																1	29	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
4180		E	SFB4179								1					1					Translucent dark grey	Worn, thermal scar	Slightly abraded	None	Meso/ENeo	PB and core fragment
4193		E	P4196																4	40	Unknown	Worn, rolled	Burnt	Unknown	Undated	Moderate to heavily burnt flint fragments
4193		E	P4196					6					1	1							Varied	Worn, rolled	Varied	None	Mixed date	Variable flakes including possible early examples, simple minimally worked flake core, burnt flake fragment
4194		E	P4196					2			1										Varied	Varied	Varied	None	Meso-EBA	Early looking flakes and a PB
4194		E	P4196																1	59	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragment
4195		E	P4196																1	52	Unknown	Worn, rolled	Burnt	Unknown	Undated	Heavily burnt flint fragment
4206		E	P4205					3					1								Varied	Varied	Varied	None	Meso-EBA	Early looking flakes and a heavily burnt FF
4212		E	TT4211	2				2						2							Varied	Varied	Varied	None	BA-IA	Possible transverse rejuvenation flake, simple flake core and a keeled core both of which look quite late

4238		E	P4196															1			Mottled dark grey	Thin rough slightly weathered	Chipped	None	Meso/ ENeo	Edge trimmed prismatic blade
4239		E	P4196					1													Translucent black	Worn, rolled	Slightly abraded	None	Meso-EBA	
4242		E	P4196	1											1						Varied	Thin rough slightly weathered	Slightly abraded	None	Meso/ ENeo	Narrow DF and a micro-blade core / pseudo-burin
4245		E	SFB4207					2													Varied	None	Chipped	None	BA-IA	Non-descript
4249		E	?															1			Mottled 'stony' grey	Thin rough slightly weathered	Slightly abraded	None	Meso/ ENeo	Serrated blade
70		Eval	?	1																	Translucent dark brown	Worn, rolled	Slightly Abraded	None	Undated	Flake retaining c.70% cortex but with no dateable attributes
70		Eval	?					1													Opaque grey	Thin rough slightly weathered	Slightly Abraded	None	Meso-EBA	Small undiagnostic flake
56		T12	D55							1											Semi-translucent light brown	None	Slightly Abraded	None	Meso/ ENeo	Broken blade or blade-like flake with distal end missing. Fine edge damage may have accrued from being utilized.
56		T12	D55													1					Unknown	Thermal scar	Burnt	Incipient	Undated	Burnt fragment of a large flake or core
78		T27	PC77															1			Mottled grey semi-translucent	Worn, rolled	Good	None	BA-IA	Mis-struck but narrow flake with fine but irregular and slightly denticulated retouch along its left lateral margin. Its right margin consists predominantly of cortex. Probable knife/saw.

+		T27	U/S							1											Translucent black	None	Good	None	Meso/ENeo	Small flake with blade-like scars on dorsal. Has a small notch at distal end which might be genuine but could have accrued post-deposition
74		T28	D73					1													Translucent black	Thermal scar	Chipped	None	BA-IA	Small thick flake with wide striking platform
155		T37	D158							1											Translucent black	None	Good	None	Meso/ENeo	Narrow flake with blade-like scars on distal
155		T37	D158														1				Translucent black	None	Good	Incipient	Meso	Obliquely truncated microlith. The proximal end has been truncated with abrupt retouch along the right lateral margin, although its tip is missing. The distal end has been transversely blunted
155		T37	D158															1			Translucent black	Thin rough slightly weathered	Slightly Abraded	None	Meso/ENeo	Plunged blade removing base of a prismatic blade core. Has rather rough steep scalar retouch along its left lateral margin, possibly to aid handling. 66X26X14mm
156		T37	D158								1										Unknown	Thin rough slightly weathered	Burnt	Incipient	Meso/ENeo	Burnt medial section of a large but thin prismatic blade
156		T37	D158	1																	Translucent dark brown	Worn, rolled	Good	None	Meso-EBA	Trimmed striking platform and is of blade dimensions
157		T37	D158								1										Translucent dark brown	None	Slightly Abraded	None	Meso/ENeo	Long and narrow micro-blade 7mm wide, proximal and distal ends missing

157		T37	D158								1										Semi-translucent light brown	None	Slightly Abraded	None	Meso/ENeo	Systematically struck prismatic blade missing its distal end
163		T37	D164								1										Translucent dark brown	None	Slightly Abraded	None	Meso/ENeo	Broken with proximal end missing
163		T37	D164					1													Translucent black	Worn, rolled	Slightly Abraded	None	Meso-EBA	Flake or even possibly a blade with a facetted striking platform. Distal end missing
163		T37	D164					1													Translucent dark brown	Thin rough slightly weathered	Slightly Abraded	None	Meso-EBA	Large, thin but heavily fragmented flake
163		T37	D164	1																	Translucent black	Bullhead bed	Slightly Abraded	None	Meso-EBA	Of blade dimensions
151		T38	TT152								1										Opaque grey	None	Slightly Abraded	Incipient	Meso/ENeo	Virtually complete, measures 48X12X5mm. Its distal end appears lightly burnt
+		T38	U/S												1						Translucent Black	None	Slightly Abraded	Blue	Meso	Classic opposed platformed 'front and side' type blade core with rejuvenated platforms and a shaped back. 62g.
+		T38	U/S												1						Translucent Black	Thin rough slightly weathered	Chipped	Incipient	Meso	Small heavily reduced micro-blade core with two platforms on front and side at oblique angles. 25g.
140		T44	U/S								1										Translucent dark brown	None	Chipped	Blue	Meso/ENeo	Complete but very chipped
140		T44	U/S					1													Translucent black	Thin rough slightly weathered	Slightly Abraded	None	Meso-EBA	Has a partially facetted striking platform
140		T44	U/S					1													Translucent black	Thermal scar	Chipped	None	Meso/ENeo	Has some blade-like dorsal scars. Possibly retouched but uncertain as much post-depositional damage

112		T45	D85											1						Translucent black	Thin rough slightly weathered	Good	None	Neo/EBA	Core that has produced many thick non-prismatic blades from many platforms. 71g.
112		T45	D85												1					Translucent black	Worn, rolled	Good	None	BA-IA	Inverse' flake struck from a thermally fracture rounded cobble
112		T45	D85										1							Translucent black	Worn, rolled	Slightly Abraded	None	BA-IA	Irregularly worked unshaped core that produced wide flakes from a number of platforms. 45g.
112		T45	D85											1						Translucent black	Thin rough slightly weathered	Good	None	Neo/EBA	Irregularly worked with many platforms but with some wide blades produced. 33g.
112		T45	D85							1										Translucent black	None	Slightly Abraded	None	Meso/ENeo	Medial section of a prismatic probable blade
112		T45	D85														1			Translucent black	Thin rough slightly weathered	Good	None	Meso/ENeo	Prismatic blade with fine serrations along its left lateral margin and cortical 'backing' along its right.
112		T45	D85												1					Translucent black	Worn, rolled	Good	None	Undated	Probably a fragment from a disintegrated core
112		T45	D85												1					Translucent dark grey	Thin rough slightly weathered	Good	None	Undated	Probably a thermal disintegrated core fragment
112		T45	D85					1												Translucent black	None	Good	None	Neo/EBA	Thick flake retaining part of a striking platform with many incipient Hertzian cones on its dorsal surface. cf core tablet but not from a systematically worked core

112		T45	D85					1													Translucent dark brown	Thin rough slightly weathered	Slightly Abraded	None	BA-IA	Thick flake with severe hinge fracture scars on dorsal. Possibly struck to removed these
112		T45	D85	1																	Translucent dark brown	Worn, rolled	Slightly Abraded	None	Undated	Very thick decortication flake
115		T45	P114													1					Translucent black	Thin rough slightly weathered	Chipped	None	Meso-EBA	Fragment from a thermally disintegrated, possible blade, core, although it does not appear to have been systematically worked
+		T45	U/S					1													Translucent dark grey	None	Chipped	None	Neo/EBA	Large narrow flake
+		T45	U/S															1			Translucent black	Thin rough slightly weathered	Chipped	None	Neo/EBA	Narrow flake with blade-like dorsal scars and steep convex scalar retouch around distal. End-scraper
100		T48	P/TT102								1										Translucent black	Thin rough slightly weathered	Burnt	None	Meso/ENeo	Burnt blade with missing distal end and a dorsal surface that retains much cortex but also many very narrow blade scars
100		T48	P/TT102								1										Translucent black	Thin rough slightly weathered	Burnt	None	Meso/ENeo	Burnt blade with proximal end missing
100		T48	P/TT102								1										Translucent black	Thin rough slightly weathered	Slightly Abraded	None	Meso/ENeo	Complete prismatic blade retaining cortex at its distal end. Possibly utilized. 53X15X5mm
100		T48	P/TT102					1													Translucent black	Thin rough slightly weathered	Good	None	Meso-EBA	Core shaping or mass-reduction flake
100		T48	P/TT102							1											Translucent black	Thin rough slightly weathered	Good	None	Meso/ENeo	Small flake with some blade-like dorsal scars

100		T48	P/TT102																21	87	Unknown	Worn, rolled	Burnt	Unknown	Undated	Variable although mostly heavily burnt small rounded pebbles
+		T5	U/S												1						Semi-translucent light brown	None	Slightly Abraded	None	Meso-EBA	Produced mostly flakes but some blades. Abandoned due to a large and severe hinge/step fracture. Weighs 22g.

Table 16: Catalogue of the struck lithics

Context	Ref	Feature	Type	Shape	Platforms	Weight (g)	Colour	Cortex	Condition	Recortication	Suggested Dating	Comments
112	T45	D85	Flake	Irregular	Multiple	45	Translucent black	Worn, rounded	Slightly Abraded	None	BA-IA	Irregularly worked unshaped core that produced wide flakes from a number of platforms
112	T45	D85	Blade	Irregular	Multiple	33	Translucent black	Thin, rough slightly weathered	Good	None	Meso-EBA	Irregularly worked with many platforms but with some wide blades produced. 33g.
112	T45	D85	Blade	Irregular	Multiple	71	Translucent black	Thin, rough slightly weathered	Good	None	Meso-EBA	Core that has produced many thick non-prismatic blades from many platforms. 71g.
220		P221	Flake	Top and Front	Two	37	Unknown	Worn, rounded	Burnt	Unknown	LNeo/EBA	Rounded pebble with flakes removed from top and front. Some crushing at base cf 'anvil method' ?. 37g
220	<15>	P221	Flake	Blocky	Multiple	76	Mottled semi-opaque light grey	Worn, rounded	Good	None	LNeo/EBA	Rounded cobble with many broad flakes removed from different directions
319		D318	Flake	Front	Single A2	49	Translucent black	Worn, rounded	Slightly chipped	None	Meso-EBA	Rounded pebble with flakes removed from front from a very acute platform. Damage to platform edge suggests possibly reused as chopper?
326		TT or D327	Blade	Front	Single A2	38	Speckled dark grey	Thick, rough slightly weathered	Good	None	Meso/ENeo	Front type blade core with shaped sides and back
335		D332	Flake	Irregular	Multiple	34	Mottled black	Worn, rounded	Slightly chipped	None	BA-IA	Split or flaked pebble with a few broad flakes removed from around edges

Context	Ref	Feature	Type	Shape	Platforms	Weight (g)	Colour	Cortex	Condition	Recortication	Suggested Dating	Comments
1000		TS	Flake	Domed	Multiple	79	Translucent black	Worn, rounded	Chipped	None	LNeo/EBA	Domed core worked on both faces removing broad flakes
2506	M2587	L2506	Blade	Irregular	Single A2	32	Mottled dark grey	Thin, rough slightly weathered	Good	Incipient	Meso/ENeo	Thermally fragmented / struck pebble with flaked platform and micro-blades removed from 'front'. Possibly started to disintegrate
2522		SS	Flake	Minimally reduced	Single A2	28	Translucent dark brown	Worn, rounded	Slightly chipped	None	BA-IA	Small rounded pebble with a few small flakes removed from a cortical surface on front and one side
2529	M2536	RD2528	Flake	Minimally reduced	Single A2	53	Mottled dark grey	Recorticated thermal scar	Slightly chipped	None	Meso-EBA	Angular chunk with a series of flakes removed from a flaked platform
2529	M2536	RD2528	Blade	Irregular	Multiple	64	Mottled black	Thin, rough slightly weathered	Slightly chipped	None	Meso/ENeo	Extensively worked with flakes and blades removed from many directions from rejuvenated platforms
2544	M2537	L2544	Flake	Front	Single A2	33	Translucent black	Thin, rough slightly weathered	Slightly chipped	None	BA-IA	Spall, possibly even large flake, with a few flakes removed from its 'ventral' face. Numerous undeveloped Hertzian cones
2557		TT2556	Blade	Front	Single A2	29	Translucent black	Worn, rounded	Slightly chipped	None	Meso/ENeo	Front type with large blades struck from a flaked platform, core appear to have split during reduction
2591	M2536	RD2588	Blade	Front	Single A2	17	Translucent dark brown	Worn, rounded	Slightly chipped	None	Meso/ENeo	Front type with blades struck from an acute cortical platform with a few small flakes removed from base. Back is a ventral flake scar suggesting the use of a large flake or 'quartered' nodule
2607	M2536	RD2611	Blade	Front	Single A2	67	Translucent black	Worn, rounded	Slightly chipped	None	Meso/ENeo	Thermally fractured cobble with numerous broad flakes removed from a flaked platform at the front, some additional working to base at back.
2607	M2536	RD2611	Blade	Front	Single A2	41	Translucent dark brown	Worn, rounded	Slightly chipped	None	Meso/ENeo	Front type with blades struck from a flaked platform made on a small rounded cobble
2626	M2536	RD2622	Flake	Minimally reduced	Single A2	52	Translucent black	Worn, rounded	Slightly chipped	None	BA-IA	Thermally fractured cobble with a few broad flakes removed from a thermal surface on one side. Some undeveloped Hertzian cones on a further thermal surface
2638		CM2639	Flake	Minimally reduced	Keeled	53	Unknown	Worn, rounded	Burnt	Unknown	Neo/BA	Thermally split cobble with a few flakes removed keel style from one end

Context	Ref	Feature	Type	Shape	Platforms	Weight (g)	Colour	Cortex	Condition	Recortication	Suggested Dating	Comments
2659		TT2662	Flake	Domed	Single A1	23	Translucent black	None	Burnt	Bluish	Meso-EBA	Thick flake with small flakes removed from around all of perimeter
3500		?U/S	Blade	Lenticular	Two at right angles	17	Translucent black	Thin, rough slightly weathered	Chipped	None	Meso/ENeo	Rounded cobble with blades removed from opposed platform at front and at right-angle to this at back
3500		?U/S	Blade	Minimally reduced	Single A2	71	Mottled dark grey	Worn, rounded	Chipped	None	Meso/ENeo	Rounded cobble with blades removed from flaked platform at front Some shaping to back
3500		?U/S	Blade	Blocky	Multiple	41	Mottled light grey	Worn, rounded	Chipped	None	Meso/ENeo	Extensively reduced on front and sides and with a further platform created on base
3500		?U/S	Blade	Lenticular	Two at right angles	43	Mottled dark brown	Worn, rounded	Very abraded	None	Meso/ENeo	Rounded cobble with blades removed from front and at right angle to this at back
3506		D3505	Flake	Blocky	Multiple	41	Mottled dark brown	Thin, rough slightly weathered	Chipped	None	Neo/BA	Short flakes removed from many directions
3559		Finds	Blade	Blocky	Two opposed	29	Translucent black	Thin, rough slightly weathered	Chipped	None	Meso/ENeo	Very exhausted and rejuvenated small blade core
3601		TT3602	Flake	Blocky	Multiple	76	Mottled black	Worn, rounded	Slightly chipped	None	Meso-EBA	Rounded cobble with flakes removed from many platforms and directions
3623		TT3624	Flake	Irregular	single A1	67	Mottled light grey	Recorticated thermal scar	Slightly chipped	None	Meso-EBA	Thermally split alluvial cobble with numerous small flake removed from thermal surface around much of its perimeter. Some attempts to make a new platform on its base
3651		P3652	Flake	Irregular	Multiple	45	Translucent black	Worn, rounded	Slightly chipped	None	BA-IA	large flake or possibly domed core, with a number of variable shaped flakes removed from 'ventral'
3651		P3652	Flake	Minimally reduced	Keeled	54	Mottled light grey	Worn, rounded	Slightly chipped	None	BA-IA	A few large flakes removed keel style from the end of a rounded pebble
3753		TT3752	Blade	Irregular	Multiple	31	Mottled opaque light grey	Recorticated thermal scar	Slightly chipped	None	Meso/ENeo	Extensively reduced with flakes removed from many directions bur also some blade production
3762		TT3763	Flake	Wedge	Keeled	119	Mottled dark grey	Worn, rounded	Slightly chipped	None	BA-IA	Rounded cobble with flakes removed from a keeled platform at one end. Platform has started to disintegrate and the core resembles a chopping tool

Context	Ref	Feature	Type	Shape	Platforms	Weight (g)	Colour	Cortex	Condition	Recortication	Suggested Dating	Comments
3994		P3995	Flake	Irregular	Multiple	23	Mottled dark grey	Recorticated thermal scar	Good	None	BA-IA	Many small flakes removed from multiple directions
3996		P3997	Blade	Blocky	Multiple	33	Translucent black	Worn, rounded	Chipped	None	Meso/ENeo	Heavily worked with many blades removed from numerous directions
3996		P3997	Flake	Lenticular	Multiple	16	Mottled dark grey	Worn, rounded	Good	None	BA-IA	Heavily worked with many flakes removed from both front and back
3996		P3997	Flake	Blocky	Multiple	43	Mottled dark grey	Worn, rounded	Slightly chipped	None	BA-IA	Rounded cobble with many flakes removed from numerous directions
4193		P4196	Flake	Irregular	Single A2	62	Mottled black	Worn, rounded	Slightly chipped	None	BA-IA	Thermally split, possibly 'quartered' cobble with a few broad flakes removed from one end
4212		TT4211	Flake	Lenticular	Keeled	27	Mottled dark grey	Thin, rough slightly weathered	Slightly chipped	None	BA-IA	Angular chunk with flakes removed from a keeled platform at one end
4212		TT4211	Flake	Irregular	Multiple	51	Mottled dark brown	Worn, rounded	Slightly chipped	None	BA-IA	Rounded cobble with flakes removed from a number of different directions
4242		P4196	Blade	Irregular	Single A2	29	Mottled dark grey	Thin, rough slightly weathered	Slightly chipped	None	Meso	Large cortical flake with its proximal end facetted and a series of narrow blades struck from here down the flake's right margin. cf pseudo-burin - uncertain if worn from use or post-deposition damage
99999	Area A	U/S	Blade	Conical	Opposed	27	Mottled dark brown	Worn, rounded	Chipped	None	Meso/ENeo	Apparently 'quartered' piece with small flakes and some blades removed mostly from top of front and sides
+	T38	U/S	Blade	Front and side	Two oblique	25	Translucent Black	Thin, rough slightly weathered	Chipped	Incipient	Meso	Small heavily reduced micro-blade core with two platforms on front and side
+	T38	U/S	Blade	Front	Two opposed	62	Translucent Black	None	Slightly Abraded	Blue	Meso	Classic opposed platformed 'front and side' type blade core with rejuvenated platforms and a shaped back. 62g.
+	T5	U/S	Blade			22	Semi-translucent light brown	None	Slightly Abraded	None	Meso/ENeo	Produced mostly flakes but some blades. Abandoned due to a large and severe hinge/step fracture

Table 17: Summary of cores

Context	Ref	Feature	Type	Sub-type	Length (mm)	Breadth (mm)	Width (mm)	Colour	Cortex	Condition	Recortication	Suggested Dating	Comments
78	T27	PC77	Edge trimmed	Shallow	41	23	10	Mottled grey semi-translucent	Rolled	Good	None	BA-IA	Mis-struck but narrow flake with fine but irregular and slightly denticulated retouch along its left lateral margin. Its right margin consists predominantly of cortex. Probable knife/saw
112	T45	D85	Serrate	Blade	60	19	4	Translucent black	Thin rough slightly abraded	Good	None	Meso/ENeo	Prismatic blade with fine serrations along its left lateral margin and cortical 'backing' along its right. The working edge is slightly worn and also has spalling on both sides of its tang-like distal end, suggesting the possibility that it might have been hafted..
155	T37	D85	Microlith	Obliquely truncated	33	10	4	Translucent black	None	Good	Incipient	Meso	Proximal end obliquely truncated with abrupt retouch along the right lateral margin, tip is missing. The distal end transversely blunted.
155	T37	D85	Edge trimmed	steep	66	26	14	Translucent black	Thin rough slightly abraded	Slightly Abraded	None	Meso/ENeo	Plunged blade removing base of a prismatic blade core. Has rather rough steep scalar retouch along its left lateral margin, possibly to aid handling.
200		D201	Edge trimmed	steep	42	54	10	Mottled black/grey	Thick rough slightly abraded	Slightly chipped	None	Meso-EBA	Large flake with small stretch of fine steep abrupt retouch on part of distal. Possibly post-depositional?
220		P221	Rod	Fabricator?	62	15	5	Mottled dark grey	None	Slightly chipped	None	Meso-EBA	Well struck prismatic blade with both normal and inverse irregular retouch / battering along both margins
220		P221	Scraper	Side	37	22	9	Mottled dark grey	Thin rough slightly abraded	Good	None	BA	Thermally flawed flake with medium, steep convex scalar retouch around left margin
220	<15>	P221	Scraper	end	16	19	6	Translucent black	Recorticated thermal scar	Good	None	BA	Small flake with medium, moderately steep almost straight scalar retouch around distal
220	<15>	P221	Scraper	End and side	18	20	7	Translucent black	None	Good	None	BA	Small flake with fine to medium, moderately steep, slightly convex scalar retouch around distal and right margin

Context	Ref	Feature	Type	Sub-type	Length (mm)	Breadth (mm)	Width (mm)	Colour	Cortex	Condition	Recortication	Suggested Dating	Comments
220	<15>	P221	Scraper	end	21	20	7	Opaque light grey	None	Good	None	BA	Small flake with medium, moderately steep almost straight scalar retouch around distal
220		P221	Scraper	Side	26	27	9	Translucent dark brown	Worn, rounded	Good	None	BA	Thermally flawed flake with a short stretch of medium, steep convex scalar retouch around left margin
220	<15>	P221	Scraper	Circular	35	30	8	Translucent dark grey	Thin rough slightly abraded	Slightly chipped	None	BA	Flake with medium, steep slightly convex scalar retouch around distal and both margins leaving only striking platform intact. Almost horseshoe shaped.
220	<15>	P221	Scraper	end	20	30	12	Translucent dark brown	Recorticated thermal scar	Slightly chipped	None	BA	Broad flake with medium, steep irregularly convex retouch around distal
220		P221	Scraper	Side	28	16	8	Mottled dark brown	Thermal scar	Slightly chipped	None	BA	Narrow but thick flake with fine, moderately steep slightly convex retouch along right margin
220		P221	Scraper	End and side	40	22	10	Translucent black	Worn, rounded	Slightly chipped	None	BA	Narrow but badly detached flake with medium to extensive slightly convex scalar retouch around distal and extending up right margin
220		P221	Scraper	Side	39	36	8	Translucent dark brown	Worn, rounded	Slightly chipped	None	BA	Narrow but thick flake with small area of shallow scalar retouch on right margin
220	<15>	P221	Scraper	End and side	19	22	7	Translucent dark brown	Worn, rounded	Slightly chipped	None	BA	Small cortical flake with medium, moderately steep almost straight retouch around distal and left margin
220		P221	Scraper	Side	26	35	10	Mottled dark brown	Battered	Slightly chipped	None	BA	Flake with inverse medium steep convex scalar retouch on left margin and lighter more irregular retouch on right margin
220		P221	Scraper	End	20	26	8	Translucent dark brown	Battered	Slightly chipped	None	BA	Badly detached flake with medium, moderately steep convex scalar retouch around distal
220		P221	Scraper	Side	>20	>20	4	Translucent dark brown	None	Slightly chipped	None	BA	Small flake with part of left margin and distal missing and fine to medium, steep convex scalar retouch around right margin

Context	Ref	Feature	Type	Sub-type	Length (mm)	Breadth (mm)	Width (mm)	Colour	Cortex	Condition	Recortication	Suggested Dating	Comments
220		P221	Scraper	Side	30	24	9	Translucent dark brown	None	Slightly chipped	None	BA	Badly detached flake with fine shallow slightly convex scalar retouch around right margin
220		P221	Scraper	Side	29	31	9	Translucent black	Worn, rounded	Slightly chipped	None	BA	Flake with a small stretch of medium, steep convex scalar retouch around right margin
220		P221	Scraper	Side	24	26	7	Translucent dark brown	Worn, rounded	Slightly chipped	None	BA	Flake with fine to medium slight convex steep scalar retouch around left margin. Crushed edges
220		P221	Scraper	End and side	31	336	12	Translucent dark brown	Worn, rounded	Slightly chipped	None	BA	Mostly cortical flake with moderate to extensive steep convex scalar retouch around distal and extending upright margin.
220		P221	Scraper	Circular	25	20	6	Translucent dark brown	Worn, rounded	Slightly chipped	None	BA	Cortical flake with medium, steep, slightly convex scalar retouch around all of perimeter including striking platform forming tear-drop shaped implement.
220		P221	Scraper	Side	23	25	8	Mottled dark grey	Worn, rounded	Slightly chipped	None	BA	Flake with medium, moderately steep convex scalar retouch around right margin
220		P221	Scraper	Side	30	24	7	Mottled dark brown	Worn, rounded	Slightly chipped	None	BA	Flake with medium, steep convex scalar retouch around right margin
220		P221	Scraper	Side	42	36	10	Mottled dark grey	Thin rough slightly abraded	Slightly chipped	None	BA	Irregular flake with medium, steep convex slightly denticulated scalar retouch around right margin. Also some shallow inverse retouch around distal end.
250		D251	Serrate	Blade	>52	24	6	Mottled dark grey	None	Chipped	None	Meso/ENeo	Large blade with c. 9 serrations per 10mm along right margin and fine shallow scalar retouch along left margin. Both edges show wear from use. Proximal end missing
285		D287	Scraper	Side	30	29	12	Translucent black	Worn, rounded	Slightly chipped	None	BA	Thick flake with medium, moderately steep scalar convex retouch around right margin

Context	Ref	Feature	Type	Sub-type	Length (mm)	Breadth (mm)	Width (mm)	Colour	Cortex	Condition	Recortication	Suggested Dating	Comments
335		D332	Microlith	Obliquely truncated	>30	10	3	Translucent light grey	None	Slightly chipped	None	Meso	Prismatic blade with proximal end obliquely truncated with abrupt retouch on right margin. Fine retouch on opposed edge. Distal and proximal tips missing
1000		TS	Denticulate	irregular	44	30	18	Mottled black/grey	Worn, rounded	Chipped	None	MBA-IA	Thick cortical flake with small flakes removed inversely from around left margin and proximal end forming a crude denticulate
1000		TS	Scraper	End and side	37	37	9	Mottled dark brown	Recorticated thermal scar	Chipped	None	Neo-BA	Flake with fine to medium, moderately steep irregular scalar retouch around distal and extending up right margin
1001		SS	Serrate	Blade	>27	19	5	Semi-opaque light grey	None	Slightly chipped	None	Meso/ENeo	Distal end of a prismatic blade with c. 5 serrations per 10mm along right margin
1001		SS	Edge trimmed	steep	41	31	10	Translucent black	Worn, rounded	Chipped	None	Neo-BA	Flake with inverse irregular retouch along right margin and irregular retouch along left
1026		P1027	Serrate	Flake	40	30	10	Translucent dark grey	Worn, rounded	Good	None	Meso/ENeo	Flake with c. 8 serrations per 10mm along right margin. Cortical backing
1026		P1027	Serrate	Flake	47	25	7	Mottled light grey	Worn, rounded	Good	None	Meso/ENeo	Flake with very fine serrations c. 15 per 10mm along right margin. Possible cortical backing
1026		P1027	Burin	double ended	55	21	7	Translucent black	None	Good	None	Meso/ENeo	Large non-prismatic blade with slightly oblique retouch truncating proximal end, this has then been used to longitudinally detach a burin spall along right margin with moderate wear on working edge. Distal end has a retouched transverse truncation with possible small burin spall detached transversely across this
1026		P1027	Serrate	Blade	>27	16	4	Translucent dark brown	None	Good	None	Meso/ENeo	Proximal end of a prismatic blade with very fine serrations c. 15 per 10mm along right margin

Context	Ref	Feature	Type	Sub-type	Length (mm)	Breadth (mm)	Width (mm)	Colour	Cortex	Condition	Recortication	Suggested Dating	Comments
2509	M2537	L2509	Microlith	Bi-truncated	30	11	4	Mottled light grey	None	Good	None	Meso	Prismatic blade with proximal and distal ends obliquely truncated with abrupt retouch on right margin and further abrupt retouch along most of left margin. Proximal end slightly rounded (microlith base?) Very tip possibly snapped
2549	M2537	L2549	Scraper	Denticulated	47	45	18	Speckled light grey	Thick rough slightly abraded	Good	None	MBA-IA	Primary flake with a small stretch of steep denticulated scalar convex scalar retouch on right margin near distal
2569		TT2568	Microlith	Rod	>25	6	3	Translucent dark grey	None	Slightly chipped	Incipient	Meso	Prismatic blade with abrupt retouch along both lateral margins obliquely truncating proximal end, very tip of distal missing
2609	M2636	RD2611	Scraper	long-end	63	26	15	Mottled dark brown	Recorticated thermal scar	Slightly chipped	None	Meso/ENeo	Thick prismatic blade with well executed extensive steep convex scalar retouch around distal
2623	M3536	RD2622	Scraper	End and side	32	24	6	Mottled dark brown	Worn, rounded	Slightly chipped	None	LN/EBA	Narrow flake with well executed medium, steep to slightly invasive convex scalar retouch around distal and all of right margin
2656		TT2662	Knife	Cortically backed	43	21	8	Translucent dark brown	Recorticated thermal scar	Chipped	None	Meso-EBA	Blade with medium, shallow and slightly invasive retouch along left margin and natural cortex 'backing' along right margin
2660		TT2662	Scraper	End	34	25	9	Translucent black	Thin rough slightly abraded	Slightly chipped	None	Neo-BA	Well struck cortical flake with medium, slightly invasive scalar 'nosed retouch around distal end
2661		TT2662	Edge trimmed	Fine	46	20	8	Translucent black	Thin rough slightly abraded	Slightly chipped	None	Meso/ENeo	Thick prismatic blade with very retouch / use-wear along both margins
2664		TT2666	Edge trimmed	Fine	>46	11	3	Translucent dark brown	None	Good	None	Meso/ENeo	Very narrow prismatic blade with fine almost micro-denticulated retouch along right margin. Distal tip missing
3500		?U/S	Scraper	End and side	35	25	9	Mottled dark grey	Recorticated thermal scar	Chipped	None	Meso-EBA	Narrow flake with medium, steep to invasive convex scalar retouch around distal and all of right margin

Context	Ref	Feature	Type	Sub-type	Length (mm)	Breadth (mm)	Width (mm)	Colour	Cortex	Condition	Recortication	Suggested Dating	Comments
3500		?U/S	Scraper	end	35	28	10	Mottled dark grey	None	Chipped	None	Meso-EBA	Flake with extensive slightly denticulated moderately steep convex scalar retouch around distal
3500		?U/S	Scraper	end	>34	37	10	Mottled dark grey	None	Slightly chipped	None	Meso-EBA	Distal end of blade with medium to extensive, moderately steep convex scalar retouch around distal. Possible concave retouch on left margin?
3500		?U/S	Burin	double ended	58	10	3	Translucent black	None	Chipped	None	Meso/ENeo	Prismatic blade with slightly oblique retouch truncating proximal end, this has then been used to longitudinally detach a burin spall along right margin and shows moderate wear on working edge. Distal end has a longitudinal burin spall detached along left margin
3501		Finds	Scraper	End	44	35	14	Translucent black	None	Chipped	None	Meso-EBA	Flake with medium to extensive, steep convex sub-parallel scalar retouch around distal
3623		TT3624	Rod	Fabricator?	>50	17	14	Translucent dark grey	Thin rough slightly abraded	Chipped	None	Meso-EBA	Non-prismatic blade with extensive, very steep scalar retouch along right margin. proximal end extant but shows no fabricator-like attrition
3651	SF200	P3652	Scraper	End and side	86	47	20	Mottled dark grey	Thin rough slightly abraded	Slightly chipped	None	LN/EBA	Very large non-prismatic blade with extensive, steep straight scalar retouch along right margin and medium to extensive steep convex scalar retouch around distal and left margin
3911		?	Scraper	End	57	38	11	Mottled dark grey	Thin rough slightly abraded	Chipped	None	Meso-EBA	Flake with well executed medium, steep convex scalar retouch around distal
3996		P3997	Edge trimmed	Shallow	>29	31	6	Translucent black	None	Chipped	None	Neo-BA	Distal end of thin flake with inverse slightly invasive retouch on left margin
3996		P3997	Edge trimmed	bifacial	33	27	5	Translucent black	None	Chipped	None	Neo-BA	Flake with slightly invasive bifacial retouch on right margin

Context	Ref	Feature	Type	Sub-type	Length (mm)	Breadth (mm)	Width (mm)	Colour	Cortex	Condition	Recortication	Suggested Dating	Comments
3996		P3997	Notch	Hollow	41	57	17	Mottled light grey	None	Slightly chipped	None	Neo-BA	Thick flake with wide notch/hollow scraper edge 30xmm wide and 5mm deep on right margin
4238		P4196	Edge trimmed	steep	>31	16	3	Mottled dark grey	Thin rough slightly abraded	Chipped	None	Meso/ENeo	Medial section of a prismatic blade with fine, steep slightly denticulated abrupt retouch along left margin. Possible cortically 'backed'
4249		?	Serrate	Blade	67	25	9	Mottled opaque light brown	Thin rough slightly abraded	Slightly chipped	None	Meso/ENeo	Partially cortical blade with c. 8-12 serration per 10mm along both margins. Distal end shows some edge rounding
+	T45	U/S	Scraper	End				Translucent black	Thin rough slightly abraded	Chipped	None	Neo/EBA	Narrow flake with blade-like dorsal scars and steep convex scalar retouch around distal. End-scraper

Table 18: Summary or retouched lithic implements

C.4 Glass

By Carole Fletcher

C.4.1 The excavation produced an assemblage of vessel glass weighing 0.581kg in total, recovered from four contexts in Trench C. No complete vessels were recovered.

C.4.2 Late 19th-20th century bottle glass was recovered from what is described as a modern fill, context 1519. Bottle glass of the same date was recovered from ditch **1652**, which also produced earlier pottery, suggesting that the glass may be intrusive.

C.4.3 A single shard of thin, heavily patinated vessel glass of uncertain date was recovered from ditch **1693**, a feature that also produced medieval pottery. A large base shard from a late 18th-19th century bottle was recovered from layer 1728.

Conclusion

C.4.4 With the exception of the glass recovered from ditch **1693**, all of the glass is late 18th century or later.

Context	Weight (kg)	Description	Date
1519	0.089	Rim and neck shards from a clear, dark green glass ?wine bottle.	Late 19th-20th century
1651	0.008	Neck shard from a clear, colourless, moulded glass bottle, with raised bands on the neck giving a faceted appearance. Possibly from a sauce bottle.	Late 19th-20th century
	0.006	Body shard from a clear, colourless, cylindrical glass bottle.	Late 19th-20th century
1695	0.001	Shard of thin, near colourless, heavily patinated glass.	Not closely datable
1728	0.477	Base and part of body from an olive green/natural black glass, cylindrical bottle. The surface of the glass is slightly clouded internally and externally, giving an opaque appearance.	Late 18th-19th century
Total	**0.581**		

Table 19: Glass

C.5 Prehistoric Pottery

By Sarah Percival

Introduction and methodology

C.5.1 A total of 597 sherds of prehistoric pottery weighing 6039g were collected during excavations along the route of the pipeline.

C.5.2 The assemblage was analysed in accordance with the Guidelines for analysis and publication laid down by the Prehistoric Ceramic Research Group (PCRG 2010). The total assemblage was studied and a full catalogue was prepared. The sherds were examined using a binocular microscope (x10 magnification) and were divided into fabric groups defined on the basis of inclusion types. Fabric codes were prefixed by a letter code representing the main inclusion present (F representing flint, G grog and Q quartz). Vessel form was recorded; R representing rim sherds, B base sherds, D decorated sherds and U undecorated body sherds. The sherds were counted and weighed to the nearest whole gramme. Decoration and abrasion were also noted. The pottery and archive are curated by OAE.

Area A

C.5.3 The assemblage recovered from Area A comprised 129 sherds of Later Neolithic/Early Bronze Age Beaker plus and scraps of undiagnostic prehistoric pottery (Table 20). The majority of the Beaker came from the fill of a single feature, pit **221**, which also produced a significant quantity of worked flint (Bishop below).

Area	*Feature*	*Context*	*Feature type*	*Spot date*	*Quantity*	*Weight (g)*
A	**221**	220	**Pit**	Later Neolithic/Early Bronze Age	127	1887
	224	222	**Ditch**	Later Neolithic/Early Bronze Age	1	83
	296	294	**Ditch**	Not closely datable	1	1
				Early Bronze Age	1	5
	338	337	**Post hole**	Not closely datable	1	1
Total					**131**	**1977**

Table 20: Quantity and weight of prehistoric pottery from Area A.

C.5.4 Pit **221** contained sherds from eight Beakers, none complete but including four partial profiles, bases, rims, large highly decorated body sherds and further large body sherds from a coarse undecorated vessel. The decorated Beakers are all of globular or 'East Anglian' form being characterised by short flared necks, squat rounded bodies and pinched or footring bases with decoration covering the whole of the body of the pot. Decorative techniques represented include square-toothed-comb impressed decoration forming filled bands or plain horizontal bands around the pot, fingernail impressions, either single or in pairs, and tool impressed decoration. The range of decoration compares well with 'domestic' Beaker found at Stansted (Leivers 2008) and Rainham Football Ground (Costello 1997). The vessels are made of a range of grog- and/or flint-tempered fabrics in fine, silty clay fired to a pale buff salmon colour.

C.5.5 The size of the pottery assemblage found in pit **221** and the composition which includes many large and distinctive sherds suggests that the contents may have been especially selected for placement in the pit from vessels which were already broken but still recognisable to the depositor, a depositional practice also suggested by the accompanying flint assemblage.

C.5.6 Ditch **224** contained a single large rim sherd from a short-necked Beaker with direct round rim and square-toothed-comb impressed bands over the vessel body. The sherd is made of sandy grog-tempered fabric with occasional flint inclusions and is very similar to a Beaker found at Rainham Football Ground (Costello 1997). The sherd is likely to be redeposited.

Area B

C.5.7 The assemblage from Area B comprises 91 sherds weighing 579g of Earlier Neolithic pottery from three contemporary pits and four possibly Later Iron Age sherds from subsoil 1001.

C.5.8 Earlier Neolithic pottery was recovered from three pits **1025**, **1027** and **1029.** Each of the pits contained a mix of small, often abraded sherds from a number of vessels. Rims are present from three bowls - all are rolled or turned-over, with a single rim recovered from each feature. One example, from pit **1029** has a row of punched impressions below the rim whilst the others are undecorated. Decoration is found on one sherd which has impressed, perhaps cord-impressed, decoration to the vessel body. The sherds are found in a mix of fabrics mostly sand with flint or flint-tempered but including one shell-tempered vessel.

C.5.9 The assemblage is mostly Plain Bowl with a small element of perhaps Mildenhall or similar Neolithic Impressed Ware broadly contemporary with Earlier Neolithic pottery found locally at Springfield Lyons (Brown and Medlycott 2013). The small size and poor condition of the sherds suggests that they derive from a pre-pit midden deposit and represent a mix of curated utilitarian debris. Radiocarbon dating from a comparable assemblage excavated at Kilverstone, Norfolk suggests that the mix of Plain Bowl and Mildenhall Ware was deposited around 3650-3400 cal. BC (Garrow *et al* 2006, 72).

C.5.10 Four Later Iron Age sherds from subsoil 1001 are made of sandy micaceous fabric and are well fired with smoothed surfaces.

Area	*Feature*	*Context*	*Feature type*	*Spot date*	*Quantity*	*Weight (g)*
B	**1001**	1001	**Subsoil**	Later Iron Age	4	53
	1025	1024	**Pit**	Earlier Neolithic	43	227
	1027	1026	**Pit**	Earlier Neolithic	28	257
	1029	1028	**Pit**	Earlier Neolithic	20	95
Total					**95**	**632**

Table 21: Quantity and weight of prehistoric pottery from Area B.

Area C

C.5.11 The small assemblage from Area C comprises nine body sherds weighing 82g, all in medium coarse flint-tempered fabric. The fabric suggests that the undecorated body sherds are probably Earlier Neolithic and were found residually in two later features, pit **1611** and medieval floor **1610**.

Area	Feature	Context	Feature type	Spot date	Quantity	Weight (g)
C	**1610**	1610	**Floor**	Earlier Neolithic	5	39
	1611	1613	**Pit**	Earlier Neolithic	4	43
Total					**9**	**82**

Table 22: Quantity and weight of prehistoric pottery from Area C.

Area D

C.5.12 Area D produced 234 prehistoric sherds weighing 1,772g. Much of the assemblage is composed of small, abraded, flint-tempered body sherds many recovered from layers representing ploughed-out mound material. The bulk of these sherds have been assigned a Middle Bronze Age date as the fabrics are similar to those of the securely dated cremation vessels, however, the dating of these sherds should be considered tentative.

C.5.13 Three undecorated coarsely flint-tempered body sherds of possible Early Neolithic pottery were recovered from the fill of Early Bronze Age tree-throw **2662.** This feature also contained a single sherd of Early Bronze Age pottery and a mixed assemblage of flint including some Early Neolithic material but predominantly dating to the Later Neolithic to Early Bronze Age (see Bishop above).

C.5.14 The small Early Bronze Age assemblage comprises three sherds weighing 9g. Two grog-tempered body sherds, one with impressed decoration made with a fine round-toothed comb, came from tree-throw **2567**. A single sand-with-grog tempered sherd was found in the fill of tree-throw **2662.**

C.5.15 The large Middle Bronze Age assemblage contains 199 sherds weighing 1,661g and includes the remains of five cremation urns. The first urn, found in cremation pit **2500**, is made of sandy clay with moderate, large angular flint inclusions. The vessel is tub shaped with a direct flat rim. The diameter at the rim is 170mm. The second urn from cremation pit **2578** is made of similar fabric with a direct rounded rim with a diameter of 160mm, slightly tapering body and a simple 90° base angle. Urn three, from cremation pit **2621**, comprises three joining sherds from a heavily flint tempered base. The fourth urn found in cremation pit **2636** is of sandy flint-tempered fabric with only the upper body and direct, rounded rim surviving. Urn five, from **2639**, is of medium coarse flint-tempered fabric again with the upper body and direct flattened rim surviving.

C.5.16 The small plain bucket or tub-shaped urns find parallel with undecorated Middle Bronze Age cremation vessels found within the otherwise extensively decorated Ardleigh assemblage (Brown 1999, fig. 66, 103), across Essex at sites such as Great Bently (Brown 1999, fig. 78, 170) and in the Ardleigh style assemblage from St Osyth where radiocarbon dates suggest the cremations were deposited between 1430 to 1300 cal. BC (95%) and 1370 to 1200 cal BC (95%) (Germany 2007).

C.5.17 One further base angle plus ten body sherds from a tub or bucket shaped vessel in flint-tempered fabric came from barrow ditch **2588**. The remainder of the Middle Bronze Age pottery comprises small body sherds in sand and flint-tempered fabrics from a variety of contexts into which they had been displaced (Table 23).

C.5.18 Iron Age sherds were found in four contexts. Pit **2583** contained three sherds weighing 10g and including rims from two jar, one rounded everted and one flat direct, and an undecorated body sherd. Pit **2598** contained a single sandy micaceous body sherd weighing 3g. The pottery from the pits is probably Later Iron Age (350BC-AD50). Layers **2506** and **2573** each produced single undecorated body sherds in sandy fabrics.

Area	Feature	Context	Feature type	Spot date	Quantity	Weight (g)
D	**2447**	2547	**Slot**	Middle Bronze Age	3	5
	2500	2501	**Pit**	Middle Bronze Age	56	526
	2504	2504	**Layer**	Middle Bronze Age	1	4
	2505	2505	**Layer**	Middle Bronze Age	7	48
	2506	2506	**Layer**	Later Neolithic early Bronze Age	13	24
				Iron Age	1	5
	2507	2507	**Layer**	Not closely datable	3	1
	2508	2508	**Layer**	Middle Bronze Age	1	5
	2510	2510	**Layer**	Middle Bronze Age	1	2
	2514	2514	**Layer**	Middle Bronze Age	1	8
	2516	2516	**?**	Middle Bronze Age	1	6
	2518	2519	**Ditch**	Later Iron Age	1	17
	2538	2538	**Layer**	Middle Bronze Age	3	17
	2543	2543	**Layer**	Middle Bronze Age	1	9
	2546	2546	**Layer**	Middle Bronze Age	1	9
	2551	2552	**Layer**	Middle Bronze Age	2	3
	2567	2566	**Tree throw**	Early Bronze Age	2	6
				Middle Bronze Age	1	4
	2573	2573	**Layer**	Iron Age	1	3
	2578	2577	**Cremation**	Middle Bronze Age	42	547
	2585	2583	**Pit**	Later Iron Age	3	10
	2586	2586	**Layer**	Not closely datable	1	1
	2588	2591	**Barrow ditch**	Middle Bronze Age	11	56
	2508	2508	**Layer**	Later Iron Age/ Early Roman	1	3
	2598	2596	**Pit**	Middle Bronze Age	3	16
	2611	2607	**Ditch**	Middle Bronze Age	2	23
	2615	2614	**Cremation**	Middle Bronze Age	1	6
	2618	2619	**Natural**	Middle Bronze Age	3	13
	2621	2620	**Pit**	Middle Bronze Age	3	47
	3500	3500	**?**	Not closely datable	3	6
	2622	2624	**Barrow ditch**	Middle Bronze Age	7	53
	2636	2635	**Cremation**	Middle Bronze Age	28	149
	2639	2638	**Cremation pit**	Middle Bronze Age	18	85
	2643	2642	**Natural**	Middle Bronze Age	1	9
	2652	2649	**Pit**	Middle Bronze Age	1	11
	2658	2657	**Post hole**	Not closely datable	2	20
	2662	2656	**Natural**	Early Bronze Age	1	3
		2660	**Natural**	Earlier Neolithic	1	2
		2661	**Natural**	Earlier Neolithic	2	10
Total					**234**	**1772**

Table 23: Quantity and weight of prehistoric pottery from Area D.

