Middle Iron Age Settlement and industrial activity at Ermine Business Park, The Stukeleys, Cambridgeshire

Archaeological Evaluation Report

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Middle Iron Age settlement and industrial activity at Ermine Business Park, The Stukeleys, Cambridgeshire

Archaeological Evaluation

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Summary

Between 24th August and 11th September 2009 Oxford Archaeology East (formerly CAM ARC, Cambridgeshire County Council) conducted an archaeological evaluation on 29ha of arable land directly to the west of Ermine Business Park, The Stukeleys, Cambridgeshire. Prior to evaluation field walking and geophysical survey had been carried out. Field walking indicated a background presence of Roman, medieval and post medieval activity but with no real concentrations of artefacts. A sample strip geophysical survey produced extensive evidence of the pre-enclosure field system of ridge and furrow but no indication of earlier features.

The evaluation consisted of 70 machine excavated trenches ranging between 26m and 100m in length, providing a 4% sample of the area. Trenching revealed two discrete sites located across the two fields, A and B. Site 1, in field A, was interpreted as a Middle Iron Age industrial area consisting of one or more large pits with a diameter of approximately 20m. The part of the cut that was exposed was square with vertical sides and a very flat base. It was cut into chalk and artefacts included metal working waste. When the pit was partially silted up a series of pits, post holes and a linear feature were dug near to the upper edge. Associated with these features was a deliberately laid pebble surface which included some burnt stones. Also in field A were several ditches representing field boundaries or land divisions, part of a co-axial field system. One of these may have extended, although not continuously, for 200m as it was encountered in three trenches. Part of its course was close to the large pits in Site 1. Another ditch on the northern edge of Site 1 contained a domestic dog burial.

Site 2, in field B, consisted of an area of Middle Iron Age settlement. Features included several boundary ditches, some of a considerable size, two possible water holes, a pit and a curvilinear gully which could have been part of a roundhouse. The settlement was restricted to a relatively small area, approximately 1ha. Beyond this no Iron Age activity was encountered.

In addition, trenching revealed extensive evidence of medieval and post medieval ridge and furrow across much of the site, as well as features interpreted as agricultural strips. These may have aided drainage in some way and on the whole followed no discernible pattern or orientation. Some were truncated by the furrows, others truncated the furrows. They all cut through the sub soil.

1 INTRODUCTION

1.1 Location and scope of work

1.1.1 An archaeological evaluation was conducted at Ermine Business Park, The Stukeleys, Cambridgeshire (TL 229 741; Figure 1). The site was bounded to the north by further fields, to the east by the business park, to the west by the hamlet of Green End and to the south by the Roman road, Ermine Street. The land is currently used for arable crops and is divided into two fields. Field A, in the north, covered approximately 12.5ha. Field B, to the south, covered approximately 16.5ha.

1.1.2 This archaeological evaluation was undertaken in accordance with a Brief issued by Andy Thomas of Cambridgeshire County Council, supplemented by a Specification prepared by OA East (formerly Cambridgeshire County Council's CAM ARC).

1.1.3 The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, in accordance with the guidelines set out in *Planning and Policy Guidance 16 - Archaeology and Planning* (Department of the Environment 1990). The results will enable decisions to be made by CCC, on behalf of the Local Planning Authority, with regard to the treatment of any archaeological remains found.

1.1.4 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 British Geological Survey records the area as being located on glacial Boulder clay (BGS 1975). This was encountered across the two fields during trenching. However, the lower part of the large pits in Site 1, trench 15 were constructed through an outcrop of chalk bedrock. Many other excavated features contained a relatively high proportion of chalk inclusions.

1.2.2 Field A was on higher, relatively flat ground, at a maximum of 41.8m OD in the north. Moving south into field B the land gently dropped away to a minimum of 25.7m OD in the far south-east corner. Site 2, the Middle Iron Age settlement, was situated at approximately 37m OD, with the land dropping off more sharply to the south and east. The extreme east of field B lay at a minimum of 31.7m OD.

1.3 Archaeological and historical background

1.3.1 The site lies 2.5km north-west of the river Ouse. The results of aerial photographic studies and excavations have shown the Ouse Valley to be particularly rich in prehistoric remains. Palaeolithic artefacts have been found within the terrace gravels of the river system.

1.3.2 A Late Neolithic ceremonial complex has been found in Brampton, 3km to the south-west (Figure 2; Scheduled Monument 121). Neolithic monuments within this complex included henges, a cursus and a long mortuary enclosure. A Neolithic mortuary enclosure at the end of a cursus, forming part of this complex was investigated in 1990-1991 (Malim 1990).

1.3.3 Bronze Age remains have been found closer to the river. Less than 1km to the south at Northbridge a large evaluation uncovered a concentration of pits, gullies and post holes in the centre of the site, some containing quantities of late Bronze Age finds, indicating occupation in the vicinity (Cambridgeshire Historic Environment Record MCB16363; Cullen 2004). 3km to the south of the subject site, a Bronze Age triple ring ditch (CHER 02117) was uncovered during excavations immediately west of Thrapston Road, Brampton in 1966, before the construction of the Miller Way housing estate (White 1969). Close by, a small pit containing fragments of Bronze Age Beaker pottery and fragments of charcoal and burnt bone was uncovered during an archaeological assessment on the area south of Thrapston Road (CHER 11176) during September 1993 (Welsh 1993).

1.3.4 During the Iron Age parts of the Ouse Valley began to be heavily exploited, including the more labour intensive claylands. 2km to the south at Bob's Wood, Hinchingbrooke, a farmstead originating in the middle Iron Age grew in to a settlement of several hectares by the Roman period (CHER 13033; Hinman In. prep). At Alconbury Airfield 2.5km to the north-west of Ermine Business Park a series of ditches were revealed relating to a Late Iron Age/ early Roman field system (CHER MCB 15840). Two areas of more concentrated archaeology, consisting of postholes and pits, as well as linear ditches, produced pottery dated to the Early/Middle Iron Age (Macauley 2000).

1.3.5 Local Roman sites include the extensive farmstead already mentioned at Bob's Wood, Hinchingbrooke. Among the findings were houses and associated structures, enclosures and water management features, a smithy, cremations, inhumations and significant assemblages of metalwork, pottery and animal bone (Hinman 2005). At Northbridge a square enclosure was identified through aerial photographs and geophysical survey. Evaluation proved this to be a double ditched enclosure containing quantities of Roman artefacts (CHER 16364). An agricultural function was the most likely interpretation. In addition Roman field systems were identified to the east of the enclosure and a water hole to the south. Directly to the west of the Northbridge evaluation cropmarks and geophysics have revealed further enclosures and field systems on a similar alignment to the square enclosure, suggesting a Roman date (CHER MCB16939). The Northbridge evaluation extended to the Roman Road, Ermine Street, directly to the south of the subject site. No evidence of the road was encountered, nor was any trace of field systems extending from the route of it (Cullen 2004). Neither was the road found during the installation of a water mains pipeline along a 400m stretch of Ermine Street and a 400m stretch of the adjoining minor road, Green End (CHER CB15034; Gdaniec 1993).

1.3.6 Two Roman barrows are located close to Ermine Street in Great Stukeley, less than 1km to the north-west of the site (Scheduled Monument 33351 and 33352).

1.4 Acknowledgements

1.4.1 The author would like to thank Savills on behalf of St Johns College who commissioned and funded the archaeological evaluation. The site was managed by James Drummond-Murray. The site was excavated by the author, Dave Brown, Louise Bush, Graeme Clarke, Jon House, Tom Lyons and Adrian Woolmer. Louise Bush also carried out site survey and was responsible for digitisation of the plans. Andrew Corrigan and Gillian Greer produced the illustrations. The pottery was looked at by Dan Stansbie. Chris Faine carried out the faunal assessment and Rachel Fosberry studied the environmental remains. Andy Thomas of CAPCA prepared the brief and monitored the work.

2 Aims and Methodology

2.1 Aims

2.1.1 The objective of this evaluation was to determine as far as reasonably possible the presence/absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.

2.2 Methodology

2.2.1 Seventy trenches were excavated, mostly 50m or 100m in length (Figure 3). Trench 70 was a small additional trench and measured 26m long. Overall this provided a 4% sample of the area.

2.2.2 Machine excavation was carried out under constant archaeological supervision with a wheeled JCB-type excavator using a 2.2m wide toothless ditching bucket.

2.2.3 The site survey was carried out by Louise Bush using a Leica GPS 1200 system to lay out the trenches according to a pre-arranged trench plan. The heights of ground level and base of trenches were surveyed, as were points on the tops and bases of excavated features.

2.2.4 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.

2.2.5 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 colour and monochrome photographs were taken of all relevant features and deposits.

2.2.6 Twenty-four environmental samples were collected from a representative cross section of features types and locations.

2.2.7 Site conditions were favourable. The crop had been harvested shortly before arrival. Dry conditions in the weeks preceding the evaluation and during the works meant the ground was firm and no water was encountered in any of the trenches, even in the south-east corner of the site which was the lowest part or in any of the deeper features such as pit/ditch **325** in trench 39, which reached a depth of 2m below ground level.

3 Results

3.1 Introduction

Field walking

3.1.1 The results of the field walking survey were dealt with in a separate report (Fairbairn 2009) and are summarised here. The survey took place between 1st and 5th December 2008. A background scatter of Roman, medieval and post medieval pottery was recovered although there were no particular concentrations of artefacts. Figure 4 shows the distribution of artefacts collected for all periods.

Geophysical survey

3.1.2 The geophysical survey report is reproduced in Appendix D and summarised here. A 20% sample strip gradiometer survey was carried out on the site between November and December 2008 by Peter Masters of Cranfield University. The geophysical survey results produced little evidence in terms of archaeological remains but clearly showed the extensive remains of the pre-enclosure field system of ridge and furrow. Other anomalies recorded relate to former field boundaries and modern ferrous remains. Two linear features indicated ditches but were more likely to reflect the remains of ridge and furrow. Figure 5 shows the results of the geophysical survey with the results of trenching overlaid. Site 1 in field A is situated in the same area as one of the geophysical strips but was not identified. Site 2 was unfortunately located between two geophysical survey sample strips.

Evaluation

3.1.3 The results of the evaluation indicate two discrete Sites, 1 and 2, both of which date to the Middle Iron Age. Site 1 was located in field A and consisted of a large pit and later features which had the appearance of an industrial area. Associated with Site 1 were elements of a field system which could be even earlier in date. Also in Field A were two clusters of post holes and a single isolated pit containing a quantity of Middle Iron Age pottery. Site 2 was located in field B and consisted of a small, possibly enclosed, Middle Iron Age settlement. Beyond the limits of this settlement there were no contemporary features. Across the entire site there was evidence of the pre-enclosure system of ridge and furrow.

3.1.4 Results are presented first by field, then by period, then by areas or trenches preserving significant archaeological remains (which will include Sites 1 and 2 and any associated features). Not every trench is discussed individually and neither are all contexts referenced in the text. However, basic trench information is summarised in Table 1 and a full context list can be found in Appendix A.

Trench No.	Length (m)	Top soil (m)	Sub Soil (m)	Summary
1	100	0.22	0.25	Single MIA pit, furrows
2	100	0.2	0.06	Blank
3	50	0.2	0.16	Furrows, undated pit
4	100	0.22	0.13	Furrows, agricultural strip
5	100	0.3	0.2	Furrows
6	100	0.35	0.35	Blank
7	100	0.28	0.21	LIA ditches, furrows

Trench No.	Length (m)	Top soil (m)	Sub Soil (m)	Summary
8	50	0.22	0.2	Single furrow
9	50	0.24	0.15	Furrows
10	100	0.32	0.2	Furrows
11	100	0.3	0.06	Undated post holes, furrows
12	50	0.25	0.4	Undated post hole, agricultural strip
13	50	0.28	0.18	Undated post hole, furrows
14	50	0.28	0.2	Prehistoric ditch, furrows
15	50	0.25	0.2	Site 1: MIA possible industrial area, furrow
16	50	0.3	0.3	Furrow, agricultural strips
17	50	0.25	0.3	Furrows, agricultural strip
18	100	0.3	0.2	Prehistoric ditch, undated post holes, pits, furrows, agricultural strips
19	50	0.25	0.25	Furrows, agricultural strip
20	100	0.26	0.08	Undated ditch, furrows, agricultural strips
21	100			Furrows
22	50	0.34	0.28	Furrow
23	50	0.3	0.15	Undated ditch
24	50	0.25	0.2	Undated ditch
25	100	0.3	0.25	Prehistoric ditch, agricultural strips
26	100	0.18	0.23	Prehistoric ditch, undated post hole, post med boundary
27	50	0.29	0.08	Prehistoric ditch, agricultural strip
28	100			Prehistoric ditch, agricultural strips, tree throw
29	50			Agricultural strips
30	50	0.3	0.14	Agricultural strips, undated pit
31	50	0.28	0.17	Furrows, undated pit
32	100	0.28	0.13	Furrow, agricultural strip, tree throw
33	50	0.24	0.16	Furrows, agricultural strips
34	100	0.24	0.1	Agricultural strips
35	50	0.3	0.13	Blank
36	100	0.34	0.13	Agricultural strip
37	100	0.25	0.2	Agricultural strips, post med boundary
38	100	0.16	0.2	MIA ditch, associated with Site 2
39	100	0.26	0.1	Site 2: MIA settlement, furrows
40	100	0.28	0.5	Site 2: MIA settlement, furrows
41	100	0.2	0.1	Furrows, agricultural strips
42	100	0.24	0.56	palaeochannel
43	100	0.24	0.34	Furrows
44	100	0.3	0.22	Agricultural strips
45	100	0.25	0.2	Post med boundary
46	100	0.27	0.31	Blank
47	100	0.25	0.2	Post med boundary
48	100	0.36	0.2	Post med boundary, furrow

Trench No.	Length (m)	Top soil (m)	Sub Soil (m)	Summary
49	100	0.43	0.21	Furrows
50	100	0.25	0.1	Furrows
51	50	0.3	1	Blank
52	100	0.28	0.23	Blank
53	50	0.21	0.31	Blank
54	100	0.24	0.28	Blank
55	100	0.26	0.28	Blank
56	100	0.26	0.14	Furrows
57	100	0.3	0.35	Blank
58	73	0.29	0.23	Post med drains
59	100	0.26	0.24	Blank
60	100	0.27	0.32	Blank
61	100	0.26	0.23	Post med drain
62	100	0.26	0.52	Blank
63	100	0.22	0.29	Blank
64	100			Undated ditch
65	100	0.26	0.29	Blank
66	100	0.24	0.26	Blank
67	100	0.22	0.27	Blank
68	69	0.32	0.19	Furrows, agricultural strip
69	54	0.22	0.14	Site 2: MIA settlement, furrows
70	26	0.25	0.2	Site 1: MIA possible industrial area, agricultural strip

Table 1: Trench details

3.2 Field A

Middle Iron Age

Site 1: Possible industrial area – Trenches7, 15 and 70 (Figure 6)

3.2.1 Located in the north of field A, Site 1 consisted primarily of a large pit or pits in trenches 15 and 70, which measured in total 15m north to south in trench 15 and approximately 20m east to west in trench 70. There was also a ditch associated with the large pits. In total Site 1 covered approximately 0.5 hectares.

3.2.2 The earliest pit in the sequence was pit **250**. It was cut in to chalk, had a completely flat base, vertical sides and was square in plan, measuring 2.2m wide and 0.9m deep. It contained a single fill (249) with frequent orange mottling indicative of oxidising, which contained a single struck flint. Environmental sample 13 collected from the fill contained ostracods (snails) that indicate standing or slow flowing water, and weed seeds. The pit was re-cut as pit **248** which was only seen in section but had an almost identical shape and size, measuring 1.6m wide and 0.54m deep. It contained two fills (246 and 247) which were darker in appearance and contained two sherds (10g) of Middle Iron Age pottery, two pieces of slag, a horse bone and a large fragment of fired clay. The fragment of fired clay was fairly undiagnostic but had the appearance of some form of kiln or oven furniture. Pit **250** and re-cut **248** only accounted for a very small part of the total area of fill which could be seen on the surface suggesting the cut is more complicated than the part excavated, perhaps with a gentle slope extending from the surface to the lower square cut or possibly further pits.

3.2.3 When the large pit or pits had partially silted up a series of smaller features were constructed on the upper southern edge. This included two post holes, **233** and **268**. Post hole **268** was the largest measuring 0.55m wide and 0.31m deep. Pits **256** and **258** were in close proximity. Pit **256** was sub-circular, measuring 0.75m wide and 0.26m deep with 3 fills. Pit **258** was also sub-circular, measuring 2.7m wide and 0.22m deep with 3 fills. It also incorporated a linear scoop on its northern side. None of this group of features contained any artefacts. Sealing the features was a layer of what appeared to be deliberately laid pebbles (223), comprising a variety of stone, some of which appeared to have been heated. Layer 223 extended across the trench and for 6m north to south. This group of features and the layer of stones may have represented small scale industrial activity on the edge of the larger pit/pits.

3.2.4 Trench 70 was excavated to determine the full extent of the large pit. Further evidence of the pebble surface equivalent to layer 223 was uncovered in the west of trench 70 (276), suggesting it covered a much wider area than that revealed in trench 15. Layer 223 was also evident in the north of trench 15 on the other edge of the pit although it was not as well preserved.

3.2.5 Ditch **300** was located in trench 7 directly to the north of the large pit/pits. It was orientated north-north-west to south-south-east and was heading straight for the area of possible industrial activity. It measured 2.2m wide and 1.04m deep with steep sides and a U shaped profile. It contained five fills, the upper most of which (297) contained two sherds of Middle-Late Iron Age pottery. The lower fill (305) contained a tiny fragment of fired clay and more significantly a domestic dog burial, laid directly on to the base of the ditch. Located 0.5m to the north of the burial, also on the base, was a horse scapula (shoulder bone) with a seemingly unworked flint lying on top of it. The proximity to the dog burial suggests this was a butchered joint of meat deliberately buried with the dog. This feature represents a boundary ditch which may be part of the field system in Field A discussed below in 3.2.6. However, due to its proximity to the possible industrial area and its alignment, it has been included within Site 1.

Prehistoric field system in Field A – Trenches 7, 14, 18, and 25-28 (Figure 7)

3.2.6 Within Field A there were several ditches which stood out from other linear features such as the later furrows and agricultural strips. When excavated there were similarities between the ditches and when viewed in plan appear to form elements of a co-axial field system.

3.2.7 Ditch **294** in trench 7, ditch **218** in trench 26 and ditch **160** in trench 28 were all on a similar north-west to south-east alignment and may form a ditch line running for approximately 200m. It did not appear in trench 15 so may not have been continuous. Starting in the north ditch **294** was narrow, measuring 0.52m wide and 0.34m deep with two very compact and sterile fills. Ditch **218** was less clear in plan and contained a fill very similar to the natural geology. It measured 0.8m wide and 0.44m deep. Ditch **160** was the most substantial, measuring 1.3m wide and 0.83m deep. Again, it contained two very compact and sterile fills including a lower fill with a reddish appearance. Only ditch **218** contained datable artefacts; small fragments of Middle Iron Age pot (4 sherds, 11g), while ditch **160** contained a few small pieces of animal bone. This ditch line extended past the western side of Site 1, which supports the case for it being contemporary.

3.2.8 Ditch **157** was located in the west of trench 27 and continued into trench 25. It was orientated south-west to north-east making it perpendicular to the ditch line which includes **160** in trench 28. Ditch **157** measured 1.5m wide and 0.36m deep with a single

very compact fill, similar in appearance to the lower fill of ditch **160**. Several small animal bones were retrieved from the fill.

3.2.9 Ditch **194** was located in trench 18, orientated east to west. It measured 0.92m wide and 0.62m deep with steep sides and a U shaped profile. It contained three very compact fills and no datable artefacts. It was re-cut as ditch **190** which measured 1.6m wide and 0.56m deep. Again, it contained three very compact sterile fills and no datable artefacts. The ditch was not perpendicular to the main ditch line but the profile and its fills were very similar to ditch **160**.

3.2.10 Ditch **199** was located in trench 14, orientated north-east to south-west. It could be a continuation of ditch **194**/**190** although it would have to change alignment significantly in the 25m that separate the two. Ditch **199** measured 0.78m wide and 0.43m deep. Its two fills contained no datable artefacts.

Post holes and isolated pits – Trenches 1, 11 and 18 - 19 (Figure 7)

3.2.11 There were two concentrations of post holes in field A. The first was in trench 11 and consisted of three post holes (**166**, **168**, **170**) in no particular arrangement. All three were circular and a similar size, **166** being the largest, measuring 0.33m wide and 0.11m deep. No artefacts were retrieved

3.2.12 The second group of post holes was in trench 18. It consisted of four post holes (**176**, **180**, **182**, **184**) aligned in a very slight arc. The largest was **184**, measuring 0.45m wide and 0.22m deep. The only artefact from the four post holes was a single animal bone from **184**.

3.2.13 Two pits were located close to the post holes in trench 18. Pit **178** may have been a post hole but was sub-circular in shape. Pit **206** was located in trench 19, measuring 0.55m wide and 0.39m deep. It contained a single sherd (3g) of Middle Iron Age pottery. Environmental sample 5 collected from fill 203 within pit **206** contained a single abraded cereal grain.

3.2.14 Isolated pit **216** was located in trench 1 in the far north-west of Field A. It was circular in plan, measuring 0.65m wide and 0.22m deep. Surprisingly its single fill (215) contained a quantity of Middle Iron Age pottery (34 sherds, 185g) all from a single jar. The only features in the vicinity of pit **216** were furrows.

3.2.15 Pit or post hole **212** was located in trench 26, approximately 35m to the east of ditch **218**. It was circular in plan, measuring 0.42m wide and 0.17m deep. Its single fill (211) had the appearance of dumped burnt material including charcoal and flecks of burnt clay, but no datable artefacts.

Medieval/ post medieval agricultural activity in Field A (Figure 8)

3.2.16 A single post medieval boundary was identified as ditch **222** in trench 26. It measured 0.9m wide and 0.54m deep with a U shaped profile. A nail and a single animal bone was retrieved from the single fill (221). When the First Edition Ordnance Survey map of 1888 is laid over the site plan ditch **222** correlates with a post medieval boundary.

3.2.17 There was evidence of the pre-enclosure system of ridge and furrow across much of Field A. Furrows in the north-west of field A were orientated north-east to south-west. To the south of this in trenches 20 and 21 they changed orientation to north-west to south-east. In the east of Field A they were aligned mostly north to south. This last set would have been located in a separate field to the west of the boundary ditch identified by ditch **222** in trench 26. Several furrows were excavated to characterise them. Furrow

155 in trench 31 was typical, measuring 1.52m wide and 0.08m deep. Its fill 154 contained two sherds (5g) of residual shelly ware pottery, either Late Iron Age or Roman.