Area E

C.5.19 A total of 128 sherds weighing 1,856g were collected from Area E (Table 24).

Area	*Feature*	*Context*	*Feature type*	*Spot date*	*Quantity*	*Weight (g)*
E	**3501**	3501	**Unstratified**	Earlier Neolithic	1	10
	3581	3582	**Tree-throw**	Earlier Neolithic	1	6
	3587	3586	**Pit**	Later Bronze Age	14	284
		3595	**Pit**	Later Bronze Age	12	277
	3594	3593	**Tree-throw**	Not closely datable	1	3
	3602	3601	**Tree-throw**	Earlier Iron Age	2	8
	3610	3609	**Pit?**	Earlier Iron Age	1	10
	3622	3621	**Pit**	Middle Neolithic	1	13
	3652	3651	**Pit**	Middle Neolithic	1	14
	3660	3659	**Natural**	Middle Neolithic	3	13
	3665	3666	**Pit**	Middle Neolithic	78	1161
	3679	3677	**Trackway?**	Not closely datable	1	3
	3683	3682	**Pit**	Not closely datable	1	3
	3756	3757	**Pit**	Mid Bronze Age	2	19
	3881	3880	**Post hole**	Early Bronze Age	2	16
	3997	3996	**Pit**	Early Bronze Age	4	6
	4087	4086	**Post hole**	Early Bronze Age	1	2
	4124	4123	**Post hole**	Not closely datable	1	1
	4196	4195	**Pit**	Earlier Iron Age	1	7
Total					**128**	**1856**

Table 24: Quantity and weight of prehistoric pottery from Area E

C.5.20 The earliest pottery found was two body sherds of flint-tempered Early Neolithic date collected from unstratified context 3501 and the fill of tree-throw **3581**.

C.5.21 Middle Neolithic Peterborough Ware was recovered from pits **3622**, **3652** and **3665** and tree-throw **3660**. A large body sherd in sandy, flint-tempered fabric, collected from pit **3622,** is decorated with cord impressions typical of Mortlake style Peterborough Ware. A second decorated body sherd in similar fabric, found in pit **3652**, has whipped cord-maggot impressions. A larger assemblage of 78 sherds weighing 1,116g and representing the partial profile of a single vessel was collected from pit **3665**. This vessel is of Fengate sub-style with a tapering body and stylised collar. The vessel is densely decorated with fingernail impressions on the body, cord impressions on the collar forming horizontal and diagonal filled panels and deep fingertip impressions below. The interior bevel of the rim is also decorated with fingernail impressions. The Peterborough Ware vessel is made of fine, sandy clay with grog inclusions and sub-angular voids suggesting that an inclusion, perhaps soft chalk or grog, has been lost. The extensive use of fingernail impressions and the preference for grog-temper in Fengate pottery and flint/quartz temper in Mortlake forms was also noted within the Peterborough Ware assemblage found locally at Springfield Cursus (Brown 2001, 123). Recent research suggests that Peterborough Ware was in use from *c.*3500 to 3000/2800 BC (A. Tinsley pers, comm.)

C.5.22 Seven sherds weighing 24g were spot dated to the Early Bronze Age. These include four sherds weighing 6g from possibly contemporary pit **3997,** in sandy flint- and grog-tempered fabrics one with fingernail-impressed decoration. The pit contained flint of

predominately Early to Mid Neolithic date meaning that the tentative dating of the pottery may be erroneous. A further three undecorated body sherds in similar fabrics were recovered as residual material in Early Saxon post holes **3881** and **4087**.

C.5.23 Two possible Middle Bronze Age flint-tempered body sherds weighing 19g were found in the fills of (Later Neolithic) pit **3756** which also contained two undiagnostic flints.

C.5.24 A significant assemblage of 26 sherds weighing 561g and containing rim and body sherds from a Later Bronze Age, flint-tempered, tripartite jar with burnished surfaces and impressed decoration on the shoulder was collected from pit **3587**. Two coarse, flint-tempered base sherds with distinctive, vertical-finger-wiped surfaces were also found. The jar is similar to vessels found within the enclosure ditch at Springfield Lyons (Brown and Medlycott 2013, figs 3.30 and 3.31).

C.5.25 Two sherds collected from tree-throw **3602** in sandy flint-tempered fabric include a fragment of rounded rim sherd which may be Earlier Iron Age or Earlier Neolithic. A further two small body sherds in flinty fabric from possible pit **3610** and Early Saxon pit **4196** may also be Early Iron Age.

Statement of Research Potential

C.5.26 The Earlier Neolithic pottery found along the pipeline route offers an opportunity to examine and perhaps date Plain Bowl and Mildenhall pottery, a period which requires greater clarification of both ceramic typologies and occupation activity (Medlycott 2011, 13). The assemblage from Area B, although small, could perhaps be radiocarbon dated for comparison with Springfield Lyons and similar local contemporary assemblages.

C.5.27 Peterborough Ware remains an area of research with old sequential chronologies largely abandoned as typologies are recognised as being more fluid than previously believed. The Peterborough Ware from Area E is therefore of interest, especially as it was deposited in tree-throws, prompting consideration of land clearance.

C.5.28 Domestic Beaker, such as those found in the pit deposit in Area A, remain fairly rare in Essex especially away from the coast. The Beaker pit found in Area A is therefore of interest, the pattern of deposition in particular requiring further analysis, perhaps in comparison to semi-complete Beaker deposits found in at Flixton Quarry, Suffolk and Biddenham Loop Bedfordshire (S Boulter pers. comm.; Luke 2008, 114).

C.5.29 The Middle Bronze Age cremations fit a pattern recognised by Nigel Brown who noted that the earlier of the urns found at Ardleigh are grog-tempered and elaborately decorated whilst the later examples tend to be plainer and flint-tempered (Brown 1999, 172). This suggests that the undecorated flint-tempered urns from Area D fall later within the sequence, towards the end of the 1430/1300 cal. BC (95%) to 1370/1200 cal BC (95%) dates suggested by Germany (2007), the fabrics being precursors of the extensive use of flint prevalent in the Later Bronze Age.

C.6 Romano-British Pottery

By Alice Lyons

Introduction

C.6.1 A total of 623 sherds, weighing 6925g, of Early Romano-British pottery were found which represent a minimum of 51 individual (fragmentary) vessels. This material was recovered almost exclusively from a relict field system, indeed over 68% (by weight) of the assemblage was recovered from a single ditch (**332**: Table 25). All of the pottery of this date was found within Area A (CMEP14.1).

C.6.2 The pottery was not deposited as whole vessels but rather has found its way into the Roman ditch system perhaps as dispersed midden material. As a result of these processes the assemblage is in a severely abraded condition and has an average sherd weight of only 11.2g.

Feature type	Cut	Sherd count	Weight (g)	Weight (%)
Ditch	332	508	4769	68.87
Ditch	284	7	441	6.37
Ditch	287	12	420	6.06
Ditch	260	26	289	4.17
Ditch	215	10	207	3.00
Ditch	318	6	188	2.72
Ditch	324	16	144	2.08
Ditch	262	3	135	1.95
Ditch	224	10	83	1.20
Ditch	251	1	53	0.76
Ditch	249	4	50	0.72
Ditch	306	2	40	0.58
Ditch	345	3	31	0.45
Ditch	314	2	21	0.30
Ditch	298	2	14	0.20
Ditch	266	2	9	0.13
Post-hole	338	2	8	0.12
Ditch	343	1	7	0.10
Ditch	312	1	5	0.07
Ditch	296	1	4	0.06
Post-hole	211	1	3	0.04
Ditch	231	2	3	0.04
Ditch	227	1	1	0.01
	Total	**623**	**6925**	**100.**

Table 25: The Roman pottery by feature, listed in descending order of weight (%)

Methodology

C.6.3 The Roman pottery was analysed following the guidelines of the Study Group for Roman Pottery (Darling 2004). The numerical fabrics and forms used within this report reference those published by Going (1987), supported with references to the national fabric series (Tomber and Dore 1998), Tyers (2006).

C.6.4 The total assemblage was studied and a full catalogue was prepared (Table 27). The sherds were examined using a hand lens (x10 magnification) and were divided into fabric groups defined on the basis of inclusion types present. Broad fabrics forms (jar, bowl) were recorded. The sherds were counted and weighed to the nearest whole gramme and recorded by context. Decoration, residues and abrasion were also noted. OA East curates the pottery and archive.

Acknowledgement

C.6.5 Thanks to Ed Biddulph (OA South) for sharing the forthcoming Heybridge Roman pottery report draft text.

The Fabrics and Forms

C.6.6 Within this assemblage seven fabric groups have been identified (Table 26).

Going (1987) fabric number	Fabric name and references	Form	Sherd Count	Weight (g)	Weight (%)
Fabric 1	Colchester colour-coat (Going 1987, 3; Tomber and Dore 1998, 132)	Beaker	3	2	0.03
Fabric 18	Fine-slipped red ware of ?Hadham origin (Going 1987, 6)	Bowl	1	11	0.16
Fabric 27	Colchester buff ware (Going 1987, 7; Tomber and Dore 1998, 133)	Flagon, mortaria	6	117	1.69
Fabric 44	Storage jar fabrics (Going 1987, 9)	Storage jar	35	2703	39.03
Fabric 45	Romanizing grey wares (Going 1987, 9)	Cordoned jar	282	2344	33.85
Fabric 47	Sandy grey wares (Going 1987, 9-10)	Bowl, cup, dish	292	1727	24.94
Fabric 60	Samian (Going 1987; Tyers 1996, 112-113; Tomber and Dore 1998, 25-41; Webster 1996, 13-14)	Bowl	4	21	0.30
	Total		**623**	**6925**	100.00

Table 26. The Roman pottery fabric and forms, listed in fabric number order

C.6.7 The assemblage mostly comprises locally produced coarse wares, notably large fragments from grog-tempered storage jars (Fabric 44) and smaller pieces from Romanising grey ware cordoned jars (Fabric 44; type G19). Also found in significant quantities were Sandy grey ware globular jars fragments (Fabric 47; type G24).

C.6.8 Fine wares were scarce but two pieces of samian (Fabric 60) from La Graufesenque in Southern Gaul were recovered, also two fragments from Les Martres-de-Veyre in Central Gaul, which replaced the southern material in the early 2nd century AD (Tyers 1996, 112-3). Three extremely abraded scraps from early Colchester colour-coated beakers were also found (Fabric 1) which were probably residual as manufacture ceased after AD 55 (Symonds and Wade 1999, 233). The only other fine ware found was a red slipped ware bowl fragment (Fabric 18) which may be an early product of the Hadham kilns, in Hertsfordshire (Tyers 1996, 168-169).

C.6.9 Specialist wares were also uncommon. No amphora (Tyers 1996, 85-105) was found and only a single base from a mortarium or mixing bowl (*ibid*, 116-135) manufactured in the Colchester kilns and lined with flint trituration grits was retrieved (Fabric 27).

Summary

C.6.10 This is a small assemblage of early Romano-British pottery that is typical of the area and similar in character to previously excavated assemblages. It is largely a coarse ware utilitarian group comprising jar and storage sherds most of which were almost certainly locally made (Biddulph fth). Domestic fine wares from two sources were identified including Colchester and Hadham, with small amounts of Gaulish samian imported from the wider Empire. Comparison with the Chelmsford (Going 1987) and Heybridge (Biddulph fth) fabric and form series suggests that this assemblage was deposited between *c*. AD 80-125. The assemblage therefore, although small, adds to the growing corpus of data from this area pertinent to this period.

Potential for further study

C.6.11 This is a discrete group of Early Roman pottery. If it is decided to take this site to publication further analysis of how these fabrics and forms compare to other recently

excavated groups would be valuable. It would seem sensible, however, to wait until the Heybridge East Anglian Archaeology volume is published (expected December 2015) as this will become the new type site for the region.

The pottery catalogue

KEY: B = base, Beak = beaker, C=century, D = decorated body sherd, E=early, Flag= flagon, L=late M=mid, Mort= mortaria, R = rim, SJAR = storage jar, U=undecorated body sherd.

For full fabric names see Table 26.

Context	Cut	Feature Type	Going 1987 Fabric Number	Dsc	Form	Quantity	Weight (g)	Date
210	211	post hole	47	U	JAR	1	3	MC1-C4
214	215	ditch	44	U	SJAR	1	109	MC1-C3
214	215	ditch	47	UB	JAR	7	81	MC1-C2
214	215	ditch	47	U	JAR/BOWL	1	6	LC1-C4
214	215	ditch	18	D	JAR/BOWL	1	11	C2-C4
222	224	ditch	47	RUB	JAR	6	67	MC1-C2
222	224	ditch	47	D	JAR	3	15	E/MC2-C3
223	224	ditch	47	U	JAR	1	1	MC1-C2
225	227	ditch	47	U	JAR/BOWL	1	1	MC1-C4
230	231	ditch	60	U	DISH	2	3	C2
248	249	ditch	44	R	SJAR	1	27	MC1-C3
248	249	ditch	47	RU	JAR	3	23	MC1-C3
250	251	ditch	44	RUB	SJAR	1	53	MC1-C3
258	260	ditch	44	U	SJAR	1	62	MC1-C3
258	260	ditch	47	RUB	JAR	25	227	MC1-C2
261	262	ditch	44	RU	SJAR	2	124	MC1-C3
261	262	ditch	47	U	JAR	1	11	MC1-C4
265	266	ditch	47	U	JAR	2	9	MC1-C4
285	287	ditch	1	D	BEAK	2	1	E/MC2-EC3
285	287	ditch	44	U	SJAR	3	363	MC1-C3
285	287	ditch	47	U	JAR	3	25	MC1-C4
285	287	ditch	47	D	JAR	1	18	MC1-E/MC2
285	287	ditch	27	U	FLAG	3	13	MC1-C3
294	296	ditch	47	U	JAR	1	4	MC1-C4
297	298	ditch	60	B	BOWL	1	11	M/LC1
297	298	ditch	47	U	JAR	1	3	M/LC1
305	284	ditch	1	D	BEAK	1	1	E/MC2-EC3
305	284	ditch	44	RU	SJAR	4	434	MC1-C3
305	284	ditch	47	U	JAR	2	6	MC1-C4
307	306	ditch	47	R	JAR	2	40	MC1-C2
313	312	ditch	47	U	JAR	1	5	MC1-C2

Context	Cut	Feature Type	Going 1987 Fabric Number	Dsc	Form	Quantity	Weight (g)	Date
315	314	ditch	44	U	SJAR	1	14	MC1-C3
315	314	ditch	45	U	JAR	1	7	?RB
319	318	ditch	44	UB	SJAR	3	84	MC1-C3
319	318	ditch	27	UB	MORT	3	104	MC1-C3
325	324	ditch	44	U	JAR	8	71	MC1-C3
325	324	ditch	47	D	SJAR	1	29	MC1-C2
325	324	ditch	45	U	JAR	7	44	MC1-C2
335	332	ditch	44	RU	SJAR	9	1343	MC1-C3
335	332	ditch	47	RUB	JAR	225	1133	MC1-C2
335	332	ditch	45	RUB	JAR	31	358	MC1-EC2
335	332	ditch	45	RUB	JAR	18	232	MC1-EC2
335	332	ditch	45	RUB	JAR	183	1302	MC1-EC2
335	332	ditch	45	U	JAR/BOWL	5	18	C1
335	332	ditch	45	U	JAR	37	383	MC1-EC2
337	338	post hole	47	U	JAR	1	7	MC1-C2
337	338	post hole	47	U	JAR	1	1	E/MC2-C3
344	343	ditch	60	U	CUP	1	7	E/MC2
346	345	ditch	44	U	JAR/SJAR	1	19	MC1-C3
346	345	ditch	47	R	JAR	2	12	MC1-C4

Table 27: Romano-British pottery catalouge

C.7 Anglo-Saxon Pottery

By Paul Blinkhorn

Introduction

C.7.1 The Anglo-Saxon pottery assemblage comprised 223 sherds with a total weight of 2,989g, all of which came from Area E. The estimated vessel equivalent (EVE), by summation of surviving rimsherd circumference, was 2.00.

C.7.2 The following fabric types were noted:

Early/Middle Anglo-Saxon (c. 5th – 8th century)

F1: Sandy Chaff. Moderate to dense organic voids up to 5mm, sparse to moderate sub-rounded quartz up to 1mm. 211 sherds, 2,799g, EVE = 1.41.

F2: Sand. Moderate to dense sub-rounded to sub-angular quartz up to 1mm. 6 sherds, 20g, EVE = 1.59.

F3: ?Chalk. Moderate rounded voids up to 2mm, sparse to moderate sub-rounded quartz up to 1mm. 1 sherd, 11g, EVE = 0.

F4: Mixed. Sparse chaff voids up to 5mm, sparse sub-rounded quartz up to 2mm, rare flint and limestone up to 2mm. 6 sherds, 30g, EVE = 0.

C.7.3 The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table 28. Each date should be regarded as a *terminus post quem*.

C.7.4 The range of Anglo-Saxon fabrics is fairly typical of sites in the region, with most falling into one of the two main 'umbrella' groups in the Essex type-series, Fabric 97 "Brickearth" and Fabric F1 "Vegetable-tempered". Similar wares are known from Colchester (Cotter 2000, 21-4), and the full range of wares from this site has close parallels with that from the Anglo-Saxon settlement at Mucking (Hamerow 1993), some 20km to the south of these excavations. There, eight fabrics were noted, with organic material, sand and/or chalk being the main tempering agents (*ibid*. 28).

Chronology

C.7.5 The dating of Early Anglo-Saxon hand-built pottery is mainly reliant on the presence of decorated sherds, which are largely of 5th – 6th-century date, as such wares generally ceased to be decorated in the 7th century (Myres 1977, 1). However, it cannot be said with certainty that an assemblage which produced only plain sherds is of 7th-century date. Usually, decorated hand-built pottery comprises just 5% or less of domestic assemblages, as was the case at Mucking, Essex (Hamerow 1993, 51). Thus, fairly small assemblages of plain pottery can only usually be given a broad period date of the 5th – 9th century. However, it was noted at Mucking that organic-tempered wares became much more common during the life of the settlement, rising from between 5% - 27% of the pottery from *Grubenhauser* of 5th century date to 43 – 61% in the 6th-century examples, and 74 – 97% of the 7th-century structures (*ibid*. fig. 17). While it cannot be said with certainty that there was a similar trend here, a case can be made for it.

C.7.6 Just two contexts from this site produced decorated pottery. Sunken-featured building **3798** contained three such sherds which suggest a 5th – 6th century date. The group includes a sherd with rustication, a fairly common method of decoration and well-attested at Mucking (eg. *ibid*. fig. 94.12), a single sherd with a fragment of an horizontal incised, and a third with an external *Schlickung*, an applied slip, containing flint. At Mucking, rusticated and *Schlickung*-treated pottery was generally of 5th earlier 6th

century date, and very rare in late 6th - 7th century or later contexts (*ibid*., 37). Here, the rusticated sherd was in an organic-tempered fabric, but the other two are not, suggesting that organic-tempered wares were not very common in the 5th and 6th centuries, when the decorative techniques were generally used.

C.7.7 The other decorated sherd is small and slightly abraded, and came from fill 4107 in pit **4109**, very near to pit **4196** and sunken-featured building **4213**. The sherd has the partial remains of four stamps, all made with the same die, with a simple 'hot cross bun' motif. This is most likely to be of 6th-century date, when stamping was the most commonly used decorative technique (Myres 1977, 42), and given the small size and the wear present on the sherd, it is certainly the product of secondary deposition, and could very easily be residual.

C.7.8 While the vagaries of archaeological sampling cannot be entirely discounted, the fact that, of the 211 organic-tempered sherds (96.9% of the Anglo-Saxon assemblage by sherd count), just two are decorated (0.9% of the fabric assemblage), while two of 13 sherds in non-organic fabrics were so treated (15.4%), suggests that organic-tempered fabrics were less common during the period in which pottery was decorated, *ie* the 5th – 6th century, and thus that the vast majority of the organic- tempered pottery from this site is of 7th-century date.

Cross-fits

C.7.9 Given their proximity and the fact that they produced most of the pottery from the site, all the pottery from sunken-featured building **4213**, pit **4196** and pit **4109** was checked for cross-fitting sherds. The following were noted:

C.7.10 4193 = 4194 = 4238 = 4243 (all pit 4196), jar, fabric F1

C.7.11 4193 = 4243 (both pit 4196), lugged jar, fabric F1

C.7.12 This indicates that the two pits and the SFB were back-filled at different times, or a different source of back-fill material, probably domestic middens, was used in each case.

The Assemblages

C.7.13 The bulk of the Anglo-Saxon pottery (97.7% by weight) from the site came from just four features. Pit **4196**, located just to the north of sunken-featured building **4213**, produced 135 sherds weighing 2,130g, which is 71.7% of the whole period assemblage (by weight). The other features were sunken-featured building **4213** (56 sherds, 323g, 10.8%), sunken-featured building **3798** (17 sherds, 348g, 11.7%), and pit **4109** (12 sherds, 105g, 3.5%), immediately to the west of pit **4196**.

C.7.14 The dearth of pottery from most of the features is doubtless due to the nature of the settlement. Anglo-Saxon post-built structures such as those from this site are notorious for producing very little artefactual evidence due to the relatively small volume of their earth-cut features and the very short period of time in which they were open, making refined dating near-impossible (*eg*. West 1985, 111).

Pit 4196. 135 sherds, 2130g, EVE = 1.28. 7th century?

C.7.15 This feature produced 130 sherds (2,014g) of organic-tempered pottery (98.9% of the Anglo-Saxon pottery by weight), with the rest of the assemblage comprising two sherds in fabric F2 (14g), one in F4 (8g), along with single residual Romano-British and prehistoric sherds. Overall, the assemblage is in fairly good condition, and the mean sherd size (15.3g) reasonably large. One vessel, a large jar, is very well represented, with cross-fitting sherds in a number of contexts (see above), and other, large, non-

joining fragments from the rim, body and flat base. The base has a flat profile and is very under-fired and friable, which allied with its largely oxidized surfaces, suggests that the pot was fired standing upright in a bonfire. A smaller vessel with a longitudinally-mounted, pierced lug was also present in two contexts, with other non-joining sherds noted. A similar lug, probably from a different vessel, occurred in context 4242. Other than these, most vessels are represented by single sherds, including one large example from the rim of a jar, another from a smaller vessel, and a third from a small bowl. It seems likely, therefore, that much of this pottery was the product of secondary deposition, although the number of cross-fits with the feature indicates that most of the back-fill came from a common source, and it was largely a single event.

Sunken-featured building 4213. 56 sherds, 323g, EVE = 0.59. 7th century?

C.7.16 All the pottery from this feature comprised single, generally small sherds from different vessels, other than a fairly large fragment from the rim of a small bowl, suggesting that it is nearly all the product of secondary deposition. This impression is enhanced by the fact that the mean sherd weight, 5.8g, is very low, and some of the sherds show signs of abrasion. The bulk of the assemblage again comprises organic-tempered wares (51 sherds, 268g).

Sunken-featured building 3798. 17 sherds, 348g, EVE = 0.08. 5th – 6th century?

C.7.17 This is one of only two features from the site which produced decorated pottery which can be said to be of 5th – 6th century date. The assemblage is quite small, and again comprises single sherds from different vessels, but the mean sherd size is reasonably large (20.4g), and there is little sign of abrasion. Much of the assemblage (13 sherds, 286g) is organic-tempered, but, as noted above, two of the three decorated sherds are not. The decorated sherds comprise a small fragment of a rusticated vessel (Fig. X7), the neck of a jar with a fragment of an horizontal incised line, and a sherd with an applied *Schlickung*. There is also a fragment of a footed base, which is an unusual but far from unknown form (*eg*. Hamerow 1993, fig. 164.14).

Pit 4109. 12 sherds, 105g, EVE = 0.03. 6th century?

C.7.18 The pottery from this pit, a single small Roman sherd (1g) aside, entirely comprised fairly small sherds of organic-tempered wares (mean sherd weight = 10.6g). It comprises entirely bodysherds apart from a rimsherd from a jar, and a single small sherd with fragments of four stamps. It is the only stamped sherd from the site, and probably of 6th-century date, but given its small size and slightly abraded condition, it is certainly the product of secondary deposition, as is the rest of the assemblage, which consists of single sherds from different vessels.

	F1002		F1001		F1		F2		F3		F4		
Cntxt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	Date
3559					2	9							U/S
3765					1	6							E-MSAX
3781					1	15							E-MSAX
3798					5	64	1	19	1	11			ESAX
3862							1	5					E-MSAX
3904			1	22	7	144	1	10					E-MSAX
3906					1	78							E-MSAX
3963											1	7	E-MSAX
3973					1	7							E-MSAX
4107			1	1	10	102							6thC
4108					1	2							E-MSAX
4180					10	32							E-MSAX
4182					3	407							E-MSAX
4193			1	1	20	168							E-MSAX
4194					15	296							E-MSAX
4195					3	8							E-MSAX
4197					28	41	1	6			1	8	E-MSAX
4198					4	31							E-MSAX
4208					9	43					4	15	E-MSAX
4210					3	11							E-MSAX
4238					12	485							E-MSAX
4239					11	83							E-MSAX
4242	1	3			16	193							E-MSAX
4243					22	489	1	8					E-MSAX
4245					5	33							E-MSAX
4246					1	1							E-MSAX
4247					17	63	1	72					E-MSAX
4248					3	38							E-MSAX
Total	1	3	3	24	211	2799	6	120	1	11	6	30	

Table 28: Saxon pottery occurrence by number and weight (in g) of sherds per context by fabric type

C.8 Medieval and post-medieval pottery

By Helen Walker

Introduction

C.8.1 A total of 661 sherds of medieval and later pottery weighing 11.087kg was excavated, most of which is medieval, spanning the 12th to 14th centuries. The medieval assemblage appears to be entirely domestic and largely typical of central Essex, although there is slight evidence that dairying was taking place. There are also small late medieval and post-medieval assemblages.

C.8.2 The Medieval Pottery Research Group (MPRG) A *guide to the classification of medieval ceramic forms* (MPRG 1998) and *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics* (MPRG 2001) act as a standard. The pottery recording follows Cunningham's typology of post-Roman pottery in Essex (Cunningham 1985a, 1-16; expanded by Cotter 2000 and Drury *et al.* 1993). Some of Cunningham's rim-form codes are quoted in this report. All percentages quoted are by weight.

C.8.3 The assemblage is recorded in the summary catalogue. The pottery and archive are curated by Oxford Archaeology East until formal deposition.

Sampling Bias

C.8.4 The open area excavation was carried out by hand and selection made through standard sampling strategies on a feature by feature basis. There are not expected to be any inherent biases. Where bulk samples have been processed for environmental remains, there has also been some recovery of pottery.

The Assemblage

C.8.5 Table 25 shows the total sherd count and weight of all fabrics, shown in approximate chronological order.

Fabric Name	No. Sherds	Weight (g)	% by weight
Shell-tempered ware	1	4	<0.1
Shell-and-sand-tempered ware	23	513	4.6
Sand-and-shell-tempered ware	3	40	0.4
Early medieval ware	27	569	5.1
Early medieval ware with grog	5	54	0.5
Early medieval flinty ware	33	1244	11.2
Medieval coarseware	258	3865	34.9
Hedingham coarseware	107	1522	13.7
Mill Green coarseware	47	535	4.8
Coarse London-type ware	8	117	1.1
Hedingham fineware	15	314	2.8
Sandy orange ware	30	429	3.9
Colchester-type ware	1	13	0.1
Mill Green fineware	45	365	3.3
Kingston-type ware	1	6	<0.1

Fabric Name	No. Sherds	Weight (g)	% by weight
Mill Green-type ware	2	51	0.5
Tudor red earthenware	27	730	6.6
Raeren stoneware	2	52	0.5
Post-medieval red earthenware	16	500	4.5
Black-glazed ware	5	97	0.9
Metropolitan slipware	1	12	0.1
Creamware	2	16	0.1
Modern white earthenware	1	13	0.1
Modern flowerpot	1	26	0.2
Total	**661**	**11087**	

Table 29: Medieval and post-medieval pottery fabrics present in the assemblage

C.8.6 No Late Saxon pottery is present. The earliest pottery comprises the coarse, sandy, early medieval ware and the early medieval shelly wares, which can be shell only, or tempered with the addition of varying amounts of sand. In central Essex these wares span the 11th to early 13th centuries. They are relatively common in the assemblage, accounting for around 11% of the total. The shelly wares account for just under half of this total, with shell-and-sand-tempered ware by far the most common type. A few sherds of early medieval ware, all from the same vessel, show inclusions of grog as well as sand. Not included in this total, because they are borderline between early medieval ware and medieval coarseware, are examples of a pale grey early medieval flinty fabric showing sparse flint as well as sand-tempering. Table 29 shows that early medieval flinty ware is relatively common at 11% of the total, but this may more apparent than real as sherds tend to be thick-walled and therefore heavy. Never-the-less they outnumber standard early medieval ware by sherd count.

C.8.7 Medieval coarseware is by far the largest component of the assemblage accounting for 35% of the total. This typically grey-firing pottery gradually replaced the coarser, oxidised early medieval ware during the later 12th and earlier 13th centuries. Medieval coarseware was manufactured at several production sites around the county and is not easy to distinguish, although it is possible to differentiate the coarsewares made at Hedingham in north Essex and at Mill Green, south of Chelmsford. Hedingham coarseware ware has a fine micaceous matrix and is tempered with grey, straw-coloured and whitish sands, the latter often protruding through the surface. Often there is the addition of sparse rust-coloured iron oxides. Oxidised margins are also common. However, a recent study of the Hedingham ware production sites (Walker 2012) has shown that the coarseware varies enormously in colour, coarseness and general appearance, so it is not as easy to distinguish it from other coarsewares as previously thought, especially as similar vessels types were produced at Mile End and Great Horkesley, to the north of Colchester, and further along the Colne Valley from the Hedingham area. For the purposes of this report, only those coarsewares that are very typical of Hedingham production are classified thus. Mill Green coarseware also has a fine micaceous matrix, but tends to be oxidised. Vessels are thin-walled and the fabric is tempered with more rounded sands than used at Hedingham, which often poke through the surface giving a pimply yet smooth feel. At this site Hedingham coarseware is far more abundant than Mill Green coarseware and they account for 14% and 5% of the total respectively.

C.8.8 The medieval East Anglian redwares found here comprise Hedingham fineware, dating from the mid-12th to mid-14th centuries, and the later Mill Green fineware, not present until the mid-13th century. Mill Green ware is slightly more common on site, at just over 3% of the total, while Hedingham fineware accounts for just under 3% of the total. The medieval Mill Green industry ended in the 14th century, but potting continued in the area into the later medieval and post-medieval periods with little change in fabric. A couple of sherds in the assemblage are described as Mill Green-type ware; these are plain undecorated sherds that may be medieval or belong to the later industry.

C.8.9 Also included in the category of East Anglian redwares is sandy orange ware which, like medieval coarseware, was manufactured at several sites and is not particularly distinguishable. However, one sherd was identified as Colchester-type ware and here is occurring at its south-western limit of distribution. Sandy orange ware is also used as a bucket category for unidentified glazed wares. The sandy orange wares account for 4% of the total.

C.8.10 Medieval traded wares include a small amount of London-type ware (the coarse fabric only) (1% of the total), which was widely traded from the later 12th to mid-13th centuries. There is also a single sherd of Kingston-type ware, part of the Surrey white ware industry, which probably belongs to the later 13th to mid-14th centuries. Both types are distributed widely but sparsely throughout the county and are not especially unusual, even at rural sites such as this.

C.8.11 A small proportion of the ceramics comprises late medieval pottery, accounting for around 7% of the total. Most of this is Tudor red earthenware, which is a fine, smooth, unglazed or very sparsely glazed redware, sometimes with reduced surfaces and slip-painting. Some may be the product of the potting village of Stock to the south of Chelmsford, the probable successor of the Mill Green industry, although fine, smooth fabrics of this date were also made further west at Harlow. The only other pottery type of this date is Raeren stoneware, the ubiquitous import from Rhineland Germany, dating chiefly to the late 15th to mid-16th centuries.

C.8.12 Post-medieval pottery comprises glazed post-medieval red earthenware, black-glazed ware, and metropolitan slipware, most of which belongs to the 17th century. Post-medieval pottery is even less common than the late medieval ceramics, accounting for 5.5% of the total.

C.8.13 Only a handful of sherds date to the modern period, the late 18th to 20th centuries, comprising creamware, modern white earthenware and flowerpot fragments.

Medieval vessel forms

C.8.14 The only medieval fineware vessel form identified is the jug and some of those in Hedingham fineware and coarse London-type ware are quite early. Ditch group 1529 produced fragments of a coarse London-type ware jug, comprising a sagging base showing a band of oblique pricked-combing just above the basal angle and sherds from the vessel wall showing vertical combed decoration under a greenish splash glaze. The shape of the base indicates it is from an early rounded jug datable to the late 12th century, and while not directly paralleled, combed decoration does occur on early rounded London-type ware jugs (Pearce *et al.*1985, fig. 18.29) and an example of pricked-combing appears on a later, highly decorated-style jug (Pearce *et al.*1985, fig. 43.145). Two Hedingham fine ware jugs (residual in modern fence line 1682 and from unphased layer 1501) possess collared rims and show red slip-painting and have been identified as London-style early rounded jugs (the Hedingham industry copied London products) datable to *c.*1140/50 to 1200 (*cf.* Cotter 2000, fig. 49.1,4).

C.8.15 There are also examples of jug fragments in these wares showing Rouen-style decoration datable to the early to mid-13th century; a fragment of coarse London-type ware, residual in Period 5.2 beam-slot **1623**, shows applied white slip strips intersecting at right angles with a pellet of red slip on the intersection, under a greenish pitted glaze (*cf*. Pearce *et al.* 1985, fig. 31.84-5). The Hedingham ware sherds showing Rouen-style decoration are of the type showing rows of applied slip pellets under a red slip-coating and bounded by lines of white slip (*cf.* Cotter 2000, fig. 50.15). Not assigned a decorative style, but likely to belong to the early to mid-13th century, are sherds of an unidentified sandy orange ware fabric showing thick applied branching red slip-stripes over a white slip background with a mottled green glaze. Several sherds of Hedingham ware show applied strips under a mottled-green glaze and are likely to be from stamped strip jugs - this is a common type of Hedingham ware jug which was produced more or less throughout the life time of the industry.

C.8.16 The two main types of Mill Green ware surface treatment, comprising slip-painting usually under a plain lead glaze, and slip-coating under a mottled-green glaze, sometimes accompanied by vertical combing, are both represented here. Similar sherds also occur in sandy orange ware and were probably imitating Mill Green products. It is interesting to note that there are sherds of Hedingham ware showing vertical combed decoration. They are probably from pear-shaped jugs and belong to the final expression of the Hedingham ware industry, dating to the later 13th to mid-14th centuries (Cotter 2000, 82, 91). One of the more unusual finds (from beam-slot **1625**) is the upper part of a Mill Green ware jug with a cylindrical neck showing a pouring lip, an applied cordon around the neck, and a row of pressed-out raspberry stamps around the shoulder. It has an olive-green glaze without the addition of copper. Although raspberry stamps appear on jugs dating from the late 13th century, the lack of coloured slips and the absence of copper in the glaze indicate a later date when jugs became much plainer. Raspberry stamps are paralleled at a Mill Green-type production site at Rayleigh, in south-east Essex (Walker 1990, fig. 2.36), which produced wares in an identical fabric to that of Mill Green ware, but of stylistically later types datable to the 14th to 15th centuries. A later 14th-century date is suggested for this vessel, partly on the grounds of its similarity to Kingston-type ware jugs of this date showing similarly positioned wheat-ear stamps (Pearce and Vince 1988, 43, fig. 92.284).

C.8.17 As is typical of medieval assemblages, the cooking-pot is the most common coarseware vessel and can be approximately dated by rim form. The earliest type comprises a single example of a thickened everted rim in shell-and-sand-tempered ware, which could be as early as 11th century. Then there are examples of 12th century-type beaded cooking-pot rims, in shell-and-sand-tempered ware, early medieval ware and medieval coarseware. Cooking-pots with the more developed thickened everted rim and the similar everted rim with a pointed edge (Cunningham's rim-forms B2 and B4), datable to *c.*1200, occur in early medieval ware, early medieval flinty ware, medieval coarseware and Hedingham coarseware. The squared cooking-pot rim above a short upright neck (sub-form H2), datable to the early to mid-13th century, occurs in medieval coarseware and Hedingham coarseware, as does the H1 rim type, which is similar to the H2 rim, but is flanged rather than squared and was current throughout the 13th century and perhaps into the 14th. H1 rims also occur in Mill Green coarseware. The blocked, neckless rim (H3) datable to the late 13th to 14th centuries occurs in medieval coarseware and Mill Green coarseware, and the similarly dated flanged, neckless rim (E5) occurs in medieval coarseware and Hedingham coarseware. There are also examples of Mill Green coarseware cooking-pots showing curved over, or cavetto rims, which may be 13th century. A few medieval coarseware cooking-pots are decorated,

and as is typical, decoration only occurs on cooking-pots with the earlier rim types. One B4 rim shows the remains of a thumbed applied strip at the neck, and a second shows bands of horizontal incised lines/combing on the shoulder. An H2 rim shows pin-pricks around the rim and around the neck. Many cooking-pot fragments show sooting around the rim edges, on the sides of the vessel and sometimes on the underside of the base. Some also show sooting, fire-blackening or shiny carbonised residues on the internal surfaces and are almost certainly cooking residues. One medieval coarseware B2 cooking-pot rim shows the remains of a small post-firing hole in the neck, probably for suspension but which could indicate a more specialised modification.

C.8.18 Several large thick-walled fragments from base and sides of an early medieval flinty ware storage jar or jars were identified. They show vertical thumbed applied strips and incised horizontal lines. However, spalling and fire-blackening on the underside of the base, indicate the jar(s) was used for cooking/heating rather than for storage. The sherds are also laminated internally. One early medieval ware storage jar rim shows a curved over rim and a thumbed applied cordon below the neck. In addition, there are Hedingham coarseware body sherds showing intersecting horizontal and vertical thumbed applied strips which may be from a storage jar, although it is not always possible to distinguish between a storage jar and a large cooking-pot as both can possess thumbed applied strips. Storage jars are current from the 12th to perhaps the mid-13th century.

C.8.19 Only two definite bowls were identified in the assemblage. One is the complete profile of a large straight-sided bowl in shell-and-sand-tempered ware (from ditch **1585**), with an everted, beaded rim and vertical thumbed applied strip extending from base to neck. There is no fire-blackening or sooting, but there is a central darkened band internally which may relate to either use or firing conditions. The second bowl (from pit **1689**) is a much smaller fragment, this time in early medieval ware, and shows a squared rim and a pre-firing hole about 1cm across just below the rim. The exterior of the bowl is fire-blackened. The bowl may have been used in dairying, perhaps heated to separate the cream, the hole being used for drainage. Similar, more complete bowls, accompanied by a ceramic cheese-press were found at farmstead sites in the area of Stansted Airport (Walker 2004, fig. 271.85, 97). Both bowls must be early as they are in early medieval fabrics, however the holed bowl has a developed rim and the fabric is borderline with medieval coarseware, therefore a later 12th to early 13th century date is suggested.

C.8.20 Coarseware jugs are very poorly represented in the assemblage and comprise a thickened everted rim and an in-turned jug rim, both in medieval coarseware and both showing faint reeding around the neck. The in-turned jug rim probably dates to the mid-13th to mid-14th centuries as it is similar to Mill Green fineware jug rims of this date. Also present is a fragment of obliquely stabbed Hedingham coarseware handle most likely from a jug.

C.8.21 Late medieval and post-medieval vessel forms are noted in the next section.

The Assemblage In Relation to Archaeological Features

C.8.22 Medieval and later pottery was excavated from Area C only. Table 30 indicates the size of the assemblage within each period and phase.

Period	Phase	No. Sherds	Weight (kg)	% of Assemblage by weight (kg)
Period 5	Phase 5.1 (l 12th to mid-14th century)	504	8147	73.5
	Phase 5.2 (early 13th to 14th century)	83	872	8.0
Period 6	Phase 6.1 (late 15th to mid-16th century)	5	132	1.0
	Phase 6.2 (17th century)	24	590	5.5
	Phase 6.3 (17th century)	26	829	7.5
-	Unphased	19	517	4.5

Table 30: Medieval and post-medieval pottery assemblage by stratigraphic period and phase

Period 5, Phase 5.1 Assemblage (12th to 14th century)

C.8.23 Period 5.1 produced the bulk of the assemblage accounting for 74% of the total. The average sherd size is quite high; if the pottery from soil samples is subtracted, as this makes the assemblage appear more fragmented than it actually is, then the average sherd weight is 16.5g. This lack of fragmentation and the fact that most sherds are unabraded indicates that residuality is low.

Deposits 1609, 1656, 1699 and 1700 (date: c.1200, with later material; group size: less than 1500g)

C.8.24 This group produced only coarsewares comprising sand-and-shell-tempered ware, early medieval ware, including the flinty variant, medieval coarseware and Hedingham coarseware. Vessel forms comprise a fragment of bowl with a B2 rim and several cooking-pot rims of various types, comprising a thickened everted rim, beaded rims, B2 and B4 rims and an H2 rim. These span the 11th to mid-13th centuries, but most could have been current around 1200. However, several sherds from a Hedingham coarseware cooking-pot, from layer 1696 (part of 1609), exhibit an E5 rim, which is much later, datable to the late 13th to 14th centuries and may be intrusive.

Floor 1610 (date: late 13th to 14th century; group size: less than 1000g)

C.8.25 Mill Green fine and coarsewares appear here. The fineware comprises small body sherds all from the same jug showing white slip-coating under a mottled-green glaze and combed decoration. There is also a slip-coated sherd from a second Mill Green fineware jug, and an abraded sherd of sandy orange ware, showing the remains of slip decoration, was extracted from soil sampling. Mill Green coarseware comprises a curved over or cavetto rim from a smallish thin-walled cooking-pot and sagging base sherds probably also from a cooking-pot. Further examples of cooking-pots are present comprising several sherds from a small wheel-thrown cooking-pot with an H1 rim in medieval coarseware, an H1 rim fragment in Hedingham coarseware, and a small fragment of H3 rim in medieval coarseware. All the larger fragments are fire-blackened or sooted. The H3 rim is typologically the latest dating to the late 13th to 14th centuries and all the pottery from floor 1610 could be of this date. The cleaning of the floor (contexts 1621, 1622) produced further sherds of Mill Green coarseware, including a sherd of cavetto rim from the same vessel in floor 1610 and a cooking-pot fragment with an H3 rim. There are also further examples of medieval coarseware and Hedingham coarseware cooking-pot rims and a sandy orange ware jug handle.

Structural group 1625 and ?beam-slot 1539 (date: spans the mid-13th to later 14th centuries; group size: less than 1500g)

C.8.26 Features that contain pottery from group 1625 comprise north-south beam-slots **1625** and **1627**, and adjacent pits/post-holes **1629**, **1631**, **1637** and **1639**. Also included in this group is possible beam-slot **1539**, which lay at right angles to **1625**. Sherds from the same sandy orange ware jug showing applied red strip decoration over a white slip-coating were recovered from pit **1631** and post-hole **1639**, suggesting that both features were open at the same time. Another sherd from this vessel was found in Period 5.2 beam-slot **1623**, but as this feature cut Period 5.1 beam-slot **1625**, it is likely to be residual. The sandy orange ware fragments could not be assigned a decorative style, but the use of different coloured slips indicates an early to mid-13th-century date. Other pottery from post-hole **1639** comprises a fragment of stabbed jug handle and body sherds with thumbed applied strips from jars or large cooking-pots in Hedingham coarseware, along with fragments from a cooking-pot with an H1 rim in medieval coarseware. These are 13th century types, although the presence of a single sherd of Mill Green coarseware precludes a date before the mid-13th century. Pit **1631** again produced medieval coarseware and Hedingham coarseware including another H1 cooking-pot rim. Post-hole **1637** produced a single sherd, a medieval coarseware cooking-pot fragment with a more developed H3 rim dating to the late 13th to 14th centuries. Nothing diagnostic was recovered from post-hole **1629**, only a small sherd of medieval coarseware and an abraded, unglazed sherd in a fine oxidised ware which might be an example of intrusive Tudor red earthenware.

C.8.27 Examples from Mill Green fineware jugs were excavated from beam-slots **1625** and **1627**. That from **1625** is the more interesting, a jug rim and shoulder decorated with raspberry stamps. As outlined above, this is likely to be a 14th-century type, perhaps late 14th century. Fragments from 13th- to 14th-century slip-decorated and glazed sandy orange ware jugs were also found in **1627**. The same range of coarseware fabrics were present in the beam-slots as in the pits and post-holes belonging to this group. Featured sherds comprise an E5 cooking-pot rim in medieval coarseware, which could easily be contemporary with the raspberry-stamped Mill Green jug, a medieval coarseware in-turned jug rim with fine reeding around the neck, and Hedingham coarseware body sherds showing intersecting thumbed applied strips, similar to those found in post-hole **1639**. The pottery from group **1625** therefore spans the mid-13th to later 14th centuries and comprises both table-wares and kitchen-wares.