3.2.18 In addition there were a number of features across Field A interpreted as agricultural strips. These were typically 0.6m wide and 0.2m deep and contained a sterile mid brown fill. They were very well defined in plan and truncated through the sub soil. They were truncated by the furrows. In trenches 26 and 32 there was some regularity in orientation and spacing but generally there was no pattern.

3.3 Field B

Middle Iron Age

Site 2: Enclosed settlement – Trenches 38-40, 68 and 69 (Figure 9)

3.3.1 Trenching revealed a small Middle Iron Age settlement located in the north of Field B on a slight promontory with land sloping downhill to the south, east and west. The settlement consisted of a series of ditches which may have formed an enclosure with internal sub-divisions. Within the enclosed area there was a double gully, which may have been an eaves drip gully belonging to a roundhouse, a small pit, and a very large pit, possibly a water hole. Outside of the enclosed area was an even larger water hole. Spatially, the settlement was restricted to a small area. It was originally uncovered in trenches 39 and 40. Trenches 68 and 69 were excavated specifically to find the extent of the settlement or at the least to prove the settlement continued to the east and west. In trench 68 to the west there were no features relating to the settlement, meaning none of the relatively large ditches in trench 39 extended 20m to the west. In trench 69 to the east there were features relating to the settlement including a continuation of one of the ditches in trench 39. However, not all of the ditches continued. Trenches 68 and 69 aided in defining the extents of the settlement but the layout of the settlement as seen in figure 9 remains interpretive. The total area covered by the settlement using the results of trenching as a guide, is approximately one hectare.

Ditches of the settlement

3.3.2 Two ditches were interpreted as the outer ditches of the enclosure, **264** in trench 39 and **275** in trench 40. Both were orientated north-west to south-east, measuring between 1.1 and 2.3m wide and between 0.6 and 0.62m deep. Ditch **275** contained tiny fragments of Middle Iron Age pot (6 sherds, 6g), a single lump of fired clay (62g), animal bone and, intriguingly, part of a human femur in its single fill. The human femur was an isolated disarticulated bone which did not appear to have been deposited in the ditch in any special or deliberate way and had possibly come from a body which had been exposed or excarnated. Ditch **264** contained a larger assemblage of Middle Iron Age pot (5 sherds, 27g) including one sherd of scored ware, and animal bone in two of its three fills. Environmental sample 14 collected from primary fill 262 contained ostracods (snails) indicative of standing or slow moving water, and a fragment of a barley grain.

3.3.3 There were several ditches which could be said to be internal to the outer ditches. Ditch **285** in trench 39 was orientated west-north-west to east-south-east. It measured 2.45m wide and 0.84m deep with a U shaped profile. Its single fill (284) contained a small

assemblage of Middle Iron Age pottery (9 sherds, 23g) and animal bone (48g). Ditch **285** was truncated by a smaller ditch, **287,** measuring 0.79m wide and 0.22m deep.

3.3.4 Ditch **342** in trench 39 was on the same alignment, measuring 2.4m wide and 0.85m deep with a flat based U shaped profile. Its single fill (341) contained a moderate assemblage of Middle Iron Age pottery (25 sherds, 171g) and animal bone (99g).

3.3.5 To the south of ditch **342** was ditch **321**, also orientated west-north-west to east-south-east. It extended into trench 69, where it was excavated as ditch **340**. The two excavated segments measured between 1.8 and 2.6m wide and between 1.26 and 1.3m deep with a V shaped profile. Ditch **321** contained three fills, within which was a moderate assemblage of Middle Iron Age pottery (13 sherds, 317g) including four sherds of scored ware, and a cattle bone (166g). Ditch **340** contained four fills, all of which had charcoal inclusions. Fill 337 in particular had the appearance of midden material which had been dumped in to the ditch. A moderate assemblage of Middle Iron Age pottery (33 sherds, 279g) including some scored ware, a quantity of fired clay (91g) as well as cattle, horse, pig, sheep/goat and dog bone (306g) was retrieved from the ditch.

3.3.6 Narrow ditch **332** was located at the southern end of trench 69, orientated north-west to south-east. It measured 0.36m wide and 0.16m deep. It contained two fills, the upper of which (330) had three fragments of daub and fired clay (39g). This ditch may have laid outside of the main settlement core.

3.3.7 Ditch **365** was located in trench 38, orientated north-north-east to south-south-west, roughly perpendicular to the main settlement ditches in trench 39. It measured 2m wide and 0.75m deep. It contained a small assemblage of Middle Iron Age pottery (6 sherds, 21g).

Possible roundhouse

3.3.8 A double curvilinear gully, **281** and **283**, was located in trench 69 to the north of ditch **340**. Gully **281** measured 0.28m wide and 0.16m deep. Its single fill (280) contained a small quantity of fired clay (27g) and a tiny fragment of animal bone. Gully **283** measured 0.5m wide and 0.28m deep. It contained two fills, within which was a small assemblage of Middle Iron Age pottery (2 sherds, 23g) and fired clay (6g). The relationship between the two gullies could not be determined but it suggests two phases of construction. The gullies have been interpreted as possible eaves drip gullies belonging to a roundhouse. The eaves drip gully is a common feature of Iron Age roundhouses, designed to collect water running off the roof and stop it from running into the house. If the full circle of the possible eaves drip gully is extrapolated it would be truncated by ditch **321**/**340**, further evidence of more than one phase of activity. The gully did not appear in trench 39 but must have extended close to its eastern edge giving it a diameter of 10m.

Water holes

3.3.9 Ditch **321** truncated a very large feature, interpreted as a pit, **325**, more specifically a water hole. It measured 4.24m wide and 1.7m deep with a U shaped profile. Its three fills contained a small assemblage of Middle Iron Age pottery (10 sherds, 84g), a single large lump and smaller fragments of fired clay (191g), animal bone (81g) and 76g of fuel ash slag but of a particular kind, derived from a non-metallurgical burning event such as the destruction by fire of a clay and timber structure. Although in plan it was difficult to determine whether this feature was a pit or a ditch, its substantial size would suggest if it was a ditch it would extend at least as far as trench 68 to the west or trench

69, 10m to the east, which it does not. Also, such a substantial ditch does not correlate with the size of the settlement.

3.3.10 To the north-east of the core settlement area in trench 40 was a very large pit, **254**, interpreted as a water hole. It measured 10m in diameter and was machine excavated to a depth of 1.4m although the base was not reached. The lowest fill (253) was very compact but quite silty with the appearance of having been water laid. Two sherds of Middle Iron Age pottery (5g) were retrieved from fill 253. From the fill above (252) a moderate assemblage of Middle Iron Age scored ware pottery was recovered (12 sherds, 481g), all from a large vessel.

Other features within Site 2

3.3.11 To the south of ditch **340** in trench 69 was pit or ditch **315**. The feature extended only 0.5m from the trench baulk and was most likely a sub-circular pit. However, it could be a possible terminal for ditch **264** in trench 39 which did not appear to continue. It measured 4.5m wide and 0.32m deep. It contained four fills which yielded a large artefact assemblage given its size and had the appearance of a series of dumps of burnt material. Upper fill 311 had frequent charcoal inclusions, a moderate assemblage of Middle Iron Age pottery (52 sherds, 276g), a small quantity of fired clay (47g) and animal bone (175g). Further small fragments of fired clay were obtained from environmental sample 19 taken from fill 311, as well as two microscopic fragments of bright shiny metal and a single puffed grain. Fill 312 contained moderate charcoal inclusions and a large quantity of fired clay and daub (303g). The daub originates from a standing structure of some description. Several fragments clearly had marks where the clay had once been attached to pieces of wood. It could be the remains of wattle and daub from the possible roundhouse to the north.

3.3.12 Pit **302** was located in trench 39 to the north of ditch **285**. It was circular in plan, measuring 0.85m wide and 0.2m deep. Its single fill (301) contained no artefacts.

Medieval/ post medieval agricultural activity in Field B (Figure 10)

3.3.13 A post medieval field boundary orientated north-west to south-east was present in trench 45, the south of trench 37 and the north of trench 47 where it was excavated as ditch **355**. It measured 0.6m wide and 0.18m deep.

3.3.14 A second post medieval boundary, **363**, was identified in trench 48, orientated north-east to south-west. It measured 0.72m wide and 0.17m deep. The boundaries which ditches **355** and **363** were part of, both appeared on the First Edition Ordnance Survey map of 1888.

3.3.15 Ridge and furrow were not as extensive in field B as in Field A. In the north east of Field B furrows were present and regular, orientated east-north-east to west-south-west. One excavated example, **361** in trench 49 measured 1.9m wide and 0.12m deep. In much of the rest of Field B furrows were not encountered in the base of the trenches. A likely explanation is that the furrows did not go deep enough to penetrate the geology in the south and west of Field B and therefore would only appear in the trench sections.

3.4 Finds Summary

1.1.1 A total of 236 sherds of mostly Middle Iron Age pottery, weighing 2048g, were recovered from 33 contexts during the evaluation. The pottery was in moderate condition, with only a few sherds showing signs of heavy abrasion and the surfaces of

sherds generally being well preserved. Several sherds were decorated with vertical and/or horizontal scoring and may be seen as belonging to the 'scored ware' tradition.

1.1.2 Forty-nine “countable” animal bones were retrieved from a total of 15 contexts. It was an extremely small assemblage that most likely represents general settlement/butchery waste. The presence of a wide age range of cattle and sheep in particular suggests a mixed economy. Ditch **275** in trench 40 contained part of a human femur.

3.5 Environmental Summary

3.5.1 Twenty-four bulk samples were taken from features within the evaluated areas of the site in order to assess the quality of preservation of plant remains, bones and artefacts and their potential to provide useful data as part of further archaeological investigations.

3.5.2 There was a lack of plant remains suggesting that either the conditions at the site do not favour preservation or that there was little evident occupation. Samples 13 and 14 both contained organisms that indicate standing or slow flowing water. Ostracods can be useful as environmental indicators. The cereal grains recovered were extremely abraded and were only identifiable as cereals by their characteristic dense honeycomb structure. Microscopic fragments of bright shiny metal in sample 19, fill 311, pit **315** may, if identified, give some clues to the function of the fired clay/kiln material accompanying it in the deposit. The majority of the samples contained sparse charcoal inclusions.

4 Discussion and Conclusions

The evaluation revealed two discrete areas, Site 1 and Site 2. Site 1, a Middle Iron Age possible industrial area, was located in Field A and was approximately 0.5 hectares in size. Site 2 was a Middle Iron Age settlement located in Field B, covering approximately 1 hectare.

4.1 Site 1: Middle Iron Age possible industrial area

4.1.1 The large pit or pits in Site 1 were interpreted as having an industrial function and there were several observations and pieces of evidence which supported such a conclusion. Firstly, the part of the cut that was revealed in trench 15 had the appearance of having been dug in a very specific way giving it a square or rectangular shape with a perfectly flat base. If it had been constructed for a different purpose, a water hole or a quarry for example, there would be no requirement for such a carefully excavated and deliberately shaped cut. Secondly, two fragments of slag, possibly tap slag, were retrieved from fill 246 and points to metal working in the vicinity. Thirdly, there was the secondary activity that occurred on the southern edge of the pit/pits evidenced by smaller pits **256**, **258** and post holes **233**, **268**. The small pits in particular must be the result of small scale industrial activity, possibly pits excavated to heat water in, the water being heated by way of stones which themselves had been heated in a fire nearby. Such stones were present in layer 223 which sealed the small pits and post holes.

4.1.2 If the interpretation is correct, what sort of industrial activity would it relate to? The fragments of slag obviously hint at metal working but environmental samples taken from pit **250** produced no evidence of hammerscale. At Bob's Wood, Hinchingbrooke, 2km to the south, a late Roman smithy area was connected by way of a channel to a rectangular pit with vertical sides, measuring 3m by at least 4m wide and 0.4m deep (Hinman 2005). There was evidence of parallel wooden planks in the base and iron nails were found in association. The feature was interpreted as a holding tank. There are certainly similarities between that feature and pit **250** in terms of shape and dimensions. The environmental sample taken from fill 249 contained snails indicative of standing or slow moving water, suggesting the feature held water at some point although this may have been once the feature had gone out of use. The smithy area at Bob's Wood also looked very similar on the surface to the large pit/pits in trenches 15 and 70. However, there were also differences. At Bob's Wood, the holding tank was completely separate from the smithy area. What the Bob's Wood example does provide is a local parallel which may share some similarity of function with Site 1 at Ermine Business Park.

4.1.3 The other interesting point is that Site 1 was constructed through solid chalk bedrock. Although there was a high chalk content in the boulder clay over the entire site, this was the only location where pure chalk bedrock was encountered. Therefore, was the positioning of this large feature deliberate? It has already been stated that the feature was not a quarry because of its deliberate and precise shape, but whatever primary industrial function it was excavated for, it was probably also positioned to take advantage of a known outcrop of uncontaminated chalk bedrock. Chalk can be used for several purposes; when heated it produces lime which in prehistory would have been used as a fertilizer. The high state of preservation of the original cut of pit **250** suggests it may have been wood lined. If it did hold water or was simply a level surface adjacent

to a deeper part not excavated in the evaluation trench, it would not have survived as well as it has cut in to chalk unless there was some form of lining.

4.1.4 Site 1 may have been associated or contemporary with Site 2 approximately 150m to the south but had been kept separate because of a difference in function, one being a settlement and the other being industrial.

4.2 Site 2: Middle Iron Age enclosed settlement

4.2.1 The settlement identified in the north of Field B can only be partially characterised. Its core appeared to be the south of trench 39 and the south-west of additional targeted trench 69. It did not extend far beyond this, as evidenced by a lack of associated features in other nearby trenches such as trench 68. It may have been enclosed by a ditch, represented by ditches **264** and **275**, although this is interpretive, based on the fact that the other ditches do not extend any great distance, suggesting they are within an enclosure. The internal ditches were surprisingly large, in particular the ditch line formed by **321** and **340**. Ditch **340** measured 1.8m wide and 1.26m deep, larger than would seem necessary for the internal ditch of a small enclosure.

4.2.2 Significantly, in trench 69 there was evidence of a possible roundhouse which would confirm occupation within the settlement. Associated evidence relating to the possible roundhouse included significant amounts of daub found in nearby features. Ditch **340** contained 91g, water hole **325** contained 191g, while pit/ditch **315** contained 350g. The daub was all fired, which if it came from the wattle and daub of a roundhouse, would mean the structure had burnt down, either accidentally or deliberately when it had gone out of use. The presence in water hole **325** of the specifically non-metallurgical fuel ash slag may also point to the burning down of a roundhouse.

4.2.3 The presence of two possible water holes, **254** and **325**, are another common indicator of occupation on prehistoric sites. Water holes can vary in form but a basic definition is a large pit which retains water, either by reaching the water table or by collecting rain water. Water hole **254** is the most likely of the two as it lies outside of the core settlement area, **325** appeared to be a large pit with no other obvious function.

4.2.4 The amount of cultural debris, while not exceptional, does indicate habitation within Site 2. Most of the pottery was of a very domestic nature and there was a particularly high presence of scored ware sherds.

4.3 Prehistoric field system

4.3.1 Elements of a co-axial field system, possibly prehistoric in date, were identified in Field A. There was a long-running, albeit broken, ditch line orientated north-west to south-east extending approximately 200m, represented by **160**, **218** and **294**. Perpendicular to this was another shorter ditch, **157** in trench 27. In the north-east of Field A were two further ditches, one aligned north-east to south-west (ditch **199** in trench 14) and one aligned more east to west (**190** in trench 18). The main long running ditch line extends close to Site 1 and may be associated. However, the field system itself could be much older in origin, possibly Bronze Age. Elements of similar looking field systems along the Ouse valley have been dated to the Bronze Age although they are often on the terrace gravels closer to the river. Local examples include Huntingdon Racecourse where a coaxial field system orientated north-east to south-west dated to the Early Bronze Age (Malim 2001). At Cardinal Distribution Park, Godmanchester, 4.5km to the south-east a similar arrangement was encountered with ditches aligned north-east to south-west and north-west to south-east dating to the Late Bronze Age/Early Iron Age (Murray 1998).

4.4 Significance

4.4.1 The results of the evaluation have demonstrated the presence of Middle Iron Age settlement and possible industrial activity on the site. The presence of a settlement adds to the increasing body of data relating to settlement patterns along the catchment of the Great Ouse, a significant river system in prehistory. The site is part of an area of clayland which are bordered by the river Ouse in the west and extends as far as Cambridge in the east. The clay covers western Cambridgeshire and extends beyond into the East Midlands. For a long time in Cambridgeshire it was thought these heavy soils could not have supported prehistoric communities due to the intensive labour involved. This evidence was increasingly at variance with the growing corpus of prehistoric sites known on similar geologies in the adjacent counties of Bedfordshire and Northamptonshire. More recently though it has been shown that during the later Iron Age the claylands were increasingly utilised. Large scale evaluation and excavation has been carried out at several sites including at Bob's Wood, Hinchingbrooke (Hinman, In prep.), at Love's Farm, St Neots (Hinman 2008) and at Wintringham Park (Phillips and Hinman 2009).

4.4.2 The settlement itself is significant as it appears isolated and covers a relatively small area. The closest Iron Age settlement known is at Alconbury Airfield 2.5km to the north-west and at Bob's Wood, Hinchingbrooke, 2km to the south. The Bob's Wood settlement was an extensive farmstead, even in the Middle Iron Age, probably belonging to an extended family. Two sword-shaped currency bars found in a ditch attested to the wealth of the community. This is very different to Site 2 at Ermine Business Park which is a much smaller and shorter lived settlement. It raises important questions about the form of settlement, the number and spacing of settlements and the relationship between them. How does the small settlement at the business park relate to that at Bob's Wood? Is Site 2 one of a number of small, dispersed settlements in the local landscape? How far is Site 2 from its neighbours?

4.4.3 The possible industrial area, Site 1, is significant as it offers potential evidence of specialisation associated with the nearby settlement.

4.5 Recommendations

4.5.1 Recommendations for any future work based upon this report will be made by the County Archaeology Office.

Appendix B. Context Inventory

Context	Cut	Trench	Category	Feature Type	Width (m)	Depth (m)	Fine component	Pottery date
1		1	trench number					
2		2	trench number					
3		3	trench number					
4		4	trench number					
5		5	trench number					
6		6	trench number					
7		7	trench number					
8		8	trench number					
9		9	trench number					
10		10	trench number					
11		11	trench number					
12		12	trench number					
13		13	trench number					
14		14	trench number					
15		15	trench number					
16		16	trench number					
17		17	trench number					
18		18	trench number					
19		19	trench number					
20		20	trench number					
21		21	trench number					
22		22	trench number					
23		23	trench number					
24		24	trench number					
25		25	trench number					
26		26	trench number					
27		27	trench number					
28		28	trench number					
29		29	trench number					
30		30	trench number					
31		31	trench number					
32		32	trench number					
33		33	trench number					
34		34	trench number					
35		35	trench number					
36		36	trench number					
37		37	trench number					
38		38	trench number					
39		39	trench number					
40		40	trench number					

Context	Cut	Trench	Category	Feature Type	Width (m)	Depth (m)	Fine component	Pottery date
41		41	trench number					
42		42	trench number					
43		43	trench number					
44		44	trench number					
45		45	trench number					
46		46	trench number					
47		47	trench number					
48		48	trench number					
49		49	trench number					
50		50	trench number					
51		51	trench number					
52		52	trench number					
53		53	trench number					
54		54	trench number					
55		55	trench number					
56		56	trench number					
57		57	trench number					
58		58	trench number					
59		59	trench number					
60		60	trench number					
61		61	trench number					
62		62	trench number					
63		63	trench number					
64		64	trench number					
65		65	trench number					
66		66	trench number					
67		67	trench number					
68		68	trench number					
69		69	trench number					
70		70	trench number					
100	102	30	fill	pit	0.3	0.08	silty clay	
101	102	30	fill	pit	0.66	0.13	silty clay	
102	102	30	cut	pit	0.66	0.13		
103	104	30	fill	ditch	0.84	0.27	silty clay	
104	104	30	cut	ditch	0.84	0.27		
105	106	30	fill	furrow	0.95	0.05	silty clay	
106	106	30	cut	furrow	0.95	0.05		
107	108	30	fill	ditch	1	0.31	silty clay	
108	108	30	cut	ditch	1	0.31		
109	122	12	fill	agricultural strip	0.65	0.15	silty clay	
110	111	33	fill	furrow	0.9	0.18	silty clay	
111	111	33	cut	furrow	0.9	0.18		
112	113	33	fill	furrow	1	0.12	silty clay	MIA

Context	Cut	Trench	Category	Feature Type	Width (m)	Depth (m)	Fine component	Pottery date
113	113	33	cut	furrow	1	0.12		
114	115	33	fill	agricultural strip	0.45	0.15	silty clay	
115	115	33	cut	agricultural strip	0.45	0.15		
116	117	32	fill	agricultural strip	0.7	0.18	silty clay	
117	117	32	cut	agricultural strip	0.7	0.18		
118	119	32	fill	ditch	0.25	0.11	silty clay	
119	119	32	cut	ditch	0.25	0.11		
120	121	32	fill	ditch	0.3	0.14	silty clay	
121	121	32	cut	ditch	0.3	0.14		
122	122	12	cut	agricultural strip	0.65	0.15		
123	124	12	fill	post hole	0.15	0.07	silty clay	
124	124	12	cut	post hole	0.15	0.07		
125	126	13	fill	post hole	0.13	0.08	silty clay	
126	126	13	cut	post hole	0.13	0.08		
127	128	33	fill	agricultural strip	0.62	0.1	silty clay	
128	128	33	cut	agricultural strip	0.62	0.1		
129	130	33	fill	agricultural strip	0.41	0.07	silty clay	
130	130	33	cut	agricultural strip	0.41	0.07		
131	132	33	fill	agricultural strip	0.76	0.11	silty clay	
132	132	33	cut	agricultural strip	0.76	0.11		
133	134	33	fill	agricultural strip	0.7	0.16	silty clay	
134	134	33	cut	agricultural strip	0.7	0.16		
135	136	32	fill	furrow	1.22	0.06	silty clay	
136	136	32	cut	furrow	1.22	0.06		
137	138	32	fill	agricultural strip	0.56	0.16	silty clay	
138	138	32	cut	agricultural strip	0.56	0.16		
139	140	32	fill	natural	1.32	0.29	sandy clay	
140	140	32	cut	natural	1.32	0.29		
141	142	32	fill	ditch	0.56	0.11	silty clay	
142	142	32	cut	ditch	0.56	0.11		
143	144	32	fill	agricultural strip	0.5	0.14	silty clay	
144	144	32	cut	agricultural strip	0.5	0.14		
145	146	29	fill	furrow	0.6	0.12	silty clay	
146	146	29	cut	furrow	0.6	0.12		
147	149	30	fill	natural	0.8	0.3	silty clay	
148	149	30	fill	natural	1.2	0.37	silty clay	
149	149	30	cut	natural	1.2	0.37		
150	151	31	fill	natural	0.53	0.1	silty clay	
151	151	31	cut	natural	0.53	0.1		
152	153	31	fill	pit	0.58	0.09	silty clay	
153	153	31	cut	pit	0.58	0.09		
154	155	31	fill	furrow	1.52	0.08	silty clay	Roman?
155	155	31	cut	furrow	1.52	0.08		