C.8.28 Possible east-west beam-slot **1539** contained very little pottery, comprising a few sherds of medieval coarseware and Hedingham coarseware, and a single sherd of slipped and glazed sandy orange ware. The only featured coarseware pottery is a sherd of Hedingham coarseware showing a row of finger-impressed dimpling that may date to around the mid-13th century. While the pottery is similar to that from group **1625**, the pottery does not provide any evidence to establish whether this feature was part of the same structure.

Post-hole group 1558 and pits 1580 and 1726 (date: spans 12th to mid-14th century: group size: less than 500g)

C.8.29 This group of features appeared to form a second structure to the south of structural group 1625. Post-holes that contained pottery comprise features **1558**, **1577**, **1697** and **1724**. Again very little pottery was excavated, 26 sherds weighing 194g. The only fineware sherd, and the latest datable piece, was a sherd from the lower part of a Hedingham fineware jug from post-hole 1558, showing vertical combed decoration under a mottled-green glaze. This is a Mill Green copy and dates to the later 13th to

mid-14th century. Otherwise the post-holes contained sherds of medieval coarseware and Hedingham coarseware. The only featured sherds of which are, a rather laminated rim sherd, which might be an example of an H2 rim and a body sherd with an incised wavy line. These are 13th century types, both in medieval coarseware and both from post-hole **1697**. Post-hole **1577** also produced a sherd of shell-and-sand-tempered ware indicating activity during the 12th to early 13th century. A tiny fragment of post-medieval red earthenware from post-hole **1697** can be dismissed as residual. Features **1580** and **1726** are classified as pits, but appeared to form part of this structure and so are included in this section. Again they produced very little pottery, totalling 16 sherds weighing 201g. Pit **1580** produced a combination of medieval coarseware and Hedingham coarseware, the only featured sherd being another H2 rim. Pit **1726** produced a single sherd of shell-and-sand-tempered ware (as did neighbouring post-hole **1577**).

Pits 1509 etc. (date: early to mid-13th century: group size: less than 100g)

C.8.30 There were a number of pits in the western half of the site, away from the structural features. Only two produced pottery - pits **1509** and **1611**. Surprisingly for pits, both produced very little pottery, totalling 12 sherds weighing 63g. Pit 1611 produced a single sherd of early medieval ware and sherds of Hedingham coarseware including fragments from a cooking-pot with an H2 rim datable to the early to mid-13th century. Pit **1509** produced only a single sherd of medieval coarseware.

Ditches 1529/1585 and 1535/1537 (date: late 12th to early 13th century, with intrusive post-medieval: group size: less than 4000g)

C.8.31 Features **1529** and **1585** were sections of a roughly north-south ditch that lay between the structural features and the outlying pits. Section **1585** is considered first as it contained earlier pottery, totalling 49 sherds, weighing 1634g. Sherd linkages between all four fills (that contained pottery) indicate that they were deposited at the same time or that the fills had become mixed. The only fineware comprises fragments from a coarse London-type ware early style jug decorated with combed decoration (described above) datable to the late 12th century. Coarse wares include the profile of a large shell-and-sand-tempered straight-sided bowl showing a thumbed applied strip (also described above). In addition, there are fragments from the base and sides of a storage jar, or jars, in early medieval flinty ware showing vertical applied strips and incised horizontal lines. The interior is laminated and the underside of the base is fire-blackened indicating the vessel(s) may have actually been used for cooking rather than storage. Fragments from a medieval coarseware cooking-pot or pots are also present, unfortunately without a rim. All the coarsewares could be contemporary with the late 12th-century jug, although a date in the early 13th century cannot be ruled out.

C.8.32 Ditch section **1529** produced 52 sherds weighing 1292g. Fills 1530 and 1532 contained similar pottery and sherd linkages between the two indicate they were contemporary. The only fineware comprises several sherds from a Hedingham fineware sagging jug base showing a buff fabric and a decomposed brownish glaze. The buff fabric indicates a later 12th-century date. Otherwise the assemblage comprises medieval coarseware and Hedingham coarseware with the addition of single sherds of shell-tempered ware and shell-and-sand-tempered ware from soil sampling. Coarseware vessel forms comprise the shoulder of a possible jug, part of a small cooking-pot with a rounded profile and beaded rim, showing patches of fire blackening and sooting both inside and out, and an H1 cooking-pot rim. The latter is typologically the latest, dating to the 13th century, although the presence of the earlier types of pottery indicates an early 13th-century date is most likely. The two remaining fills (to produce pottery), 1533 and 1534,

yielded further sherds of medieval coarseware including another H1 cooking-pot rim decorated with a row of pin-pricks, which indicates an earlier 13th century date. However, the latest pottery comprises late medieval sandy orange ware, Tudor red earthenware and black-glazed ware, which cannot be earlier than late 16th century. This pottery could be intrusive, but in some cases the sherd sizes are larger than the medieval pottery. Perhaps the ditch was open for a long period of time. A Tudor red earthenware bowl fragment from fill 1534 of ditch **1529** shows a sherd linkage between Period 6.3 ditch **1517** (fill 1518), around 27m to the east, indicating horizontal movement of pottery after deposition.

C.8.33 Ditch segments **1537**/**1597** formed part of another ditch on a similar alignment to **1529**/**1585**, but on the eastern side of the site to the east of the structural features. They produced only a small amount of the pottery - 12 sherds weighing 452g. Segment 1537 produced early medieval ware with the addition of a single sherd of Hedingham coarseware. Vessel forms comprise a bead rim cooking-pot and a storage jar with a curved over rim and thumbed applied cordon. The Hedingham coarseware sherd shows a thumbed applied cordon and all could date to the 12th to early 13th century. Fill 1598 of ditch segment **1597**, to the north of **1537**, contained a different assemblage, this time containing medieval coarseware and Hedingham coarseware, but only one sherd of early medieval ware. Featured sherds comprise a B4 rim from a large cooking-pot or storage jar datable to *c.*1200, so this fill could be contemporary with the fill of segment **1537**. Fill 1600 of segment **1597** however, produced a thick-walled unglazed body sherd of sandy orange ware, which could be as late as 13th to 14th century.

Ditch 1593 (date c.1200; group size: less than 250g)

C.8.34 This is a north-west to south-east oriented feature at the southern end of the site, which produced 16 sherds weighing 208g. Finds include a single sherd of early medieval flinty ware and joining sherds of early medieval grog-tempered ware showing a slightly worn horizontal thumbed applied strip. There is a shiny black carbonised deposit on the internal surface. Medieval coarseware is also present including a B4 cooking-pot rim datable to *c.*1200.

Pit 1565 (date: medieval; group size: 10g)

C.8.35 This was the only pit amongst a group of pits in the south-east corner of the site to produce pottery, comprising only a single sherd of Hedingham coarseware (10g).

Pits 1685 and 1689 (date: mid-13th century; group size: less than 250g)

C.8.36 The most interesting find from pit **1689**, just to the west of structural group **1625**, is an early medieval ware bowl rim showing a pre-firing hole below the rim and external fire-blackening. It may have been used in dairying and could be as early as 12th to early 13th century. However, the presence of Mill Green fine and coarseware in the group precludes a date before the mid-13th century. Associated pit **1689** produced only undiagnostic sherds of medieval coarseware.

Ditch 1693 (date: early 13th century; group size: less than 500g)

C.8.37 This north-west to south-east orientated feature lay adjacent to pit **1689**. A fragment of Hedingham fineware jug showing Rouen-style decoration provides an early to mid-13th century date. This find is accompanied by undiagnostic sherds of shelly wares and medieval coarseware. The presence of the former indicates that an early 13th century date is more likely. A sherd of black-glazed ware in fill 1695 is presumed to be intrusive.

Ditches 1718 and 1720 (date: c.1200; group size: less than 100g)

C.8.38 These two ditches were situated at the southern end of the site and ran parallel to ditch **1693**. Ditch **1718** produced a single abraded sherd of medieval coarseware. Ditch **1720** produced further sherds of medieval coarseware including a B2 rim from a large cooking-pot or jar. It shows a small post-firing hole in the neck, made in antiquity. This may have been for suspension or could mean the vessel was modified for some kind of specialised purpose. The remaining finds comprise a residual sherd of Roman pottery and a sherd of Hedingham coarseware showing bands of horizontal grooves and an all over external pitted olive-green glaze.

Layer 1722 (Date: late 13th to mid-14th century; group size: less than 250g)

C.8.39 The most unusual find is a sherd of Kingston-type ware showing a mottled-green glaze, the only example of this ware to be found on site. It was widely traded during the later 13th to mid-14th centuries. There are also a number of Hedingham fineware sherds from this context. One is of a type datable to the 13th century, but the latest type is a sherd from a pear-shaped jug showing vertical combed decoration, which is the contemporary of the Kingston-type ware. Coarsewares comprise an early medieval ware B2 rim from a bowl or cooking-pot, and body sherds of medieval coarseware, Hedingham coarseware and Mill Green coarseware. While the Mill Green coarseware could easily be of the same date as the fineware sherds, the early medieval rim is likely to date to *c.*1200, demonstrating that the layer contains pottery of a mixture of dates.

Period 5.2 Assemblage (early 13th to 14th century)

Beam-slot 1623 (date: spans early 13th to 14th century; group size: less than 1000g)

C.8.40 This was the only feature assigned to Period 5.2 and contained pottery no later than that from Period 5.1. There are a number of finewares in this feature including a sherd of early to mid-13th-century sandy orange ware from the same vessel found in some of the features belonging to structural group **1625**, in Period 5.1. Of a similar date is a sherd of London-type ware showing Rouen-style decoration. Somewhat later is a fragment from the neck of a wheel-thrown Mill Green fineware jug showing horizontal reeding and splashes of glaze, which could be as late as 14th century. There is also part of a sandy orange ware jug datable to the 13th to 14th centuries. Coarsewares comprise unfeatured sherds of medieval coarseware and Hedingham coarseware and two cooking-pot rims in Mill Green coarseware, one with a curved over rim and one with an H1 rim. As this beam-slot cuts Period 5.1 beam-slot 1625, at least some of this pottery must derive from the earlier feature.

Period 6.1 Assemblage (late 15th to mid-16th century)

Post-hole 1551 and pit 1665 (date: late 15th to mid-16th century; group size: less than 250g)

C.8.41 These were the only features belonging to this phase to produce pottery, both situated in the eastern half of the site. Post-hole **1551** produced part of a Raeren stoneware squat bulbous drinking jug datable to the late 15th to mid-16th centuries and pit **1665** produced fragments of Tudor red earthenware, one slip-painted, which also provides a late 15th- to mid-16th-century date. Late medieval pottery also occurred intrusively in Period 5.1 features.

Period 6.2 Assemblage (17th century)

Pond group 1504 (date: medieval to modern: group size: less than 250g)

C.8.42 The pond, located at the centre of the site, produced a small amount of pottery comprising a mixture of sherds dating from the medieval to modern periods. The only post-medieval pottery comprises body sherds of post-medieval red earthenware, but as these were found with a sherd of modern white earthenware they could be as late as 19th century.

Ditches 1515 and 1652 (date: late 17th century and late 18th to 19th century; group size: less than 500g)

C.8.43 These ditches were situated in the south-east corner of the site. North-south ditch **1515** produced fragments from two post-medieval red earthenware vessels including an internally glazed pad base from a ?jar and the upright rim from a large lid-seated storage jar showing a thumbed applied cordon around the neck, the latter current during the late 17th century. A sherd of black-glazed ware probably from a bowl or a jar could also be of this date. Ditch **1652** which could be an east-west branch of the same ditch produced later pottery comprising a fragment from a creamware plate dating from the later 18th century to *c.*1830.

Ditch 1517 (date: late 16th to 17th centuries; group size: less than 1000g)

C.8.44 Ditch **1517**, in the south-eastern corner of the site, produced the larger assemblage, finds including two Tudor red earthenware vessels, the body of a rounded jug or jar and part of a flared bowl with a broad hollowed flanged rim. The bowl shows a swirl glaze in the base and around the lower sides and is paralleled by an example from a late 16th-century pit at Moulsham Street, Chelmsford (Cunningham 1985b, fig. 44.18). The second vessel shows a slip-painted design of stylised foliage comprising a single upright stroke, with curving strokes branching from upright. It has just a bib of glaze and is internally laminated. Again this is paralleled at Moulsham Street, this time from an earlier feature dating to the late 15th century (Cunningham 1985b, fig. 42.6), although this type of design was current in the 16th century. Also from the ditch is a post-medieval red earthenware flared dish with a simple rim, probably datable to the late 16th century. The rim has a slight bevel and two bands of beading below the rim (*cf.* Cunningham 1985a, fig. 4.19). The dish is internally glazed and there is wear around the basal angle. The latest datable pottery comprises the remains of two black-glazed ware vessels, a pad base from a mug or tyg showing rilled sides and a very dark green, rather than a true black glaze, and a carinated body sherd which appears to be from same vessel as a base fragment in context 1620, a fill of ditch group **1515** in Period 6.2. While the mug/tyg base could be late 16th century, the second black-glazed vessel is unlikely to be earlier than 17th century

Pit 1559 (date: c.1625 to mid-18th century: group size: 12g)

C.8.45 This pit was also situated in the south-east corner of the site and produced a single sherd of metropolitan slipware, probably from a dish, spanning the period *c.*1625 to mid-18th century. This feature could be contemporary with ditch **1618**.

Pit 1716 (date: ?17th century; group size: less than 50g)

C.8.46 Again, this feature was situated in the south-east corner of Area C. It produced a small rounded post-medieval red earthenware bowl or porringer showing an all over glaze and a simple upright rim with an incised groove below. It may also belong to the 17th century, but sherds of earlier Tudor red earthenware are also present.

Period 6.3 Assemblage (modern)

Drain fill 1519 (date: late 16th to 17th centuries; group size: less than 200g)

C.8.47 Drain fill 1519 produced only undiagnostic sherds of post-medieval red earthenware and a Tudor red earthenware base sherd from a large vessel, perhaps a cistern.

Fence line 1682 (date: residual medieval; group size: less than 250g)

C.8.48 Little pottery was excavated from this group of features consisting only of residual medieval sherds.

Discussion

C.8.49 Potentially the earliest pottery is the single example of shell-and-sand-tempered ware thickened everted cooking-pot rim, which could be as early as 11th century. However given that no Saxo-Norman wares are present and this rim type probably continued throughout the early medieval period, a later start date of 12th century is most likely. There are a number of beaded cooking-pot rims, which are likely to be 12th century and the early fineware jugs show there was occupation by the mid-to late 12th century. The preponderance of medieval coarseware shows that activity was at its peak between the later 12th and 14th centuries. This is substantiated by the range of cooking-pot rims and the Hedingham fineware jug-types spanning these dates. There is no evidence of a hiatus in occupation between the medieval and late medieval periods, but the late medieval assemblage and post-medieval assemblages are much smaller, suggesting that settlement declined or the focus of settlement moved elsewhere. Indeed most late medieval and post-medieval features lay at the south-east corner of the site, suggesting perhaps that occupation shifted eastwards over time. Most of the post-medieval assemblage dates from the 16th to later 17th centuries, with very little evidence of 18th-century activity and only a handful of modern sherds, which may be the result of muck-spreading from farmhouse middens, rather than the result of settlement. The rest of the discussion relates to the medieval period.

C.8.50 The site is unusual in that there are no large groups of pottery; structural features would not be expected to produce large amounts of pottery, but neither are there any substantial pit groups, not even from the large outlying pits to the west of the site, which produced only a handful of pottery. Whatever their use, they were not intended as rubbish pits. The largest assemblage came from ditch **1529**/**1585**, which produced 3kg of pottery (although this total includes intrusive later pottery). This ditch and parallel ditch **1537**/**1597** also produced some of the earliest pottery, all could have been current around 1200 and that from section **1585** could all belong to the later 12th century. Most features produced pottery spanning the later 12th to early/mid-13th centuries, but they did not contain enough pottery for these dates to be accurate. However, it is noticeable that structural group **1625** contained the latest pottery, with material dating well into the 14th century. Floor 1610 and layer 1722 contained later material and appear to be contemporary with group **1625**. Structural group **1558** contained a late 13th to 14th century sherd and could be of around the same date as group **1625**, although most material is earlier.

C.8.51 There is little evidence of horizontal movement of pottery around the site, apart from between sherds belonging to structural group **1625**. This is in contrast to farmstead sites at Stansted where a large number of horizontal sherd linkages were found (*e.g.* Walker 2004, fig. 275). This was thought to be the result of deliberate dismantling and levelling of the farmstead, perhaps to make way for sheep farming. This evidently did not happen here as occupation continued into the late medieval period and beyond.

C.8.52 Little can be said about function of the site. occupation seems almost entirely domestic with the usual preponderance of cooking-pots and a smaller amount of other coarseware vessels and fineware jugs. The only evidence of specialised activity is the holed bowl which may have been used for dairying. There is also the cooking-pot with the post-firing hole, which could indicate specialised activity of some kind. There are also fragments from storage jars. These were often used to store grain, but the fact that at least one jar is fire-blackened suggests it may have been used as a large cooking vessel.

C.8.53 The only unusual aspect of pottery supply is the frequency of Hedingham coarseware. Hedingham ware is found all over Essex apart from the south-west corner, in the area of Greater London. However, there would have been much nearer sources of medieval coarseware than Hedingham (including Mill Green). It is possible that this relates to the site's proximity to the River ChelmER and access to coastal trade via the port of Maldon. It is also unusual to find Hedingham fine and coarseware types that are datable to the late 13th to 14th centuries, as in central Essex Hedingham ware was thought to have been superseded by Mill Green ware during the later 13th century (Cunningham and Farmer 1983, 63).

C.8.54 There is little to say about status. The presence of fineware jugs show that this pottery is from living rather than service areas, but fineware jugs are present at the most modest settlements and do not indicate high status. However, they do show that the occupants were above subsistence level if they could afford to buy decorative items.

C.8.55 This assemblage is of some interest and merits publication. The Mill Green ware jug with raspberry stamps, the Coarse London-type ware jug with prick-combed decoration and the shelly ware straight-sided bowl are of intrinsic interest and should be illustrated, along with representative examples of other wares. This assemblage would make a useful comparison to other rural sites within the county and to urban sites at nearby Chelmsford.

Acknowledgments

C.8.56 John Cotter's initial spot-dating of the assemblage has been referred to throughout.

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
1501	Hedingham fineware	Jug: early rounded-style	2	39	Mixture: mid-12th C to
	Hedingham coarseware	Cooking-pot with H1 rim	1	74	modern
	Hedingham coarseware	Cooking-pot with H2 rim	1	26	
	Hedingham coarseware		6	96	
	Medieval coarseware		5	188	
	Colchester-type ware		1	13	
	Tudor red earthenware	Jug/cistern?	2	55	
	Modern flowerpot		1	26	
1506	Tudor red earthenware		1	24	Late 15th to 16th C
1507	Medieval coarseware	Jug with B2 rim	1	10	Late 15th to 16th C
	Tudor red earthenware		1	20	
	Mill Green-type ware		1	22	
1508	PMRE		3	22	19th to 20th C
	Modern white earthenware		1	13	
1510	Medieval coarseware		3	10	Mid-12th to 14th C
1518	Black-glazed ware	Mug	1	33	Mid-16th to 17th C
	PMRE	Flared dish with simple rim	3	99	
	Tudor red earthenware	flared bowl: flanged rim	4	147	
	Tudor red earthenware	Slip-painted rounded jar or jug	7	259	
1519	Tudor red earthenware	?cistern	1	80	16th C
	PMRE		3	76	
1530	Medieval coarseware	cooking-pot with H1 rim	1	58	Earlier 13th C?
	Medieval coarseware		5	98	
	Shell-tempered ware		1	4	
	Shell-and-sand-tempered ware		1	7	
1532	Hedingham fineware	Jug	5	71	Earlier 13th C?
	Medieval coarseware	Cooking-pots with H1 rims	6	311	
	Medieval coarseware	Cooking-pot with beaded rim	1	43	
	Medieval coarseware	Jug?	2	52	
	Medieval coarseware		17	441	
1533	Medieval coarseware		1	6	Later 14th to 15th C
	Sandy orange ware	?Drinking jug	1	62	
	Tudor red earthenware		2	25	
1534	Medieval coarseware	Cooking-pot with H1 rim	2	52	Late 16th to 17th C
	Medieval coarseware		1	24	
	Black-glazed ware	Mug	1	4	
	Tudor red earthenware		3	23	
	PMRE		2	11	
1538	Early medieval ware	Cooking-pot with beaded rim	2	65	12th to early 13th C
	Early medieval ware	Storage jar with cavetto rim	2	76	
	Early medieval ware		1	20	
	Hedingham coarse ware		1	5	
1540	medieval coarseware		1	10	Mid-12th to 14th C
1552	Raeren stoneware	Drinking jug	2	52	Late 15th to mid-16th C
1560	Metropolitan slipware	Flatware	1	12	c.1625 to mid-18th C
1566	Hedingham coarseware		1	10	Mid-12th to 14th C
1575	Hedingham fineware	Jug: combed decoration	1	35	Later 13th C to early
	Hedingham coarseware		1	16	14th
	Medieval coarseware		2	8	
1576	Shell-and-sand-tempered ware		1	7	12th to 13th C
	Medieval coarseware		11	53	
1579	Medieval coarseware	Cooking-pot with H2 rim	1	23	Early to mid-13th C

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
	Medieval coarseware		9	114	
	Hedingham coarseware		5	53	
1584	Hedingham coarseware		3	17	Around mid-13th C?
	Medieval coarseware		2	5	
	Sandy orange ware		1	2	
1586	Coarse London-type ware	Jug: rounded	1	45	Late 12th C
	Shell-and-sand-tempered ware		2	33	
1587	Coarse London-type ware	Jug: rounded	2	15	Late 12th C
	Early medieval flinty ware	Storage jars	5	100	
	Medieval coarseware	Cooking-pot	5	130	
	Medieval coarseware		2	9	
1588	Coarse London-type ware	Jug: rounded	3	45	Late 12th C
	Early medieval flinty ware	Storage jar	16	891	
	Medieval coarseware	Cooking-pot	5	81	
	Medieval coarseware		3	50	
1589	Shell-and-sand-tempered ware		1	9	13th C
	Medieval coarseware	Cooking-pot with H1 rim	1	44	
	Medieval coarseware		5	60	
1592	Early medieval ware with grog		5	54	c.1200
	Early medieval flinty ware		1	17	
	Medieval coarseware	Cooking-pot with B4 rim	1	52	
	Medieval coarseware		9	85	
1596	Shell-and-sand-tempered ware	Bowl: straight-sided	5	235	12th to early 13th C
1598	Early medieval ware		1	19	c.1200
	Hedingham coarseware	Cooking-pot with B4 rim	1	111	
	Medieval coarseware		2	55	
1600	Sandy orange ware		1	46	13th to 14th C
	Medieval coarseware		1	55	
1609	Medieval coarseware	Cooking-pot with B4 rim	1	41	Early to mid-13th C
	Medieval coarseware	Cooking-pot with H2 rim	1	33	
	Medieval coarseware		6	104	
1610	Mill Green fineware	Jug	26	111	Late 13th to 14th C
	Mill Green fineware		1	2	
	Mill Green coarseware	Cooking-pot with cavetto rim	1	15	
	Mill Green coarseware		2	29	
	Medieval coarseware	Cooking-pot with H1 rim	6	68	
	Medieval coarseware	Cooking-pot with H3 rim	1	10	
	Medieval coarseware		7	45	
	Hedingham coarseware	Cooking-pot with H1 rim	3	44	
	Sandy orange ware		1	3	
1612	Early medieval ware		1	11	Early to mid-13th C
	Hedingham coarseware	cooking-pot with H2 rim	7	30	
1613	Hedingham coarseware		1	12	Mid-12 to 14th C
1617	Hedingham coarseware		1	9	17th C
	PMRE		1	11	
	Black-glazed ware		1	9	
1620	PMRE	Jar	1	208	17th C or later
	PMRE	Storage jar with lid-seated rim	1	66	
	Black-glazed ware		1	45	
1621	Mill Green coarseware	Cooking-pot with cavetto rim	1	9	Mid-13th to14th C
	Hedingham coarseware	Cooking-pot with B4 rim	4	41	
	Medieval coarseware		5	75	

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
1622	Sandy orange ware	Jug	1	41	Late 13th to 14th C
	Mill Green coarseware	Cooking-pot with H3 rim	1	19	
	Hedingham coarseware	Cooking-pot with H1 rim	8	180	
	Medieval coarseware		4	35	
1624	Mill Green fineware	Jug	1	5	later 13th to 14th C +
	Sandy orange ware	Jug with ribbed handle	14	195	earlier
	Coarse London-type ware	Jug: Rouen-style	2	12	
	Sandy orange ware	Jug with red slip	2	20	
	Mill Green coarseware	Cooking-pot with cavetto rim	32	349	
	Mill Green coarseware	Cooking-pot with H1 rim	1	56	
	Hedingham coarseware		6	52	
	Medieval coarseware		25	183	
1626	Mill Green fineware	Jug with raspberry stamps	10	167	Later 14th C
	Hedingham coarseware		1	3	
	Medieval coarseware		3	38	
1628	Mill Green fineware	Jug	3	61	Late 13th to 14th C
	Sandy orange ware	Jug: Mill Green-style	1	14	
	Sandy orange ware	Jugs	5	26	
	Mill Green coarseware		6	48	
	Medieval coarseware	Jug: in-turned rim	1	18	
	Medieval coarseware	Cooking-pot with E5 rim	1	34	
	Medieval coarseware		12	129	
	Hedingham coarseware	Jar	2	48	
	Hedingham coarseware		10	119	
1630	Medieval coarseware		1	6	Medieval and
	Tudor red earthenware		1	3	late medieval
1632	Sandy orange ware	Jug: red slip	2	17	Earlier 13th C
	Hedingham coarseware	Cooking-pot with H1 rim	1	28	
	Hedingham coarseware		1	21	
	Medieval coarseware		4	26	
1638	Medieval coarseware	Cooking-pot with H3 rim	1	20	Late-13th to 14th C
1640	Sandy orange ware	Jug	1	3	Mid-13th to 14th C
	Mill Green coarseware		1	2	
	Medieval coarseware	Cooking-pot with H1 rim	8	82	
	Medieval coarseware		1	73	
	Hedingham coarseware	Jug	1	13	
	Hedingham coarseware	Jar	14	193	
1651	Creamware	plate	2	16	Later 18th C to c.1830
1653	Tudor red earthenware		3	80	Late 15th to mid-16th C
1656	Shell-and-sand-tempered ware	Cooking-pot: thickened everted rim	3	77	c.1200
	Shell-and-sand-tempered ware	Cooking-pot with beaded rim	1	34	
	Shell-and-sand-tempered ware		8	84	
	Early medieval ware	Cooking-pot with B2 rim	1	32	
	Early medieval ware		14	268	
	Early medieval flinty ware		8	189	
	Hedingham coarseware	Cooking-pot with B2 rim	1	64	
	Medieval coarseware		8	67	
1667	Mill Green-type ware		1	29	Mid-13th to 15th C
1669	Hedingham fineware	Jug: early rounded style	2	67	c.1140/50 to 1200
1671	Medieval coarseware		1	10	Mid-12th to 13th C
1686	Medieval coarseware		4	51	Mid-12th to 13th C
1690	Early medieval ware	Bowl with hole	1	32	Mid-13th to 14th C

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
	Early medieval ware		1	4	
	Mill Green coarseware		1	4	
	Mill Green fineware		4	19	
1694	Shell-and-sand-tempered ware		1	27	12th to early 13th C
	Early medieval ware		2	31	
	Medieval coarseware		1	35	
1695	Hedingham fineware	Jug: Rouen-style	1	52	Early to mid-13th C +
	Sand-with-shell-tempered ware		2	29	1 post-med sherd
	Medieval coarseware		13	156	
	Black-glazed ware		1	6	
1696	Early medieval flinty ware	Cooking-pot with B2 rim	3	47	Latest is late 13th to
	Hedingham coarseware	Cooking-pot with E5 rim	15	129	14th C
	Medieval coarseware		4	37	
1698	Medieval coarseware		7	34	Early to mid-13th C
	PMRE		1	2	+ intrusive post-med
1699	Medieval coarseware	Bowl	1	28	c.1200
	Medieval coarseware		4	69	
1700	Medieval coarseware	Cooking-pot with B2 rim	7	71	c.1200
1715	Tudor red earthenware		2	14	16th C or later
	PMRE	Bowl: small, rounded	1	5	
1719	Medieval coarseware		1	6	Mid-12th to 14th C
1721	Roman pot		0	0	13th C
	Hedingham coarseware		1	5	
	Medieval coarseware	Cooking-pot with hole in neck	1	26	
	Medieval coarseware		6	44	
1723	Kingston-type ware	Jug	1	6	c.1270 to c.1360
	Hedingham fineware	Jugs	3	22	
	Hedingham fineware	Jug: pear-shaped	1	28	
	Early medieval ware		1	11	
	Mill Green coarseware		1	4	
	Medieval coarseware		5	45	
	Hedingham coarseware		10	123	
1725	Medieval coarseware		2	39	Mid-12th to 14th C
1727	Sand-with-shell-tempered ware		1	11	11th to early 13th C
Total			**661**	**11087**	

Table 31: Medieval and post-medieval pottery catalogue

C.9 Ceramic Building Material

By Rob Atkins

Introduction

C.9.1 A moderate assemblage of CBM comprising 834 fragments (69.71kg) was recovered from both the evaluation (Atkins 2013b) and excavation phases (Table 32). The large majority of the CBM was recovered from excavation Area C with a background scatter found at the other sites. The CBM is discussed by Area and a catalogue of all the CBM is included as Tables 40-45.

Area	Roman	Brick	Medieval Floor tile	Floor brick	Peg tile	Ridge/hib tile	Drain	Total
Area A	5/133	6/1562	1/115	1/1126	2/150	-	-	**15/3086**
Area B	-	2/11	-	-	1/190	-	-	**3/201**
Area C	3/281	129/29050	-	-	642/33566	10/367	1/109	**785/63373**
Area D	-	1/74	-	-	3/216	-	-	**4/290**
Area E	6/826	13/671	-	-	2/93	-	1/96	**22/1686**
Trench 39	**-**	2/633	1/390	-	2/50	-	-	**5/1073**
	14/1240	**153/32001**	**2/505**	**1/1126**	**652/34265**	**10/367**	**2/205**	**834/69709**

Table 32: CBM by area, number of fragments and weight

Methodology

C.9.2 All complete widths and thickness of brick and tiles were recorded. The exception were ceramic tiles where the thickness was not measured. The peg holes of the tiles were assessed to differentiate them between one and two peg hole types.

C.9.3 The fabrics of the bricks and tile from Area C were very similar with the assemblage largely comprising an orange medium sandy fabric. The bricks mostly had some inclusions such as very small ironstone pieces as well as some small internal voids. The only difference between tile fabrics was whether there was a reduced core or were fully oxidised. Some of the differences between a tile with a small internal reduced core and one fully oxidised may be explained away by slightly different lengths of kiln firings and the position of different tiles laid in the kilns. The fully oxidised tile may have been placed where there was most oxygen.

C.9.4 The colour of the brick and tiles varied from orange to orangey red in the main and this was due to how the fragments had been fired/overfired. In some cases the brick (and a few of the tiles) were so overfired that they became hard red or even pink internally and brown externally with in some cases there was extreme vitrification.

C.9.5 It is notoriously difficult to say where medieval tiles and bricks had been produced as there are few records surviving for these kilns. It is worth noting that in the late medieval/early post-medieval periods both brick and tiles were often produced in the same kiln.

C.9.6 The brick and ceramic tile will be discarded, with permission of Maria Medlycott of Essex County council. None of the bricks/tiles were complete/near complete and there were no examples worthy of illustration or photography. photographing.

Results (Area A; CMEP14.1)

C.9.7 A scatter of CBM was found within Area A both in the evaluation (Trenches 3, 7 and 9) and in the excavation (Table 33). Three small Roman tile fragments (83g) were found in Period 3.4 Early Roman ditch **287**, one fragment in Roman Period 3.5 ditch **255** and a fragment in Period 7 tree throw **274** (Table 40). The six brick fragments were all recovered from three Period 6.2 ditches (**231**, **328** and **359**). Five of the brick fragments date to the late medieval period (14th-early 16th century) and one is late medieval/early post-medieval in date (Table 41). A medieval floor tile was recovered from pit **20** and an 18th- to 19th-century floor brick from ditch **4** (Table 42). Only two peg tile fragments were found in ditches **38** and **347** (Table 43).

Type	No. of contexts	No. Fragments	Weight (g)
Roman	3	5	133
Brick	3	6	1562
Medieval floor tile	(1)	(1)	(115)
Post-medieval floor brick	(1)	(1)	(1126)
Peg tile	1 + (1)	1 + (1)	52 + (98)
Total		**15**	**3086**

Table 33: Area A quantification of CBM by type

Conclusion

C.9.8 The background scatter of Roman and medieval CBM is probably not significant. This material is likely to have originated from buildings some distance from its final deposition.

Results (Area B; CMEP14.2)

C.9.9 Two undiagnostic probable brick fragments were found in the subsoil and a single peg tile fragment from Period 6.2 ditch **1011** (Tables 34, 40 and 42).

Type	No. of contexts	No. Fragments	Weight (g)
Brick	1	2	11
Peg tile	1	1	190
Total		**3**	**201**

Table 34: Area B quantification of CBM by type

Results (Area C; CMEP14.3)

C.9.10 A moderate quantity of 785 CBM fragments (63.37kg) was recovered from both the evaluation and excavation (Table 35). The vast majority of the CBM dates to the late medieval period, although there is also a scatter of Roman and post-medieval to modern material (Tables 40-45).

Type	No. of contexts	No. Fragments	Weight (g)
Brick/tile (Roman)	2	3	281
Brick (late medieval)	21 + (1)	127 + (2)	28983 + (67)
Ceramic peg tile (late medieval)	39 + (2)	617 + (25)	32159 + (1407)
Ridge tile including hib (late medieval)	5 + (1)	9 + (1)	259 + (108)
Drain (modern)	1	1	109
Total		**785**	**63373**

Table 35: Area C quantification of CBM by type (with evaluation material in brackets)

Roman bricks/tiles

C.9.11 Three probable Roman flat brick/tiles were found as residual artefacts in a medieval layer (1696) and a post-medieval tank (**1657**) (Tables 32 and 40).

Late medieval brick

Introduction

C.9.12 One hundred and twenty-nine brick fragments (29.4kg) were recovered from one context in the evaluation and 21 contexts in the excavation (Tables 35 and 41). All the datable bricks are late medieval (*c*.14th to early 16th century) with no definite post-medieval or modern examples. No complete bricks were recovered, but 18 survived to have their widths measured and there were a further 21 bricks where there were measurable thicknessess.

C.9.13 All the bricks were made on a sanded base. A few fragments had between one or a handful of vegetative impressions, but these were co-incidental as none had been made on a vegetative base. Four of the bricks display mould marks and on two there are signs excess clay had been scraped off.

C.9.14 The 18 bricks where widths survive were between 99mm (4") and 120mm (4¾"). Seven were between 99m and 103mm, eight between 106mm and 110mm and three between 118mm and 120mm. Wooden brick moulds would have warped *etc*. in the different weather conditions, which may explain some of the variability but the differences may suggest that different moulds in 4", 4½" and 4¾" had been used. Of the 39 fragments where thickness survived, 34 bricks were between 48mm and 53mm and these were from 2" moulds, taking into account minor warping *etc*. Three fragments were between 54mm and 56mm and these could have come from very warped 2" moulds. only two brick fragments were very different thickness at *c*.40mm thick (unphased layer 1501) and 60mm (2½") from context 1533 (medieval Period 5.1 ditch **1529**) and these must have come from different sized moulds.

C.9.15 Some of the bricks had probably been deliberately overfired to produce a deep red/purple brick. The resultant vitrification caused a glassy external appearance (examples were found in contexts 1502 (Period 6.1), 1503 (Period 6.3), 1507 (Period 6.2 Pond **1504**), 1568 (Period 6.1 pit **1567**), 1591 (Period 6.1 ditch **1729**), 1617(Period 6.3 ditch **1615**), 1620 (Period 6.2 ditch **1618**) and 1715 (Period 6.2 pit **1716**). All these overfired bricks dated either to post *c.*AD 1500 (Period 6.1) or later contexts.

C.9.16 Six brick fragments (in contexts 1590 (Period 6.1 ditch **1729**), 1620 (Period 6.2 ditch

1618), 1651 (Period 6.2 ditch **1652**), 1656 (Period 5.1 layer) and 1699 Period 5.1 layer)) had probably been used in an oven(s)/hearth(s) as the extreme top of these bricks had been burnt/sooted.

Brick by Period

C.9.17 Late medieval bricks were recovered in contexts dating from the medieval (Period 5.1) to the modern (Period 6.3) periods, with most in late medieval (Period 6.1) and post-medieval deposits (Period 6.2; Table 36).

	No. Contexts	No. fragments	Weight (g)
Period 5.1	6	28	2108
Period 6.1	5	47	8955
Period 6.2	8	42	8156
Period 6.3	2	11	9317
Unphased	1	1	514
		129	**29050**

Table 36: Bricks by period in Area C

Period 5.1 (Medieval)

C.9.18 Most of the brick was recovered from a single ditch (**54** = **1529**) with 23 fragments (1.76kg) from three separate contexts. A few small brick fragments came from pit **1689** and layers 1656 and 1699.

Period 6.1 (*c*.AD 1500-post-medieval)

C.9.19 Brick was found in moderate quantities within three Period 6.1 features (**1729**, **1567** and **1655**) and layer 1502. Ditch **1729**, pits **1567** and **1655** had 29 fragments (2.69kg), eight fragments (1.08kg) and five fragments (0.95kg) of brick respectively and layer 1502 produced five fragments (4.24kg).

Period 6.2 (Post-medieval)

C.9.20 The vast majority of brick was found In three contexts within pond **1504** (28 fragments weighing 4.55kg) with small quantities recovered from five other features (ditches **1618** and **1652**, pits **1559** and **1716** and tank **1657**).

Period 6.3 (Modern) and unphased

C.9.21 From Period 6.3 ditch **1615** and layer 1517 there were small quantities of largely unabraded brick and a single fragment came from unphased layer 1501.

Conclusions

C.9.22 A late medieval (*c*.14th to early 16th century) high status domestic brick building is likely to have stood near to Area C. The different sized bricks suggests there may have been more than one phase (probably starting in the 15th century but possibly it had been extended/repaired before the mid 16th century). Unfortunately, the bricks can not be precisely dated, but this is problem is well known as dating between 15th- and 16th-century bricks in Essex is very difficult, with both types being largely similar (Ryan and Andrews 1993, 94). For this reason the suggested date range for the Area C bricks is

fairly wide. On balance a 15th-century date is probable for most of the assemblage as bricks dating to this century tend to be smaller and better fired generally at 230mm (9") long, 110mm (4½") wide and 50-65mm (2"-2½") thick (*ibid, 94*). Nearly all bricks from Area C were between 99mm and 110mm wide and were 2" thick. Buildings of this period in Essex include the late 15th-century Rochford church tower and Fryerning church which were made with bricks 240mm (9½") long.

C.9.23 Tudor bricks in Essex tend to be, large and rough in appearance, often distorted with very creased faces and sides that are by no means parallel (*ibid*, 94). These bricks are at least 230mm (9") long with widths tending to be 110-120mm with a usual width of 4½" and thicknesses between 50-65mm (2"-2½"). Very few of the Area C bricks were this width which may suggest that the building pre-dated this period.

C.9.24 The relatively high quantities of over fired brick implies that this building is likely to have had patterns built into its exterior wall(s). Across the country there are numerous examples from the late medieval period (and post-medieval period) of structures built with both overfired bricks (especially using the header sides) and 'normal bricks'. The overfired bricks were typically used to form geometric patterns such as diamonds (*e.g.* Bishop Alcock's 1486 palace at Ely). Some of the bricks had been used in hearths/ovens.

C.9.25 The average size of the brick at 229.98g per fragment is fairly large, and shows that several fragments which could have been reused had been discarded. Presumably the settlement had declined in size with the CBM not needed elsewhere. The lack of post-medieval brick (and tile) may suggest the building did not survive into this period.

Peg roof tile

Introduction

C.9.26 There was a moderate collection of late medieval peg tile comprising 642 fragments (33.57kg) from 41 contexts, recovered from both the evaluation and the excavation (Tables 35 and 41). Only two tile fragments, both from context 1503 (masonry layer **1517**), had widths surviving. The tiles were both 6½" wide with one having a grey reduced core (163mm) and one fully oxidised (165mm).

C.9.27 Four fragments had green/brown splash glazing. Fifty-seven tile fragments had remains of peg holes and where they could be discerned, these were all of two peg hole types. Eighteen of these peg holes were in tiles where there were reduced cores, all had sub-rounded holes, and 12 of these were of two peg hole type tiles with the remaining six not surviving well enough to gauge. Thirty-nine fully oxidised tiles had peg holes. Thirty-five of these were sub-rounded and 15 of these were of two peg type tiles (including one fragment with two sub-rounded peg holes). Four had sub-rectangular peg holes and three of these were of two peg type tiles (including one fragment with two sub-rounded peg holes).

Peg tile by Period

C.9.28 When the peg tile is recorded by period, more than half of the tile was recovered from medieval features (Period 5.1), although tile from Periods 6.1 and 6.2 features were well represented. Few tile were found in modern or unphased contexts (Table 37).

	No. Contexts	No. fragments	Weight (g)
Period 5.1	17	357	17216
Period 6.1	7	97	6827
Period 6.2	11	171	8716
Period 6.3	4	16	692
Unphased	1	1	115
		642	**33566**

Table 37: Ceramic peg tile by Period in Area C

Period 5.1 (medieval)

C.9.29 A notable quantity of peg tile (albeit small fragments) was recovered from one ditch (**54 = 229**) amounting to 251 fragments weighing 12.998kg. Only small quantities of tile were found in the other 11 Period 5.1 features and two layers. All of these features and layers produced peg tile under 1kg in weight.

Period 6.1 (*c*.AD 1500-post-medieval)

C.9.30 Ditch **1627** (62 abraded fragments weighing 2.94kg) and layer 1517 (seven fragments weighing 2.6kg) produced a moderate quantity of tile. Peg tile under 1kg were found within the other three features and layer.

Period 6.2 (post-medieval), Period 6.3 (modern) and unphased

C.9.31 Period 6.2 pond **1504** produced a large collection of tile with 124 fragments (5.71kg), all other features from Periods 6.2, 6.3 and unphased yielded less than 1kg of tile.

Ridge tile

C.9.32 There were ten ridge tile fragments (0.37kg) from six contexts with four having a reduced core and six fully oxidised. One tile was presumably a hib tile as it had a sub-rounded peg hole to fix it to the roof. Six of the tiles were recovered from one Period 5.1 ditch (**54=1529**), with the other four from Period 6.2 ponds **1504** and **1526**.

C.9.33 These ten fragments represent 1.09% of the total roof tile from the site and is similar to Thingoe House in the middle of Bury St Edmunds at (1.16%; Atkins 2013a) and this is more ridge tile than in similar period assemblages. At land adjacent to the west of Barnwell Priory, Cambridge there was only a single sherd of ridge tile out of 735 (Atkins 2012). Wisbech Castle excavations produced just four ridge tiles out of 836 ceramic roof tile sherds (Atkins 2010) and at Huntingdon Town Centre there were only two ridge tile fragments out of 485 sherds (Atkins and Fletcher 2009).

Conclusions

C.9.34 The relatively large number of peg tiles with a reduced grey core (although possibly significantly they were mainly a small reduced core) which suggests a *c*.15th-century date is likely for most of the assemblage. Of the 642 peg tile fragments, 294 (45.8%) had a reduced grey core compared with a small majority (54.2%) which was fully oxidised. This is likely to be significant as most medieval tiles have a reduced core, whereas with better kilns being used, very late medieval and post-medieval tiles were often fully oxidised.

C.9.35 At nearby Beaulieu, in contrast, the vast majority of the tile was fully oxidised (31 of the

41 fragments from site D1 and 254 of the 273 fragments from site 11) which led the author to suggest a very late 15th- or 16th-century for these sites (Atkins 2013c). The early 16th-century brick and tile kiln at Puckeridge, *c*.30km from Chelmsford, produced similar tiles to Beaulieu. There were two peg hole type which were 6½" wide in an orange/ orange to red sandy fully oxidised fabric (Terry Dymott pers. comm.). At Bury St Edmunds, Thingoe House for example, fully oxidised orange red sandy fabric became the most common In Phase 2.1 (15th-16th century), whereas in the medieval phases, tiles were mostly in different colours and fabrics, often with a reduced grey core being the norm (Atkins 2013a).

C.9.36 Two tiles had widths that survived (both 6½" wide), making them the same size as tiles from the early 16th century kiln at Puckeridge and a single example from site 11 at Beaulieu (Atkins 2013c). Many attempts were made to regulate the size of plain tiles. The best known is that made by statute in 1477/8 during the reign of Edward IV in which it was required that a plain tile should be 10½" long by 6¼" wide (most plain clay tiles of the present day are 10½" long by 6½" wide).

C.9.37 The average weight of the peg tile fragmants was 52.28g. This is fairly small sized and suggests that either the tile from the building(s) had largely been taken away for reuse elsewhere with only small fragments disposed off and/or the tile had probably been moved around over some considerable amount of time before final deposition. These are relatively small sherd sized and can be compared with two nearby former moated sites at Beaulieu, Chelmsford (site D1 where roof tile had an average fragment weight was 75.12g and site 11 where it was 110.7g; Atkins 2013c). The size is smaller than any the author has seen for a domestic site including from excavations in towns, for example at Huntingdon Town Centre tiles were at 83g per sherd (Atkins and Fletcher 2009).