Context	Cut	Trench	Category	Feature Type	Width (m)	Depth (m)	Fine component	Pottery date
156	157	27	fill	agricultural strip	1.5	0.36	silty clay	
157	157	27	cut	agricultural strip	1.5	0.36		
158	160	28	fill	ditch	0.96	0.2	silty clay	
159	160	28	fill	ditch	1.3	0.63	silty clay	
160	160	28	cut	ditch	1.3	0.83		
161	162	28	fill	natural			silty clay	
162	162	28	cut	natural				
163	164	11	fill	ditch	0.65	0.24	silty clay	
164	164	11	cut	ditch	0.65	0.24		
165	166	11	fill	post hole	0.33	0.11	silty clay	
166	166	11	cut	post hole	0.33	0.11		
167	168	11	fill	post hole	0.35	0.08	silty clay	
168	168	11	cut	post hole	0.35	0.08		
169	170	11	fill	post hole	0.24	0.12	silty clay	
170	170	11	cut	post hole	0.24	0.12		
171	172	18	fill	post hole	0.3	0.1	silty clay	
172	172	18	cut	post hole	0.3	0.1		
173	174	18	fill	agricultural strip	0.8	0.22	silty clay	
174	174	18	cut	agricultural strip	0.8	0.22		
175	176	18	fill	post hole	0.3	0.15	silty clay	
176	176	18	cut	post hole	0.3	0.15		
177	178	18	fill	pit	0.35	0.1	silty clay	
178	178	18	cut	pit	0.35	0.1		
179	180	18	fill	post hole	0.35	0.18	silty clay	
180	180	18	cut	post hole	0.35	0.18		
181	182	18	fill	post hole	0.25	0.2	silty clay	
182	182	18	cut	post hole	0.25	0.2		
183	184	18	fill	post hole	0.45	0.22	silty clay	
184	184	18	cut	post hole	0.45	0.22		
185	186	18	fill	pit	0.7	0.36	silty clay	
186	186	18	cut	pit	0.7	0.36		
187	190	18	fill	ditch	1	0.2	silty clay	
188	190	18	fill	ditch	1.2	0.56	silty clay	
189	190	18	fill	ditch	0.5	0.24	silty clay	
190	190	18	cut	ditch	1.6	0.56		
191	194	18	fill	ditch	0.3	0.2	silty clay	
192	194	18	fill	ditch	0.4	0.28	silty clay	
193	194	18	fill	ditch	0.6	0.45	silty clay	
194	194	18	cut	ditch	0.92	0.62		
195	196	18	fill	agricultural strip	0.6	0.18	silty clay	
196	196	18	cut	agricultural strip	0.6	0.18		
197	199	14	fill	ditch	0.7	0.33	silty clay	
198	199	14	fill	ditch	0.78	0.15	silty clay	

Context	Cut	Trench	Category	Feature Type	Width (m)	Depth (m)	Fine component	Pottery date
199	199	14	cut	ditch	0.78	0.43		
200	0	14	layer		0.99	0.09	silty clay	
201	202	19	fill	agricultural strip	0.7	0.22	silty clay	
202	202	19	cut	agricultural strip	0.7	0.22		
203	206	19	fill	pit	0.55	0.16	silty clay	
204	206	19	fill	pit	0.45	0.2	silty clay	
205	206	19	fill	pit	0.52	0.34	silty clay	MIA
206	206	19	cut	pit	0.55	0.39		
207	208	10	fill	agricultural strip	0.69	0.16	silty clay	
208	208	10	cut	agricultural strip	0.69	0.16		
209	210	11	fill	agricultural strip	0.7	0.27	silty clay	
210	210	11	cut	agricultural strip	0.7	0.27		
211	212	26	fill	post hole	0.42	0.17	clay	
212	212	26	cut	post hole	0.42	0.17		
213	214	3	fill	pit	0.45	0.1	silty clay	
214	214	3	cut	pit	0.45	0.1		
215	216	1	fill	pit	0.65	0.22	silty clay	MIA
216	216	1	cut	pit	0.65	0.22		
217	218	26	fill	ditch	0.8	0.44	silty clay	MIA
218	218	26	cut	ditch	0.8	0.44		
219	220	26	fill	ditch	0.7	0.12	silty clay	
220	220	26	cut	ditch	0.7	0.12		
221	222	26	fill	ditch	0.9	0.54	clay	
222	222	26	cut	ditch	0.9	0.54		
223	0	15	layer	surface (external)	2.32			
224	225	23	fill	agricultural strip	0.45	0.07	sandy clay	Roman
225	225	23	cut	agricultural strip	0.45	0.07		
226	227	24	fill	ditch	0.15	0.07	sandy clay	Roman
227	227	24	cut	ditch	0.15	0.07		
228	229	21	fill	furrow	0.9	0.3	silty clay	MIA
229	229	21	cut	furrow	0.9	0.3		
230	231	21	fill	natural	0.8	0.2	silty clay	
231	231	21	cut	natural	0.8	0.2		
232	233	15	fill	post hole	0.43	0.15	silty clay	
233	233	15	cut	post hole	0.43	0.15		
234	0	21	fill	furrow				MED/PMED
235	236	9	fill	pit	0.6	0.2	silty clay	
236	236	9	cut	pit	0.6	0.2		
237	238	20	fill	agricultural strip	0.59	0.07	silty clay	
238	238	20	cut	agricultural strip	0.59	0.07		
239	240	20	fill	agricultural strip	0.64	0.23	silty clay	
240	240	20	cut	agricultural strip	0.64	0.07		

Context	Cut	Trench	Category	Feature Type	Width (m)	Depth (m)	Fine component	Pottery date
241	243	20	fill	ditch		0.44	silty clay	PMED
242	243	20	fill	ditch		0.12	silty clay	
243	243	20	cut	ditch	1.18	0.5		
244	245	20	fill	ditch	2.1	0.24	silty clay	
245	245	20	cut	ditch	2.1	0.24		
246	248	15	fill	pit	1.6	0.5	clayey silt	
247	248	15	fill	pit	0.94	0.22	clayey silt	MIA
248	248	15	cut	pit	1.6	0.54		
249	250	15	fill	pit	2.2	0.9	clayey silt	
250	250	15	cut	pit	2.2	0.9		
251	254	40	fill	pit		0.32	silty clay	
252	254	40	fill	pit		0.8	silty clay	MIA
253	254	40	fill	pit		0.4	silty clay	MIA
254	254	40	cut	pit	10	1.4		
255	256	15	fill	pit	0.3	0.12	silty clay	
256	256	15	fill	pit	0.75	0.26		
257	258	15	fill	pit	0.6	0.09	silty clay	
258	258	15	cut	pit	2.7	0.22		
259	250	15	fill	pit	0.2	0.12	clayey silt	
260	261	39	fill	ditch	0.6	0.18	clay	
261	261	39	cut	ditch	0.6	0.18		
262	264	39	fill	ditch		0.3	clay	
263	264	39	fill	ditch	0.9	0.12	silty clay	MIA
264	264	39	cut	ditch	2.3	0.6		
265	268	15	fill	post hole	0.57	0.08	silty clay	
266	268	15	fill	post hole	0.61	0.11	clay	
267	268	15	fill	post hole	0.54	0.12	clayey silt	
268	268	15	cut	post hole	0.55	0.31		MIA
269	0	15	layer			0.08	silty clay	
270	256	15	fill	pit		0.09	silty clay	
271	256	15	fill	pit		0.13	clayey silt	
272	258	15	fill	pit		0.23	silty clay	
273	258	15	fill	pit		0.07	silty clay	
274	264	39	fill	ditch	0.9	0.2	silty clay	
275	275	40	cut	ditch	1.1	0.62		
276	0	70	layer	surface (external)		0.03		
277	275	40	fill	ditch	1.1	0.62	silty clay	MIA
278	279	40	fill	natural	0.9	0.12	silty clay	MED/PMED
279	279	40	cut	natural	0.9	0.12		
280	281	69	fill	gully	0.28	0.16	silty clay	
281	281	69	cut	gully	0.28	0.16		
282	283	69	fill	gully	0.5	0.2	silty clay	MIA

Context	Cut	Trench	Category	Feature Type	Width (m)	Depth (m)	Fine component	Pottery date
283	283	69	cut	gully	0.5	0.28		
284	285	39	fill	ditch	2.45	0.84	silty clay	MIA
285	285	39	cut	ditch	2.45	0.84		
286	287	39	fill	ditch	0.79	0.22	silty clay	
287	287	39	cut	ditch	0.79	0.22		
288	283	69	fill	gully	0.3	0.08	silty clay	
289	290	69	fill	ditch	0.45	0.08	silty clay	MIA
290	291	69	cut	ditch	0.45	0.08		
291	292	7	fill	pit/ditch	0.69	0.32	silty clay	
292	292	7	cut	pit/ditch	0.69	0.32		
293	294	7	fill	ditch	0.52	0.24	silty clay	
294	294	7	cut	ditch	0.52	0.34		
295	296	70	fill	agricultural strip	0.35	0.09	sandy clay	
296	296	70	cut	agricultural strip	0.35	0.09		
297	300	7	fill	ditch	2.2	0.3	clay	
298	300	7	fill	ditch	1.2	0.14	clay	
299	300	7	fill	ditch	1.2	0.34	clay	
300	300	7	cut	ditch	2.2	1.04		
301	302	39	fill	pit	0.85	0.2	silty clay	
302	302	39	cut	pit	0.85	0.2		
303	294	7	fill	ditch	0.34	0.2	silty clay	
304	300	7	fill	ditch	0.7	0.2	clay	
305	300	7	fill	ditch	0.4	0.08	clay	
306	300	7	fill	ditch				
307	308	39	fill	post hole	0.14	0.04	silty clay	
308	308	39	cut	post hole	0.36	0.16		
309	308	39	fill	post hole	0.22	0.17	silty clay	
310	308	39	fill	post hole	0.36	0.16	silty clay	
311	315	69	fill	pit?	2.06	0.18	silty clay	MIA
312	315	69	fill	pit?	0.57	0.06	silty clay	
313	315	69	fill	pit?	0.42	0.07	silty clay	
314	315	69	fill	pit?	1.44	0.15	silty clay	
315	315	69	cut	pit?	4.5	0.32		
316	316	68	cut	agricultural strip	0.4	0.11		
317	316	68	fill	agricultural strip	0.4	0.11	silty clay	
318	321	39	fill	ditch		0.62	silty clay	MIA
319	321	39	fill	ditch		0.64	silty clay	MIA
320	321	39	fill	ditch		0.32	silty clay	MIA
321	321	39	cut	ditch	2.6	1.3		
322	325	39	fill	pit/ditch		0.56	silty clay	
323	325	39	fill	pit/ditch		0.56	silty clay	MIA
324	325	39	fill	pit/ditch		0.76	silty clay	MIA
325	325	39	cut	pit/ditch	4.24	1.7		