C.9.38 The ten ridge tile fragments are 1.09% of the total roof tile from the site and is similar percentage to Thingoe House in the middle of Bury St Edmunds at (1.16%; Atkins 2013a). The percentage is less than from nearby site 11 at Beaulieu where there were six ridge tiles compared with 267 peg tiles or site D with 3 ridge tiles compared with 38 peg tiles (Atkins 2013c). Overall, the Area C building had more ridge tile recovered than most other moderate or high status medieval sites, for example at land adjacent to the west of Barnwell Priory, Cambridge there was only a single sherd of ridge tile out of 735 (Atkins 2012). Wisbech Castle excavations produced just four ridge tiles out of 836 ceramic roof tile sherds (Atkins 2010) and at Huntingdon Town Centre there were only two ridge tile fragments out of 485 sherds (Atkins and Fletcher 2009).

Results (Area D; CMEP14.6)

C.9.39 Just four CBM fragments (290g) were recovered from Area D (Table 38). This comprised a single brick fragment recovered from Period 6.2 pit **2606** and three roof tile fragments (an intrusive post-medieval nibb tile fragment was recovered from Period 3.4 ditch **2518**, a late medieval/early post-medieval tile fragment from Period 6.2 pit **2606** and a post-medieval fragment from Period 7 tree throw **2618**).

Type	No. of contexts	No. Fragments	Weight (g)
Brick	1	1	74
Peg and nibb tile	3	3	216
		4	**290**

Table 38: Area D quantification of CBM by type

Results (Area E; CMEP14.7)

C.9.40 A scatter of Roman to modern CBM was recovered from Area E (Table 39). The Roman tile was found in three Anglo-Saxon features (SFB **3798** and two pits (**4109** and **4196**) as well as a fragment in the subsoil (3590; Table 40).

Type	No. of contexts	No. Fragments	Weight (g)
Roman	4	6	826
Brick	5	13	671
Peg tile	1	2	93
Drain	1	1	96
Total		**22**	**2686**

Table 39: Area E quantification of CBM by type

C.9.41 The brick fragments were all found in three Period 6.2 ditches (**3638**, **3791** and **4171**). Only one fragment was diagnostic with a post-medieval example in ditch **4171** (Table 41). The two tile post-medieval fragments were found in Period 6.2 ditch **4173**; Table 42). A single drain fragment dating from at least the 18th century was recovered from Period 6.2 ditch **4171**.

Appendix

Ctxt	Cut	No.	Wt (g)	Area	Comments	Feature	Pr
254	**255**	1	39	A	Hard orange sandy. Frequent milky quartz inclusions	Ditch	3.5
273	**274**	1	11	A	Orange sandy	Tree Throw	7
285	**287**	3	83	A	Hard orange fully oxidised	Ditch	3.4
1658	**1657**	1	133	C	Hard orange sandy with grey core. Frequent milky quartz inclusions and rare small chalk inclusions up to 3mm thickness.31mm (1¼"). Roman	Tank	6.2
1696	-	2	148	C	Hard orange sandy. Frequent milky quartz inclusions. Massively overfired to give a grey colour throughout. Cracked. One thickness *c*.32mm (1¼").? Roman	Layer	5.1
3590	**-**	1	190	E	Hard orange sandy. Numerous quartz inclusions.	Subsoil	-
3904	**3798**	3	219	E	Hard orange to pink. Some small internal cracks/holes. *c*.38mm (1½") thick. Flat	SFB	4
4107	**4109**	1	40	E	?Roman. Very hard brown sandy. Undiagnostic.	Pit	4
4198	**4196**	1	377	E	Hard orange sandy. Very small internal cracks/holes. 35mm (1½") thick. Flat	Pit	4
		14	**1240**				

Table 40: Roman brick/tile

Cxt	Cut	No.	Wt (g)	Area	Comments	Feature	Pr
53	**54**	2	67	C	Orange to orange/red sandy fabric. One definitely sanded. An impression from a leaf (?beech) was on the surface of one	Ditch	5.1
146	**144**	2	633	Tr. 39	Orange sandy fabric. One has some flint inclusions up to 8mm in length. One slightly overfired and has internal void. 14th-early 16th century 1) 55mm (2½") thick 2) 50mm (2") thick	Ditch	?
230	**231**	4	856	A	Mid orange brown sandy. Sanded. Mid orange brown sandy. A few very small internal voids. Many small ironstone pieces. Rare other small stones. 14th-early 16th. One width and thickness measurable 103mm (4") / c.45mm (1¾")	Ditch	6.2
329	**328**	1	261	A	Orange (originally). Sanded. Rare small stones up to 15mm in length. Overfired causing a little vitrification. Many internal holes and cracks. Causing brick to slightly warp. 49mm (2") thick. 14th-early 16th	Ditch	6.2
360	**359**	1	445	A	Orange sandy. Sanded. A few small internal cracks/holes. Very occasional small stone <11mm in length. Late medieval/early post-medieval	Ditch	6.2
1001	-	2	11	B	?Brick fragments (undiagnostic)	Subsoil	-
1501	-	1	514	C	Orange to red sandy. Some small flint inclusions up to 7mm in length and frequent? iron stone up to 6mm in length. Sanded. poorly made. c.40mm (1½") thick. 14th to early 16th century.	Layer	-
1502	-	5	4240	C	5 part bricks. Two were soft to medium orange sandy bricks. They have a few small internal voids and a few small cracks on faces. Two were medium orange to red sandy. One was heavily overfired with a hard red/pinky to purple interior and a mid to dark brown exterior. Two slightly overfired – causing some vitrification. whereas the heavily overfired fragment caused a lot of vitrification with extensive glassy appearance – possibly deliberate. All five sanded but a few vegetative impressions on one. Mortar on three. All five have good arrises. All five reasonably well made. All are likely to be 14th – early 16th century. 1) 110mm (4½") wide and 51mm (2") thick 2) 107mm (4¼") wide and 52mm (2") thick 3) 106mm (4-4¼") wide, 50mm (2") thick 4) 103mm (4") wide, 50-52m (2") thick 5) 110mm (4½") wide and 51mm (2") thick	Masonry layer	6.1
1503	**1517**	5	5927	C	5 part bricks. Soft to mid orange red sandy with two harder and fairly red due to overfiring. All 5 have some to many small internal voids. one has scrape marks – removing excess clay. One has a slightly creased face. One has mould marks. Two overfired - some vitrification on both especially on header of one ?possibly	Masonry layer	6.3

					deliberate. All 14th to early 16th century. 1) 110mm (4½") wide and 48mm (2") thick. 2) 120mm (4¾") and 54mm (2"+) 3) 120mm (4¾") and 51mm (2") 4) 118mm (4¾") and 48-50mm (2") 5) 109mm (4½") wide and 50mm (2") thick		
1506	**1504**	3	129	C	Orange sandy.? 14th-early 16th century	Pond	6.2
1507	**1504**	8	2524	C	Soft to medium orange sandy going to slightly harder and reddy/purple with a couple as they were overfired. Small internal voids in all. Frequent small iron stones. Occasional stone up to 20mm in length. Two overfired causing slight warping and vitrification. Cracked faces. Four with thicknesses (50mm, 51mm and 53mm – all 2"). One heavily overfired was warped 54-57mm (2¼"). 14th to early 16th century	Pond	6.2
1508	**1504**	17	1899	C	Soft to medium orange to orange to red sandy. Small internal voids within most. Some with cracked faces. Sanded. Including fragment with several vegetative impressions. 14th to early 16th century. 1) 110mm (4¼") 51mm (2") thick. 2) 52mm (2") thick. 3) 55mm (2¼") thick.	Pond	6.2
1533	**1529**	18	1418	C	Orange to red sandy. Some have rare small flint inclusions up to 7mm in length. One with rare chalk pieces up to 9mm in length. One has some small iron stone fragments. Most have rare to some small internal voids. Five overfired causing some vitrification. Rare small cracks. 1) thickness 60mm (2¼"). 2) 52mm (2") ? 14th-early 16th century	Ditch	5.1
1534	**1529**	3	269	C	Soft to mid orange sandy. A few internal voids. One has been overfired – vitrified producing a glassy glaze on exterior. 14th-early 16th century	Ditch	5.1
1560	**1559**	2	38	C	Orange sandy. Undiagnostic	Pit	6.2
1568	**1567**	8	1080	C	Seven were small fragment in soft to medium orange to orangey-red sandy fabric. All had internal voids and a few small ironstone. One part brick (928g) was heavily overfired to a red to purple colour. Warping and large scale vitrification causing glassy appearance across brick exterior (was this deliberate?). Sanded. Voids (internal). Cracks on face. Couple of vegetative impressions. 103mm (4") width and 49-52mm (2") thick. 14th-early 16th century.	Pit	6.1
1590	**1729**	23	1512	C	Most soft to medium orange sandy. Some with internal red patches or largely red. Occasional small flint inclusions. Some small internal voids. Sanded. Two have single small vegetative impressions. Three have thicknesses (2x 50mm (2") and one at 51mm (2"). Two are burnt at top to a dark brown colour. ?Oven/hearth. 14th-early 16th century.	Ditch	6.1
1591	**1729**	6	1175	C	Mostly soft to medium orange to red (depending on how fired). Frequent small internal voids. Occasional flint. Small ironstones in two? One heavily overfired – vitrification. 1) 101 (4") wide and was 49mm (2") thick 2) 50mm (2") thick	Ditch	6.1
1617	**1615**	6	3390	C	Most soft to medium orange to orange. A few slightly overfired causing it to be slightly harder and redder in colour. Two very overfired resulting in red to purple interior and one was dark brown exterior with cracking and vitrification (glassy along face) - possibly deliberate. Many small voids within bricks. Small ironstones inclusions in four. Mould marks on two. Mortar on one. 14th to early 16th century 1) 102-103mm (4") wide and 55-50mm (1¾"-2") thick. Uneven as overfired. 2) 110mm (4¼") wide and 50mm (2") thick 3) 51mm (2") 4) 47-50mm (2") - Overfired 5) 50mm (2")	Ditch	6.3
1620	**1618**	4	2679	C	Two soft to medium orange sandy. One fired slightly longer becoming orangey-red. One heavily overfired to dark red/purple interior. Brick has cracking and widespread vitrification along face -? deliberate. All have small voids. One with frequent flint up to 25mm in length and ironstone up to 8mm. One with just frequent small ironstone inclusions. Post firing, one was burnt dark brown to black (soot etc.) on top side of brick - from an oven/hearth? It has mortar attached. 1) 103mm (4") c.48mm (2") thick. 2) 99mm (4") 46-50mm (2") - uneven due to overfiring) 3) 102mm (4") wide and 50mm (2") thick	Ditch	6.2
1651	**1652**	3	574	C	Orange sandy. Inclusions comprised rare flint and other small stones. One thickness 51mm (2"). One burnt after firing – kiln/oven?. 14th-early 16th century	Ditch	6.2
1653	**1655**	5	948	C	Orange sandy. One is of reasonable size (831g) It has rare small flint and?	Pit	6.1

					ironstone inclusions. Some small internal holes. Has a mould impression. Sanded. It is 51mm (2") thick. 14th-early 16th century		
1656	**-**	2	275	C	Orange sandy. Sanded Both have thicknesses surviving (52mm (2") and 53mm (2")). One burnt after firing with top half being dark brown towards black. - kiln/oven?. 14th-early 16th century	Layer	5.1
1658	**1657**	2	162	C	Orange to red. Some milky quartz. A few internal small holes. Sanded. One thickness 53mm (2") 14th-early 16th century	Tank	6.2
1690	**1689**	2	65	C	Orange sandy.? 14th-early 16th century	Pit	5.1
1699	**-**	1	14	C	Orange sandy. Top sooted – burnt black. From oven/hearth?	Layer	5.1
1715	**1716**	3	151	C	Orange sandy. Some small internal voids. One overfired and caused vitrification (glassy)	Pit	6.2
2605	**2606**	1	74	D	Orange sandy. Post-medieval	Pit	6.2
3508	**3507**	6	93	E	?Brick. Orange sandy. Undiagnostic	Ditch	6.2
3509	**-**	1	9	E	?Brick	Topsoil	-
3637	**3638**	2	155	E	Brick or fired clay. Orange sandy	Ditch	6.2
3788	**3791**	1	64	E	?Brick. Hard orange sandy. Probably not Roman. Undiagnostic	Ditch	6.2
4172	**4171**	3	350	E	Orange sandy. Sanded. Well made. Good arrises. 1 thickness 66mm (2½")	Ditch	6.2
		153	**32001**				

Table 41: Brick

Ctxt	Cut	No.	Wt (g)	Area	Comments	Feature	Pr
19	**20**	1	115	A	Hard orange sandy. Sanded. 33mm (1") thick. Vertical arrises. Medieval floor tile	Pit	?
146	**144**	1	390	Tr. 39	Hard orange sandy. Sanded. 34mm (1") thick. Vertical arrises. Top worn smooth through wear. Medieval floor tile	Ditch	?
3	**4**	1	1126	A	Hard orange sandy. More than 155mm by 128mm in size (probably a small part of a large sub-square floor brick. 35mm (1") thick. Vertical arrises. 18th-19th century.	Ditch	?
		3	**1631**				

Table 42: Medieval floor tile and post-medieval floor brick

Ctxt	Cut	No.	Wt (g)	Area	Comments	Feature	Pr
37	**38**	1	98	A	Hard orange sandy fabric fully oxidised	Ditch	?
52	**54**	19	945	C	Nine (0.389kg) in a hard orange sandy fabric with reduced grey core Ten (0.556kg) in a hard orange sandy fabric fully oxidised. One fragment had impressions from three fingers. One fragment had a sub-rounded peg hole, 30mm from the side (2 peg hole type).	Ditch	5.1
53	**54**	6	462	C	Five (0.408kg) in a hard orange sandy fabric with reduced grey core One (0.054kg) in a hard orange sandy fabric fully oxidised.	Ditch	5.1
141	**-**	1	9	Tr. 39	Hard orange sandy fabric fully oxidised	Layer	?
146	**144**	1	41	Tr. 39	Hard orange sandy fabric fully oxidised	Ditch	?
348	**347**	1	52	A	Orange with reduced grey core	Ditch	6.2
1010	**1011**	1	190	B	Hard orange. Fully oxidised. Well made. late med+	Ditch	6.2
1501	-	1	115	C	Hard orange sandy with grey core	Layer	-
1503	**1517**	7	2603	C	In two fabrics: 3 orange to red sandy with grey core (868g). One in a hard red (overfired) is 165mm (6½") wide 4 orange to red sandy fully oxidised (1335g). One has width surviving – 163mm (6½"). A) One sub-rounded peg hole 52mm from side? 2 peg hole type. B) two sub-rounded peg holes on one tile	Masonry layer	6.1

1506	**1504**	57	2451	C	In two fabrics: 31 orange to red sandy with grey core (954g). A) One sub-rounded peg hole 27mm from tile side. 2 peg hole type. 26 orange to red sandy fully oxidised (1497g). One overfired to brown. A) One sub-rounded peg hole? type. B) One sub-rounded peg hole 28mm from tile side. 2 peg hole type. C) One sub-rounded peg hole? type.	Pond	6.2
1507	**1504**	21	1491	C	In two fabrics: 8 orange sandy with grey core (671g). A) One sub-rounded peg hole 31mm from side. 2 peg hole type. B) One sub-rounded peg hole 39mm from side. 2 peg hole type. 13 orange to red sandy fully oxidised (820g). A) One sub-rounded peg hole 20mm from side. 2 peg hole type. B) One sub-rounded peg hole 19mm from side. 2 peg hole type. C) One sub-rounded peg hole 22mm from side. 2 peg hole type.	Pond	6.2
1508	**1504**	46	1769	C	In two fabrics: 16 orange sandy with grey core (428g). A) One sub-rounded peg hole? type. 30 orange to red sandy fully oxidised (619g). A) One sub-rounded peg hole? type. B) One sub-rectangular post hole? type. C) A) One sub-rounded peg hole? type.	Pond	6.2
1518	**1517**	2	85	C	In two fabrics: 1 orange sandy with grey core (45g). 1 orange to red sandy fully oxidised (40g).	Ditch	6.3
1519	**-**	1	45	C	1 orange to red sandy with grey core	Drain	6.3
1526	**1526**	11	124	C	In two fabrics: 2 orange sandy with grey core (13g). 9 orange to red sandy fully oxidised (111g). A) One sub-rounded peg hole? type.	Pond	6.2
1527	**1526**	8	496	C	In two fabrics: 4 orange to red sandy with grey core (286g). 4 orange to red sandy fully oxidised (210g). A) One sub-rounded peg hole? type.	Pond	6.2
1533	**1529**	130	8170	C	In two fabrics: 59 orange to red sandy with grey core (3665g). A few hard red but due to overfiring? 1 splash green glaze. A) One sub-rounded peg hole? type. B) One sub-rounded peg hole? type. C) One sub-rounded peg hole? type. D) One sub-rounded peg hole 48mm from side 2 peg hole type. E) One sub-rounded peg hole 25mm from side 2 peg hole type. F) One sub-rounded peg hole? peg hole type. 71 orange to red sandy fully oxidised (4505g). There a few in a hard red fully oxidised but this difference is probably due to being overfired. One has splash green/brown glaze. A) One sub-rounded peg hole? type. B) One sub-rounded peg hole 26mm from tile side. 2 peg hole type. C) One sub-rounded peg hole? type. D) One sub-rounded peg hole? type. E) One sub-rounded peg hole? type. F) One sub-rounded peg hole 28mm from side 2 peg hole type. G) One sub-rounded peg hole 23mm from side 2 peg hole type. H) One sub-square peg hole 37mm from side 2 peg hole type. I) One sub-square peg hole 34mm from side 2 peg hole type.	Ditch	5.1
1534	**1529**	96	3421	C	In two fabrics: 44 orange to red sandy with grey core (1449g). 52 orange to red sandy fully oxidised (1972g). A) One sub-rounded peg hole? type. B two sub-square holes- 2 peg hole type. C) One sub-rounded peg hole 32mm from side 2 peg hole type. D) One sub-rounded peg hole? type	Ditch	5.1
1542	**1541**	2	138	C	In two fabrics: 1 orange to red sandy with grey core (108g). 1 orange to red sandy fully oxidised (30g).	Post hole	6.1
1552	**1551**	1	16	C	1 orange to red sandy fully oxidised	Post hole	6.1
1560	**1559**	6	215	C	In two fabrics: 1 orange sandy with grey core (13g). 5 orange to red sandy fully oxidised (202g). A) One sub-rounded peg hole? type	Pit	6.2
1562	**1561**	2	176	C	In two fabrics: 2 orange to red sandy with grey core (81g). 2 orange to red sandy fully oxidised (95g).	Pit	6.2
1564	**1563**	4	325	C	In two fabrics: 3 orange to red sandy with grey core (305g). 2 orange to red sandy fully oxidised (20g). Splash green/brown glaze	Pit	5.1
156	**1565**	6	354	C	In two fabrics:	Pit	5.1

6					5 orange to red sandy with grey core (285g). 1 orange to red sandy fully oxidised (69g)		
1568	**1567**	22	950	C	In two fabrics: 4 orange to red sandy with grey core (290g). A) One sub-rounded peg hole 30mm from side 2 peg hole type. 18 orange to red sandy fully oxidised (660g). A) One sub-rounded peg hole? type	Pit	6.1
1581	**1582**	14	446	C	In two fabrics: 3 orange to red sandy with grey core (120g). One overfired. A) One sub-rounded peg hole? type. B) 1 sub-rounded peg hole 38mm from side – 2 peg hole type. 11orange sandy fully oxidised (326g). One has splash glaze on both sides.	Pit	5.1
1590	**1729**	46	2052	C	In two fabrics: 19 orange to red sandy with grey core (790g). A) One sub-rounded peg hole 36mm from tile side. 2 peg hole type. 27 orange to red sandy fully oxidised (1262g). A) One sub-rounded peg hole? type. B) One sub-rounded peg hole? type.	Ditch	6.1
1591	**1729**	16	892	C	In two fabrics: 8 orange to red sandy with grey core (529g). 8 orange to red sandy fully oxidised (369g)	Ditch	6.1
1620	**1618**	2	504	C	In two fabrics: 1 orange to red sandy with grey core (317g). 1 orange to red sandy fully oxidised (187g).	Ditch	6.2
1630	**1629**	1	42	C	Fully oxidised	Post hole	5.1
1632	**1631**	5	155	C	In two fabrics: 2 orange to red sandy with grey core (61g). 3 orange to red sandy fully oxidised (94g). One overfired – vitrified	Pit	5.1
1636	**1635**	12	540	C	In two fabrics: 7 orange to red sandy with grey core (432g). One is red but is probably due to being overfired, which has caused some vitrification. 5 orange to red sandy fully oxidised (108g). A) One sub-rounded peg hole? type B) one sub-rounded peg hole 41mm from side. 2 peg hole type	Post hole	6.3
1638	**1637**	3	49	C	In two fabrics: 2 orange to red sandy with grey core (31g). 1 orange to red sandy fully oxidised (18g). A) One sub-rounded peg hole? type	Post hole	5.1
1642	**1641**	1	39	C	Orange with grey core	Post hole	5.1
1651	**1652**	8	752	C	In two fabrics: 5 orange to red sandy with grey core (667g). 3 orange to red sandy fully oxidised (85g).	Ditch	6.2
1653	**1655**	3	176	C	In two fabrics: 2 orange to red sandy with grey core (93g). A) One sub-rounded peg hole 25mm from tile side. 2 peg hole type. 1 orange to red sandy fully oxidised (83g).	Pit	6.1
1656	**-**	3	364	C	In two fabrics: 2 red sandy with grey core (343g). Some large flint inclusions up to 20mm in length 1 orange to red sandy fully oxidised (21g). A) One sub-rounded peg hole 31mm from tile side. 2 peg hole type.	Layer	5.1
1658	**1657**	1	44	C	1 orange to red sandy with grey core	Tank	6.2
1675	**1674**	1	22	C	Orange sandy with grey core	Post hole	6.3
1690	**1689**	27	832	C	In two fabrics: 7 Orange to red sandy with grey core (316g). One has splash green/brown glaze 20 orange to red sandy fully oxidised (516g). Very few have rare small stone inclusions. A) One sub-rounded peg hole 37mm from tile side. 2 peg hole type. B) One sub-rounded peg hole? type. C) One sub-rounded peg hole? type	Pit	5.1
1696	**-**	8	666	C	In two fabrics: 6 orange to red sandy with grey core (592g). A) One sub-rounded peg hole 48mm from tile side. 2 peg hole type. B) One sub-rounded peg hole? type 2 orange to red sandy fully oxidised (74g).	Layer	5.1

1698	**1697**	30	665	C	In two fabrics: 20 orange to red sandy with grey core (483g). A few slightly overfired 10 orange to red sandy fully oxidised (182g). A) One sub-rounded peg hole? type	Post hole	5.1
1715	**1716**	9	694	C	In two fabrics: 4 orange to red sandy with grey core (247g). 5 orange to red sandy fully oxidised (447g). One is light to mid orange brown. A) One sub-rounded peg hole 32mm from site. 2 peg hole type	Pit	6.2
1719	**1718**	3	232	C	In two fabrics: 2 hard red sandy with grey core (193g). A) One sub-rounded peg hole 40mm from tile side. 2 peg hole type. 1 orange fully oxidised (39g).	Ditch	5.1
1721	**1720**	1	49	C	Orange sandy with grey core	Ditch	5.1
2519	**2518**	1	147	D	Orange sandy fully oxidised. Has part of a nibb surviving. More than 28mm long by 21mm wide and 20mm high. Post-medieval	Ditch	3.4
2605	**2606**	1	21	D	Orange to red with grey core. Fragment has a slight curve and may be a ridge tile, but am uncertain as it's a very small and could be a slightly warped peg tile	Pit	6.2
2619	**2618**	1	48	D	Orange sandy fully oxidised. Post-medieval	Tree throw	7
4174	**4173**	2	93	E	Orange fully oxidised. Well made- Post-medieval	Ditch	6.2
		652	**34265**				

Table 43: Peg tile and one nibb tile

Ctxt	Cut	No.	Wt (g)	Area	Comments	Feature	Phase
52	**54**	1	108	C	Orange with grey core	Ditch	5.1
1506	**1504**	1	19	C	Orange fully oxidised	Pond	6.2
1508	**1504**	2	96	C	In two fabrics: 1 orange with grey core (57g). 1orange sandy fully oxidised (39g).	Pond	6.2
1527	**1526**	1	8	C	Orange fully oxidised	Pond	6.2
1533	**1529**	1	20	C	fully oxidised	Ditch	5.1
1534	**1529**	4	116	C	In two fabrics: 2 orange to red sandy with grey core (69g). One has sub-rounded peg hole (hib tile) 2 orange to red sandy fully oxidised (47g).	Ditch	5.1
		10	**367**				

Table 44: Ridge (and hib) roof tiles

Ctxt	Cut	No.	Wt (g)	Area	Comments	Feature	Period
1518	**1517**	1	109	C	Yellow clay. Mid/late 19th century	Ditch	6.3
4172	**4171**	1	96	E	Orange. 18th century +	Ditch	6.2
		2	**205**				

Table 45: Drain

C.10 Fired Clay

By Cynthia Poole

Summary

C.10.1 A modest assemblage of fired clay amounting to 374 fragments (5.33kg) was recovered from Areas A, C, D and E. The majority of the material is undiagnostic and as such undateable, but is likely to be broadly contemporary with other dated material from the context or the overall site phase. Most probably originates from ovens and hearths or associated portable furniture. The largest group was found in Area E associated with Anglo-Saxon features and include hearth floor, oven/hearth structure, possible oven/hearth furniture and a spindle whorl. The assemblage from Area A is smaller and is associated with the early Roman settlement except for a perforated clay object from a Beaker pit.

Introduction and Methodology

C.10.2 The fired clay assemblage comprises 374 fragments (5327g), which includes one certain tile fragment and five pieces of possible CBM, though it has been difficult to differentiate these from fired clay with any certainty. The assemblage has been fully recorded on an Excel spreadsheet and is quantified and summarised by site in Tables 47-50. No material has been discarded except for part of group of heat reddened soil/subsoil from Area D, from which only a sub-sample was retained.

Fabrics

C.10.3 Two broad fabric groups were defined. The fabrics are quantified by site in Table 46. Fabric A is a fine silty clay which in nearly all examples are tempered with inclusions of fine chaff and designated fabric AV. It is generally fired to a light red or pinkish red or pinkish brown. This fabric occurred at Areas A and E. The more dominant fabric Q is sandy and generally red, orange or brownish red in colour. It contained varying densities of poorly sorted rounded-subrounded medium and coarse quartz sand. In a small number of cases it additionally includes sporadic flint and quartzite grit and pebbles up to 20mm (QG) and in one example small chalk or calcareous grits are present (QC). Fabric Q was also used for the tile. The clay is likely to have been obtained from local sources at or close to the sites, in the case of the sandy fabric probably from boulder clay deposits. The sandy fabric dominates the assemblages and is the only fabric found at Area C and D.

Forms

Area A

C.10.4 A single clay artefact was found in a Beaker pit (**221**, context 220) associated with a large deposit of pottery and struck flint. This appears to be the edge of a rectangular clay object with two flat surfaces at right angles, one of which is pierced by a perforation 10mm in diameter. If the perforation was equidistant from the opposite face it would have an estimated thickness of 80mm. When originally examined it was thought to be the edge of a triangular perforated brick of Iron Age type, however its firm association with a well-dated assemblage of Beaker material means such an interpretation of the piece is inherently unlikely. No diagnostic clay artefacts of Late Neolithic/Early Bronze Age date are known to the author and it is not possible to assign it to a designated form or function. Whether it is some form of ceramic artefact or an item of portable oven/hearth furniture must remain uncertain.

C.10.5 This area produced indeterminate fragments of oven or hearth structure found in ditches and postholes. These pieces had only a single moulded flat surface, which in one example (222) was burnt black and likely to derive from an oven floor or flue area. One very small fragment with a whitish grey fired surface may be hearth floor surface (204). Other oxidised pieces, especially those with organic inclusions, are likely to be inner wall surface of ovens. All the structural material was found in features phased to the Early Roman period. A small fragment with a very smooth well finished surface is perhaps more likely to derive from an item of portable oven furniture rather than a structure.

Area C

C.10.6 A small assemblage of fired clay and possible tile was recovered from a variety of features in this area, including ditches, a pit, tank, slot, tree root hollow and floor surface. These contexts ranged in date from 13th to 19th century. Most of the pieces are amorphous and of indeterminate function. Fragments from a trampled dirt floor surface (1610) are tentatively identified as hearth surface. The largest piece had a flat moulded surface with a number of impressed lines, which may have be some sort of graffiti. The fragment is 20mm thick and has a rough flattish underside bonded to an underlying foundation or surface. A piece from slot **1722** may have been the edge of a tegula or some sort of tile rather than a fired clay object. Its edge and base are covered in coarse chaff impressions and the edge has been heavily burnt suggesting it may have been used in the construction of an oven or hearth.

Area D

C.10.7 The only significant quantity of material from this area came from an undated tree throw (**2561**). It consists entirely of burnt reddened lumps of soil or subsoil without any form or shape and perhaps resulted from the burning out of the tree root.

Area E

C.10.8 This site produced the largest quantity of fired clay, predominantly associated with Anglo-Saxon features, except for a pieces from prehistoric contexts. A piece of black fired oven wall or floor was found in a natural hollow (**3660**) of Neolithic date and indeterminate scraps came from a Bronze Age pit (**3587**) and probable prehistoric pit (**3561**). The remaining fired clay was all recovered from features dated to the 5th to 8th centuries AD with the two main groups of material from pit **4196** and sunken-featured building **4213**. Additional fired clay came from a pit (**4109**), three postholes (**3934**, **3942**, **4148**) and a sunken-featured building (**3798**). Most of this consists of pieces14-20mm thick, made in red-orange fired sandy clay with a single flat moulded surface, sometimes burnt or blackened and interpreted as fragments of oven structure.

C.10.9 **Pit 4196**: Apart from a single tile fragment, probably a Roman imbrex, the fired clay from this feature consists of oven and hearth structure and furniture. Substantial groups of hearth floor were recovered from layers 4197 and 4243. These pieces have a smooth flat moulded surface fired to a pale yellowish brown or buff colour with a whitish veneer grading into red fired clay at a depth of 10-15mm below the surface and are 10-36mm thick in total. The underside of the group from deposit 4197 is covered in numerous pebble and gravel impressions having apparently been spread over a stone foundation, in contrast to the pieces from 4243, which have a flat rough underside with only occasional stone impressions, possibly sheared at a constructional or bonding interface with a more regular structure or surface. The surface area represented by these two groups was roughly estimated at *c*.440 and 600 sq cm respectively. Similar fragments with a whitish or light coloured surface were scattered though other layers of the pit,

including some with linear grooves across the surface of unknown purpose as these do not have the character of wattle impressions, but appeared to be moulded. One piece has two surfaces at an obtuse angle to each other of 143° - one being plain and smooth and the other covered in fine chaff impressions.

C.10.10 This could be related to a number of pieces from layers 4239, 4242 and 4243, which has a smooth curving plano-convex surface cream or light pink in colour and covered in fine chaff impressions. On those pieces with sufficient curvature to be measured the diameter varies between 60, 80 and 100mm, suggesting they may derive from a pedestal in the form of a truncated cone. The surviving lengths are no more than 40-50mm.

C.10.11 A further piece from context 4243 was made in fabric A, hard fired and black and red in colour and also appears to have the form of a truncated cone. It has a flat circular or possibly oval end *c*. 80-100mm diameter and flaring sides. No internal surface survived so it is not possible to ascertain whether it was a solid pedestal, a crude pot or possibly the top of a portable oven. Portable ovens are more common in the Roman period and this piece could be residual. However, the top of a portable oven of similar size was found at Stoke Quay, Ipswich in a mid-9th- to 10th-century pit (Poole 2015).

C.10.12 **Sunken-featurerd building 2413**: Fired clay was recovered from the two postholes (**4181** and **4209**) and from layers 4208, 4245, 4247 and 4248 filling the feature. All the structural material was made in fabric Q and was fired to red, brownish red and black. The only shaping to most pieces is a single flat even moulded surface and thickness ranges from 10 to 23mm. These are all likely to be fragments of oven floor or wall.

C.10.13 A spindle whorl was found in layer 4182. It has broken into 15 fragments, but it is not possible to refit any of the pieces even though some breaks appeared fresh. It is made in fine silty clay fabric, mixed with a high density of medium-coarse chaff impressions (AV) and fired black. It measures *c*. 55-60mm diameter and *c*. 17mm thick and weighs 32g. It has convex surfaces top and bottom forming a lentoid cross-section with narrow edge. It is pierced by a cylindrical perforation 11mm diameter; the wide perforation is typical of Anglo-Saxon spindle whorls (*ibid*.).The occurrence of clay spindle whorls is variable, and in general are relatively uncommon: at Coppergate (Walton Rogers 1997,1741) only three were found with other materials being preferred, especially stone. However, at Anglo-Saxon Mucking 25 clay spindle whorls were found, mostly disc-shape in form (Hamerow 1993, 65). The example from Area E is broadly similar in form and falls within the size range as those from Mucking.

Areas	Fabrics	A	AV	Q	QC	QG	Total
A	Nos		3	8			11
	Wt (g)		8	269			277
C	Nos			20		3	23
	Wt (g)			409		80	489
D	Nos			2		22	24
	Wt (g)			3		1524	1527
E	Nos	1	26	288	1		316
	Wt (g)	67	150	2795	22		3034
Total Nos	**Nos**	**1**	**29**	**318**	**1**	**25**	**374**
Total Wt (g)	**Wt (g)**	**67**	**158**	**3476**	**22**	**1604**	**5327**

Table 46: Quantification of fired clay fabrics by area

Area A		AV	Q	Total
Hearth	Nos		2	2
	Wt (g)		2	2
Oven/Hearth str	Nos	2	2	4
	Wt (g)	5	14	19
Oven structure	Nos		2	2
	Wt (g)		29	29
Oven furniture	Nos	1	1	2
	Wt (g)	3	222	225
Vessel	Nos		1	1
	Wt (g)		2	2
Total	**Nos**	**3**	**8**	**11**
Total	**Wt (g)**	**8**	**269**	**277**

Table 47: Quantification of fired clay by form and fabric from Area A

Area C		Q	QG	Total
Hearth floor	Nos		3	3
	Wt (g)		80	80
Oven/Hearth indet	Nos	16		16
	Wt (g)	322		322
Oven furniture/tile	Nos	1		1
	Wt (g)	28		28
Brick/tile?	Nos	3		3
	Wt (g)	59		59
Total	**Nos**	**20**	**3**	**23**
Total	**Wt (g)**	**409**	**80**	**489**

Table 48: Quantification of fired clay by form and fabric from Area C

Area D		Q	QG	Total
Indet	Nos	2	22	24
	Wt (g)	3	1524	1527
Total	**Nos**	**2**	**22**	**24**
Total	**Wt (g)**	**3**	**1524**	**1527**

Table 49: Quantification of fired clay by form and fabric from aAea D

Area E		A	AV	Q	QC	Total
Hearth	Nos		8	119		127
	Wt (g)		74	2204		2278
Oven structure	Nos		3	26	1	30
	Wt (g)		44	105	22	171
Oven/Hearth str	Nos			54		54
	Wt (g)			324		324
Oven/Hearth	Nos			56		56
	Wt (g)			61		61
Oven/Hearth furn	Nos	1		1		2
	Wt (g)	67		20		87
Indet	Nos			31		31
	Wt (g)			60		60
Tile	Nos			1		1
	Wt (g)			21		21
Spindle Whorl	Nos		15			15
	Wt (g)		32			32
Total	**Nos**	**1**	**26**	**288**	**1**	**316**
Total	**Wt (g)**	**67**	**150**	**2795**	**22**	**3034**

Table 50: Quantification of fired clay by form and fabric from Area E

Area	Context	Sample / SF No	Material	Nos	Wt (g)	Fabric	Class	Form	Thickness	Impressions	Phase
A	204	-	FC	2	2	Q	Hearth	Floor	>7	None	3.4
A	210	-	FC	1	5	Q	Oven/ Hearth	Indet	0	None	3.4
A	220	-	FC	1	222	Q	Oven furniture	Triangular perforated brick	>60mm (est 80mm total)	None	2.1
A	222	-	FC	2	29	Q	Oven structure	Wall/floor	>29	None	3.4
A	222	-	FC	1	3	AV	Oven furniture	Indet	>11	Chaff	3.4
A	294	-	FC	1	9	Q	Oven/ Hearth	Indet	13	None	3.4
A	315	-	FC	1	2	AV	Oven/ Hearth str	Wall	10	Chaff	3.4
A	364	-	FC	1	3	AV	Oven/ Hearth str	Wall	10	Chaff	3.4
A	364	-	FC	1	2	Q	Vessel		10.5	None	3.4
C	1508	-	FC	1	7	Q	Oven/ Hearth	Indet	12	None	6.2
C	1598	-	FC	1	20	Q	Indet	Indet	24	None	5.1
C	1610	-	FC	3	80	QG	Hearth	Floor	20	None	5.1
C	1651	-	FC/CBM	3	59	Q	Brick/tile ?		>17, >26	None	6.2
C	1653	-	FC	1	9	Q	Indet	Indet	26	None	6.1
C	1656	-	FC/CBM	1	154	Q	Indet	Indet	13-35	None	5.1
C	1658	-	FC/CBM?	1	17	Q	Indet	Indet	23	None	6.2
C	1690	-	FC	1	9	Q	Indet	Indet	30	None	5.1
C	1710	-	FC	10	106	Q	Oven/ Hearth	Indet	28	None	7
C	1723	-	FC	1	28	Q	Brick/tile ?	Tegula?	35	Chaff	5.1
D	2519	-	FC	1	1	Q	Indet	Indet	11	None	3.4
D	2546	-	FC	1	2	Q	Indet	Indet	9	None	2.1
D	2558	-	FC	22	1524	QG	Indet	Indet	60	None	7
E	3560	-	FC	1	2	Q	Indet	Indet	0	None	1
E	3586	-	FC	5	31	Q	Oven	Indet	18	None	2.2
E	3595	<311>	FC	1	1	Q	Indet	Indet	0	None	2.2
E	3659	-	FC	1	12	Q	Oven structure	Wall/ floor	13	None	1.3
E	3682	-	FC	3	44	AV	Oven structure	Wall	20	Chaff	4?
E	3798	-	FC	1	22	QC	Oven structure	Wall	16	Chaff/straw	4
E	3935	-	FC	1	3	Q	Oven structure	Wall/ floor	16	None	4
E	3943	-	FC	3	5	Q	Oven	Indet	14	None	4
E	4107	-	FC	7	38	Q	Oven structure	Wall	16	Chaff	4

Area	Context	Sample / SF No	Material	Nos	Wt (g)	Fabric	Class	Form	Thickness	Impressions	Phase
E	4108	-	FC	2	7	Q	Oven structure	Wall	16	Chaff	4
E	4147	-	FC	19	12	Q	Oven	Indet	14	None	4
E	4182	-	FC	2	9	Q	Oven	Indet	16	None	4
E	4182	sf202	FC	15	32	AV	Object	Sp Wh	c17+	Chaff	4
E	4193	-	CBM	1	21	Q	Tile	Imbrex?	>17	None	4
E	4193	-	FC	9	44	Q	Oven/ Hearth str	Wall/floor	12-20mm	Chaff	4
E	4194	<3680>	FC	15	24	Q	Oven/ Hearth str	Wall/floor	11	None	4
E	4194	-	FC	10	113	Q	Oven/ Hearth str	Floor	12, 16, 21mm	None	4
E	4195	-	FC	1	36	Q	Oven/ Hearth str	Floor	28	None	4
E	4197	-	FC	44	930	Q	Hearth	Floor	10-36mm	None	4
E	4198	-	FC	3	43	Q	Oven/ Hearth str	Wall/floor	13, 17, 27mm	Chaff/straw	4
E	4208	-	FC	7	16	Q	Oven/ Hearth str	Wall/floor	12	None	4
E	4210	-	FC	1	2	Q	Oven/ Hearth str	Wall/floor	10	None	4
E	4238	-	FC	2	22	Q	Oven/ Hearth str	Wall/floor	12, 26mm	None	4
E	4239	-	FC	1	20	Q	Oven/ Hearth str	Pedestal	20	Chaff	4
E	4239	-	FC	6	24	Q	Oven/ Hearth str	Wall/floor	14	Chaff	4
E	4242	-	FC	15	132	Q	Oven/ Hearth furn	Pedestal	22	Chaff	4
E	4243	<374>	FC	56	61	Q	Oven/ Hearth	Indet	0	None	4
E	4243	<374>	FC	8	74	AV	Oven/ Hearth furn	Pedestal	>17	Chaff/straw	4
E	4243	<374>	FC	1	67	A	Portable Oven	Wall & top	>17	None	4
E	4243	<374>	FC	54	1118	Q	Hearth	Floor	17-33mm	Chaff	4
E	4243	-	FC	2	11	Q	Hearth	Floor	20	None	4
E	4245	-	FC	4	13	Q	Hearth	Floor	23	None	4
E	4246	-	FC	2	5	Q	Oven structure	Wall/floor	12	None	4
E	4247	-	FC	11	24	Q	Oven structure	Wall/floor	10-12mm	None	4

Area	Context	Sample / SF No	Material	Nos	Wt (g)	Fabric	Class	Form	Thickness	Impressions	Phase
E	4248	-	FC	2	16	Q	Oven structure	Wall/floor	11	None	4

Table 51. Summary catalogue of fired clay

Appendix D. Environmental Reports

D.1 Human Skeletal Remains

By Zoë Uí Choileáin and Louise Loe

Introduction

D.1.1 A collection of urned and unurned cremation burials were recovered during the excavations at Chelmsford Effluent Plant in Essex. The majority of the cremations were associated with barrow **2536** and dated to the Bronze Age.

Methodology

D.1.2 Excavation and processing of all cremations was carried out in accordance with published guidelines (Brickley and McKinley 2004; BABAO 2010). Most of the cremations were excavated in plan on site and 100% sampled. While five cremations were urned, only one of these survived intact and this was block lifted and excavated in 5cm spits within the laboratory. All cremations were then passed through flotation using a 2mm mesh. The bone was separated into four different fraction sizes when dry using a 10mm, 5mm and 2mm sieve. Bone from the >10mm, 5-10mm and 2-5mm fractions was separated and examined by the osteologist. Bone from the <2mm fraction was not examined due to its small size but the residue was retained for the permanent record.

D.1.3 Analysis of the bone was undertaken in accordance with published guidelines (Brickley and McKinley 2004; Mays 2002). Animal bone was identified by macroscopic appearance where possible. The human bone identified was examined in order to determine fragment size, fragment weight and colour. Information related to demography (minimum number of individuals or MNI, age and sex), paleopathology and funerary rite were also recorded. Funerary rite can include whether certain elements were selected for burial and to this end all bone identified was separated into the following four categories: upper limb, lower limb, axial (ribs/pelvis and vertebrae) and skull.

Cremation deposits from Area D (Zoë Uí Choileáin)

D.1.4 In total, five urned cremation burials and one unurned burial were recovered from Area D (Table 52-54). Only one of the urned creamtions (**2621**) was block lifted and excavated within the lab and the results have been catalogued separately (Table 53). There was a clear difference in fragmentation size between cremation burial **2621** and the other urned cremation burials, however, this may be a reflection of the damage caused to the fragmented urns and cannot necessarily as such be seen as a reflection of funerary practices. Studies have shown that the excavation and post-excavation processes bone goes through, before it reaches the osteologist, can have a substantial effect on fragment size (McKinley 1994b, 341-2). It is still a possibility that the difference seen between burial **2621** and the other burials may, however, represent a difference in collection process. Perhaps the other remains were placed in water in order to cool and more easily separate them from the pyre material or the material was raked through while still hot for ease of collection (McKinley 1994b, 341).

Urned cremations

D.1.5 The majority of the bone recovered from all five urned cremations is buff white in colour. The colour of cremated bone gives an indication of the temperatures to which the body was exposed during cremation with buff white suggesting temperatures of 600°C (McKinley 2004, 11). There are many varying factors which can affect the temperature

of the pyre - these include the type of wood, the weather conditions and whether or not the pyre was attended throughout the cremation (McKinley 1997, 132). Bone passes through varying colours from brown to black, pale blue and eventually resulting at a buff white colour as temperatures pass 600°C this, therefore, also implies that all of the urned cremations remained upon the pyre for a substantial amount of time and that the pyre was well attended, not being allowed to burn out before the remains were deemed to be fully cremated. The long bones in particular show classic warping and splitting patterns; the most commonly observed being curved transverse fractures. Such fractures are the result of bone heating then cracking as soft tissues and muscles shrink (Schmid and Symes 2008, 43). These can be used as evidence that the bodies were cremated while there was still flesh and fat attached to the bone as opposed to the bones being defleshed before being placed on the pyre (McKinley 1994a). It has also been suggested that as this warping does not always happen in modern cremations, it may also be the result of the pressure of the pyre upon the body as it collapses (O' Donnabhain 1997, 69).

D.1.6 The total weight of bone for the urned cremation burials is very low with the notable exception of burial **2621**. Of the remaining four urned cremation burials the largest weight of bone came from cremation burial **2578** at 214g. Studies within modern crematoriums have shown that the average weight of a complete human body generally lies between 1600 to 3000g (McKinley 1989). The majority of cremated burials found at Chelsmford therefore only represent a small part of the body which is in keeping with Bronze Age cremation practice observed throughout the area (McKinley 1997, McKinley 2008, 86).