Context	Cut	Trench	Category	Feature Type	Width (m)	Depth (m)	Fine component	Pottery date
326	327	68	fill	agricultural strip	0.75	0.32	silty clay	
327	327	68	cut	agricultural strip	0.75	0.32		
328	329	68	fill	furrow	2.1	0.19	silty clay	
329	329	68	cut	furrow	2.1	0.19		
330	332	69	fill	ditch	0.3	0.16	silty clay	
331	332	69	fill	ditch	0.06	0.16	silty clay	
332	332	69	cut	ditch	0.36	0.16		
333	300	7	fill	ditch				
334	335	43	fill	furrow	0.7	0.17	silty clay	
335	335	43	cut	furrow	0.7	0.17		
336	340	69	fill	ditch		0.3	silty clay	MIA
337	340	69	fill	ditch		0.37	silty clay	MIA
338	340	69	fill	ditch		0.08	silty clay	
339	340	69	fill	ditch		0.5	silty clay	MIA
340	340	69	cut	ditch	1.8	1.26		
341	342	39	fill	ditch	2.4	0.85	silty clay	MIA
342	342	39	cut	ditch	2.4	0.85		
343	344	39	fill	pit	0.6	0.5	silty clay	
344	344	39	cut	pit	0.6	0.5		
345	346	39	fill	furrow	2.5	0.3	silty clay	
346	346	39	cut	furrow	2.5	0.3		
347	348	34	fill	agricultural strip	0.44	0.06	silty clay	
348	348	34	cut	agricultural strip	0.44	0.06		
349	350	39	fill	pit	0.8	0.25	clay	
350	350	39	cut	pit	0.8	0.25		
351	0	42	layer	palaeo channel	5.5		clayey silt	
352	353	37	fill	agricultural strip	0.4	0.18	clay	
353	353	37	cut	agricultural strip	0.4	0.18		
354	355	47	fill	ditch	0.6	0.18	clay	Roman/MED?
355	355	47	cut	ditch	0.6	0.18		
356	357	58	fill	field drain	0.8	0.42	silty clay	
357	357	58	cut	field drain	0.8	0.42		
358	359	58	fill	ditch	0.66	0.11	silty clay	
359	359	58	cut	ditch	0.66	0.11		
360	361	49	fill	furrow	1.9	0.12	clay	
361	361	49	cut	furrow	1.9	0.12		
362	363	48	fill	ditch	0.72	0.17	silty clay	
363	363	48	cut	ditch	0.72	0.17		
364	365	38	fill	ditch	2	0.12	silty clay	
365	365	38	cut	ditch	2	0.75		
366	365	38	fill	ditch	2	0.64	silty clay	MIA

Appendix C. Finds Reports

C.1 Pottery

By Dan Stansbie.....

Introduction and methodology

C.1.1 A total of 236 sherds of Iron Age and Roman pottery, weighing 2048g, were recovered from 33 contexts during the evaluation. This material was rapidly scanned to determine context-group dates and to assess the character of the pottery. Where necessary the pottery was examined under a binocular microscope at x20 magnification to aid in identification of the fabric. A note was made of the pottery using the Oxford Archaeology later prehistoric and Roman pottery recording system (Booth 2007).

Condition

C.1.2 With an average sherd weight of 8.6g the pottery is in moderate condition, with only a few sherds showing signs of heavy abrasion and the surfaces of sherds generally being well preserved.

Description (Table 2)

C.1.3 The assemblage is dominated by sherds of Middle Iron Age date, with the majority of the material comprising body and base sherds in shelly fabrics with varying degrees of coarseness (fabrics S2-4). These are supplemented by body sherds in fine sandy fabrics (A2) and a few body sherds in fine sand and limestone-tempered fabrics (AL2). Several sherds in both shelly and sandy fabrics are decorated with vertical and/or horizontal scoring and may be seen as belonging to the 'scored ware' tradition. In addition, there are three rim sherds from barrel-shaped jars in fine sandy fabrics. One of these (context 311) is decorated with scoring on the shoulder and oblique finger impressions on top of the rim. Also present within the assemblage are small amounts of Roman and medieval/post-medieval pottery. Five reduced sandy sherds (R20), weighing 27g are probably Roman and a further eight sherds, weighing 50g are medieval or post-medieval in date, with some of these retaining small traces of lead glaze. A single sherd from a central Gaulish samian ware form 18/31 dish, dating to AD 120-150 came from the topsoil.

Potential and recommendations

C.1.4 The assemblage is small and has little potential for further study. The Middle Iron Age assemblage suggests the presence of Middle Iron Age settlement, however, the largest group comprises 52 sherds, while the majority are under 10 sherds and this combined with the paucity of diagnostic forms means that use of the assemblage to infer site status and function is problematic. The assemblage was probably locally produced. The small quantity of Roman and medieval material suggests small scale activities. The assemblage should be incorporated into the analysis of any material recovered during the course of any further excavation work.

Context	Sherd No.	Weight (g)	Comments	Spot Date
112	1	15	S2 shelly fabrics – base sherd	MIA
154	2	5	R20 sandy grey ware	AD43-410?
205	1	3	S2 shelly fabrics – body sherd	MIA
215	34	185	A2 sandy fabrics; (1 jar)	MIA
217	4	11	S3 shelly fabrics – body sherd; A2 sandy fabrics – body sherds	MIA
224	2	6	R20 sandy grey ware	AD43-410
226	1	16	R20 sandy grey ware – body sherd	AD43-410
228	1	15	A2 sandy fabrics – body sherd	MIA
234	1	5	medieval/post-medieval	MED/PMED
241	5	34	Post-medieval	PMED
247	2	10	A2 sandy fabric – body sherds	MIA
252	12	481	S3 shelly fabric; scored ware body sherds and I base sherd	MIA
253	2	5	A2 sandy fabrics – body sherds	MIA
263	5	27	S4 shelly fabric – body sherds – one scored	MIA
268	1	3	S3 shelly fabrics – body sherd	MIA
277	6	6	A2 sandy fabrics; S2 shelly fabrics – all body sherds	MIA
278	1	10	Medieval/post medieval	MED/PMED
282	2	23	AL2 sand and limestone-tempered – body sherd; S2 shelly fabrics – body sherd	MIA
284	9	23	S2 shelly fabrics – body sherds; S3 shelly fabrics – body sherds, A2 sandy fabrics – body sherds	MIA
289	3	11	AL2 sand and limestone-tempered – body sherd; A2 sandy fabric; S3 shelly fabric	MIA
311	52	276	A2 sandy fabrics, (1 barrel-shaped jar rim and shoulder sherd with scoring and oblique incisions in top of rim); S3 shelly fabrics, body sherds; V2 organic-tempered, 1 body sherd,	MIA
318	8	51	S2 shelly fabrics; S3 shelly fabrics; AL2 sand and limestone-tempered; SL3 shell and limestone-tempered; A2 sandy fabrics – all body sherds	MIA

Context	Sherd No.	Weight (g)	Comments	Spot Date
319	4	234	S3 shelly fabric; body sherds – scored ware	MIA
320	1	32	S3 shelly fabrics – body sherd	MIA
323	2	39	S3 shelly fabric – body sherds	MIA
324	8	45	S2 shelly fabric; A2 sandy fabric	MIA
336	17	64	S3 shelly fabric, body sherds; A2 sandy fabric, body sherds	MIA
337	13	182	S3 shelly fabric; body sherds – scored ware	MIA
339	3	33	S3 shelly fabric; A2 sandy fabrics (1 jar)	MIA
341	25	171	S2 shelly fabric, body sherds (1 base sherd), S3 shelly fabric body sherds- scored ware; A2 sandy fabric – body sherds – scored	MIA
354	1	1	O20 sandy oxidised ware – body sherd	ROM/MED?
366	6	21	A2 sandy fabrics - body sherds – base sherd	MIA
Topsoil	1	5	S30 Central Gaulish Samian (1 Form 18/31)	U/S

Table 2: Pottery assemblage data

C.2 Faunal Remains

By Chris Faine

Introduction

C.2.1 Fifteen contexts from the evaluation yielded 49 "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 a variety of feature types largely dating from the Middle Iron Age. In total 186 fragments of animal bone were recovered with 49 identifiable to species (26.3% of the total sample). Contexts 238 and 339 contained no identifiable elements.

Methodology

C.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) and minimum numbers of individuals MNI (see table 3). 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. 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

C.2.3 Table 3 shows the species distribution for the assemblage. In terms of the main domesticates cattle (28.6% of the identifiable sample) and to a slightly lesser extent sheep/goat (24.6%) are the most prevalent taxa, with slightly fewer numbers of horse remains. Pig remains are present in a single context. Although in terms of fragments (NISP) dog is the most common taxon all these elements but one are from a single animal. Cattle remains consist entirely of lower limb elements and loose teeth along with a single mandible of animal around 2 ½ years of age from context 252. The remainder of the elements come from adult animals, with the exception of a single unfused tibia from context 366. Fifty-seven percent of cattle elements show signs of butchery. Sheep/goat remains consist of a wider variety of body parts including meat bearing elements such as scapulae and humerii. All elements come from adult animals including two mandibles from contexts 274 & 311, from animals aged around 1 to 2 and 4 to 6 years old respectively. Sixty-six percent of sheep/goat elements show signs of butchery. Horse remains are limited to adult loose teeth along with portions of astragalus and metatarsal from context 337. A single fragment of pig was recovered in the form of an adult 3rd molar from context 336. As mentioned above all but one of the dog remains form part a single inhumation from context 306. Although largely complete

it was extremely poorly preserved with only a limited suite of elements being identifiable, consisting largely of lower limb elements and tarsal bones. Enough of the left mandible and maxilla were present to suggest an adult domestic dog. A single adult dog calcaneus was also recovered from context 337.

Conclusions

C.2.4 This is an extremely small assemblage that most likely represents general settlement/butchery waste. The presence of a wide age range of cattle and sheep in particular suggests a mixed economy.

	NISP	NISP%	MNI	MNI%
Cattle (*Bos*)	14	28.6	7	32
Sheep/Goat (*Ovis/Capra*)	12	24.6	7	32
Horse (*Equus caballus*)	7	14.2	6	27
Pig (*Sus scrofa*)	1	2	1	4.5
Dog (*Canis familaris*)	15	30.6	1	4.5
Total:	**49**	**100**	**22**	**100**

Table 3: Faunal remains, species distribution

Appendix D. Environmental Reports

D.1 Environmental samples

By Rachel Fosberry.....

Introduction and Methods

D.1.1 Twenty-four bulk samples were taken from features within the evaluated areas of the site in order to assess the quality of preservation of plant remains, bones and artefacts and their potential to provide useful data as part of further archaeological investigations.

D.1.2 The samples were soaked in a solution of sodium carbonate for four days prior to processing in order to break down the heavy clay.

D.1.3 Ten litres of each sample were processed by tank/bucket flotation for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The flot was collected in a 0.3mm nylon mesh and the residue was washed through a 0.5mm sieve. The flot was allowed to air dry. The residue was scanned whilst wet due to time constraints. Any artefacts present were noted, removed and dried prior to reintegration with the hand-excavated finds. The flot was examined under a binocular microscope at x16 magnification and the presence of any plant remains or other artefacts are noted in Table 4.

Quantification

D.1.4 For the purpose of this initial assessment, items such as seeds, cereal grains and small animal bones have been scanned and recorded qualitatively according to the following categories:

= 1-10, ## = 11-50, ### = 51+ specimens

D.1.5 Items that cannot be easily quantified such as charcoal, magnetic residues and fragmented bone have been scored for abundance:

+ = rare, ++ = moderate, +++ = abundant

Preservation

D.1.6 The majority of the samples contain sparse quantities of charcoal. Occasional cereal grains are preserved by carbonisation but preservation of charred plant remains is poor.

Sample No.	Context No.	Cut No.	Feature Type	Sample Size (L)	Comments	Flot Volume (ml)	Cereals	Weed Seeds	Snails from flot	Small Bones	Charcoal <2mm	Charcoal > 2mm	Flot comments	Residue volume	Small animal bones	Large animal bones	Snails from residue	Pottery	CBM	Burnt flint	Residue comments
1	100	102	pit	10	burnt pit with no finds	1	0	#	#	0	+	0	Sparse charcoal only	250	0	0	0	0	0	0	No finds
2	197	199	ditch	10	burnt stoney fill in ditch with no dating. Quite isolated	1	0	0	0	0	+++	0	tiny flecks charcoal only	400	0	0	0	0	0	0	No finds
3	193	194	ditch	10	Dark blue fill of ditch with no finds.	1	0	0	##	0	+	0	Sparse charcoal only	200	0	0	0	0	0	0	No finds
4	177	178	pit	10	Fill of small pit with evidence of burning but no dating. Associated with nearby post holes which may be structural	1	0	0	#	0	+	0	Sparse charcoal only	400	0	0	0	0	0	0	No finds
5	203	206	pit	10	fill of pit. Lower fills contained IA pottery. Possibly associated with nearby post holes	5	#	0	#	0	++	++	single grain – abraded and fragmented	600	##	0	0	0	0	0	small rodent bones and tooth
6	156	157	ditch	20	sole fill of ditch. Bone fragments recovered	5	0	0	#	0	+++	++	charcoal only	800	0	##	0	0	0	#	burnt and unburnt bone, charcoal,
7	159	160	ditch	20	Primary fill with no dating evidence. Contained redeposited natural	15	0	0	###	0	0	0	snails only	800	0	0	#	0	0	0	No finds
8	211	212	post hole	20	dark fill with charcoal and burnt clay	10	0	0	#	0	+++	++	charcoal <1cm. Massive contam with modern material	200	0	0	0	0	#	0	charcoal, fired clay (not removed)
9	215	216	pit	10	shallow pit. Contained pot, bone and charcoal. Isolated	2	0	0	#	0	+++	++	charcoal only	200	0	0	0	0	0	0	No finds
10	253	254	water hole	20	lower fill of very large feature, possibly a water hole about 2m below ground level. Grey silty clay but no waterlogging	1	0	0	#	0	++	++	charcoal only	200	0	0	0	0	0	0	No finds
11	255	256	pit	10	pit on edge of poss waterhole or may be associated with small scale industrial activity	0	0	0	#	0	0	0		0	0	0	0	0	0	0	MISSING
12	257	258	pit	20	pit possibly associated with cobbled surface and general industrial activity. Slag and kiln furniture nearby. No dating evidence	15	0	0	###	0	++	+	charcoal only	1400	0	0	0	0	0	0	No finds
13	249	250	pit	30	fill of large pit containing charcoal and single flint flake	2	0	###	###	0	+	+	Chara oogonia, Lemna, Ranunculus subgen bacitracium	700	0	0	0	0	0	0	No finds
14	262	264	ditch	20	primary fill of big IA ditch. Upper fills well dated by pot	10	#	##	##	#	+	+	chara oogonia, ostracods, fragment of barley grain	600	0	0	0	0	0	0	No finds
15	280	281	gully	10	single fill of gully containing daub and charcoal	15	0	0	#	0	++	+	Sparse charcoal only	300	0	0	0	0	0	0	No finds, charcoal
16	182	183	gully	10	fill of gully containing pot and charcoal	3	0	0	#	0	++	+	Sparse charcoal only	700	0	0	0	0	0	0	No finds, charcoal
17	299	300	ditch	10	lowest fill of ditch containing articulated bone and charcoal	1	0	0	##	0	++	+	Sparse charcoal only	800	0	#	0	0	0	0	bone fragments
18	301	302	pit	10	undated pit with charcoal flecks	1	0	0	##	0	+	+	Sparse charcoal only	300	0	0	0	0	0	0	No finds
19	311	315	pit	10	fill of large pit containing pot and fired clay/kiln material	20	#	0	#	0	++	++	2x microscopic fragments of bright shiny metal. Single puffed grain	500	0	0	0	#	#	0	pot and fired clay not removed
20	319	321	ditch	20	fill of ditch containing pot and bone	1	0	0	##	0	+	0	Sparse charcoal only	400	0	0	0	0	0	0	No finds
21	324	325	pit	20	lowest fill of possible pit. Pot and bone recovered	1	0	0	#	0	+	0	Sparse charcoal only	600	0	0	0	0	0	0	No finds
22	337	340	ditch	20	dark and silty secondary fill of ditch containing charcoal and snails	25	0	0	###	0	+	+	Sparse charcoal only	800	0	0	#	#	0	0	small pot fragment – could be used for dating?
23	341	342	ditch	20	large ditch fill containing lots of pot	1	0	0	#	0	+	+	Sparse charcoal only	800	0	0	0	#	0	0	small pot fragment – not removed
24	349	350	pit	20	undated pit containing redeposited natural with clay	1	0	0	#	0	++	+	Sparse charcoal only	600	#	##	0	0	#	0	tiny burnt bone fragment not removed

Table 4: Environmental sample results

Plant Remains

Cereals

D.1.7 Charred cereal grains are present in three of the samples; each as single specimens that are poorly preserved.

Weed seeds

D.1.8 Charred weed seeds are absent in this assemblage.

Ecofacts and Artefacts

D.1.9 Three of the samples contain occasional sherds of pottery.

D.1.10 Sample 13, fill 249, pit **250** and Sample 14, fill 262, pit **264** contain the calcified remains of Lemna sp. Seeds (duckweed), eggs (oogonia) of Chara sp. (Charophytes; freshwater

green algae), ostracods (small bivalve crustaceans that inhabit the bottom of aquatic habitats such as lakes, ponds and streams) and untransformed seeds of Ranunculus subg. Batrachium (water crowfoot).

D.1.11 Four of the samples contain fragments of animal bone

D.1.12 Sample 19, fill 311, pit **315** contains two microscopic fragments of bright shiny metal.

Contamination

D.1.13 Modern roots and wheat chaff were present in most of the samples.

Discussion

D.1.14 The lack of plant remains suggests that either the conditions at the site do not favour preservation or that there was little evident occupation.

D.1.15 Samples 13 and 14 both contain organisms that indicate standing or slow flowing water Ostracods can be useful as environmental indicators.

D.1.16 The cereal grains recovered were extremely abraded and were only identifiable as cereals by their characteristic dense honeycomb structure.

D.1.17 The microscopic fragments of bright shiny metal in sample 19, fill 311, pit **315** may, if identified, give some clues to the function of the fired clay/kiln material accompanying it in the deposit.

Statement of Research Potential

D.1.18 The low density of plant remains from the site is essentially uninformative and has no research potential.

Further Work and Methods Statement

D.1.19 The low densities of plant remains from the site are not considered to merit full analysis.

D.1.20 The microscopic fragments of bright shiny metal could be submitted to an archaeometallurgist for identification.

D.1.21 If further excavation is planned, sampling should be undertaken as investigation on the nature of cereal waste and possible weed assemblages is likely to provide an insight into to utilisation of local plant resources, agricultural activity and economic evidence from this period.

Appendix E. Geophysical Survey Report

By Pete Masters

Introduction

E.1.1 OA East commissioned the Centre for Archaeological and Forensic Analysis, Cranfield University to undertake a sample fluxgate gradiometer survey on land proposed for the extension to the existing Ermine Business Park, The Stukeleys, Cambridgshire. This work was carried out between the 28th November and 2nd December 2008.

E.1.2 The purpose of the survey was to assist in defining the character and extent of any archaeological remains relating to the Bronze Age and Roman remains located nearby.

E.1.3 The survey methodology described in this report was based upon guidelines set out in the English Heritage document 'Geophysical Survey in Archaeological Field Evaluation' (EH 2008).

E.1.4 The underlying geology is comprised of Boulder Clay. The magnetic susceptibility of these types of geologies is generally good (Gaffney & Gater 2003, 78; EH 2008, 15, 10; Clark 1990, 92).

Methodology

Gradiometry

E.1.5 Gradiometry is a non-intrusive scientific prospecting technique used to determine the presence/absence of some classes of sub-surface archaeological features (eg pits, ditches, kilns, and occasionally stone walls). By scanning the soil surface, geophysicists identify areas of varying magnetic susceptibility and can interpret such variation by presenting data in various graphical formats and identifying images that share morphological affinities with diagnostic archaeological as well as other detectable remains (Clark 1990).

E.1.6 The use of gradiometry is used to establish the presence/absence of buried magnetic anomalies, which may reflect sub-surface archaeological features.

E.1.7 The area survey was conducted using a Bartington Grad 601 dual fluxgate gradiometer with DL601 data logger set to take 4 readings per metre (a sample interval of 0.25m). The zigzag traverse method of survey was used, with 1m wide traverses across 30m x 30m grids. The sensitivity of the machine was set to detect magnetic variation in the order of 0.1 nanoTesla.

E.1.8 The data was processed using Archeosurveyor v.1.3.2.8. The results were plotted as greyscale and trace plot images.

E.1.9 The enhanced data was processed by using zero-mean functions to correct the unevenness of the image in order to produce a smoother graphical appearance. It was also processed using an algorithm to remove magnetic spikes, thereby reducing extreme readings caused by stray iron fragments and spurious effects due to the inherent magnetism of soils. The data was also clipped to reduce the distorting effect of extremely high or low readings caused by discrete pieces of ferrous metal.

Interpretation and analysis of results

E.1.10 A series of sample strips, 30m wide, were surveyed across 20% of the area of investigation covering some 7ha.

E.1.11 Generally, a series of isolated individual anomalies were detected which reflect areas of modern ferrous remains such as brick and tile fragments as well as horse shoes, which lie just below or on the surface of the plough soil.

E.1.12 A series of parallel linear anomalies detected in the entire sample strips surveyed, represent the ploughed out remains of ridge and furrow field system. This equates well with a geophysical survey carried out a few years earlier to the south of Ermine Street (GSB 2000).

E.1.13 Two parallel linear anomalies orientated north to south detected in sample strip 1, possibly indicate the remains of ditch-like features of unknown date although they could also resolve as the ploughed out remains of ridge and furrow.

E.1.14 Other anomalies of an ephemeral nature were recorded over the entire sample strips surveyed, possibly indicating modern plough marks.

E.1.15 A series of strong magnetic linear anomalies detected either side of the field boundary which runs between fields A and B, possibly denote the remains of field boundary ditches. The remains of this boundary are today demarcated by a low three metre or so wide earthwork.

E.1.16 A strong dipolar linear anomaly was recorded to the south of the earthwork remains of the boundary and indicates the former presence of a field boundary. This is clearly depicted on the 1886 Huntingdonshire 1:2500 series map.

E.1.17 No further anomalies were recorded of an archaeological nature.