Cremation Burial 2621

D.1.7 As cremation deposit 2667 was excavated in spits it was possible to examine the distribution of elements within the urn. The total weight of bone for this deposit is 1971g making it by far the largest deposit and the only burial to fall within the estimated total weight of a human cremated body (McKinley 1989). The skull is the most clearly represented element in the upper three spits of the cremation urn (SF 151), particularly within spit two where 40% of the identifiable bone were skull fragments. Concentrations of upper, lower and axial bones were fairly even throughout the upper three spits with spits 4 and 5 containing a larger quantity of much smaller unidentifiable fragments. The fragmentation size for this cremation is much larger, with recognisable elements such as the nasal bones of the skull surviving complete. The largest fraction weight in every spit was the >10mm fraction. Fragments of bone as large as 80mm were observed within the urn during excavation. Overall, there did not seem to be any preference for any particular element with all major elements of the body being represented. However it does seem likely that little was done to cool the body after the pyre, as had gone out, raking the hot bone together, or pouring water over the body to cool it tends to increase the level of bone fragmentation (McKinley 1997).

Cut	Context	Weight	Total weight	colour	Max Fragment Size(mm)	Urn	MNI	Age	Elements present	Comments
2500	2501	100	118	20% Grey white 80% buff white	4-10	SF 154	1	Adult	10% Skull 90% unid long bone	
	2502	18			15.28					Possible gallstone
2578	2579	214	214	50% grey white 50% buff white	24.15	SF 150	1	Adult	10% skull 10% Upper limb 80% unid long bone	One canine root present.
2636	2635	42	42	80% buff white 20% greyish white	12.98	SF 153	1	Adult	2% skull 98% unid long bone frags	
2639	2637	30	104	80% greyish white, 20% buff white	10	SF 152	1	Adult	4% skull 96% unid frags	
	2638	74			27.67				2% skull 98% unid long bone frags	
2621	2667		1971	70% greyish white, 30% pale blue	80	SF 151	2	Adult/ poss infant	See table 53	1 poss infant rib

Table 52: The urned cremations in Area D

D.1.8 An MNI of two individuals was identified within this burial. The majority of the remains represent that of an adult individual with a single rib being smaller and more fragile such as one would expect from an infant. Only 5% of cremation burials from the Bronze Age are estimated to contain two individuals and it is considered probable that these were most likely burnt together upon the same pyre (McKinley 1997, 141).The sutures present on the skull were fully closed as one would expect to see in an adult individual (Meindl and Lovejoy 1985, 63) and all ephyphises present are fully fused implying that the individual was at least over 18 years of age (Schluer and Black 2004). The majority of the bone was judged to be adult by general size and robustness.

	Spit 1	Spit 2	Spit 3	Spit 4	Spit 5
skull	25%	40%	20%	2%	1%
axial	-	10%	15%	10%	2%
Upper limb	10%	10%	20%	-	-
Lower limb	-	10%	15%	-	-
Unid long bone	40%	30%	-	-	-
unid	25%	-	30%	88%	97%
Total weight (g)	242	1172	470	40	47

Table 53: Urned cremation burial **2621** – distribution of bone by skeletal region

Unurned cremation

D.1.9 Of the unurned calcined bone recovered only one deposit could be said to represent a cremation burial. Cremation pit **2598** contained three deposits all containing calcined bone with the main cremation deposit being 2597. Due to the size of the feature and a lack of any repeated elements it is determined that all three deposits represent a single individual. Like the urned cremations the largest weight was represented by the >10mm fragment size with no perceivable difference between the over all fragment size of urned or unurned cremations. This is probably reflective of the fact that, with the exception of cremation **2621**, the urns recovered were fragmented and the bone exposed to the same pressures as that of the unurned cremations.

D.1.10 Cremation **2598** was determined to be an adult individual based primarily on the general size and robustness of the long bone fragments. The bone is buff white in colour indicating that it had been exposed to the same cremation processes as the urned cremations.

Cut	Context	Feature description	Total weight	Colour	Max. frag size(mm)	MNI	Age	Sex	Comments
2598	2596	Cremation	739	98% white, 2% pale blue	40.09	1	Adult	?	50% long bone frags
	2597				49.81				50% long bone
	2599				49.98				60% long bone frags
-	2506	Layer 2587	6	Buff white	29.54	1	Adult	?	Unid long bones
-	2508	Layer 2587	1	Buff white	4-10	1	?	?	Unid frags
2605	2605	Post-medieval pit	1	Buff white	19.47	1	?	?	Unid frags
2618	2619	Tree throw	19	Buff white	42.99	1	Adult	?	2% axial 98% unid frags
2662	2656	Tree throw	33	Buff white	32.70	1	Adult	?	15% skull 85% unid frags
	2659				4-10				

Table 54: Unurned cremation deposit and other cremated bone from Area D

Discussion

D.1.11 All of the cremated remains recovered are primarily buff white in colour suggesting that the efficiency of pyre technology employed was high. The thorough level of cremation implies that the body was most likely laid flat upon the fire with no elements being

shielded from the heat (McKinley 1989, 66). The small quantities of bone recovered may suggest that it was not seen as necessary to bury all of the cremated remains of an individual. This could suggest that the primary transition ritual between life and death was during the burning of the pyre itself and not the subsequent burial.

D.1.12 Warping and fissuring patterns upon the bone can give an indication as to whether the body was cremated in flesh, or whether defleshing had taken place first (Binford 1963; Buikstra 1989). The patterns observed in the Chelmsford remains were compared to the fissure pattern descriptions created by Symes (Symes *et al* 2007, 42). These included primarily curved transverse fractures and longitudinal cracks both of which are considered to be representative of bone which has been cremated in flesh (McCarthy 2010).

D.1.13 All individuals recorded were estimated to be at least 18 years of age with interpretation being based primarily upon skull sutures and the apices of teeth recovered. There is a notable exception in the single infant rib from cremation burial **2621**. While it is possible that infant remains were not considered sufficiently important to bury, studies have shown that juvenile remains do not often survive the cremation process (McKinley 1997) and therefore no conclusions can be made for this population.

D.1.14 No sex estimation was possible for any of the individuals and no trauma or pathological conditions were observed. Trauma and pathological conditions are notoriously difficult to observe upon cremated bone, as the heat related cracks and fissures can disguise trauma, while the change to bone condition caused by heat disguises evidence of pathological conditions.

D.1.15 No grave goods (other then the urns) were recovered with any of the cremations. While a lack of grave goods can be interpreted as being representative of a lower social status it should be remembered that grave goods may have been placed upon the pyre but not necessarily buried with the cremated remains (McKinley 2008, 86). Grave goods are also comparatively rare in Middle Bronze Age cremation cemeteries (Robinson 2007, 25).

D.1.16 Previous work has shown that the area directly surrounding the excavations at Chelmsford to be extremely busy with numerous barrows and burial sites, especially in the vicinity of Area E (Gilmour 2013, 8). The cremation burials are, therefore, not out of place within the surrounding landscape. All of the cremations found within Area D were recovered from within barrow ditch **2536**. Cremation burial **2598** was the primary internment in the group and it contained 739g of bone. This is a slightly smaller quantity then might be expected as it has been observed that the primary burial in Bronze Age barrow cremations often produces weights of between 902.3g and 2747g (McKinley 1997,142). Studies have suggested that the greater weight of a primary burial was due to the high status of a person, as much more time had to be spent collecting their remains (McKinley 2008, 85). The high status of an individual may not only refer to wealth but also to popularity within the society (McKinley 1997, Webb 2014). If we assume that by the Bronze Age the actual cremation upon the pyre was the primary rite representing the transition of the individual from the living to the dead and the cremation burial is more of a presentation event related to the landscape (Lynch 1972, 1979; Ward 1978) then perhaps only a single individual was necessary to embody the remains of the entire population.

Cremated remains from Area E (Louise Loe)

D.1.17 Only one definite cremation deposit was recovered from Area E. This deposit has been dated to the Mesolithic and as such is the oldest human cremation yet known in Britain.

Cremation **3761** was a small deposit of bone weighing only 118g in total. The total weight of the burnt bone is much lower than the range (1000-2,400g) estimated for modern adult cremations (McKinley 2000). Combined with the fact that the bone was from a charcoal rich deposit, within a pit that contained no evidence for *in-situ* burning, it probably represents re-deposited pyre debris. Re-deposited pyre debris is the material remaining at the end of the cremation which was not collected with the rest of the bone for formal 'burial' (McKinley, 2000, 41). It has been encountered in the archaeological record in grave fills, pre-existing features, as spreads and, as is the case here, in deliberately excavated features (*ibid*.).

D.1.18 The sizes of the bone fragments from the present deposit are typical of pyre debris with most being10-4mm (51.6g) and 4-2mm (45.8g). A total of 15.7g was greater than 10mm in size, the largest fragment – an unidentified longbone - measuring 34mm in length. Most of the deposit is too fragmentary to identify skeletal elements but fragments of skull vault (4g); upper limbs (5.6g; including humerus and radius shafts) and lower limbs (7.2g; including femur and tibia shafts) were observed. Thus, all regions of the skeleton are represented with the exception of the most fragile regions – the thorax and hands and feet – which are less likely to survive. This would indicate that there had been no deliberate selection of certain parts of the skeleton for burial, in keeping with a deposit of this type.

D.1.19 With reference to the identifiable fragments it was determined that the deposit represents the remains of at least one individual who, considering overall bone morphology, was an adult or older juvenile (older child or adolescent). No indicators survived for estimating a more precise age or sex and no pathology or abnormality was observed.

D.1.20 The bone is a relatively uniform buff white colour and has a softy chalky texture. The colour is consistent with the complete combustion of the corpse, indicating oxidation at temperatures over 600^{o}C (McKinley 2004,11). Generally speaking, uniformity of bone colour is an indication that an optimal temperature had been maintained during cremation with sufficient fuel and oxygen, an even distribution of heat and, in general, relatively sophisticated pyre technology (such as pyre construction) (McKinley 2000, 269). However, it is not possible to say how representative this is of the rest of the cremated bone from the individual.

D.1.21 While bone that has been cremated at high temperatures often has a chalky appearance (Holck 1987, 131-146) the texture of these remains is more likely to be the result of the leeching of bone calcium into the surrounding soil. The worn appearance of the bone hinder observations relating to cracking and fissuring, which can indicate burning of a fleshed or defleshed corpse. Some larger fragments appear to have cracking, typical of bone that has been burnt while fleshed, although significant warping is absent, which is more common in unfleshed bone (Thompson 2005).

D.1.22 The calcined bone is in general smaller in fragment size although the largest percentage of the bone weight is still the >10mm fraction. All of the calcined bone from Area E had developed a softer more chalky texture. While bone cremated at higher temperatures often does have a more chalky appearance (Holck 1987, 131-146) the texture of these remains is most likely due to taphonomic factors such as the leeching of bone calcium into the surrounding soil. The surface of the bone is worn meaning that that observing the heat related fractures and fissures is problematic. As no repeated elements were observed, this cremation burial was judged to represent a single individual. The remains are estimated to be an adult from the general size and robustness of the long bone fragments. Deposits 3758 and 3759 are considered to

represent the same individual, being fills of the same small cremation pit. The remaining deposit was recovered from a treebole (3683) and is considered to represent disturbance rather than being a cremation burial. No MNI or age was possible for this deposit.

Cut	Context	Total weight	Colour	Max. frag size(mm)	MNI	Age	Sex	Comments
3683	3682	1	Buff white	2-4	1	?	?	Unid frags
3761	3758	1	Buff white	2-4	1	?	?	Unid frags
3761	3759	1	Buff white	2-4	1	?	?	Unid frags
3761	3760	116	Buff white	29.69	1	Adult	?	5% skull, 10% upper limb. Age based on gen bone thickness only

Table 55: Cremated remains in Area E

D.2 Faunal Remains

By Chris Faine

Introduction

D.2.1 An assemblage of 2.8kg of faunal material was recovered from the excavations yielding 27 "countable" bones (see below). All bones were collected by hand apart from those recovered from environmental samples; hence a bias towards smaller fragments is to be expected. Residuality appears not be an issue and there is no evidence of later contamination of any context. Faunal material was recovered from contexts dating from the medieval and post-medieval periods. The vast majority of identifiable fragments were recovered from Area C, with only one fragment recovered from Areas B and E respectively.

Methodology

D.2.2 All data was initially recorded using a specially written MS Access database. Bones were recorded using a version of the criteria described in Davis (1992) and Albarella & Davis (1994). Initially all elements were assessed in terms of siding (where appropriate), completeness, tooth wear stages (also where applicable) and epiphyseal fusion. Completeness was assessed in terms of percentage and zones present (after Dobney & Reilly, 1988). Initially the whole identifiable assemblage was quantified in terms of number of individual fragments (NISP, see Table 56). The ageing of the population was largely achieved by examining the wear stages of cheek teeth of cattle, sheep/goat and pig (after Grant 1982). Wear stages were recorded for lower molars of cattle, sheep/goat and pig, both isolated and in mandibles. The states of epiphyseal fusion for all relevant bones were recorded to give a broad age range for the major domesticates (after Getty 1975). Measurements were largely carried out according to the conventions of von den Driesch (1976). Measurements were either carried out using a 150mm sliding calliper or an osteometric board in the case of larger bones.

The Assemblage

D.2.3 As mentioned above only two fragments were recovered from Areas B & E. These comprised a portion of cattle scapula from post-medieval context 1010 and an adult cattle 1st molar from Anglo-Saxon context 4245. Table 56 shows the species distribution for material from Area C (NISP). The majority of identifiable fragments were recovered from medieval contexts, with cattle being the dominant taxon. Cattle remains consist largely of lower limb elements (metapodia, tibiae *etc*,) along with loose teeth and elements of the axial skeleton. Two measurable long bones were recovered from contexts 1587 and 1656 from animals with withers heights of 1.1m and 1.2m respectively. The remainder of the medieval assemblage consist of sheep/goat femur and metatarsal fragments, along with a mandible from context 1723 from an animal around 4-6 years of age. An adult domestic fowl tarsometatarsus was recovered from context 1624.

D.2.4 Material from post-medieval contexts comprises cattle radius and metatarsal fragments along with partial horse scapula from context 1506. A single cattle tibia was recovered from modern context 1519.

Conclusions

D.2.5 This is a small sample with the domestic assemblage from all phases representing initial processing of complete carcasses with further butchery taking place elsewhere.

There is some evidence for pig breeding in the vicinity along with the presence of juvenile cattle and sheep on site. Fowl were probably kept for meat and eggs.

	Phase		
	Medieval	**Post-Medieval**	**Modern**
Cattle (*Bos*)	17	2	1
Sheep/Goat (*Ovis/Capra*)	3	0	0
Horse (*Equus*)	1	1	0
Fowl (*Gallus sp.*)	0	0	0
Total:	**21**	**3**	**1**

Table 56: Species distribution for Area C (NISP)

D.3 Environmental samples

By Rachel Fosberry

Introduction

D.3.1 Extensive environmental sampling was undertaken within the five of the excavated areas of the pipeline at Chelmsford in order to assess the quality of preservation of plant remains and their potential to provide useful data.

Methodology

D.3.2 The volume of sample that was processed was dependent upon the type of deposit sampled. Any deposit thought to contain human remains was processed in full. The remaining samples had at least one bucket of soil processed for an initial assessment with the remainder of the soil subsequently processed depending on the results and any additional context information.

D.3.3 The samples were all processed by water flotation (using a modified Siraff three-tank system) for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The floating component (flot) of the samples was collected in a 0.3mm nylon mesh and the residue was washed through 10mm, 5mm, 2mm and a 0.5mm sieve. Both flot and residues were allowed to air dry. A magnet was dragged through each residue fraction prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The dried flots were subsequently sorted using a binocular microscope at magnifications up to x 60 and a complete list of the recorded remains is presented in Table 57. Identification of plant remains is with reference to the *Digital Seed Atlas of the Netherlands* and the authors' own reference collection. Nomenclature is according to Zohary and Hopf (2000) for cereals and Stace (1997) for other plants. Carbonised seeds and grains, by the process of burning and burial, become blackened and often distort and fragment leading to difficulty in identification. Plant remains have been identified to species where possible. The identification of cereals has been based on the characteristic morphology of the grains and chaff as described by Jacomet (2006).

Results

D.3.4 The results are discussed by area.

Area A

Cut No.	Context No.	Sample No.	Phase	Feature Type	Volume processed (L)	Cereals	Charcoal <2mm	Charcoal > 2mm	Flot comments
221	220	15	2.1	pit	68	0	+	+	charcoal
201	200	10	3.4	ditch	10	#	+	0	Single charred grain
243	243	12	3.4	post hole	6	0	+	0	Sparse charcoal
245	245	13	3.4	post hole	6	0	0	0	Modern wood
246	247	14	3.4	post hole	8	0	+	0	Sparse charcoal
249	248	16	3.4	ditch	8	0	+	0	Charcoal
260	258	17	3.4	ditch	8	0	0	0	No preservation
260	259	18	3.4	ditch	8	0	0	0	No preservation
276	275	20	3.4	ditch	6	0	0	0	No preservation
266	265	21	3.4	ditch	10	0	+	0	Sparse charcoal
332	335	22	3.4	ditch	10	0	+	+	charcoal
274	273	19	7	post hole	8	0	+	0	Sparse charcoal

Table 57:Environmental samples from Area A

D.3.5 A total of 12 samples were taken from features including Early Romano-British ditches and post holes, an undated post hole and Neolithic pit **221.** The only sample that poduced plant remains other than charcoal is Sample 1, fill 200 of ditch **201** with two charred cereal grains present. The grains are poorly preserved and are likely to have blown into the ditch. Sample 13, fill 245 of post hole **244**, contains small (<1cm) fragments of untransformed wood which would only have been preserved if the feature was permanently waterlogged, if the feature is modern or if the context had been contaminated by modern intrusion. Fills 248 (ditch **249**) and 258 (ditch **250**) both contain flakes of hammerscale indicative of blacksmithing activity.Significant amounts of calcined bone, burnt and worked flint and pottery fragments were retrieved from the residue of Sample 15, fill 220 of pit **221**.

Area B

Cut No.	Context No.	Sample No.	Period	Feature Type	Volume processed (L)	Charred hazelnuts	Charcoal <2mm	Charcoal > 2mm
1025	1024	100	1.2	Pit	13	++f	+	+
1027	1026	101	1.2	Pit	27	++f	+	+
1029	1028	102	1.2	Pit	15	++	+	+

Table 58: Environmental samples from Area B

D.3.6 Three samples were taken from Neolithic pits **1025**, **1027** and **1028**. All three samples were found to contain fragments of charred hazelnut (*Corylus avellana*) shell and sparse amounts of charcoal. The residues contain significant quantities or worked flints and fragments of pottery. Hazelnuts would have been an important wild food resource in the Neolithic period and their burnt shells are frequently recovered from Neolithic pits. The shells are the product of consumption that, if burnt, survives well in archaeological

deposits which partly explains their frequent recovery (Jones 2000, 80) . It is probable that the shells were discarded into a fire that had subsequently been swept up and deposited in the pit although the charcoal content of the samples is low. It is also possible that they were a deliberate ritual inclusion (along with flint debitage, worked flints and pottery fragments).

Area C

Cut No.	Context No.	Sample No.	Phase	Feature Type	Sample Size (L)	Volume processed (L)	Cereals	Chaff	Legumes	Weed Seeds	Charcoal <2mm	Flot contents
1524	1525	150	5.1	pit	20	10	0	0	0	#	+	small fragment of charred hazelnut
1529	1530	152	5.1	ditch	20	6	##	0	0	##w	+	charred oat grains, waterlogged nettle seeds
1537	1538	151	5.1	ditch	20	8	0	0	0	0	+	sparse charcoal only
1577	1576	154	5.1	pit	20	10	0	0	0	0	++	charcoal only
1580	1579	157	5.1	pit	20	9	##	0	#	0	+++	charcoal rich with charred oats and legume fragment
1582	1581	155	5.1	pit	20	8	#	0	0	0	+	single fragment of charred indet grain, charred sedge seed
1583	1584	156	5.1	gully	20	8	#	0	0	#	++	single fragment of charred indet grain
1585	1587	161	5.1	ditch	30	9	##	0	0	#w	+++	waterlogged plant material with charred oats and charcoal
1593	1592	158	5.1	ditch	40	9	0	0	0	0	+	sparse charcoal only
1594	1595	159	5.1	ditch	20	8	#	0	0	0	0	single charred oat grain
1597	1598	160	5.1	ditch	20	8	0	0	0	0	+	charcoal only
1693	1695	167	5.1	ditch	20	8	##	0	0	0	+	charred oats
1697	1698	169	5.1	pit	20	8	###	#	0	#	+	numerous charred oats with cultivated oat floret, stinking mayweed
	1610	162	5.1	Clay floor	20	8	#	0	0	0	+++	charcoal rich with single charred grains of barley and wheat
	1656	164	5.1	dump layer	20	8	##	0	0	#	+++	charred wheat and rye grains, thorn and dock seed
	1696	168	5.1	layer	20	8	#	0	0	0	+	single wheat grain
1623	1624	163	5.2	ditch	10	8	##	0	#	#	+++	charred wheat , peas and beans
1504	1507	153	6.2	pond	20	9	0	0	0	##w	0	waterlogged nettle, buttercup and sowthistle seeds
1657	1658	165	6.2	pit	20	10	#	0	0	0	+	single charred wheat grain
1668	1669	166	6.2	pit	20	10	###	0	0	#	+++	numerous charred oats, wheat, vetch, dock

Table 59: Environmental samples from Area C

D.3.7 Twenty samples were taken from ditches, pits and ponds, most of which were dated to the medieval period (with some features dated through association) along with three post-medieval features. Plant remains are generally sparse; charred cereal grains are mainly present in small quantities in samples from ditch fills and are slightly more abundant in medieval pit **1697** (Sample 169, fill 1698) and post-medieval pit **1668** (Sample 166, fill 1669). Wheat (*Triticum* sp.) grains are present in low numbers and are most likely to be one of the free-threshing varieties that were commonly cultivated in the medieval period. Oat grains (*Avena* sp.) predominate in both samples and a single floret (outer chaff) of *A. sativa* from pit **1697** suggests that these are cultivated oats rather than the wild variety. Both samples were deemed suitable for further analysis (Table 60) due to their high oat content. During the medieval period oats were mainly grown as a fodder crop for horses and pigs. They were also used for human consumption but, in order for them to be palatable, the outer chaff had to be removed by parching, milling and winnowing. The majority of the charred oats recovered in these samples are huskless but this may be the result of the burning process. The charred oats are not well preserved and the outer testa has mostly been lost. This may reflect the conditions under which they have been burnt such as the temperature and the duration of burning (Boardman and Jones 1980, 8) but it may also be the result of partial degradation of the oats prior to burning. Oats presented to horses as fodder would have spilled and been swept up with general stable waste which could subsequently have been burnt. There is little evidence of straw or dung in the samples although burning experiments have shown that straw is less likely to survive burning than grains are (Boardman and Jones *ibid*). Both samples also contain vetch (*Vicia* cf. *sativa*) seeds that were also considered to be a fodder crop although may have been a crop contaminant. Weed seed contaminants are rare and are restricted to stinking mayweed (*Anthemis cotula*), docks (*Rumex* sp.) and nipplewort (*Lapsana communis*), suggesting that the oats were a cleaned crop.

Context No	1668	1698
Feature No	1669	1697
Sample No	166	169
Volume processed	18	18
Cereals		
Avena sp. caryopsis	68	474
Avena sativa L. floret		3
Secale cereale L. caryopsis	7	
Triticum sp. caryopsis	2	
Weeds		
Anthemis cotula L. seed	43	11
Anthemis cotula L. seed head	2f	
Lapsana communis L. seed		2
Rumex sp. seed	1	2
Vicia cf. *sativa* L. seed	17	10.5

Table 60: Analysis of Samples 166 and 169

D.3.8 Three of the other samples from Area C yeilded stems, roots and seeds of plants that have been preserved by waterlogging. Two of these samples are from medieval ditches that had been dug deep enough to have contained water. Sample 152 (fill 1530 of **1529**) contains seeds of stinging nettle (*Urtica dioica*) and Sample 161 (fill 1587 of ditch **1585**) contains seed of shrub plants including bramble (*Rubus* sp.) and elderberry (*Sambucus nigra*). Both of these ditch fills also contain charred oats.

D.3.9 The third waterlogged sample is Sample 153 (fill 1507 of post-medieval pond **1504**). This sample contains seeds of stinging nettles and also seeds of buttercup (*Ranunculus acris/repens/bulbosus*) which also have tough seed coats. Waterlogged deposits often contain the remains of plants that have been growing around the feature and have at some point fallen or blown in. The few seeds preserved in both of these ditches all have tough outer coats that are resistant to decay and it is likely that there were originally other plant species present that have not survived. It is also possible that there have been changes in the level of the water table during this time.

Area D

Cut No.	Context No.	Sample No.	Phase	Feature Type	Sample Size (L)	Volume processed (L)	Charcoal <2mm	Charcoal > 2mm
2580	2581	214	0	pit	15	8	++	++
2595	2595	217	0	pit	10	10	+++	0
	2504	202	2.1	layer	20	10	+	0
	2507	203	2.1	layer	20	10	+	0
	2510	204	2.1	layer	20	8	+	0
	2513	205	2.1	layer	20	10	+	0
	2516	206	2.1	layer	20	10	+	0
2528	2527	207	2.1	ditch	20	10	0	0
2534	2533	208	2.1	post hole	10	8	+	0
2586	2586	215	2.1	layer	5	2	+	0
2598	2596	218	2.1	cremation	15	15	0	0
2598	2597	219	2.1	cremation	10	10	++	0
2598	2599	220	2.1	cremation	2	2	+	0
2615	2614	222	2.1		20	10	+	0
2611	2610	223	2.1	ditch	20	8	0	0
2622	2623	224	2.1	ditch	20	10	0	0
2500	2501	200	2.2	cremation	10	10	0	0
2500	2502	201	2.2	cremation	18	18	+	0
2578	2577	212	2.2	cremation	3	3	+	0
2578	2579	213	2.2	cremation	2	2	+	0
2583	2583	216	2.2	pit	16	16	+++	++
2636	2635	226	2.2	cremation	2	2	0	0
2639	2637	227	2.2	cremation	3	3	+	0
2639	2638	228	2.2	cremation	40	40	+	+
2621	2667	229 S.1	2.2	cremation	6	6	++	+
2621	2667	229 S.2	2.2	cremation	6	6	+	+

2621	2667	229 S.3	2.2	cremation	8	8	++	+
2621	2667	229 S.4	2.2	cremation	8	8	+	+
2621	2667	229 S.5	2.2	cremation	16	16	++	+
2606	2605	221	6.2	pit	20	10	+++	0
2561	2558	209	7	tree throw	20	10	+	+
2561	2558	210	7	tree throw	4	0.4	0	0
2567	2566	211	7	tree throw	20	8	0	0
2630	2629	225	7	tree throw	20	10	0	0

Table 61:Environmental samples from Area D

D.3.10 Samples were taken from a number of deposits that include cremation burials and a buried soil layer associated with barrow ditch **2536**, ditches, pits and post holes. None of the samples contain preserved plant remains other than charcoal. There were five urned cremations, one of which was excavated under laboratory conditions (Sample 229 from five spits, fill 2667 of **2621**). The charcoal content of all of the cremation samples were low suggesting that the bones had been carefully picked out of the pyre before burial.

Area C

Cut No.	Context No.	Sample No.	Feature Type	Phase	Volume processed (L)	Flot Volume (ml)	Cereals	Chaff	Legumes	Weed Seeds	Charcoal <2mm	Charcoal >2mm	Flot comments
3504	3502	304	pit	0	8	120	##	#	0	0	+++	+++	Charcoal-rich. Occasional grains of barley
3561	3560	306	pit	0	4	60	#	0	0	0	++	+	two barley grains
3563	3562	307	pit	0	9	20	#	0	0	0	+++	++	single wheat grain
3583	3584	308	pit	0	8	50	0	0	0	0	++	+	occasional charcoal
3617	3618	313	pit	0	9	1	0	0	0	0	+	+	sparse charcoal
3675	3676	320	pit	0	10	60	0	0	0	0	+++	+++	charcoal rich
3683	3682	321	pit	1.1	8	1	0	0	0	0	++	+	occasional charcoal. Single flake of hammescale
3761	3758	324	cremation	1.1	8	5	0	0	0	0	+	+	sparse charcoal
3761	3759	325	cremation	1.1	16	5	#	0	0	0	+	+	sparse charcoal, indet grain fragment.
3761	3760	326	cremation	1.1	76	140	#	0	0	#	+++	++	Charcoal-rich – pyre debris? 14 spherical tubers, two elongated tubers. One wheat grain, two indet grain fragments, five knotgrass-family seeds
3665	3666	319	pit	1.2	16	2	0	0	0	0	+	+	sparse charcoal
3622	3621	314	pit	1.3	9	1	0	0	0	0	+	+	sparse charcoal only
3636	3635	315	pit	1.3	2	1	0	0	0	0	+	0	sparse charcoal only
3652	3651	316	pit	1.3	10	1	#	0	0	0	++	+	occasional charcoal, single barley grain
3995	3994	341	pit	2.1	8	40	0	0	0	0	+	0	sparse charcoal
3997	3996	343	pit	2.1	9	20	0	0	0	0	++	++	Charcoal-rich

											+		
3997	4011	344	pit	2.1	10	60	0	0	0	0	++ +	++	Charcoal-rich
3518	3517	303	ditch	2.2	10	15	0	0	0	0	+	0	
3587	3586	310	pit	2.2	9	5	0	0	0	0	+	+	sparse charcoal
3596	3595	311	Cremati on	2.2	4	20	0	0	0	0	++	+	moderate charcoal
3772	3773	327	crematio n	2.2	32	400	#	0	0	0	++ +	+++	Single wheat grain, charcoal-rich
3610	3609	312	pit	3.1	9	20	0	0	0	0	++	+	Charcoal

Table 62: Environmental samples from Area E prehistoric deposits

D.3.11 Of the three samples taken from Mesolithic cremation **3761**, only Sample 326 (fill 3760) contains a significant quantity of charcoal which is likely to have originated from the cremation pyre. A volume of 140ml was produced and several larger fragments were identified by Sheila Boardman (Archaeobotanist, Oxford Archaeology South). Fourteen charred tubers of false oat grass (*Arrhenatherum elatius* var. *bulbosus*) are also present and could represent the pulling/cutting of turf around the pyre. A single charred grain of wheat was also noted in this sample along with two indeterminate grain fragments and five seeds of knotgrass family (*Polygonum* sp.). A fragment of charred grain was also found in the fill above (2579, Sample 325). The charred grains are most likely to be intrusive as evidence of Mesolithic cereals have not previously been found in Britain other than the contested discovery of wheat DNA from submerged peat levels at Bouldnor Cliff off the Isle of Wight.

Sample 326		
Context 3760		
Identified material (in order of preference)		
Material	**Frags.**	**Comments**
A. Quercus sapwood	1	3-4 growth ring segment
B. Quercus cf. sapwood	1	4-5 growth ring segment
C. Quercus cf. sapwood	1	7 growth ring segment
D. cf. Quercus, small twig frag. with bark	1	Unknown no. of growth rings (poorly preserved)

Table 63: Charcoal identification from Sample 326 for radiocarbon dating (Sheila Boardman)

D.3.12 Sparse charcoal was the only plant remains present in Neolithic pits **2665**, **3622**, **3636** and **3652**, whereas pits dating to the Bronze Age (**3997**, **3610**) tend to have higher charcoal content. Two Middle Bronze Age cremations were 100% sampled; **3596** contains only sparse charcoal whereas **3772** produced a 400ml flot comprised entirely of charcoal and is likely to represent fuel used for the cremation pyre.

D.3.13 Early Iron Age pit **3610** produced only a small amount of charcoal.

Cut No.	Context No.	Sample No.	Feature Type	Volume processed (L)	Flot Volume (ml)	Cereals	Chaff	Legumes	Weed Seeds	Charcoal <2 mm	Charcoal >2mm	Flot comments
3520	3519	301	post hole	4	1	0	0	0	0	0	0	no preservation
3522	3521	302	post hole	1	1	0	0	0	0	0	0	no preservation
3654	3653	317	pit	8	100	0	0	0	#	++++	+++	Charcoal-rich with hazelnut shell fragments
3750	3751	322	pit	6	120	#	0	0	0	+++	+++	single wheat grain
3764	3765	323	cremation	80?	120	0	0	0	0	++	+	occasional charcoal
3798	3904	330	SFB	34	30	#	0	0	#	++	+	occasional charcoal, five wheat grains and two large grass/oat seeds
3855	3854	356	post hole	5	10	0	0	0	#	++	0	buttercup seed, sparse charcoal
3863	3862	357	post hole	10	15	0	0	0	0	+	+	sparse charcoal
3875	3874	354	post hole	6	1	0	0	0	0	+	0	sparse charcoal
3879	3878	355	post hole	7	15	0	0	0	0	+	+	sparse charcoal
3881	3880	340	post hole	10	20	0	0	0	0	+	+	sparse charcoal
3914	3915	331	post hole	2	5	0	0	0	0	+	0	sparse charcoal
3922	3923	332	post hole	4	10	0	0	0	0	+	0	sparse charcoal
3938	3939	333	post hole	6	5	0	0	0	0	+	0	sparse charcoal
3942	3943	334	post hole	6	15	0	0	0	0	++	0	Occ charcoal
3958	3959	335	post hole	6	10	0	0	0	0	+	0	sparse charcoal
3974	3975	336	post hole	8	10	0	0	0	0	+	+	sparse charcoal
3980	3981	337	post hole	4	1	0	0	0	0	+	0	sparse charcoal
3986	3987	338	post hole	9	1	0	0	0	0	+	0	sparse charcoal
3992	3993	339	post hole	5	1	0	0	0	0	+	0	sparse charcoal
4026	4027	342	post hole	8	30	0	0	0	0	+++	+++	Charcoal-rich
4079	4078	346	post hole	8	1	0	0	0	0	+	+	sparse charcoal, flake hammerscale
4099	4098	347	post hole	10	60	0	0	0	0	+	0	sparse charcoal, flake hammerscale
4109	4107	345	pit	29	30	0	0	0	0	+++	+	charcoal
4122	4121	348	post hole	18	110	0	0	0	0	+++	+++	Charcoal-rich
4136	4135	349	post hole	9	1	#	0	0	0	+	0	single wheat grain
4138	4137	350	post hole	6	1	#	0	0	0	+	0	single wheat grain, flake hammerscale
4142	4144	351	post hole	8	1	0	0	0	0	+	0	sparse charcoal
4150	4149	352	post hole	10	1	0	0	0	0	+	0	sparse charcoal
4154	4153	353	post hole	10	5	0	0	0	0	+	+	sparse charcoal
4158	4157	358	post hole	9	1	0	0	0	0	+	0	sparse charcoal
4160	4159	359	post hole	6	1	0	0	0	0	+	0	sparse charcoal
4162	4161	360	post hole	7	1	0	0	0	0	+	0	sparse charcoal
4164	4163	361	post hole	6	80	0	0	0	0	+	0	sparse charcoal, flake hammerscale

4179	4180	362	SFB	19	20	0	0	0	0	++	+	sparse charcoal
4181	4182	363	post hole	10	45	#	0	0	#	++	+	two barley, one wheat grain. Single dock seed
4186	4185	364	post hole	2	5	0	0	0	0	0	0	no preservation
4188	4187	365	post hole	4	1	0	0	0	0	0	0	no preservation
4190	4189	366	post hole	2	5	0	0	0	0	0	0	no preservation
4196	4197	367	pit	8	10	0	0	0	0	+	0	sparse charcoal
4196	4198	368	pit	9	50	0	0	0	0	++	++	moderate charcoal
4196	4238	372	pit	19	30	0	0	0	0	++	++	flake hammerscale
4196	4248	374	pit	15	100	#	0	0	0	+++	+++	Single grains of barley and wheat. Charcoal-rich
4196	4193	3670	pit	16	20	#	#	0	0	++	0	single glume base and spikelet fork of spelt. , flake hammerscale
4196	4194	3680	pit	8	15	0	#	0	0	+++	++	
4202	4201	371	pit	2	25	#	0	0	0	++	++	single wheat grain
4207	4208	369	SFB	17	30	0	0	0	0	+++	+++	Charcoal-rich, flake and spheroidal hammerscale
4207	4245	375	SFB	16	15	#	0	0	0	++	+	single wheat grain, two indet grains, flake hammerscale
4209	4210	370	post hole	15	25	#	0	0	0	++	+	single barley grain
4209	4246	376	post hole	8	6	#	0	#	#	+++	++	charcoal rich, two wheat grains
***	4247	377	SFB	18	30	0	0	0	0	++	+	moderate charcoal, flake hammerscale
4196	4248	378	post hole	23	5	0	0	0	0	++	+	charcoal

Table 64: Environmental samples from Area E, Early Saxon deposits

Building 4075, 3955 and 3827

D.3.14 Building **4075** had 18 structural post holes, three of which were sampled. Post holes **4079** (Sample 346) and **4099** (Sample 347) both produced sparse amounts of charcoal and flake hammerscale. Post hole **4122** yielded a greater amount of charcoal (110ml) possibly representing the post which may have been fire-hardened.

D.3.15 Building **3955** had 25 structural post holes, five of which were sampled. Post holes **3958** (Sample 335), **3974** (Sample 336), **3980** (Sample 337), **3986** (Sample 338) and **3992** (Sample 339) all produced sparse amounts of charcoal.

D.3.16 Building **3827** had 28 structural post holes, five of which were sampled. Post holes **3855** (Sample 356) contains a single charred buttercup (*Ranunculus acris/repens/bulbosus*) seed in addition to sparse charcoal. The remaining samples from postholes **3863** (Sample 357), **3875** (Sample 354), **3879** (Sample 355) and **3881** (Sample 340) all yielded sparse amounts of charcoal.

Post hole line 3643 and 3520

D.3.17 One of the 14 posts within post line **3643** was sampled. Post hole **4026** (Sample 342) was found to be charcoal-rich with a flot volume of 30ml. Two of the five post holes that made up post hole line **3520** were sampled and found to be devoid of preserved remains (post holes **3520** and **3522**).

Buildings 3952,4000 and 4156 and 4120

D.3.18 Samples were taken from three of the 18 post holes from building **3952**; **3750** contains a single charred wheat grains and **3914** and **3922** yielded sparse charcoal only. Two post holes **3938** and **3942** of the 14 post holes in adjacent building **4000** produced just charcoal. Four of the six post holes of building **4156** (located adjacent to the southern limit of excavation) were sampled; **4158**, **4160**, **4162**, **4164** all contain small amounts of charcoal and 4164 also produced occasional flakes of hammerscale.

D.3.19 Post holes **4150, 4152** and **4154** and **4202** of building **4120** contain charcoal only but 4138 and 4202 both contain a single charred wheat grain.

Sunken-featured buildings 4213 and 3798

D.3.20 The main pit **4207** of SFB **4213** produced only three charred grains in fill 4245 but flake and spheroidal hammerscale are present in this fill and also in fill 4208. As both of these fills are considered to be backfills that post-date the primary use of the building, it is unlikely that the building was used as a smithy. This is further substantiated by the lack of hammerscale in the post hole fills. Post hole **4209** at the eastern end of the building produced occasional grains of barley and wheat that are more likely to be contemporary with the SFB as charred grains tend to accumulate around posts during occupation of a building. The post hole at the western end (**4181**) also produced occasional barley grains, a single wheat grain and a dock seed. Fill 3904 of sunken-featured building **3798** yeilded occasional charcoal, five wheat grains and two large grass/oat seeds.

Pits 4109 and 4196

D.3.21 Pits **4109** and **4196**) were found just to the north of SFB **4213**. Pit **4109** yeilded sparse charcoal only but pit **4196** contained three deposits, the upper two of which produced occasional charred remains of barley and wheat grains along with a single glume base and spikelet fork of spelt wheat. This discovery of a hulled wheat is unusual in an Anglo-Saxon deposit as it is generally accepted that cultivation of spelt ceased at the end of Roman occupation in Britain (Moffett 2011, 349). The presence of such sparse remains at Area E hint of residuality rather than continued cultivation although this cannot be discounted.

Cut No.	Context No.	Sample No.	Feature Type	Phase	Volume processed (L)	Flot Volume (ml)	Cereals	Chaff	Legumes	Weed Seeds	Charcoal <2 mm	Charcoal > 2mm	Flot comments
3565	3564	305	pit	7	8	50	0	0	0	0	++++	+++	Charcoal-rich
3594	3593	309	pit	7	10	800	0	0	0	0	++++	+++	large volume of charcoal
3657	3658	318	pit	7	9	1	0	0	0	#	+	0	sparse charcoal, single seed of knawel
3812	3813	328	tree bole	7	4	1	0	0	0	0	+	0	sparse charcoal
3812	3814	329	tree bole	7	5	1	0	0	0	0	+	+	sparse charcoal

Table 65: Environmental samples from Area E natural features

D.3.22 Five samples were taken from natural unphased deposits. Pits **3565** and **3594** both produced charcoal-rich deposits. Sample 318 of fill 3658 of pit **3657** yeilded a single charred knawel (*Scleranthus annuus*) seed.

D.4 Pollen Analyses of Sediments from the Sandon Brook valley

By Steve Boreham

Introduction

D.4.1 This study focuses on the palynology of sediments obtained from a borehole sunk on the *c.*100m wide floodplain of the Sandon Brook, Little Baddow, Essex. The Sandon Brook is a small northward-flowing tributary of the River Chelmer, which drains the western side of the Danbury ridge. The stream course is for the most part underlain by London Clay bedrock, although glacial gravel and river terraces also occur in the catchment.

D.4.2 Six exploratory boreholes (BH1-6 mostly 5m apart) were sunk across the floodplain of the Sandon Brook valley to the west of Church Road (see Fig. 27) close to its confluence with the River Chelmer, near Little Baddow, to establish the stratigraphy and lithology of the Holocene fluvial sediments. Two riverbank sections were also examined. The modern course of Sandon Brook appeared to be cut through the western edge of the floodplain sediments.

D.4.3 There were no great differences in the lithology of the alluvial floodplain sediments, although it was clear that BH4 was located in the centre of a small shallow palaeochannel (TL 76120 08270). Sediment cores from the basal part of borehole BH4 were selected for analyses because of the relatively long sequence of un-oxidised wood and plant remains preserved in the silt-rich sediments (Figure 27). Six pollen sub-samples at 10cm intervals were taken from the basal part of the core.

D.4.4 The six pollen sub-samples were prepared using the standard hydrofluoric acid technique, in the Geography Science Laboratories, University of Cambridge, and counted for pollen using a high-power stereo microscope at x400 magnification. The percentage pollen data from these six sub-samples is presented at the end of this report.

Pollen analyses

D.4.5 Sediment sub-samples for pollen analysis were taken from the following points along the BH4 core; 155, 165, 175, 185, 195 & 205cm. The results of the pollen analysis appear in Table 68 and are presented graphically as percentage pollen diagrams in Fig. 28 (Trees, Shrubs & Summary) and Fig. 29 (Herbs, Spores & Aquatics). The sub-samples have pollen concentrations that ranged between 44,282 and 89,395 grains per ml. Pollen preservation is rather variable in these samples and finely divided organic material hampered pollen counting to some degree. Assessment pollen counts were made from single slides for these sub-samples. The pollen sums achieved for these slides were all above 50 grains, and three were greater than 100 grains. However, none exceeded the statistically desirable total of 300 pollen grains main sum. As a consequence caution must be employed during the interpretation of these results.

D.4.6 It is immediately clear that these sub-samples are dominated by grass (Poaceae) pollen (*c.*23-31%), together with a mixture of trees, herbs and the spores of lower plants. As evidenced by the reedstems preserved in the sediment, much of the grass pollen may in fact represent common reed (*Phragmites*). The pollen assemblage is evidently post-clearance with low (<10%) proportions of dryland arboreal taxa such as hazel (*Corylus*), oak (*Quercus*), lime (*Tilia*), ivy (*Hedera*) and birch (*Betula*), and the wet-loving trees willow (*Salix*) and alder (*Alnus*). There are very few significant changes through the sequence suggesting that these sediments represent a relatively short period of time

(perhaps 1000-2000 years). The herb flora is relatively diverse and shows evidence for meadow, tall-herb and riparian (bank-side) habitats.

D.4.7 Although the soil disturbance indicator ribwort plantain (*Plantago lanceolata*) occurs throughout (*c*.3-5%), cereal pollen (up to 6%) is confined to the top three samples. This rise in arable activity is associated with the eutrophication indicator nettle (*Urtica*), and marks the change from pastoral farming to mixed pastoral and arable agriculture in the catchment. Indeed, evidence for the clearance of the last remnants of woodland can be seen at the base of the core with decreasing proportions of the polypody fern (*Polypodium*), which grows on mature trees, and declining lily (probably bluebell) pollen associated with woodland ground flora. Fern spores (Pteropsida), damp-loving sedges (Cyperaceae) and the emergent aquatic bur-reed (*Sparganium*) appear to be constant throughout, although some rise in water levels might be indicated by the presence of reedmace (*Typha*) in the top three samples.

Discussion & Conclusions

D.4.8 The pollen samples (BH4) from the Sandon Brook valley provide what must be a relatively short-lived 'snapshot' of vegetation and landscape. Initially, based on the pollen alone it seemed most likely that the base of the sequence was post-Neolithic, or possibly Early-Mid Bronze Age. However, the radiocarbon dates showed that, contrary to expectations, the sequence is much later. Iron Age and Roman pollen spectra tend to have much lower total arboreal pollen, as the last remnants of woodland were cleared back to form hedgerows, and a much more consistent presence of cereal pollen. This core records the transition from mostly pastoral meadows with grazing animals into a more 'patchwork' landscape of arable fields, grassland and fragmentary woodland. The absence of aquatic plants of deeper open water (for example water-lilies) suggests that Sandon Brook was a shallow stream fringed with emergent vegetation. It probably occupied a narrow floodplain of water meadows and alder/willow carr (wet woodland), and was surrounded by pasture and ultimately fields of cereal crops, punctuated by remnant oak and hazel copses and hedgerows.

D.4.9 The radiocarbon determinations (Table 66) show that this sequence spans the late Roman and Anglo-Saxon periods. This is not the expected date for a sequence which appears to show the onset of arable activity. It is possible that we might be seeing abandonment in the Sandon Brook catchment during the Roman period, followed by exploitation again during the Saxon period. It is also possible that this sequence is a local signal of woodland from Danbury Hill which is a little different from elsewhere in Southern England. Either way, it is interesting that cereal pollen only increases in the Anglo-Saxon part of this sequence.

Sample depth	Radiocarbon age BP	Calibrated date (95% confidence)	Clibrated date (68% confidence)	Laboratory code
204-206cm	1760±30	CalAD 220-375	Cal AD 240-330	Beta-386920
153-155	900±30	CalAD 1035-1212	CalAD 1050-1165	Beta-368919

Table 66: Radiocarbon dates from borehole sequence through Sandon Brook

D.4.10 The base of this sequence rested directly on terrace sand and gravel that was presumably laid down by the late-Glacial course of the Sandon Brook. However, it is usually considered that down-cutting of rivers in Southern England at the end of the last glacial period resulted in deep narrow channels, which contained river flow throughout the Mesolithic and Neolithic until sufficient sediment build-up allowed them to spread more widely across valley floors. This implies that a small deep palaeochannel

containing Neolithic or earlier sediments may exist beneath the Sandon Brook floodplain, although it was not detected in the borehole transect. It is just possible that such a palaeochannel may exist to the west of Sandon Brook itself.

D.4.11 In summary, this palynological investigation of the basal silt-rich sediment contained in a small palaeochannel beneath the Sandon Brook floodplain has produced evidence for the transition from mostly pastoral farming to a more mixed landscape with arable crops. This 'snapshot' or narrow 'time slice' is from the Late Roman to Anglo-Saxon period. With all assessment pollen counts it is important not to over-interpret the data, however the onset of arable activity in this sequence is a clear signal that would be hard to account for by other means.

0 – 30cm	Ploughsoil - orange grey mottled silty clay with rootlets
30 – 150cm	Orange yellow oxidised grey silty clay (alluvium)
150 –173cm	Grey brown silty clay with rootlets and reed stems
173 – 180cm	Grey-brown silt and coarse sand with pea grit and wood
180 – 206cm	Grey brown silty clay with rootlets and reed stems
206 – 210cm	Grey brown silty clay with sand and occasional pea grit
210cm	Borehole stopped on Gravel and sand

Table 67:Lithology & Stratigraphy of borehole BH4 Sandon Brook valley BH4, TL 76120 08270

Pollen sub-sample	155cm	165cm	175cm	185cm	195cm	205cm
Trees & Shrubs						
Betula	1.3	0.9	0.8	0.0	0.0	0.0
Quercus	3.8	8.5	4.8	4.7	3.9	3.9
Tilia	0.0	0.0	0.0	0.0	0.0	2.0
Alnus	1.3	1.9	1.6	1.2	1.3	1.0
Corylus	8.8	8.5	9.7	8.2	6.6	5.9
Salix	3.8	4.7	4.8	8.2	3.9	7.8
Hedera	0.0	0.0	0.0	0.0	0.0	1.0
Herbs						
Poaceae	23.8	25.5	28.2	28.2	30.3	25.5
Cereals	6.3	5.7	2.4	0.0	0.0	0.0
Cyperaceae	3.8	5.7	4.0	7.1	7.9	6.9
Asteraceae (Asteroidea/Cardueae) undif.	5.0	1.9	1.6	3.5	1.3	2.0
Asteraceae (Lactuceae) undif.	6.3	2.8	1.6	2.4	3.9	3.9
Artemisia _type	0.0	0.9	1.6	1.2	0.0	1.0
Cirsium _type	1.3	0.9	0.0	0.0	1.3	2.0
Centaurea nigra _type	0.0	0.0	0.8	2.4	2.6	2.0
Caryophyllaceae	0.0	0.9	2.4	1.2	0.0	1.0
Chenopodiaceae	1.3	1.9	1.6	2.4	2.6	2.9

Brassicaceae	1.3	1.9	1.6	2.4	2.6	2.9
Fabaceae	0.0	0.0	2.4	0.0	0.0	2.0
Filipendula	1.3	1.9	2.4	2.4	2.6	2.0
Helianthemum	1.3	0.0	0.0	1.2	0.0	0.0
Lamiaceae	1.3	0.0	0.0	1.2	1.3	0.0
Plantago lanceolata	5.0	4.7	4.0	3.5	3.9	2.9
Ranunculus _type	1.3	2.8	5.6	4.7	3.9	2.9
Rosaceae undiff.	0.0	0.0	0.8	0.0	0.0	0.0
Rumex	2.5	2.8	4.8	2.4	1.3	2.9
Urtica	1.3	0.9	0.0	0.0	0.0	0.0
Apiaceae	0.0	0.0	0.0	1.2	1.3	2.0
Liliaceae	0.0	0.0	0.0	0.0	2.6	1.0
Lower plants						
Polypodium	0.0	0.9	0.0	1.2	1.3	2.0
Pteropsida (monolete) undif.	11.3	8.5	8.9	7.1	9.2	7.8
Pteropsida (trilete) undif.	7.5	4.7	3.2	2.4	3.9	2.9
Aquatics						
Sparganium _type	7.5	6.6	6.5	4.7	6.6	5.9
Typha latifolia	1.3	1.9	1.6	0.0	0.0	0.0
Sum trees	6.3	11.3	7.3	5.9	5.3	6.9
Sum shrubs	12.5	13.2	14.5	16.5	10.5	14.7
Sum herbs	62.5	61.3	66.1	67.1	69.7	65.7
Sum spores	18.8	14.2	12.1	10.6	14.5	12.7
Main Sum	80	106	124	85	76	102
Concentration (grains per ml)	44282	79629	72450	63853	72663	89395

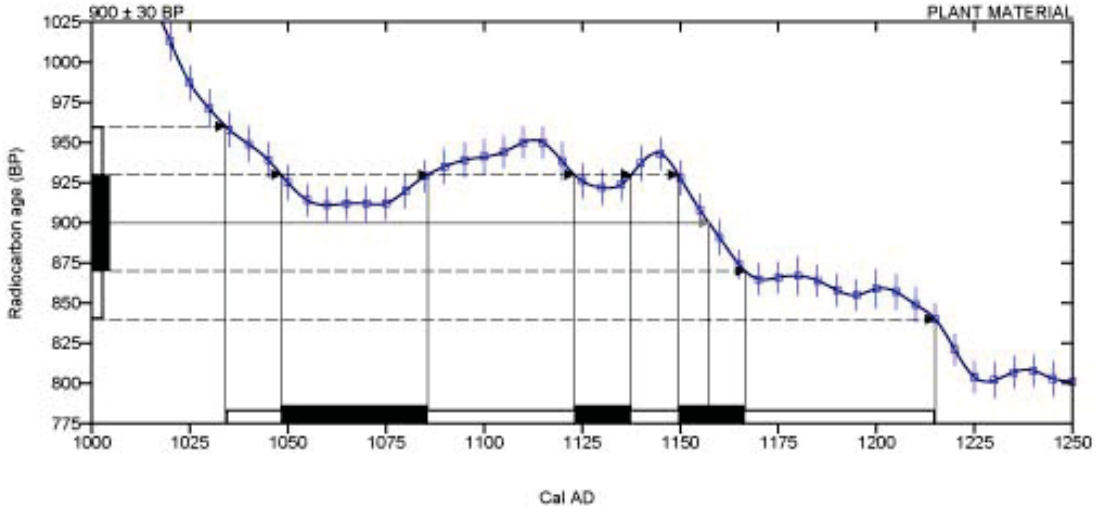
Table 68: Sandon Brook BH4 pollen percentages

APPENDIX E. RADIOCARBON DATING CERTIFICATES

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -27.6 o/oo : lab. mult = 1)

Laboratory number	**Beta-386919**
Conventional radiocarbon age	**900 ± 30 BP**
2 Sigma calibrated result 95% probability	**Cal AD 1035 to 1215 (Cal BP 915 to 735)**
Intercept of radiocarbon age with calibration curve	Cal AD 1155 (Cal BP 795)
1 Sigma calibrated results 68% probability	Cal AD 1050 to 1085 (Cal BP 900 to 865) Cal AD 1125 to 1140 (Cal BP 825 to 810) Cal AD 1150 to 1165 (Cal BP 800 to 785)



Database used

INTCAL13

References

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates, Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

References to INTCAL13 database

Reimer PJ et al. IntCal13 and Marine13 radiocarbon age calibration curves 0–50,000 years cal BP. Radiocarbon 55(4):1869–1887.

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4985 S.W. 74th Court, Miami, Florida 33155 • Tel: (305)667-5167 • Fax: (305)663-0964 • Email: beta@radiocarbon.com
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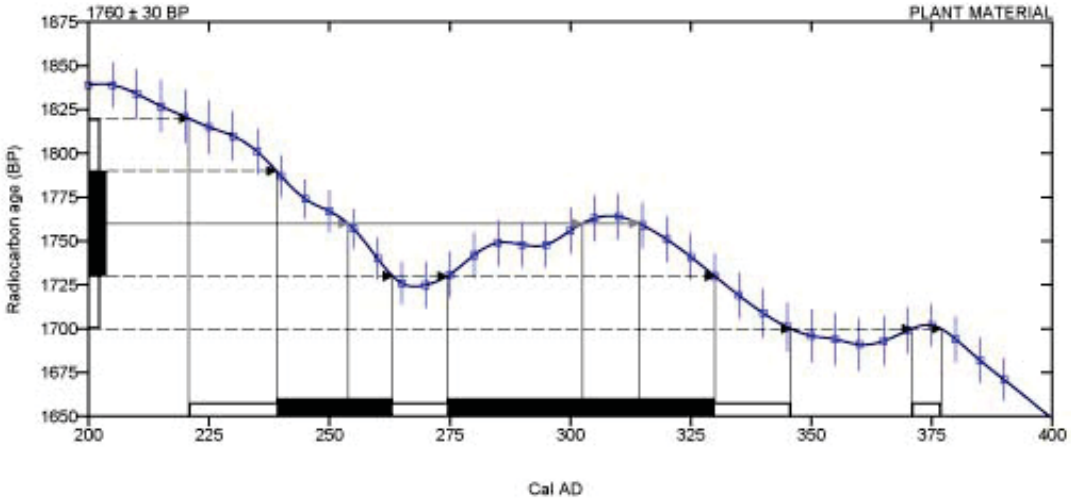
CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -27.6 o/oo : lab. mult = 1)

Laboratory number	**Beta-386920**
Conventional radiocarbon age	**1760 ± 30 BP**
2 Sigma calibrated result **95% probability**	**Cal AD 220 to 345 (Cal BP 1730 to 1605)** **Cal AD 370 to 375 (Cal BP 1580 to 1575)**
Intercept of radiocarbon age with calibration curve	Cal AD 255 (Cal BP 1695) Cal AD 300 (Cal BP 1650) Cal AD 315 (Cal BP 1635)
1 Sigma calibrated results 68% probability	Cal AD 240 to 265 (Cal BP 1710 to 1685) Cal AD 275 to 330 (Cal BP 1675 to 1620)



Database used

INTCAL13

References

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates, Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

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Reimer PJ et al. IntCal13 and Marine13 radiocarbon age calibration curves 0–50,000 years cal BP. Radiocarbon 55(4):1869–1887.

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RADIOCARBON DATING CERTIFICATE

23 September 2014

Laboratory Code	SUERC-55393 (GU35117)
Submitter	Rachel Fosberry Oxford Archaeology East 15 Trafalgar Way Bar Hill Cambs. CB23 8SQ
Site Reference	CMEP14.6
Context Reference	2501
Sample Reference	200
Material	Human remains (cremated) : unid Long bone fragments
$\delta^{13}C$ relative to VPDB	-23.3 ‰
Radiocarbon Age BP	3174 ± 29

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

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email g.cook@suerc.gla.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- E. Dunbar Date :- 23/09/2014

Checked and signed off by :- P. Naysmith Date :- 23/09/2014

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RADIOCARBON DATING CERTIFICATE

23 September 2014

Laboratory Code	SUERC-55394 (GU35118)
Submitter	Rachel Fosberry Oxford Archaeology East 15 Trafalgar Way Bar Hill Cambs. CB23 8SQ
Site Reference	CMEP14.6
Context Reference	2579
Sample Reference	213
Material	Human remains (cremated) : unid Long bone fragments
$\delta^{13}C$ relative to VPDB	-23.5 ‰
Radiocarbon Age BP	3054 ± 29

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

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email g.cook@suerc.gla.ac.uk or telephone 01355 270136 direct line.

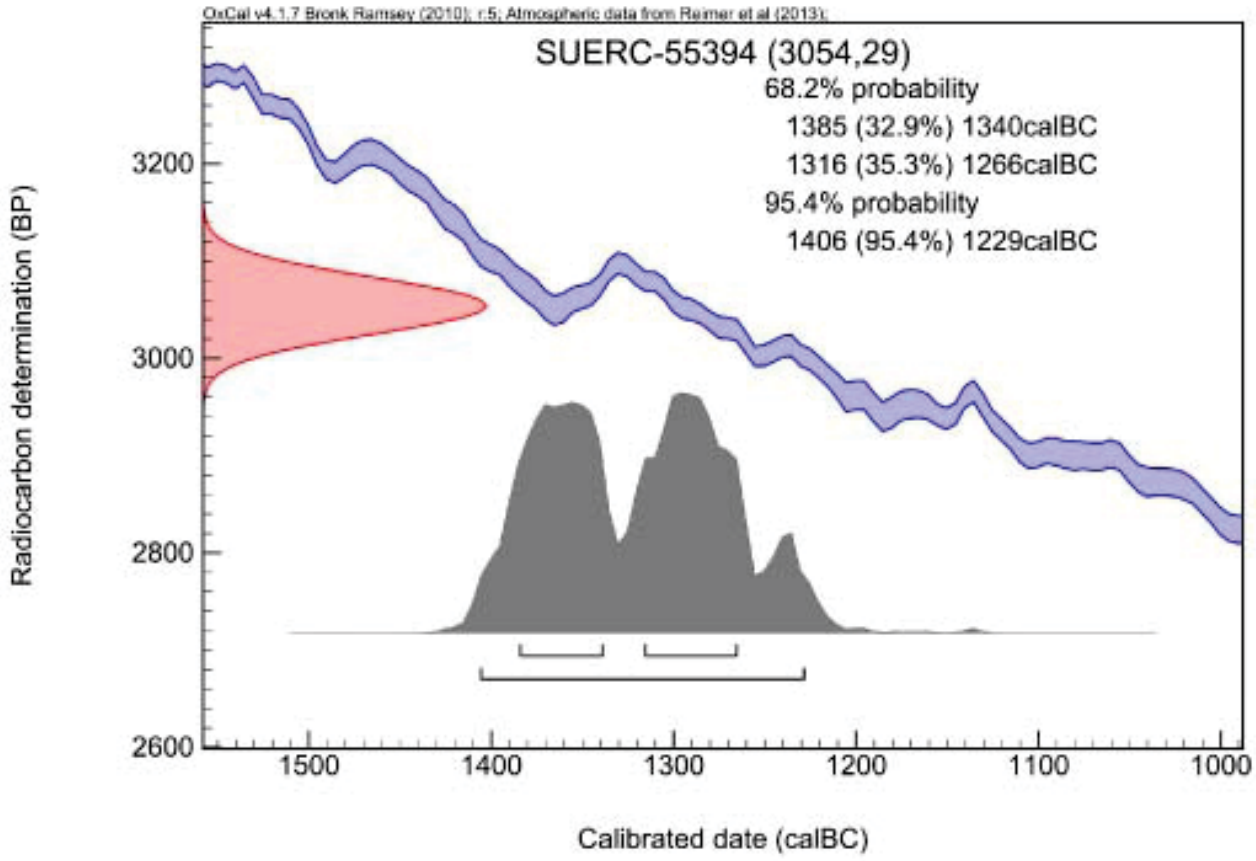
Conventional age and calibration age ranges calculated by :- E. Dunbar Date :- 23/09/2014

Checked and signed off by :- P. Naysmith Date :- 23/09/2014

University of Glasgow

THE UNIVERSITY OF EDINBURGH

Calibration Plot



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RADIOCARBON DATING CERTIFICATE

23 September 2014

Laboratory Code	SUERC-55395 (GU35119)
Submitter	Rachel Fosberry Oxford Archaeology East 15 Trafalgar Way Bar Hill Cambs. CB23 8SQ
Site Reference	CMEP14.6
Context Reference	2599
Sample Reference	220
Material	Human remains (cremated) : Femur and humerus fragments
$\delta^{13}C$ relative to VPDB	-21.2 ‰
Radiocarbon Age BP	3423 ± 29

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

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

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Conventional age and calibration age ranges calculated by :- E. Dunbar Date :- 23/09/2014

Checked and signed off by :- P. Naysmith Date :- 23/09/2014

University of Glasgow

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The University of Edinburgh

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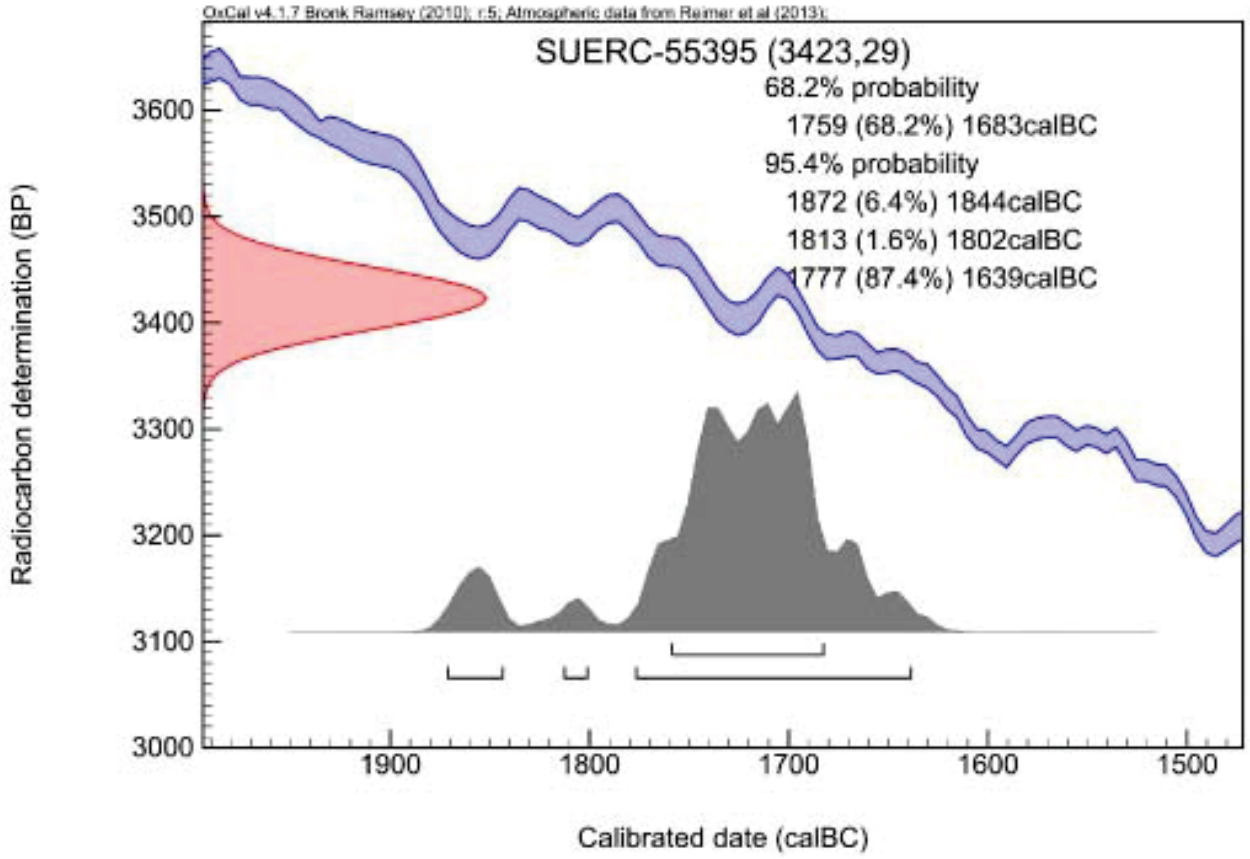
Calibration Plot



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23 September 2014

Laboratory Code	SUERC-55396 (GU35120)
Submitter	Rachel Fosberry Oxford Archaeology East 15 Trafalgar Way Bar Hill Cambs. CB23 8SQ
Site Reference	CMEP14.6
Context Reference	2667
Sample Reference	229
Material	Human remains (cremated) : Femur and long bone fragments
$\delta^{13}C$ relative to VPDB	-28.0 ‰
Radiocarbon Age BP	3024 ± 29

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

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email g.cook@suerc.gla.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- E. Dunbar Date :- 23/09/2014

Checked and signed off by :- P. Naysmith Date :- 23/09/2014

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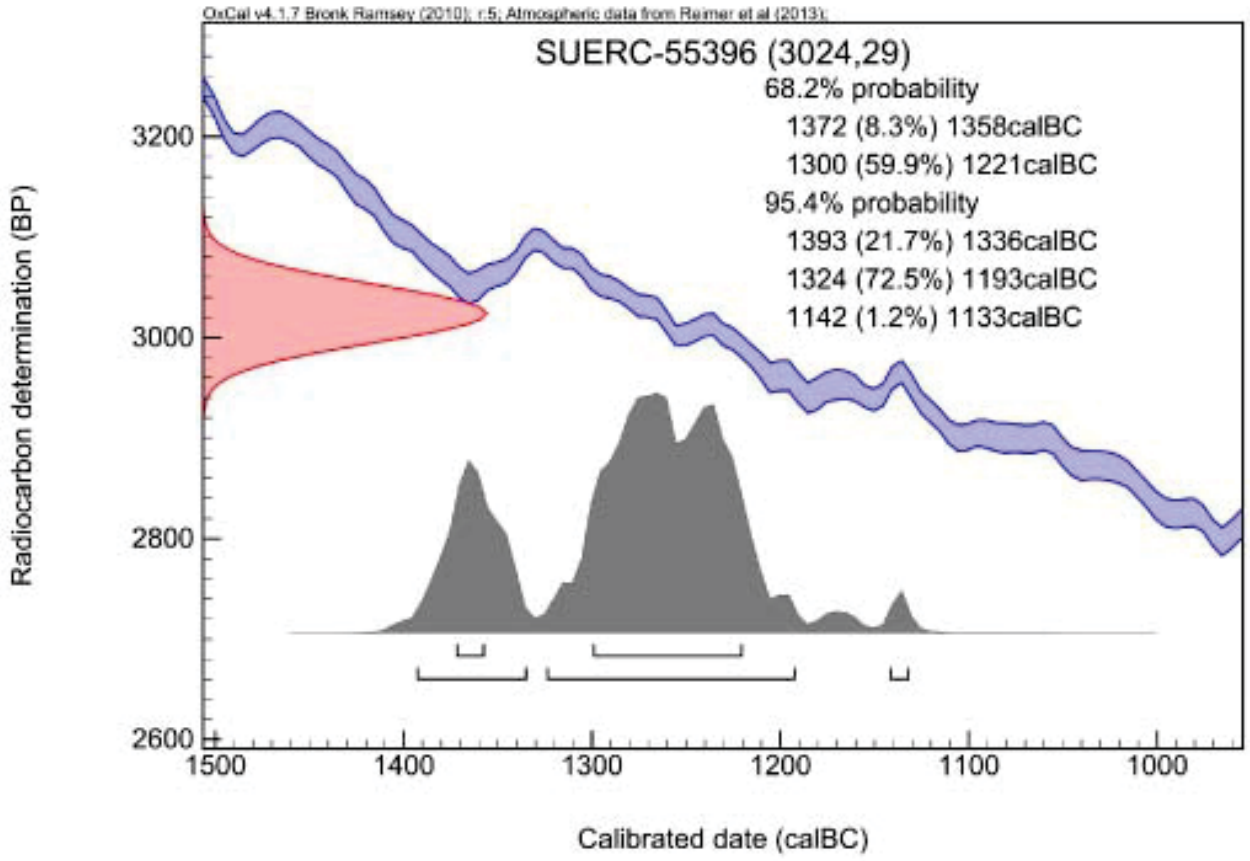
Calibration Plot



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RADIOCARBON DATING CERTIFICATE

23 September 2014

Laboratory Code	SUERC-55400 (GU35121)
Submitter	Rachel Fosberry Oxford Archaeology East 15 Trafalgar Way Bar Hill Cambs. CB23 8SQ
Site Reference	CMEP 14.7
Context Reference	3760
Sample Reference	326
Material	Human remains (cremated) : Unid long bone fragments
$\delta^{13}C$ relative to VPDB	-19.5 ‰
Radiocarbon Age BP	6680 ± 28

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

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email g.cook@suerc.gla.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- E. Dunbar Date :- 23/09/2014

Checked and signed off by :- P. Naysmith Date :- 23/09/2014

University of Glasgow

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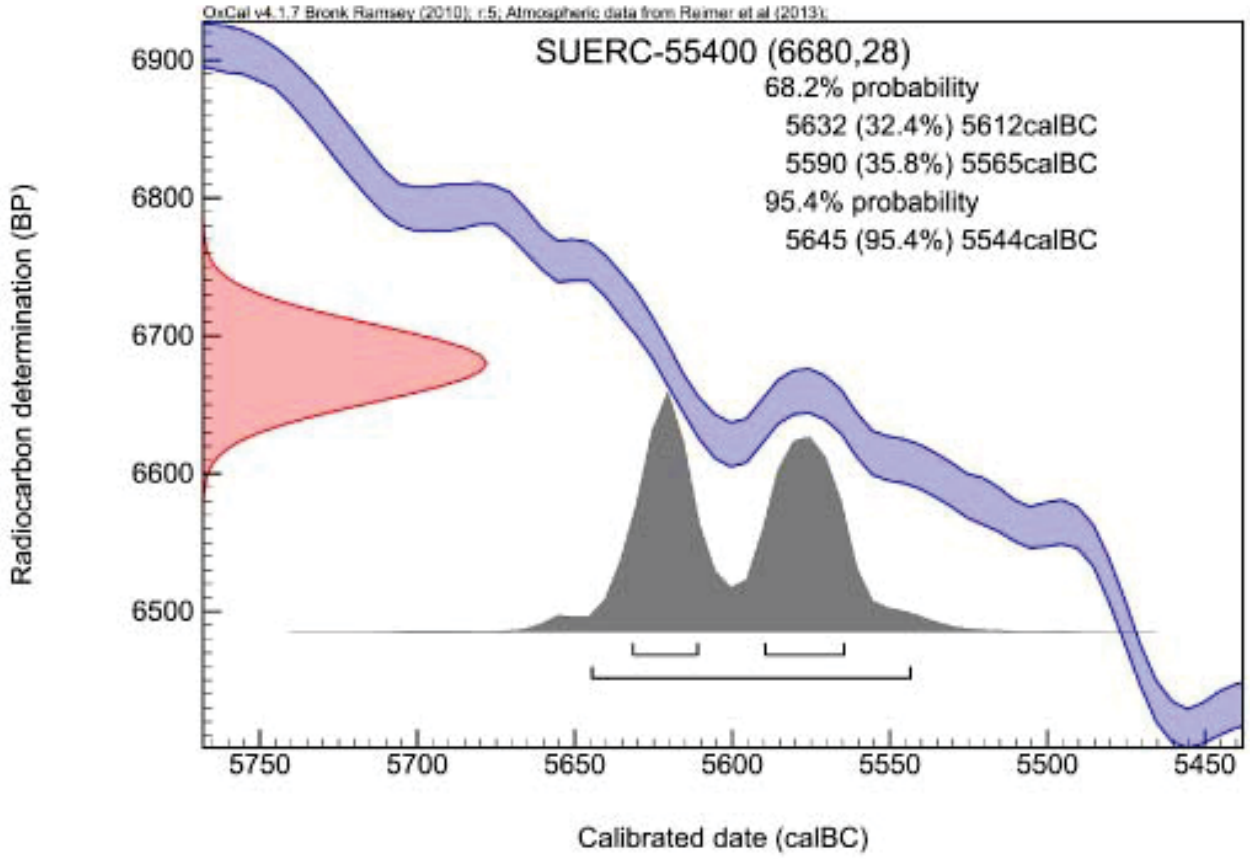
Calibration Plot



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RADIOCARBON DATING CERTIFICATE

23 March 2015

Laboratory Code	SUERC-58781 (GU36753)
Submitter	Rachel Fosberry Oxford Archaeology East 15 Trafalgar Way Bar Hill Cambs. CB23 8SQ
Site Reference	CMEP14.7
Context Reference	3760
Sample Reference	326
Material	Charcoal : Quercus sp.
$\delta^{13}C$ relative to VPDB	-25.8 ‰
Radiocarbon Age BP	6660 ± 30

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

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

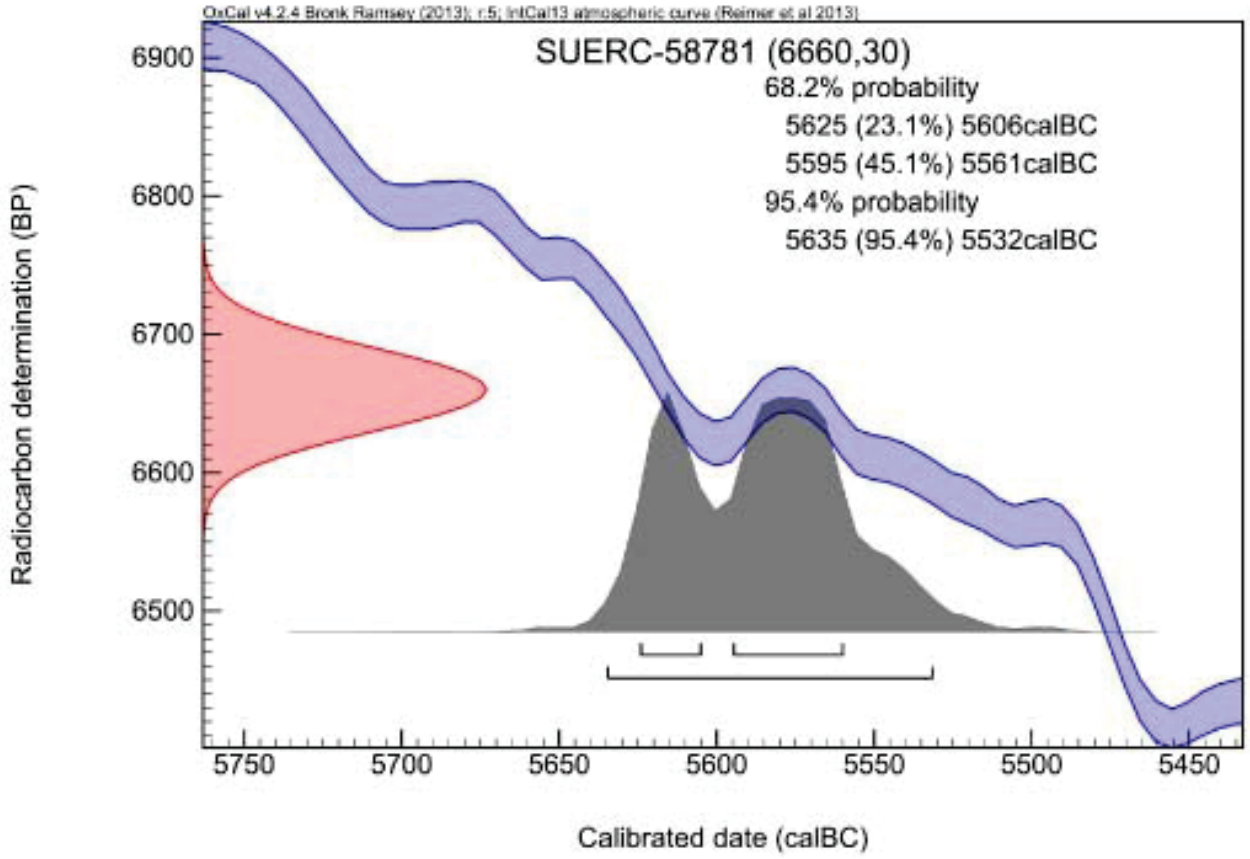
Conventional age and calibration age ranges calculated by :- E Dunbar Date :- 23/03/2015

Checked and signed off by :- P. Naysmith Date :- 23/03/2015

University of Glasgow

THE UNIVERSITY OF EDINBURGH

Calibration Plot



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RADIOCARBON DATING CERTIFICATE

23 March 2015

Laboratory Code	SUERC-58782 (GU36754)
Submitter	Rachel Fosberry Oxford Archaeology East 15 Trafalgar Way Bar Hill Cambs. CB23 8SQ
Site Reference	CMEP14.7
Context Reference	3760
Sample Reference	326
Material	Calcined bone : Human long bone
$\delta^{13}C$ relative to VPDB	-18.0 ‰
Radiocarbon Age BP	6695 ± 31

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

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

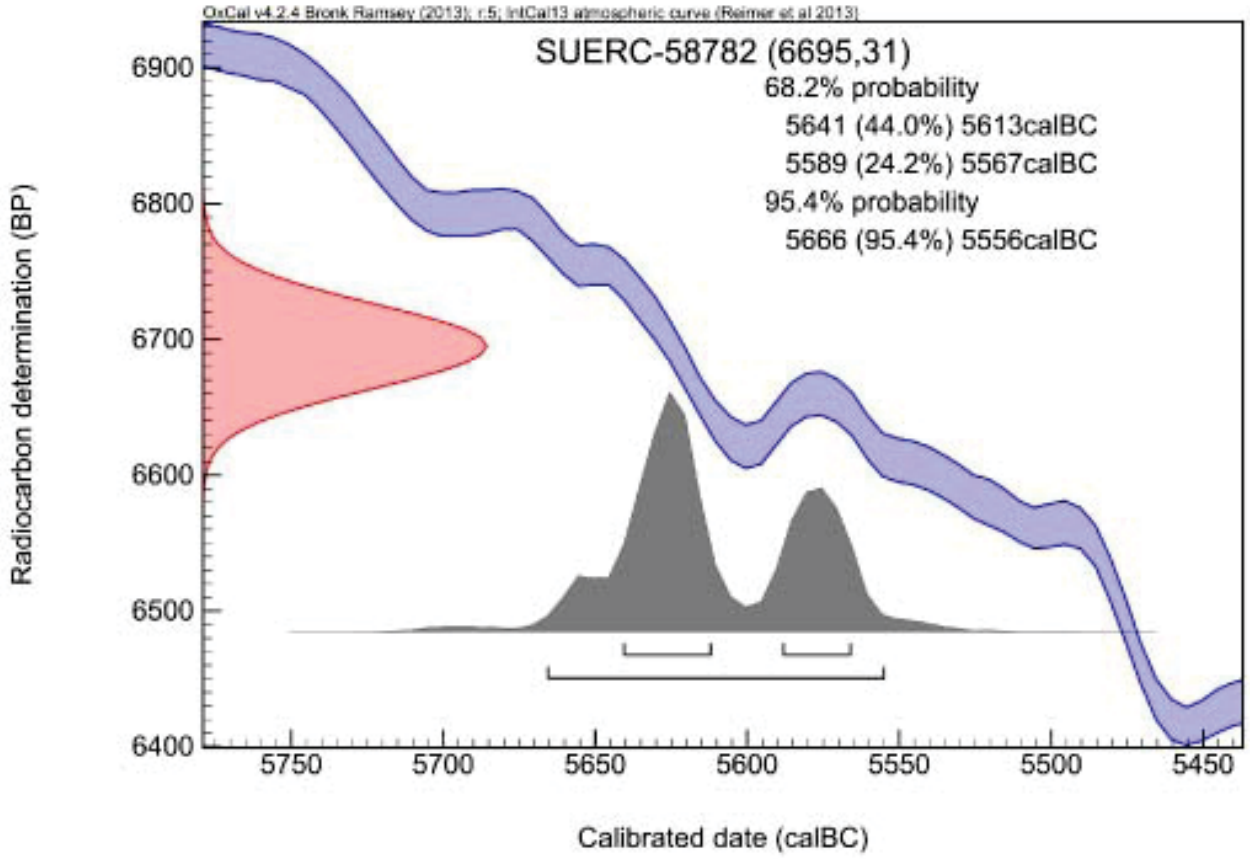
Conventional age and calibration age ranges calculated by :- E Dunbar Date :- 23/03/2015

Checked and signed off by :- P. Naysmith Date :- 23/03/2015

University of Glasgow

THE UNIVERSITY OF EDINBURGH

Calibration Plot



Appendix F. Essex Historic Environment Record/Essex Archaeology and History Summary Sheets

Site name/Address: Chelmsford Effluent Pipeline Area A	
Parish: Little Baddow	District: Chelmsford
NGR: TL 74770 07875	Site Code: CMEP14.1
Type of Work: Excavation	Site Director/Group: Nick Gilmour/ OA East
Date of Work: March – May 2014	Size of Area Investigated: 0.63ha
Location of Finds/Curating Museum: Chelmsford Museums	Funding source: Developer funded
Further Seasons Anticipated? No	Related EHCR No.s:
Final Report:	OASIS number: oxfordar3-207651
Periods Represented: Beaker, Early Roman, post-medieval	
SUMMARY OF FIELDWORK RESULTS: As single Beaker pit, containing both pottery and struck flint was unrecorded. In addition, part of an Early Roman field system was exposed. Finds suggest that the main area of occupation associated with these fields was immediately to the south west of the excavated area. Post-medieval field boundaries were also recorded.	
Previous Summaries/Reports:	
Author of Summary: Nick Gilmour	Date of Summary:

Site name/Address: chelmsford Effluent Pipeline Area B	
Parish: Little Baddow	District: Chelmsford
NGR: TL 75023 07936	Site Code: CMEP14.2
Type of Work: Excavation	Site Director/Group: Nick Gilmour/ OA East
Date of Work: March – May 2014	Size of Area Investigated: 0.18ha
Location of Finds/Curating Museum: Chelmsford museums	Funding source: Developer funded
Further Seasons Anticipated? No	Related EHCR No.s:
Final Report:	OASIS number: oxfordar3-207651
Periods Represented: Early Neolithic, Early Roman, Post-medieval	
SUMMARY OF FIELDWORK RESULTS: Three early Neolithic pits, containing pottery and struck flits were excavated. In addition, further ditches related to the Early Roman farmstead identified in Area A were recorded, along with post-medieval field boundaries.	
Previous Summaries/Reports:	
Author of Summary: Nick Gilmour	Date of Summary:

Site name/Address: Chelmsford Effluent pipeline area C	
Parish: Little Baddow	District: Chelmsford
NGR: TL 75481 08044	Site Code: CMEP14.3
Type of Work: Excavation	Site Director/Group: Nick Gilmour/ OA East
Date of Work: March-May 2014	Size of Area Investigated: 0.19ha
Location of Finds/Curating Museum: Chelmsford Museums	Funding source: developer funded
Further Seasons Anticipated? No	Related EHCR No.s:
Final Report:	OASIS number: oxfordar3-207651
Periods Represented: medieval, post-medieval	
SUMMARY OF FIELDWORK RESULTS:	
Previous Summaries/Reports:	
Author of Summary: Nick Gilmour	Date of Summary:

Site name/Address: Chelmsford Effluent pipeline evaluation	
Parish: Little Baddow	District: Chelmsford
NGR: TL 75853 08128	Site Code: CMEP14.4
Type of Work: Evaluation	Site Director/Group: Nick Gilmour/ OA East
Date of Work: March-May 2014	Size of Area Investigated: 0.40ha
Location of Finds/Curating Museum: Chelmsford Museums	Funding source: Developer Funded
Further Seasons Anticipated? No	Related EHCR No.s:
Final Report:	OASIS number: oxfordar3-207651
Periods Represented: None	
SUMMARY OF FIELDWORK RESULTS: Four evaluation trenches excavated. No archaeological finds or features identified.	
Previous Summaries/Reports:	
Author of Summary: Nick Gilmour	Date of Summary:

Site name/Address: Chelmsford Effluent pipeline environmental borehole survey	
Parish: Little Baddow	District: Chelmsford
NGR: TL 76129 08270	Site Code: CMEP14.5
Type of Work: Pollen analysis	Site Director/Group: Nick Gilmour/ OA East
Date of Work: March-May 2014	Size of Area Investigated: -
Location of Finds/Curating Museum: Chelmsford Museums	Funding source: developer funded
Further Seasons Anticipated? no	Related EHCR No.s:
Final Report:	OASIS number: oxfordar3-207651
Periods Represented: Roman	
SUMMARY OF FIELDWORK RESULTS: Six cores were taken across a previous course of Sandon Brook. One of these with the most complete sequence was analysed. This core records the transition from mostly pastoral meadows with grazing animals into a more 'patchwork' landscape of arable fields, grassland and fragmentary woodland. This transition was dated by radiocarbon to the Roman to Saxon periods.	
Previous Summaries/Reports:	
Author of Summary:	Date of Summary:

Site name/Address: Chelmsford Effluent pipeline Area D	
Parish: Ulting	District: Maldon
NGR:	Site Code:
Type of Work:	Site Director/Group:
Date of Work:	Size of Area Investigated:
Location of Finds/Curating Museum:	Funding source:
Further Seasons Anticipated?	Related EHCR No.s:
Final Report:	OASIS number: oxfordar3-207651
Periods Represented:	
SUMMARY OF FIELDWORK RESULTS:	
Previous Summaries/Reports:	
Author of Summary:	Date of Summary:

Site name/Address: Chelmsford Effluent pipeline Area E	
Parish: Ulting and Langford	District: Maldon
NGR:	Site Code:
Type of Work:	Site Director/Group:
Date of Work:	Size of Area Investigated:
Location of Finds/Curating Museum:	Funding source:
Further Seasons Anticipated?	Related EHCR No.s:
Final Report:	OASIS number: oxfordar3-207651
Periods Represented: mesolithic, Neolithic, Bronze Age, Saxon	
SUMMARY OF FIELDWORK RESULTS: A Mesolithic cremation	
Previous Summaries/Reports:	
Author of Summary:	Date of Summary:

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Appendix H. OASIS Report Form

All fields are required unless they are not applicable.

Project Details

OASIS Number	oxfordar3-207651		
Project Name	Early Neolithic to Post-medieval archaeology on the routhe of the Chelmsford effluent pipeline, Essex		
Project Dates (fieldwork) Start	12-03-2014	Finish	22-05-2014
Previous Work (by OA East)	Yes	Future Work	No

Project Reference Codes

Site Code	CMEP14	Planning App. No.	
HER No.		Related HER/OASIS No.	

Type of Project/Techniques Used

Prompt: Water Act 1989 and subsequent code of practice

Please select all techniques used:

☐ Field Observation (periodic visits)	☒ Part Excavation	☐ Salvage Record
☐ Full Excavation (100%)	☐ Part Survey	☐ Systematic Field Walking
☐ Full Survey	☐ Recorded Observation	☐ Systematic Metal Detector Survey
☐ Geophysical Survey	☐ Remote Operated Vehicle Survey	☐ Test Pit Survey
☒ Open-Area Excavation	☐ Salvage Excavation	☐ Watching Brief

Monument Types/Significant Finds & Their Periods

List feature types using the NMR Monument Type Thesaurus and significant finds using the MDA Object type Thesaurus together with their respective periods. If no features/finds were found, please state "none".

Monument	Period	Object	Period
cremation	Mesolithic -10k to -4k	pottery	Neolithic -4k to -2k
barrow	Bronze Age -2.5k to -700	flint	Neolithic -4k to -2k
cremation	Bronze Age -2.5k to -700	flint	Mesolithic -10k to -4k

Project Location

County	Essex	Site Address (including postcode if possible)	
District	Chelmsford, Braintree	CM2 6YL	
Parish	multiple		
HER	Essex		
Study Area	c.2.5ha	National Grid Reference	TL7400507519-8347408648

Project Originators

Organisation	OA EAST
Project Brief Originator	Maria Medlycott
Project Design Originator	mott mcdonald
Project Manager	James Drummond-Murray
Supervisor	Nick gilmour

Project Archives

Physical Archive	Digital Archive	Paper Archive
various	OA East bar hill	Location ...
various	Accession ID ...	Accession ID ...

Archive Contents/Media

	Physical Contents	Digital Contents	Paper Contents
Animal Bones	☒	☒	☒
Ceramics	☒	☒	☒
Environmental	☒	☒	☒
Glass	☒	☒	☒
Human Bones	☒	☒	☒
Industrial	☐	☐	☐
Leather	☐	☐	☐
Metal	☒	☒	☒
Stratigraphic		☒	☐
Survey		☒	☐
Textiles	☐	☐	☐
Wood	☐	☐	☐
Worked Bone	☐	☐	☐
Worked Stone/Lithic	☒	☒	☒
None	☐	☐	☐
Other	☐	☐	☐

Digital Media	Paper Media
☒ Database	☐ Aerial Photos
☒ GIS	☒ Context Sheet
☐ Geophysics	☒ Correspondence
☒ Images	☐ Diary
☒ Illustrations	☐ Drawing
☐ Moving Image	☐ Manuscript
☒ Spreadsheets	☐ Map
☒ Survey	☐ Matrices
☒ Text	☐ Microfilm
☐ Virtual Reality	☒ Misc.
	☐ Research/Notes
	☒ Photos
	☒ Plans
	☒ Report
	☒ Sections
	☐ Survey

Notes:

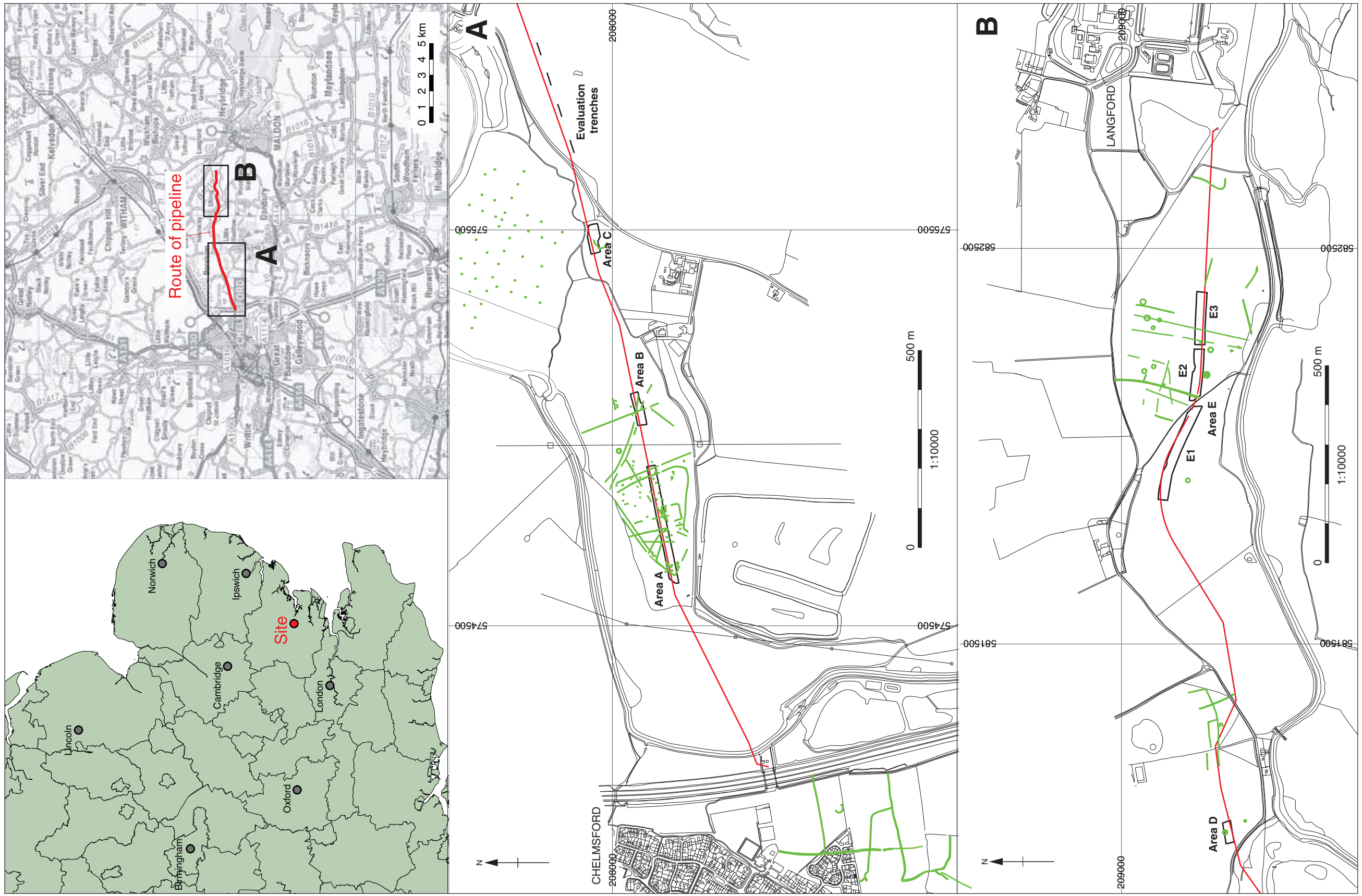

Figure 1: Site location plan, data supplied by the client.

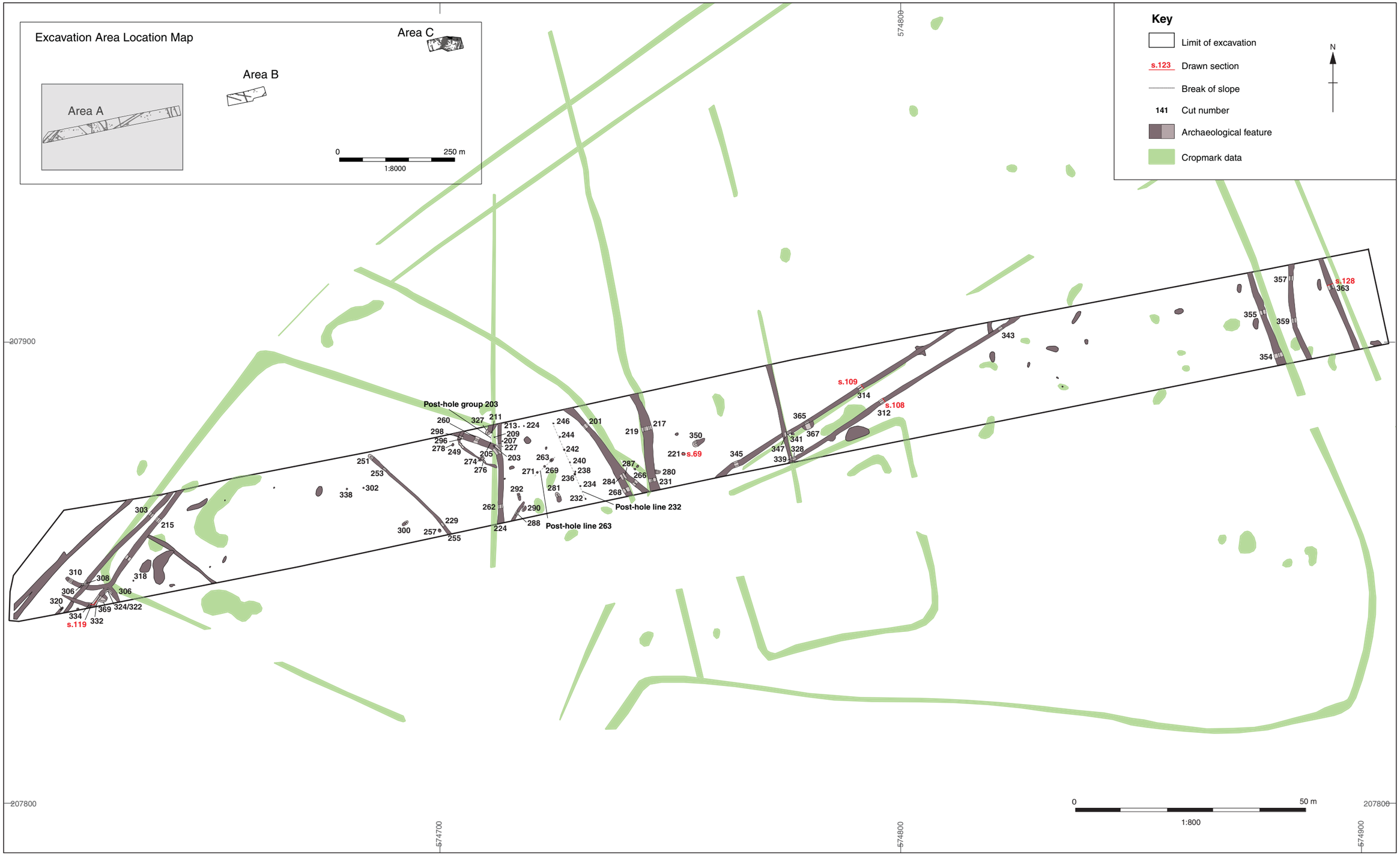

Figure 2: Area A excavation plan

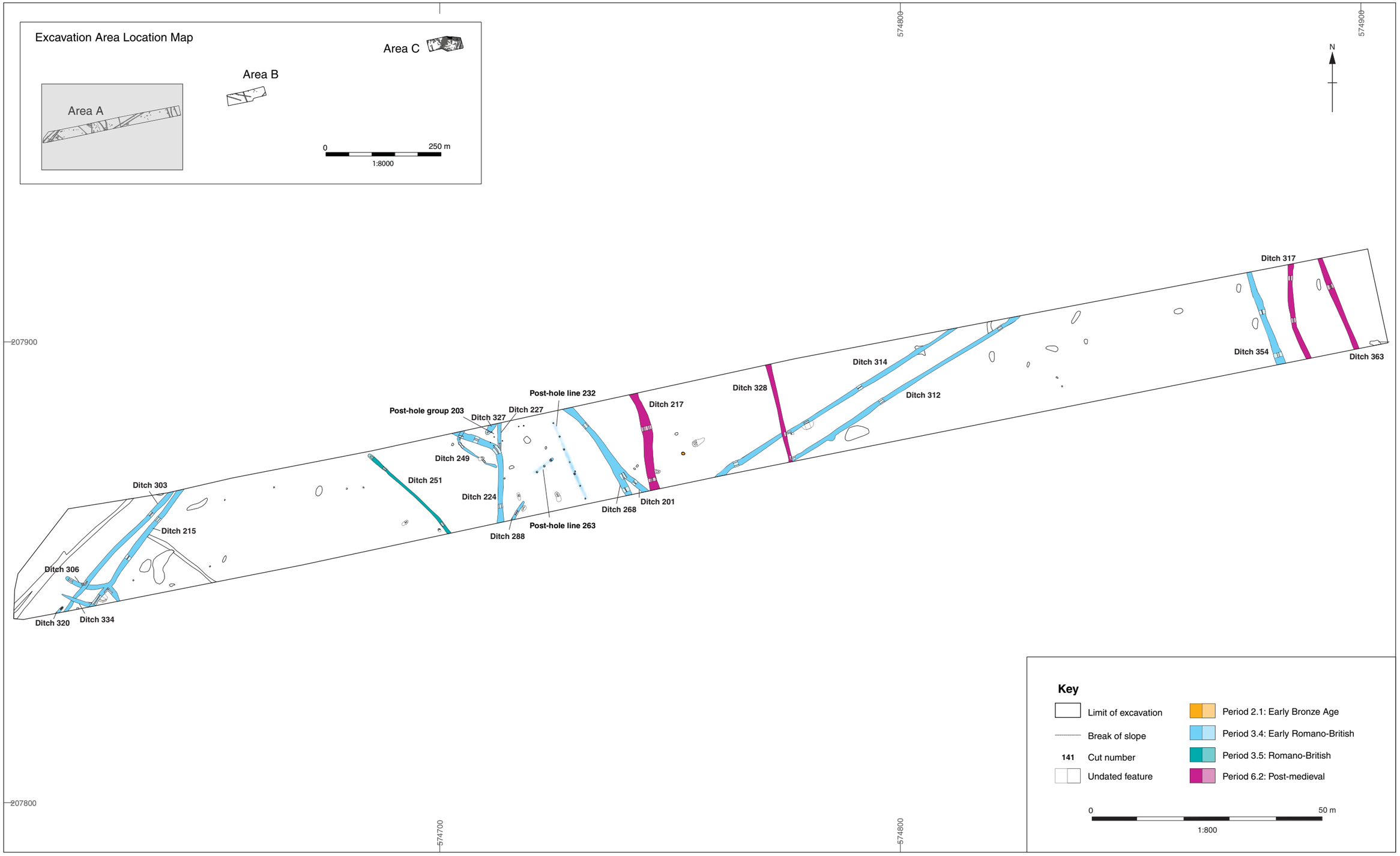

Figure 3: Area A phase plan

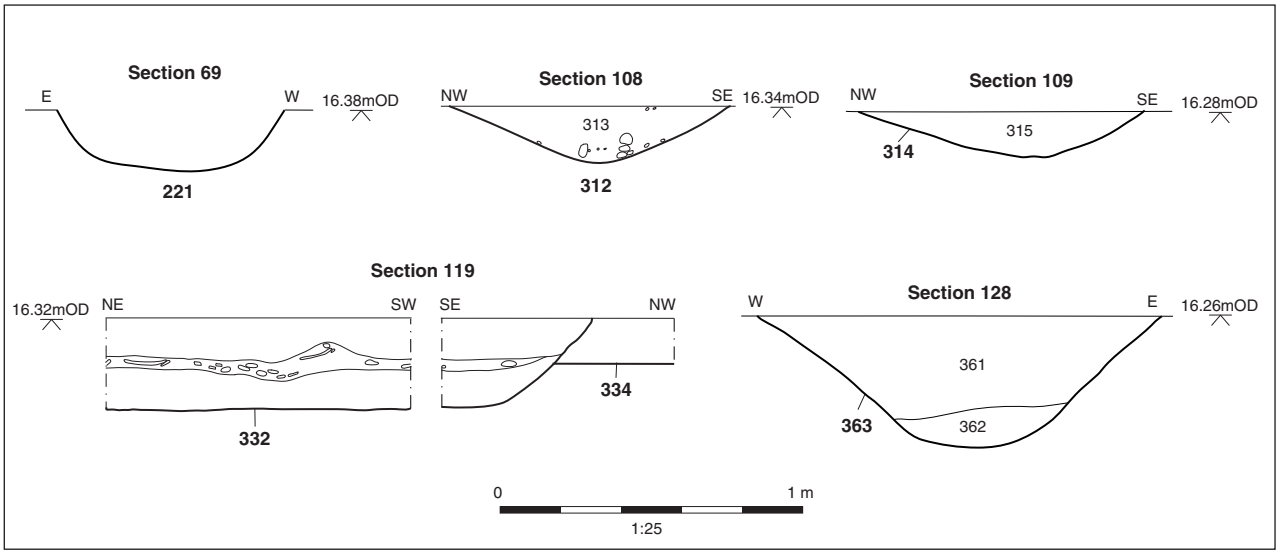

Figure 4: Area A selected sections

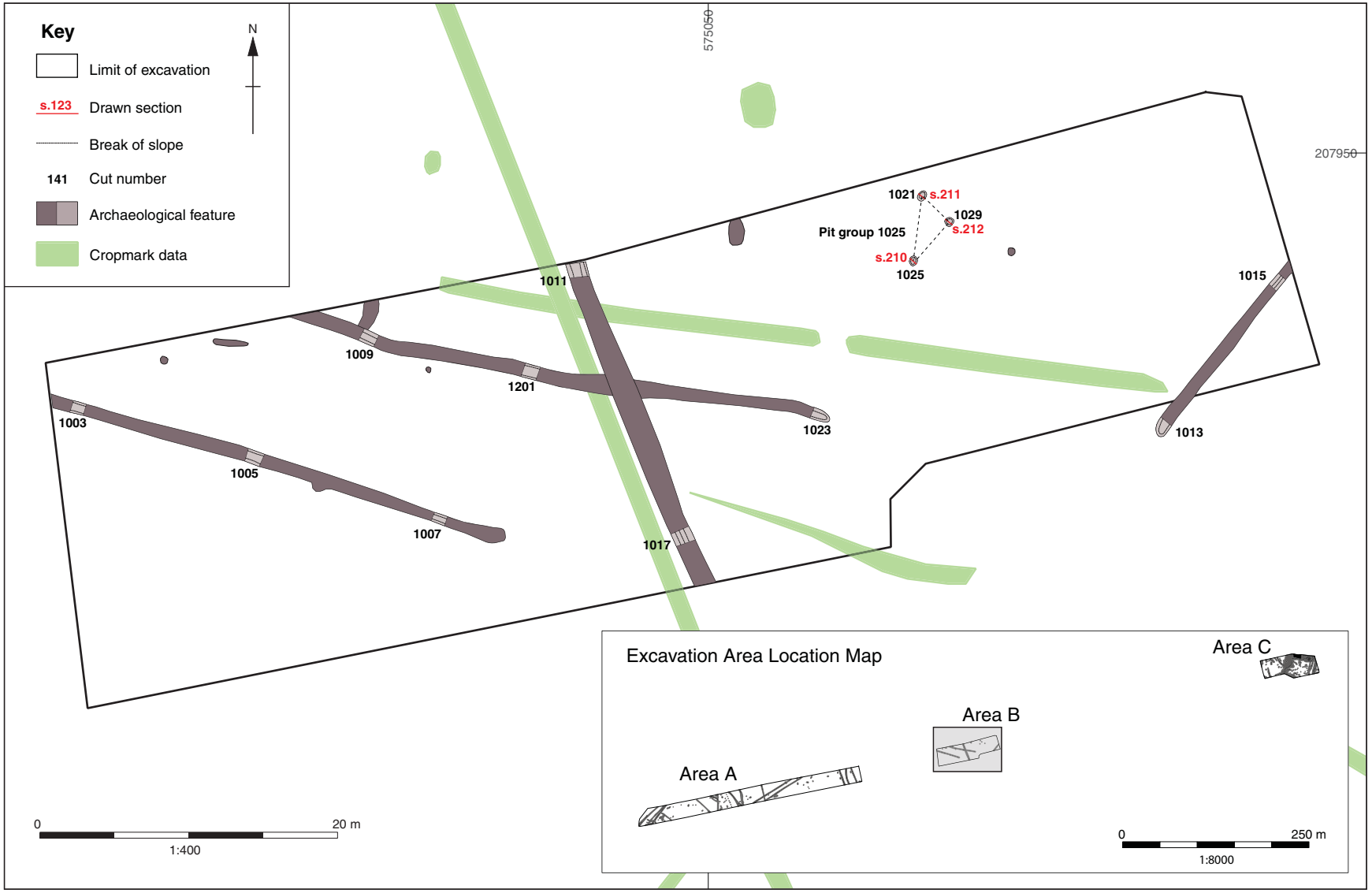

Figure 5: Area B excavation plan

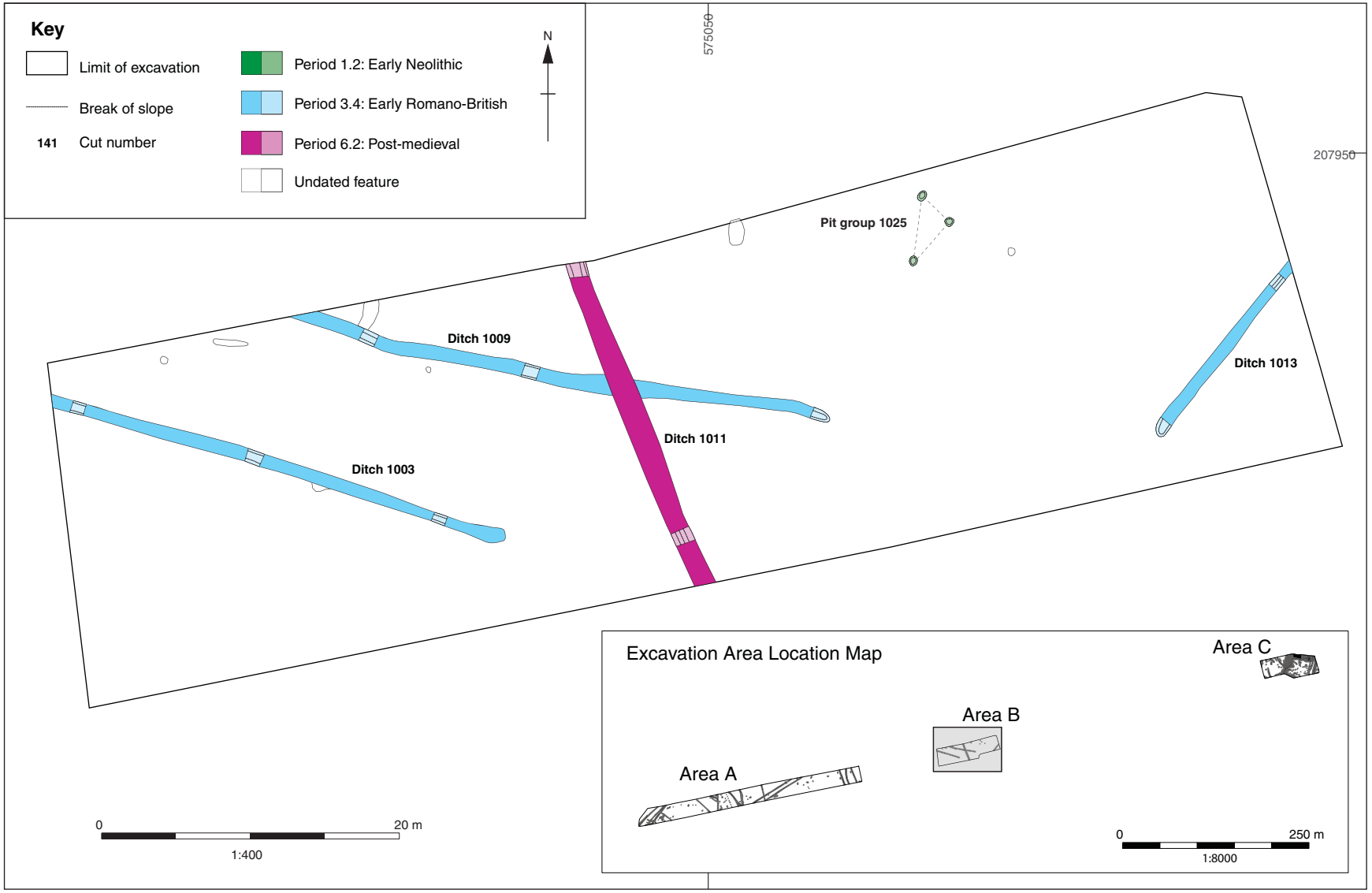

Figure 6: Area B phase plan

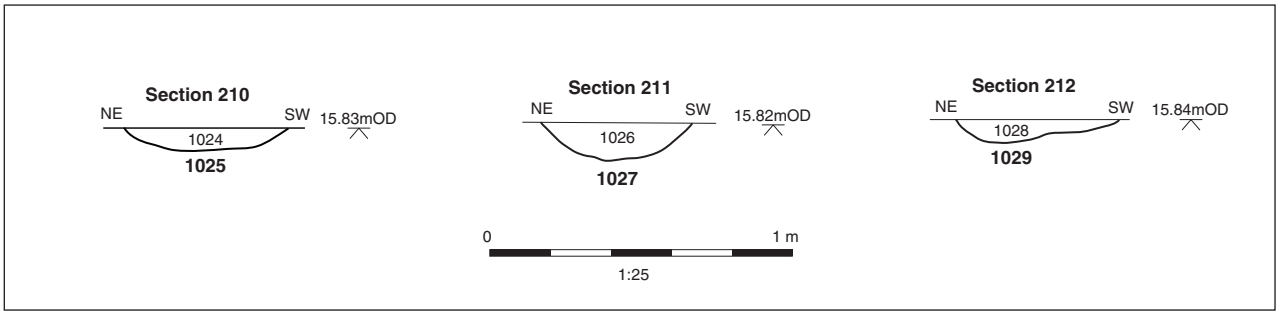

Figure 7: Area B selected sections.

Figure 8: Area C excavation plan

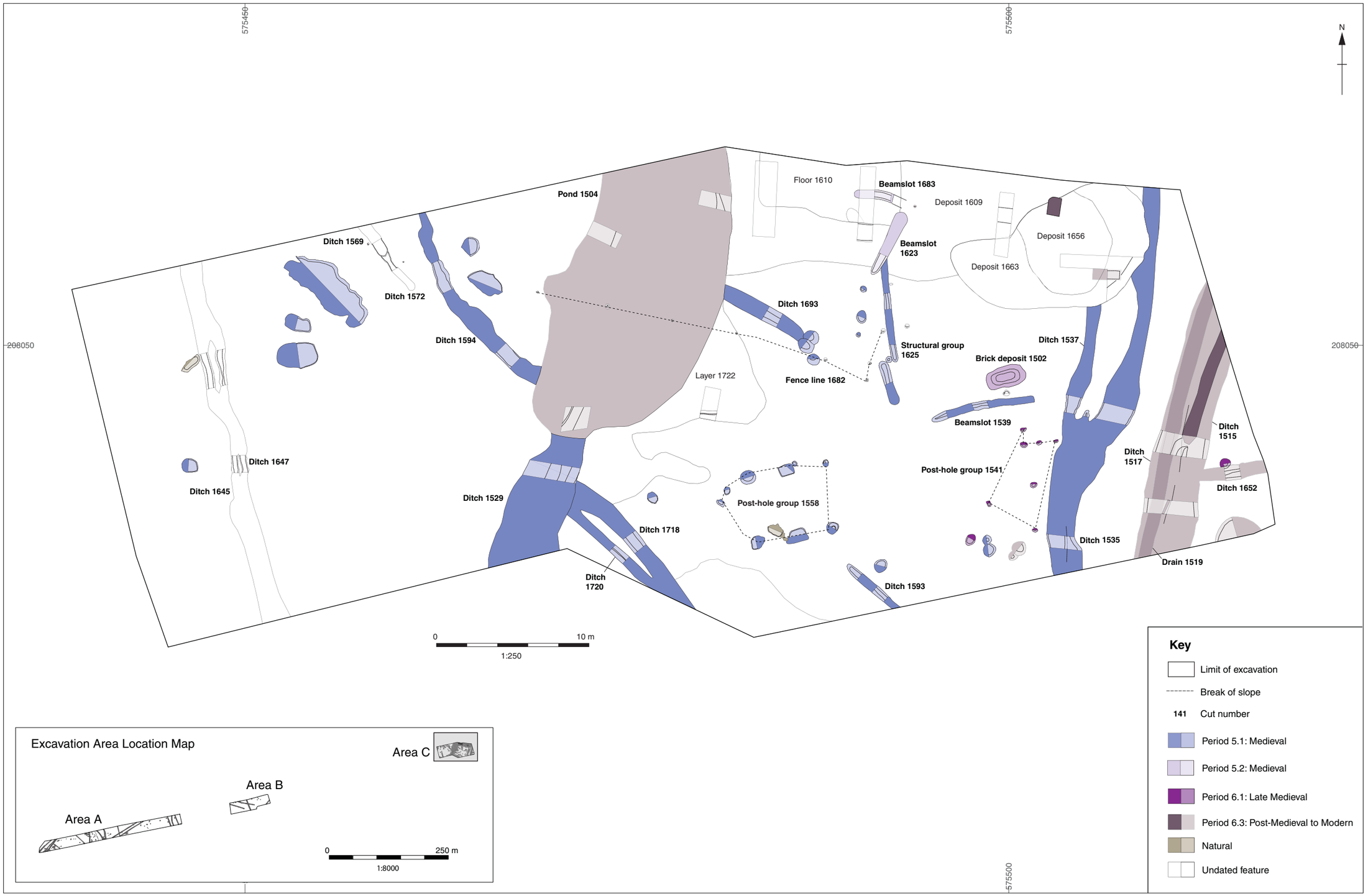

Figure 9: Area C phase plan

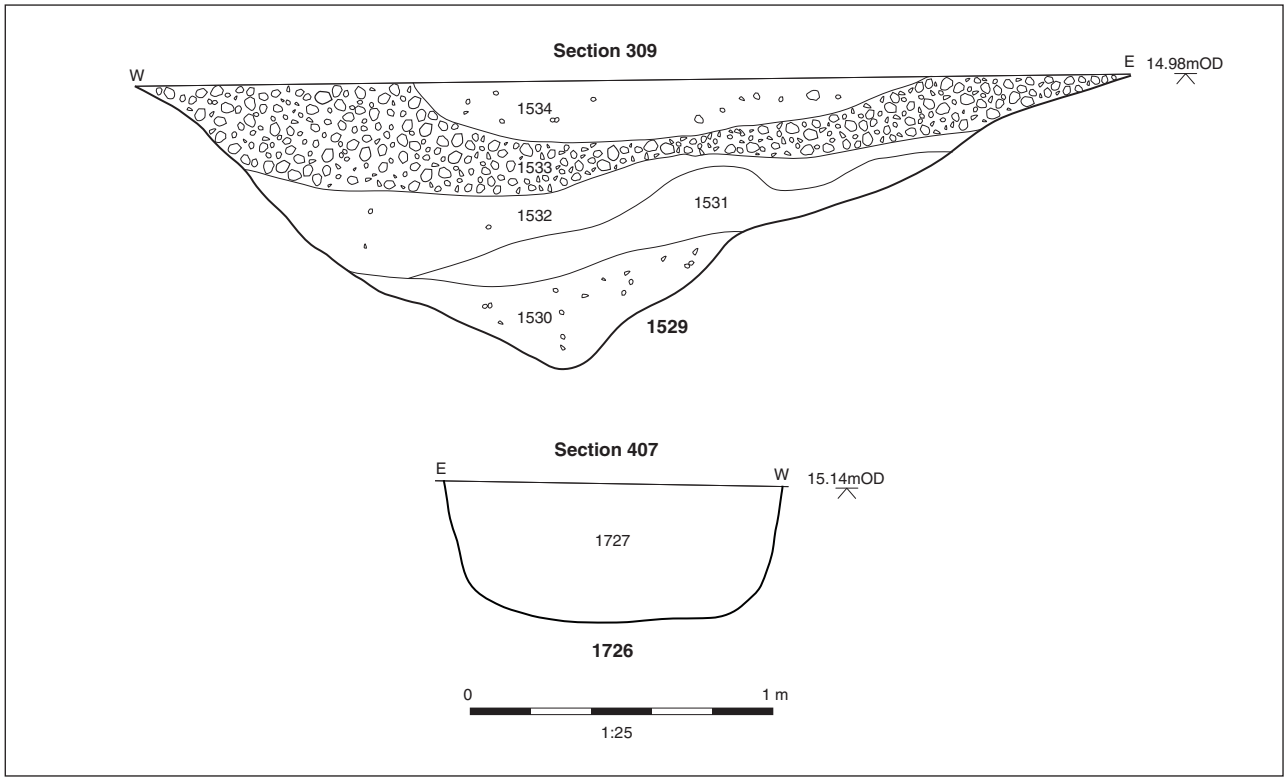

Figure 10: Area C, selected sections.

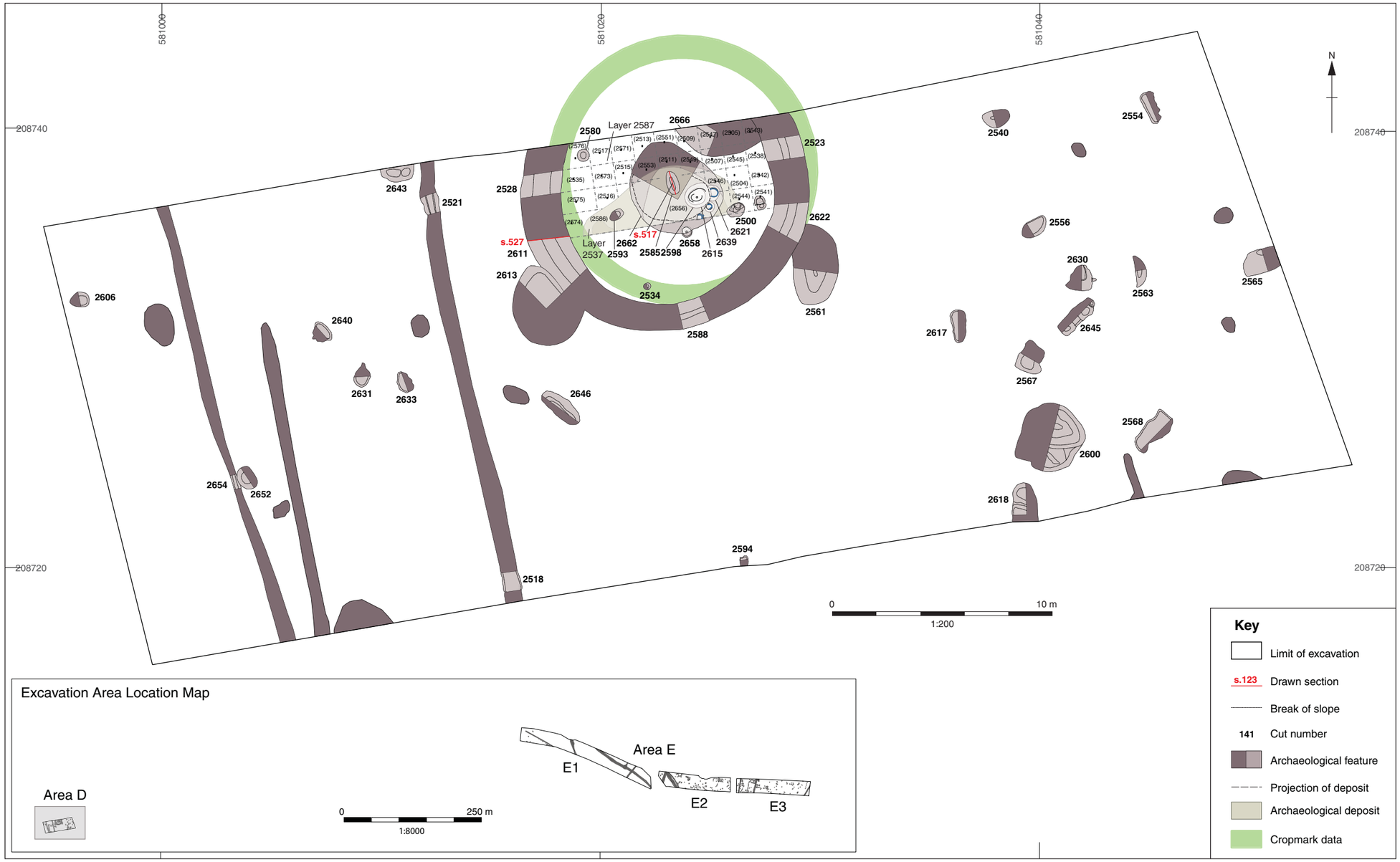

Figure 11: Area D excavation plan

Figure 12: Area D phase plan

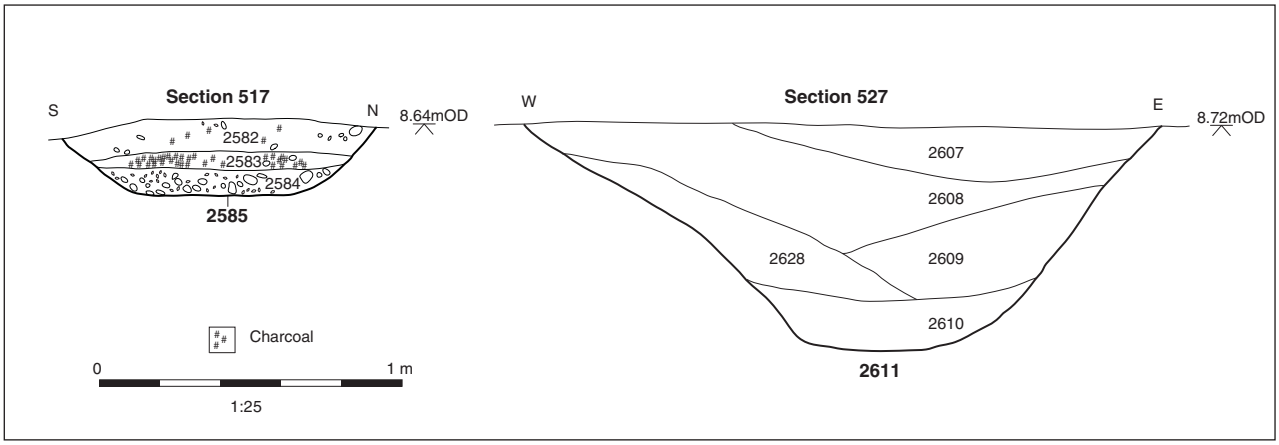

Figure 13: Area D selected sections.

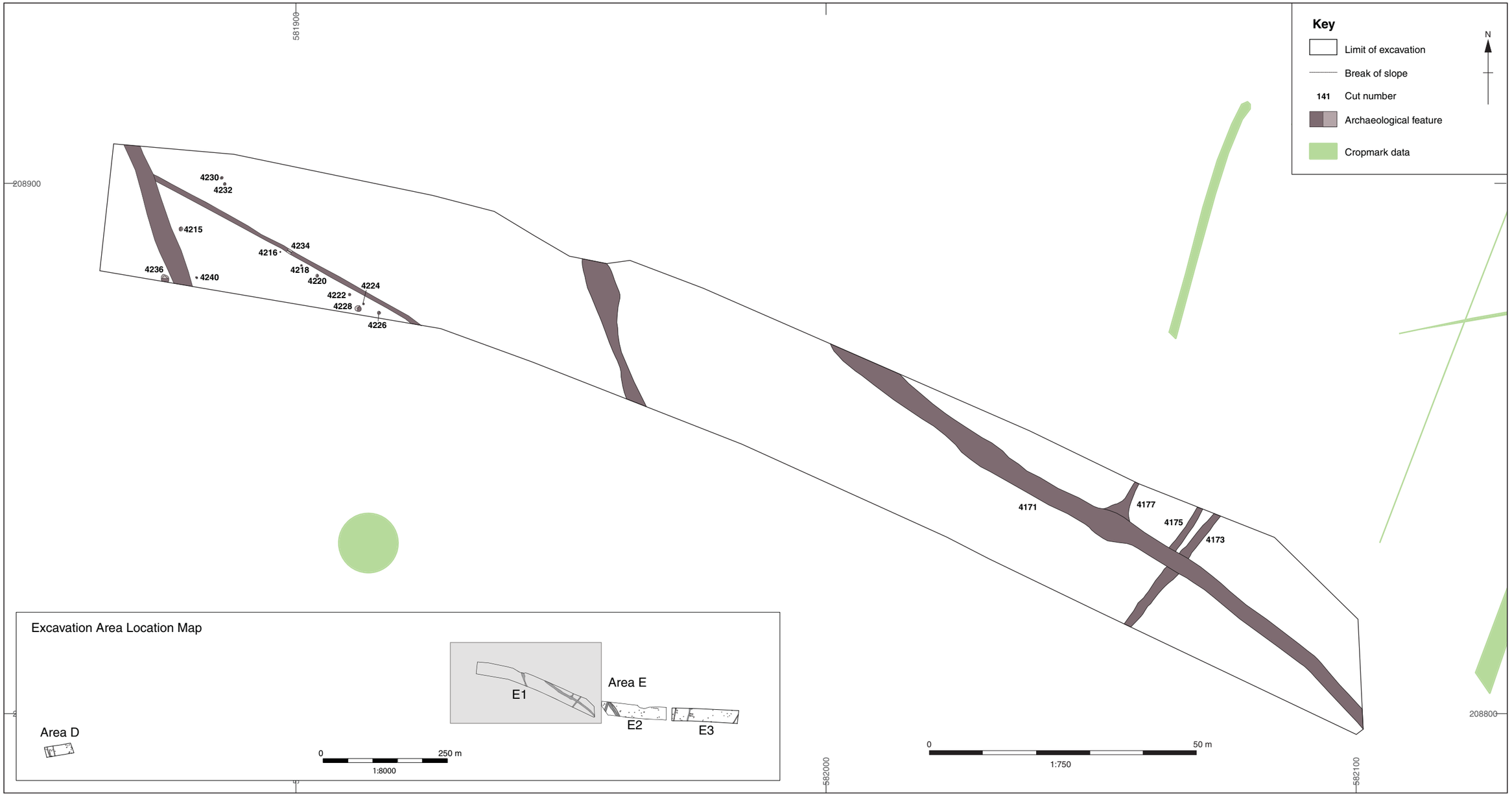

Figure 14: Area E1 excavation plan

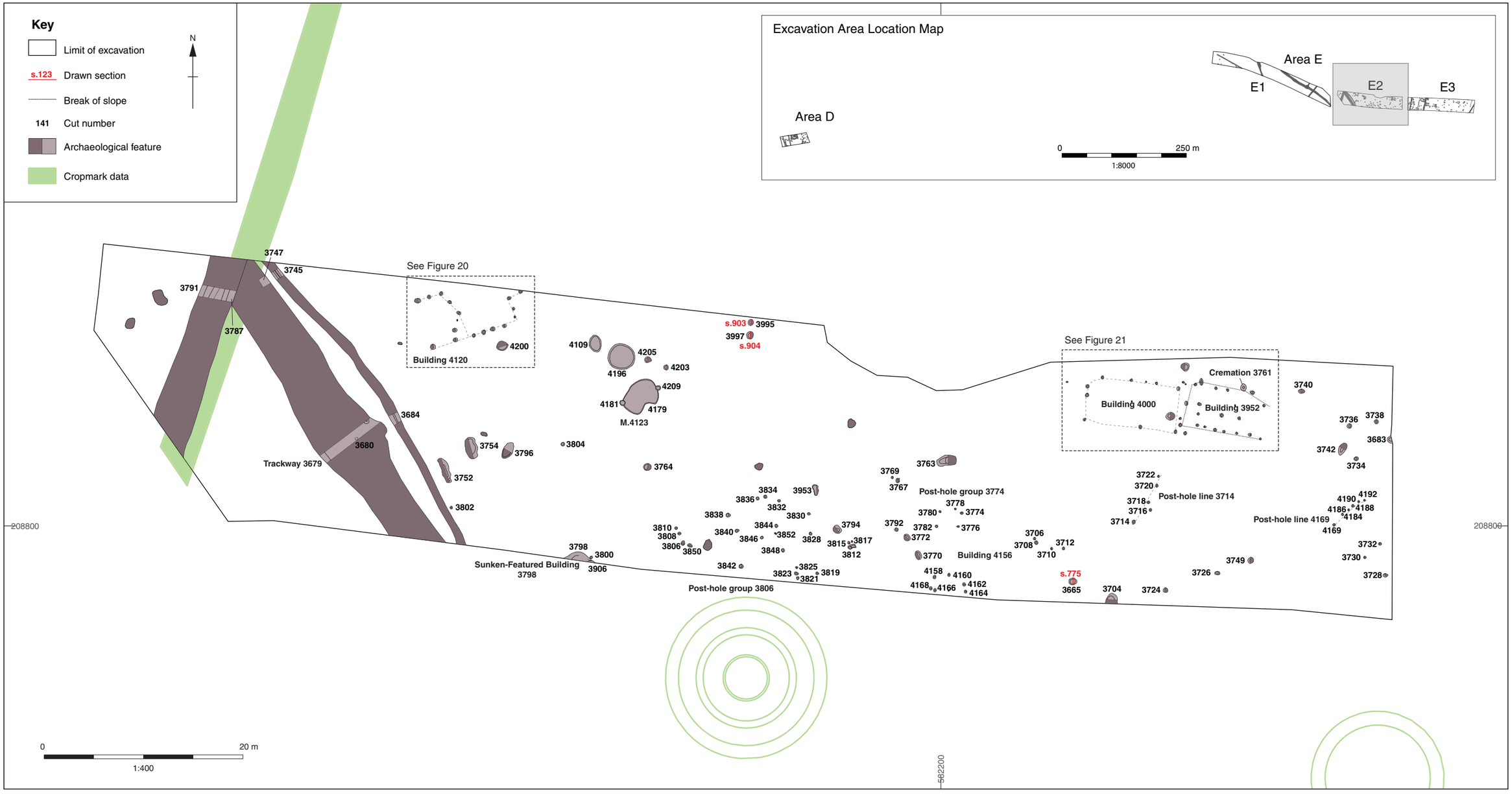

Figure 15: Area E2 excavation plan

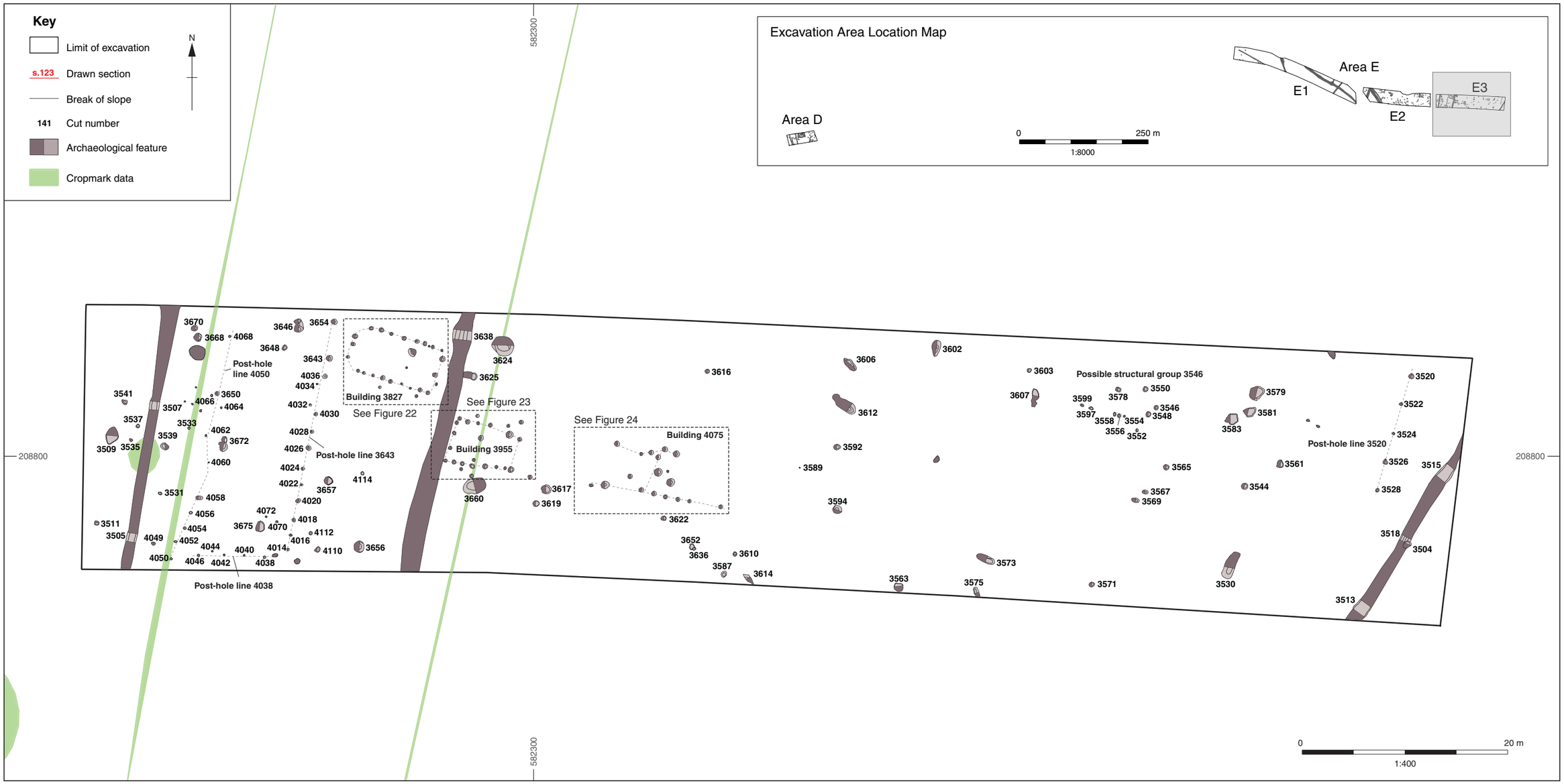

Figure 16: Area E3 excavation plan

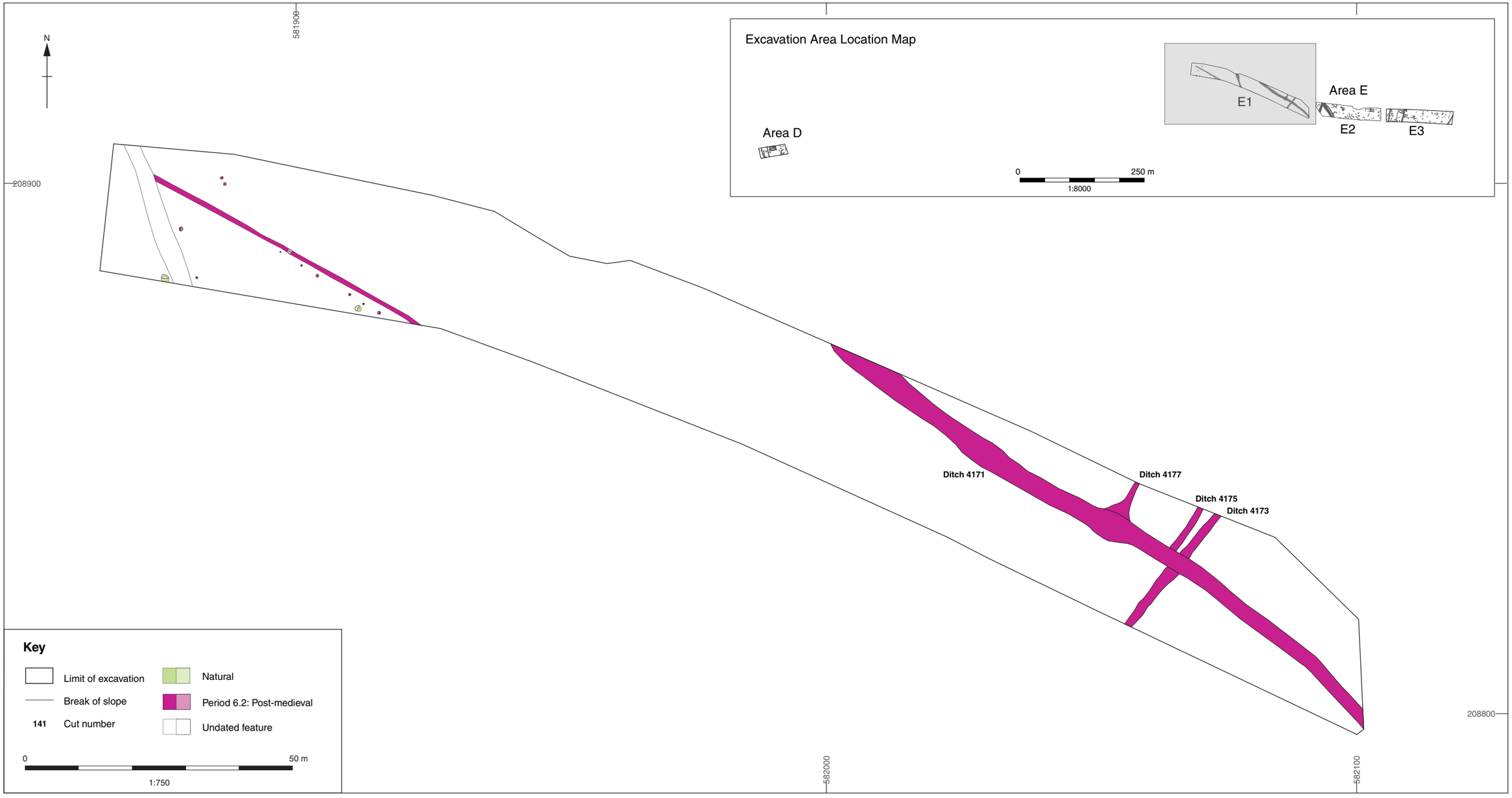

Figure 17: Area E1 phase plan

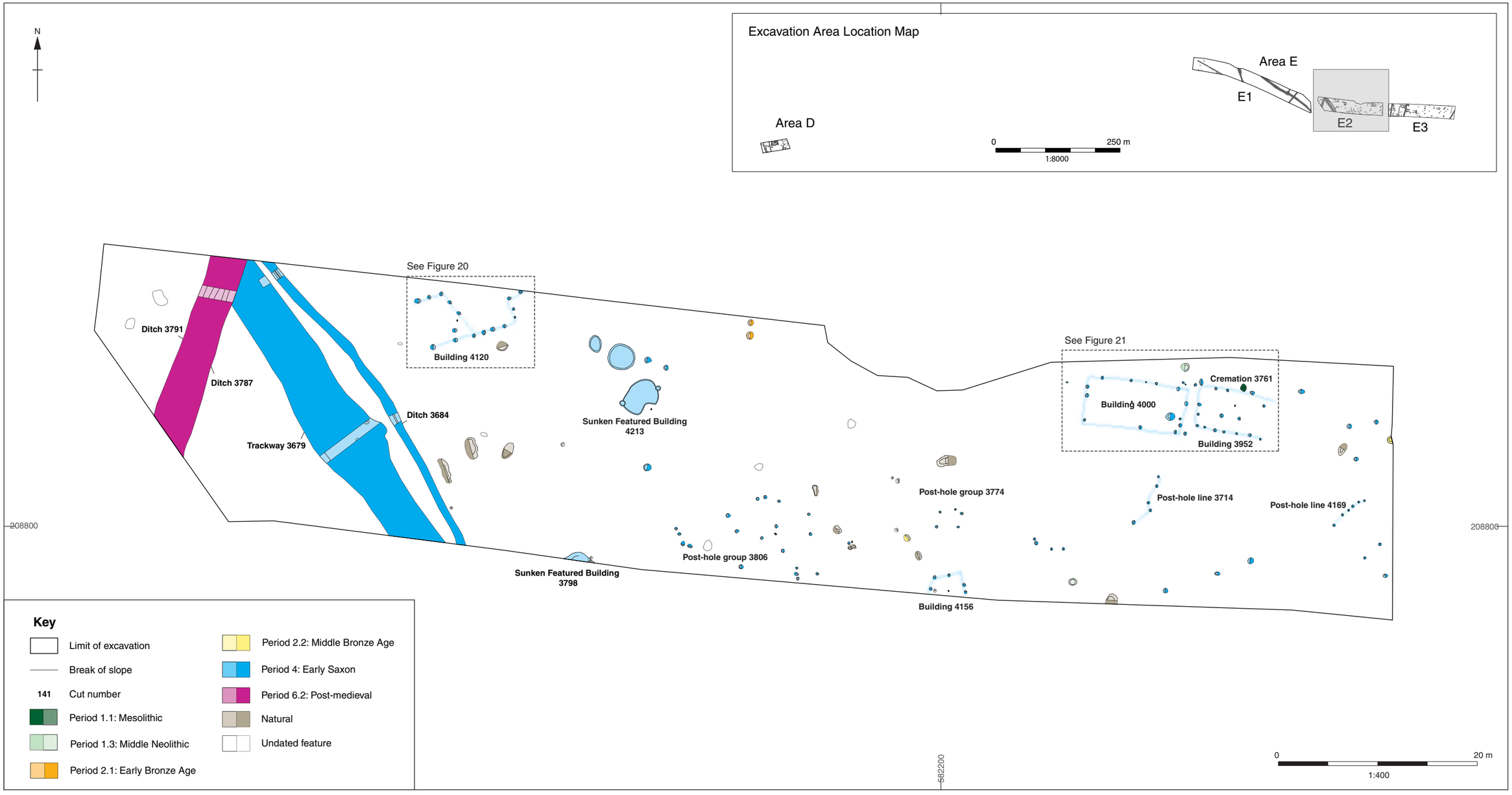

Figure 18: Area E2 excavation plan

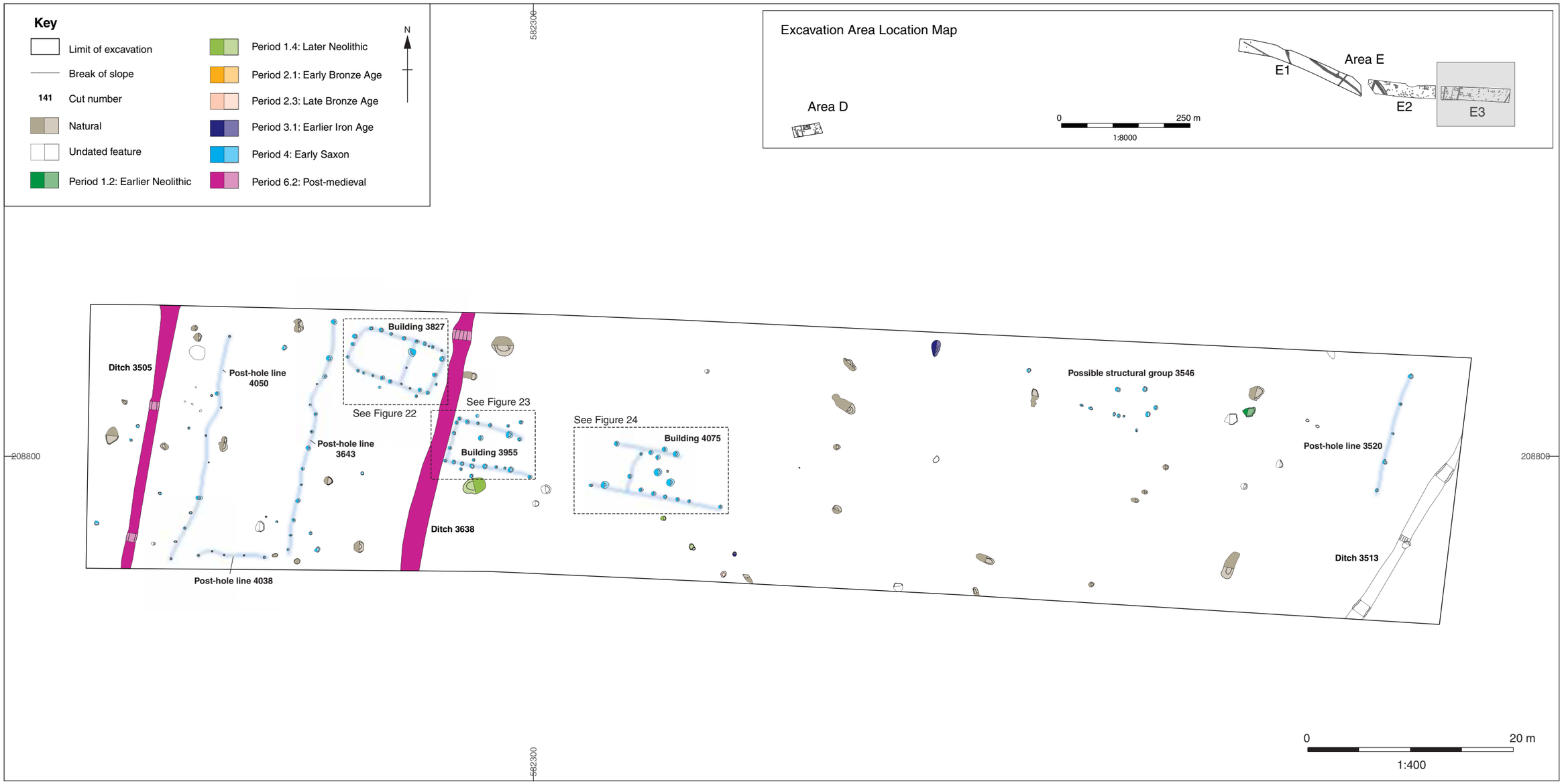

Figure 19: Area E3 phase plan

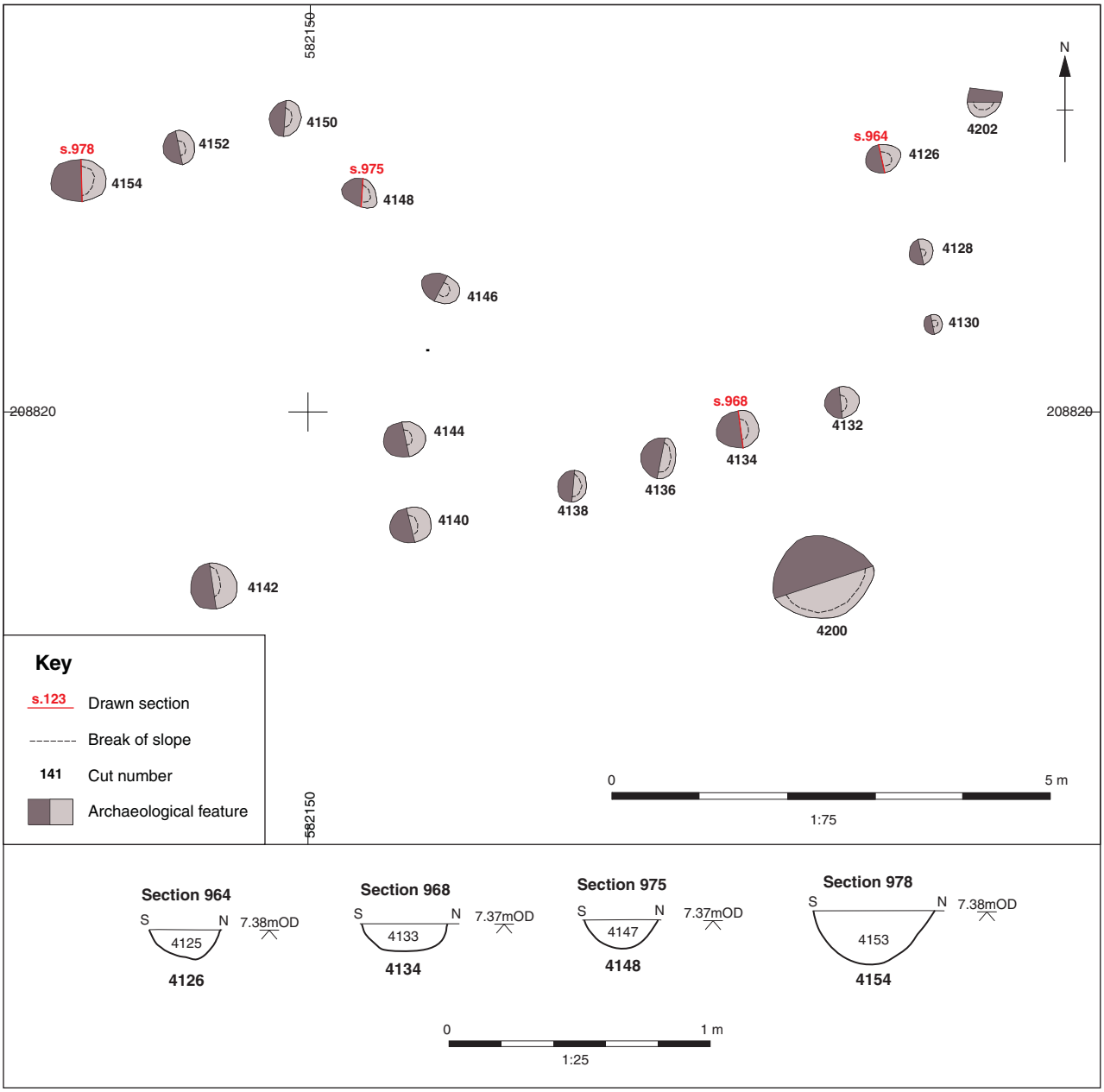

Figure 20: Building **4120** plan and selected sections

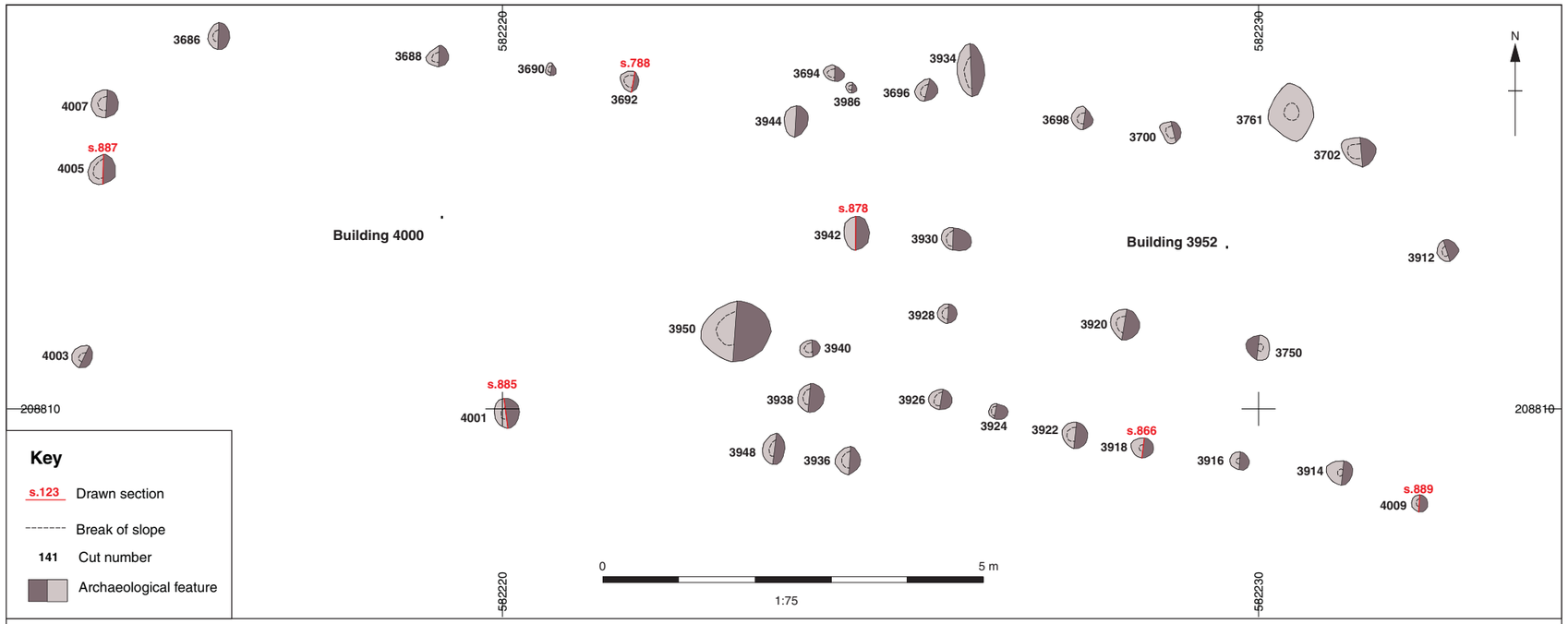

Figure 21: Buildings **3952** and **4000** plan and selected sections

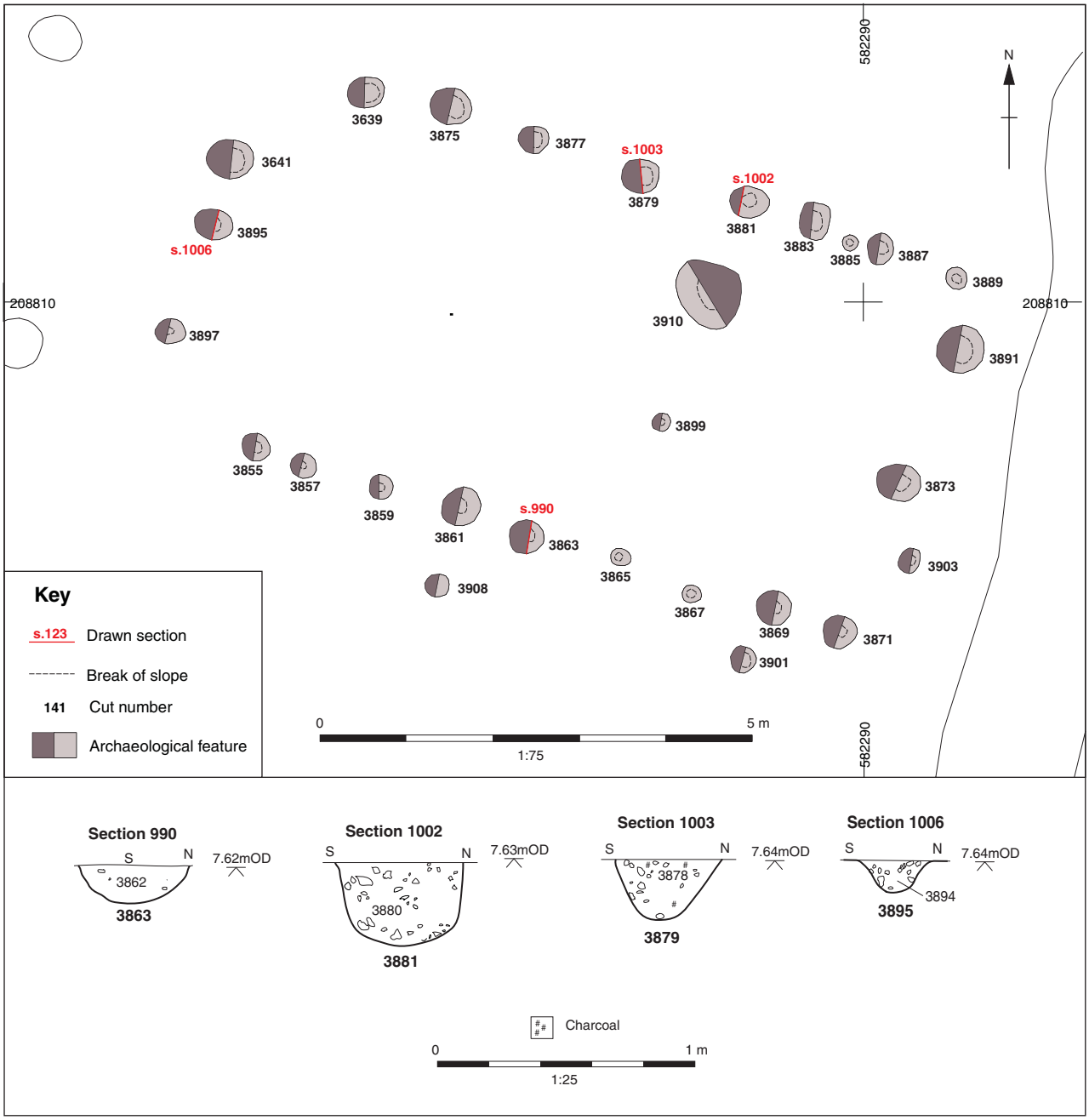

Figure 22: Building **3827** plan and selected sections

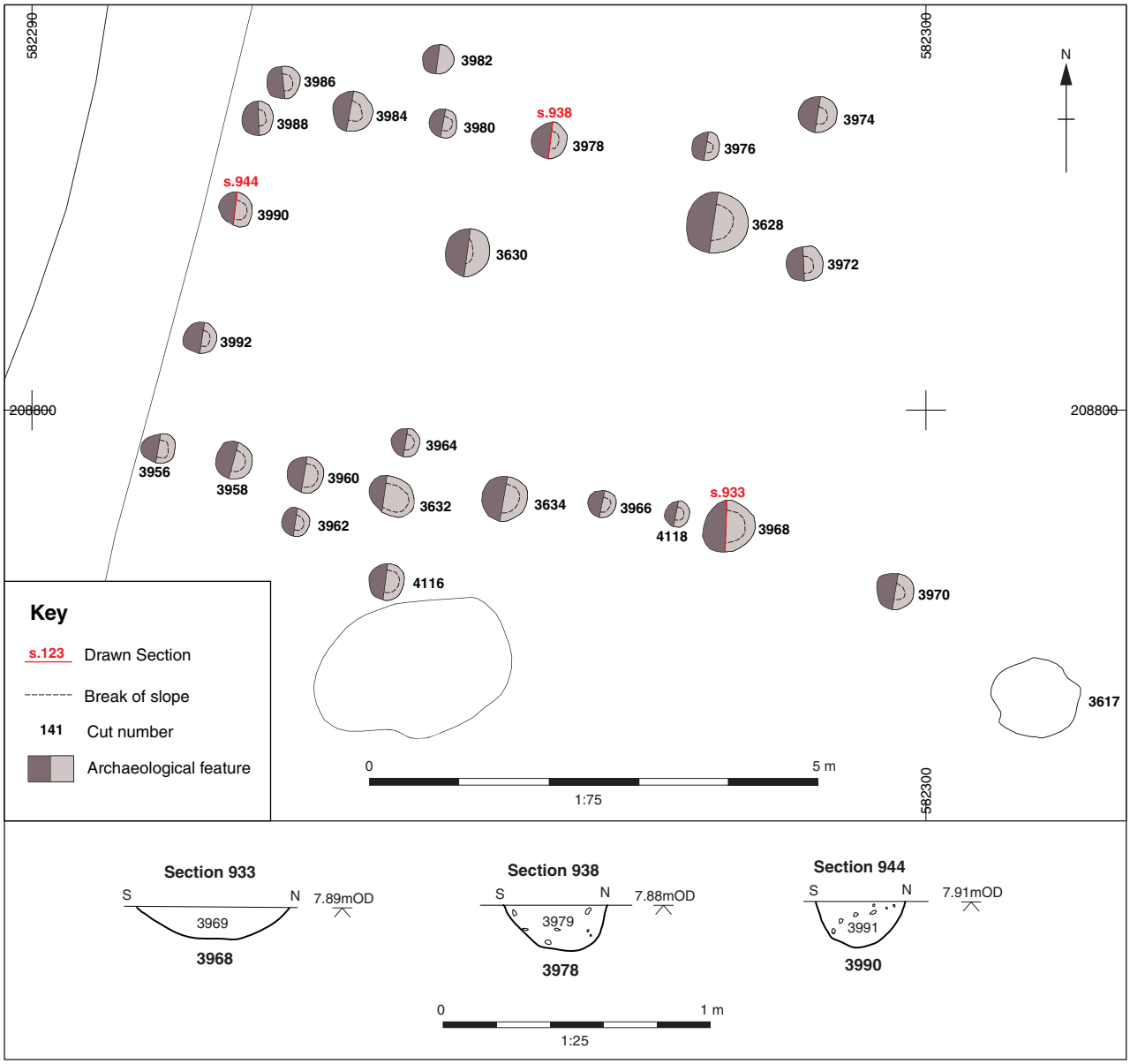

Figure 23: Building **3955** plan and selected sections

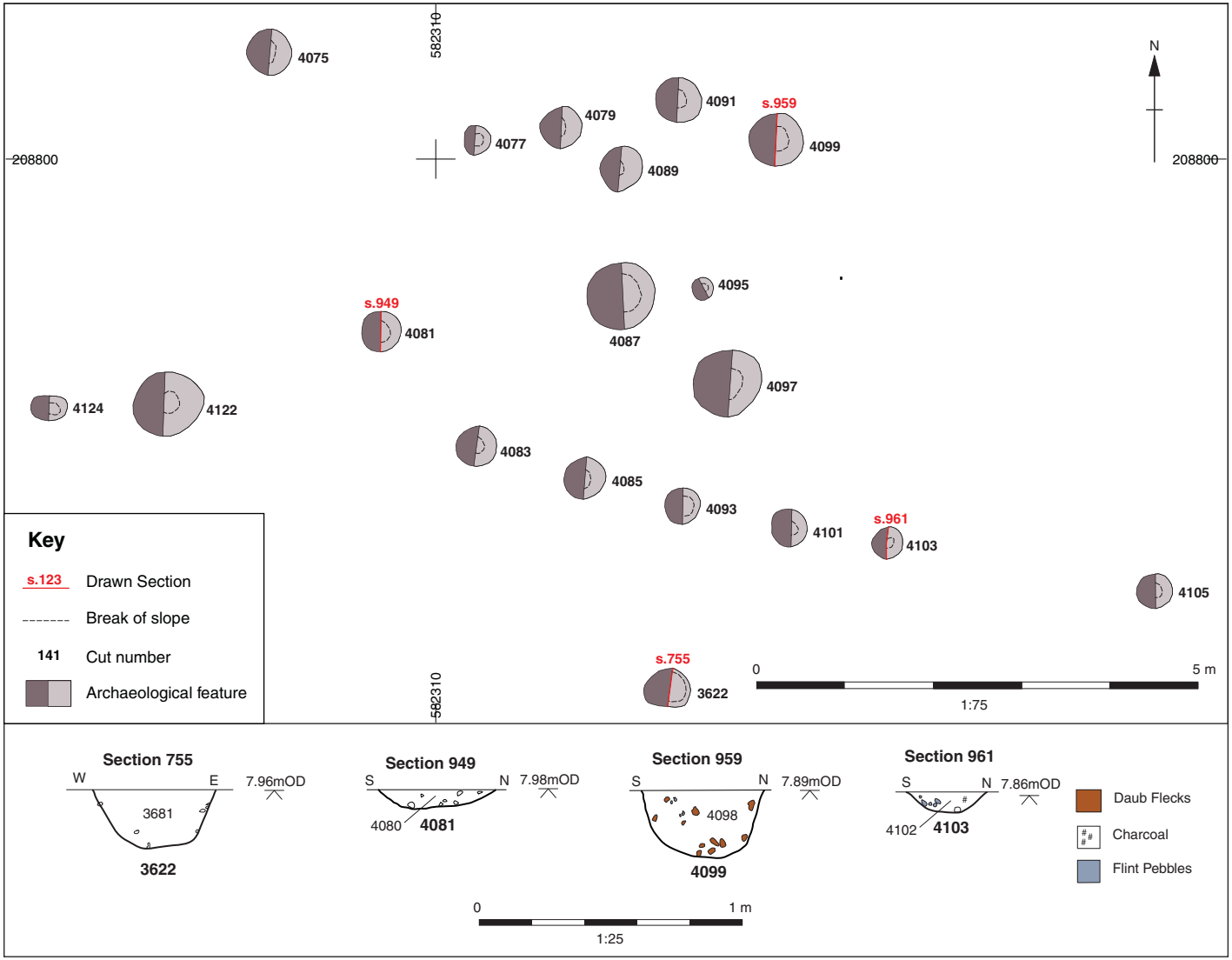

Figure 24: Building **4075** plan and selected sections

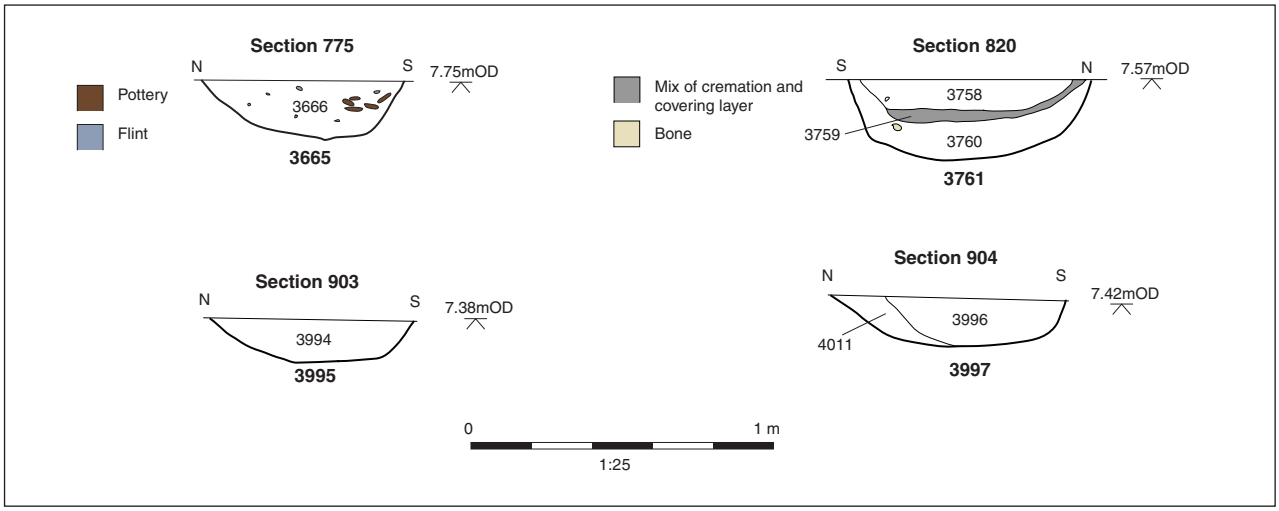

Figure 25: Area E selected sections

Figure 26: Reconstruction of the Saxon settlement located in Area E

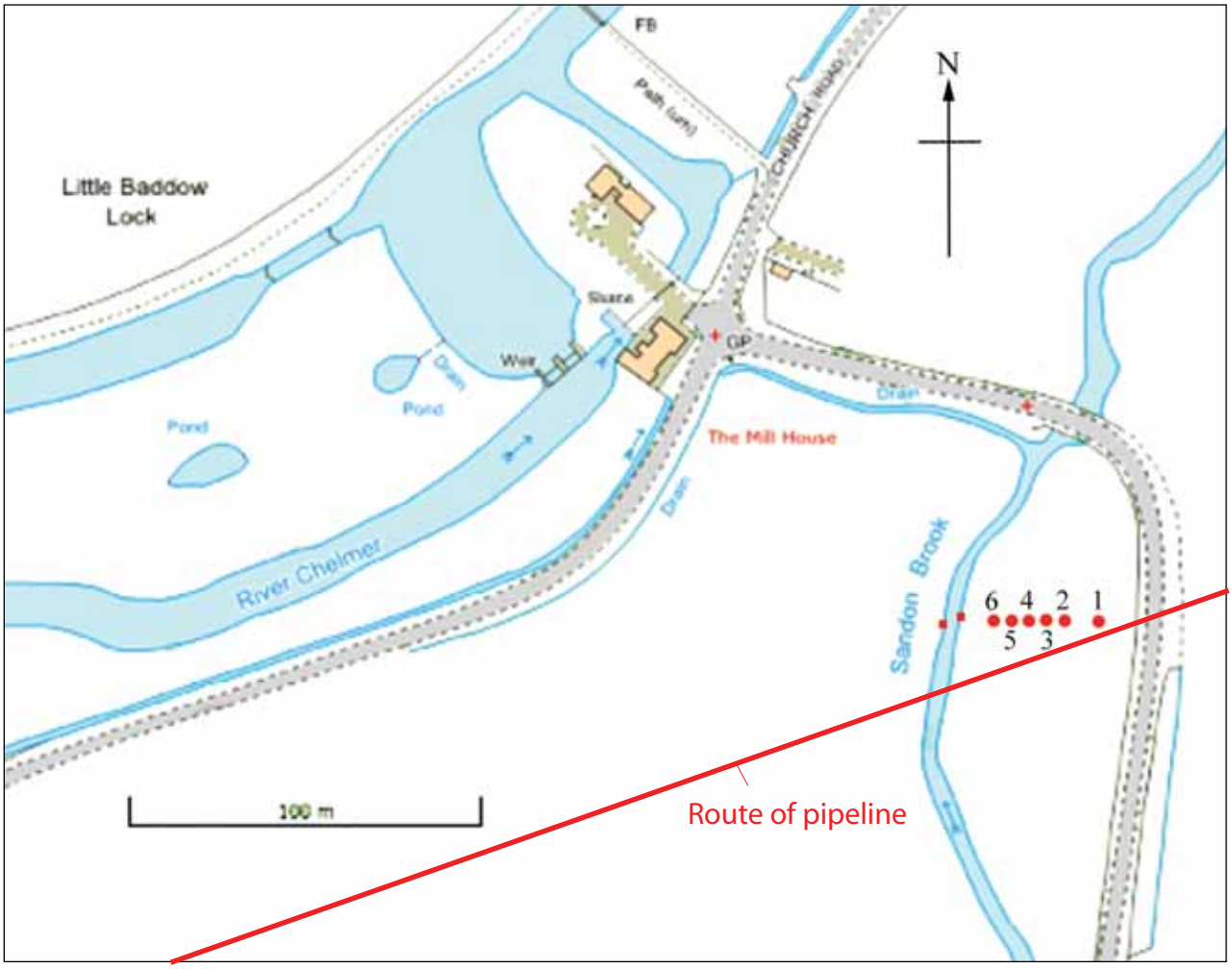

Figure 27: Map of the area around Church Road, Little Baddow, Essex, showing the location of boreholes BH1-6 and the position of two river-bank sections on the floodplain of Sandon Brook. BH4 selected for further investigation is located at TL 76120 08270.

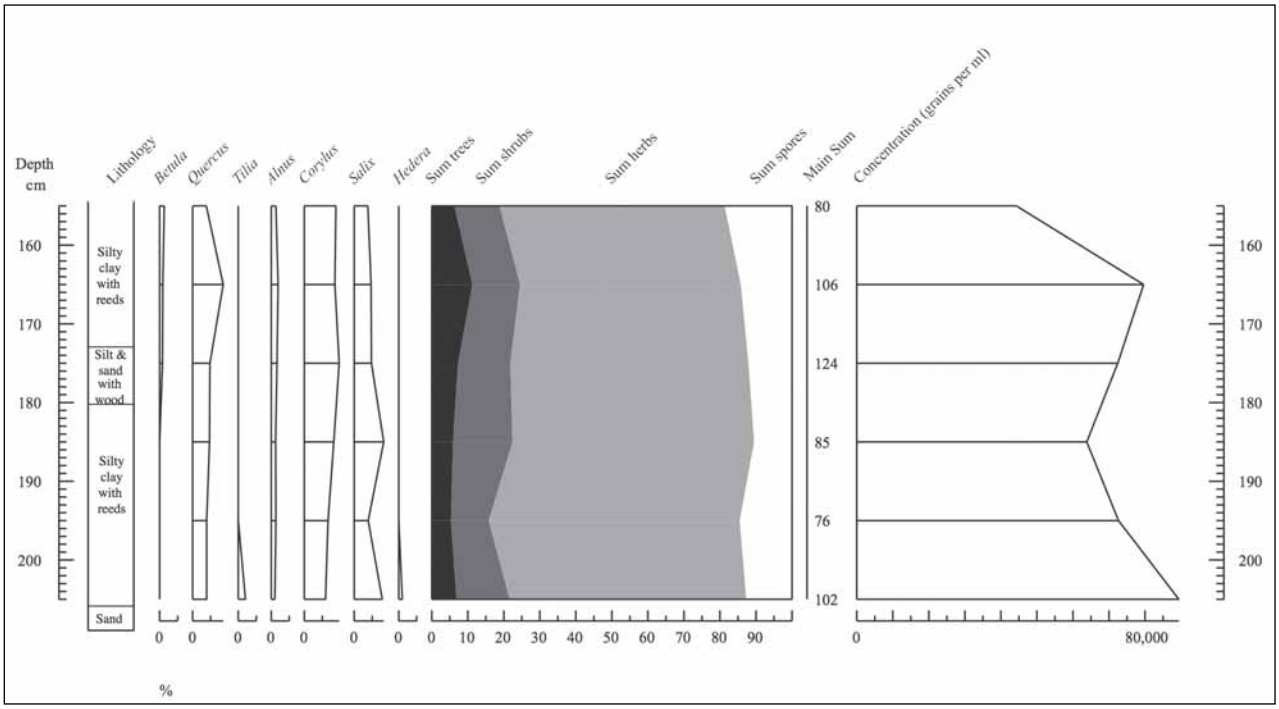

Figure 28: Sandon Brook BH4 - Percentage Pollen Diagram - Trees, Shrubs and Summary

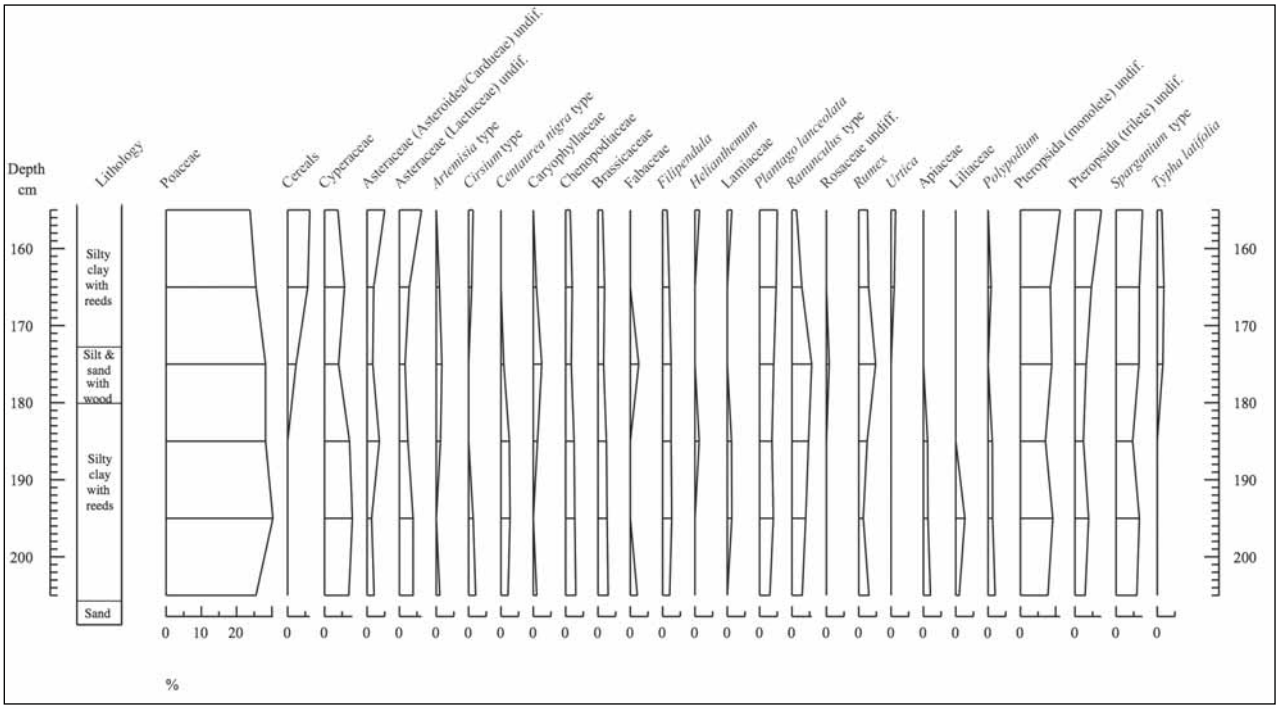

Figure 29: Sandon Brook BH4 - Percentage Pollen Diagram - Herbs, Spores and Aquatics

Plate 1: Pit **221**, with Beaker pottery in-situ, from the south

Plate 2: Pits **1025**, **1027** and **1029** from the north-west

Plate 3: Floor **1610** and layer **1609** from the west

Plate 4: Layers **1663** and **1656**, with tank **1657**, from the east

Plate 5: Area D post-excavation, from the north-west

Plate 6: Cremation vessel SF151 and cremation pit **2615** from the north

Plate 7: Cremation vessel SF 150 from the east

Plate 8: Mesolithic cremation **3761** from the east

Plate 9: Buildings **3827** and **3955** from the east

Plate 10: Sunken Featured Building **4213** from the east

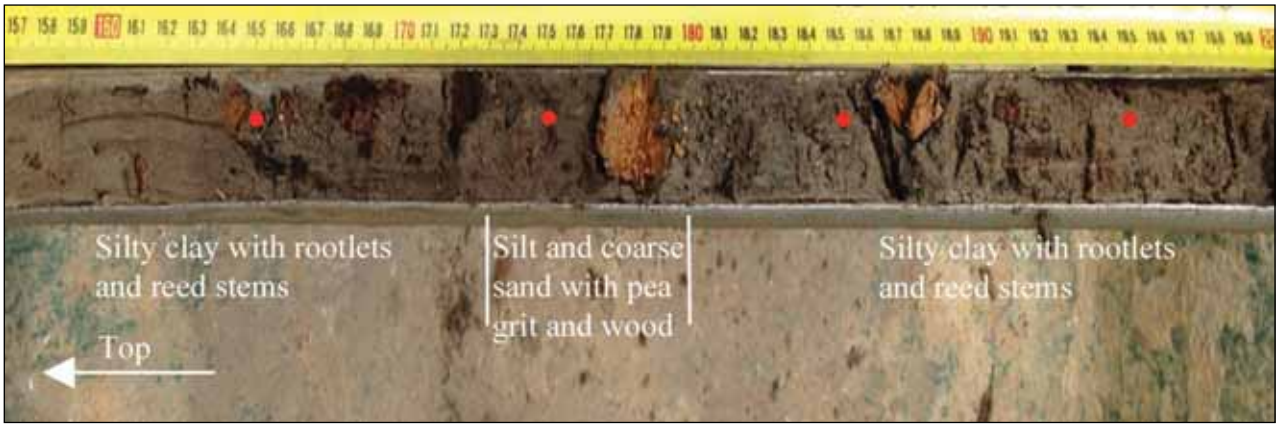

Plate 11: Field photograph of a core from the basal part (157 – 200cm) of BH4 from the Sandon Brook valley showing stratigraphy and location of four pollen samples (red dots). Note the reed stems and wood (probably willow) preserved in the un-oxidised silt-rich sediment.

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