Conclusions

E.1.18 The survey has identified very few significant anomalies and the majority appear to reflect the remains of pre-enclosure ridge and furrow. Other anomalies relate to the former field boundary, now seen as a low earthwork.

E.1.19 Based on the survey results, it is concluded that the site to indicate very few archaeological anomalies considering the close vicinity of Ermine Street Roman road and the Bronze Age and Roman sites to the south. Therefore, it may still possess archaeological potential and further archaeological investigation maybe required to resolve some of these more significant anomalies.

Acknowledgements

E.1.20 Cranfield University, Centre for Archaeological and Forensic Analysis (CAFA) would like to thank James Drummond-Murray, Project Manager (OA East) for this commission. I would also like to thank Adam Cooper for his assistance in the field.

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Appendix G. OASIS Report Form

All fields are required unless they are not applicable.

Project Details

OASIS Number	Oxfordar3-64860		
Project Name	Evaluation at Ermine Business Park, The Stukeleys, Cambridgeshire		
Project Dates (fieldwork) Start	24-08-2009	Finish	11-09-2009
Previous Work (by OA East)	No	Future Work	Unknown

Project Reference Codes

Site Code	STU EBP 08	Planning App. No.	N/A
HER No.	ECB 3078	Related HER/OASIS No.	

Type of Project/Techniques Used

Prompt	Direction from Local Planning Authority - PPG16
Development Type	Rural Commercial

Please select all techniques used:

☐ Aerial Photography - interpretation	☐ Grab-Sampling	☐ Remote Operated Vehicle Survey
☐ Aerial Photography - new	☐ Gravity-Core	☐ Sample Trenches
☐ Annotated Sketch	☐ Laser Scanning	☐ Survey/Recording Of Fabric/Structure
☐ Augering	☐ Measured Survey	☒ Targeted Trenches
☐ Dendrochronological Survey	☐ Metal Detectors	☐ Test Pits
☐ Documentary Search	☐ Phosphate Survey	☐ Topographic Survey
☒ Environmental Sampling	☐ Photogrammetric Survey	☐ Vibro-core
☒ Fieldwalking	☐ Photographic Survey	☐ Visual Inspection (Initial Site Visit)
☒ Geophysical Survey	☐ Rectified Photography	

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
Enclosed settlement	Iron Age -800 to 43	Pottery	Iron Age -800 to 43
Industrial area	Iron Age -800 to 43	Animal bone	Iron Age -800 to 43
Field system	Uncertain	Fired clay/daub	Iron Age -800 to 43

Project Location

County	Cambridgeshire	Site Address (including postcode if possible)	
District	Huntingdon	Ermine Business Park, Washingley Road, Huntingdon	
Parish	The Stukeleys		
HER	Cambridgeshire		
Study Area	30 hectares	National Grid Reference	TL 229 741

Project Originators

Organisation	OA EAST
Project Brief Originator	Andy Thomas
Project Design Originator	James Drummond Murray
Project Manager	James Drummond Murray
Supervisor	Tom Phillips

Project Archives

Physical Archive	Digital Archive	Paper Archive
Cambs County Store	OA East	Cambs County Store
STU EBP 08	STU EBP 08	STU EBP 08

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:

Drawing Conventions

Plans

Limit of Excavation

Deposit - Conjectured

Natural Features

Sondages/Machine Strip

Intrusion/Truncation

Illustrated Section S.14

Archaeological Deposit

Excavated Slot

Modern Deposit

Cut Number **118**

Extrapolation

Sections

Limit of Excavation

Cut

Cut-Conjectured

Deposit Horizon

Deposit Horizon - Conjectured

Intrusion/Truncation

Top Surface/Top of Natural

Break in Section/
Limit of Section Drawing

Cut Number **118**

Deposit Number 117

Ordnance Datum 18.45m OD

Inclusions

Convention Key

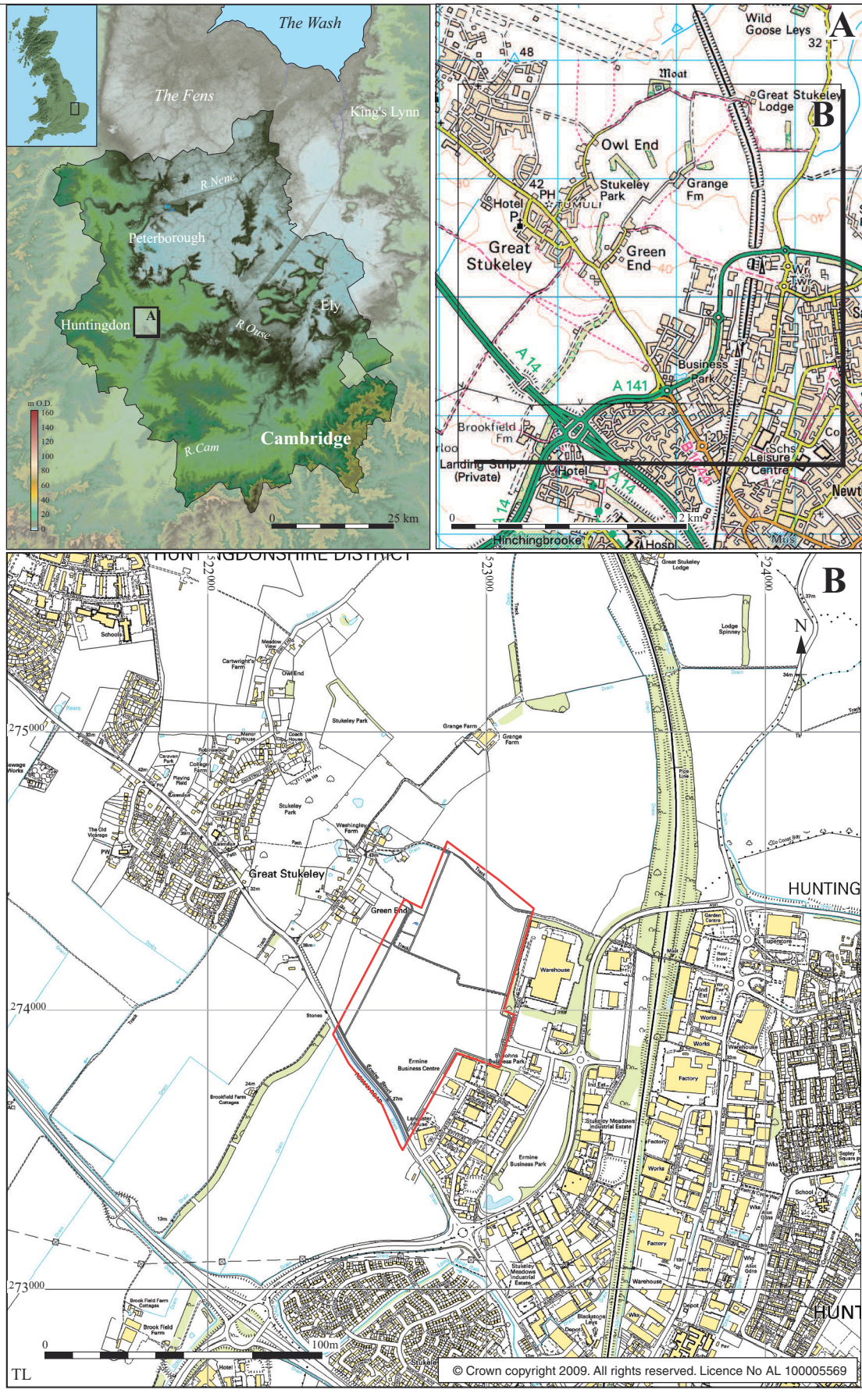


Figure 1: Location of the development area outlined (red) Scale 1:10000

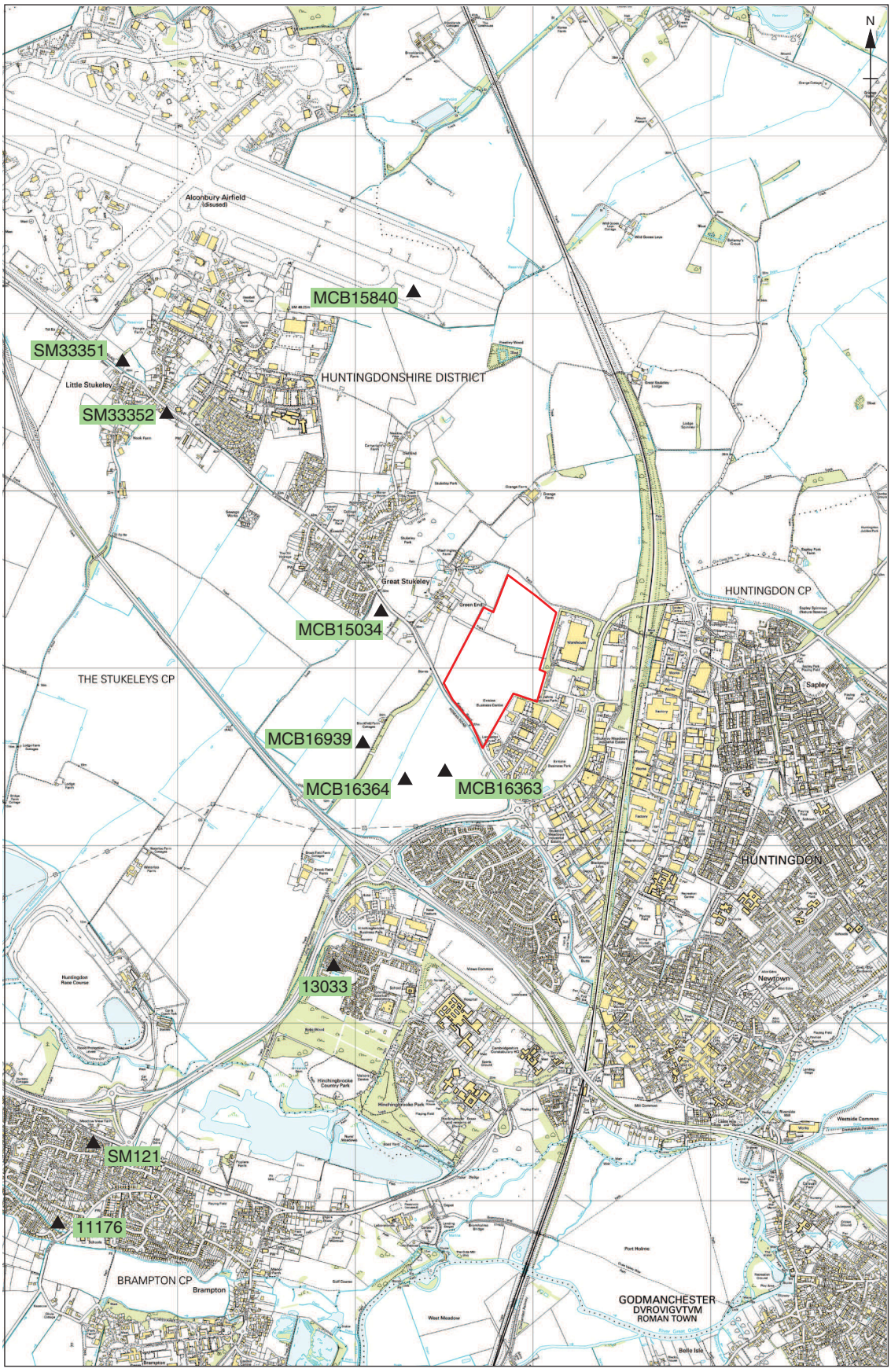


Figure 2: HER entries

Figure 3: Trench locations.

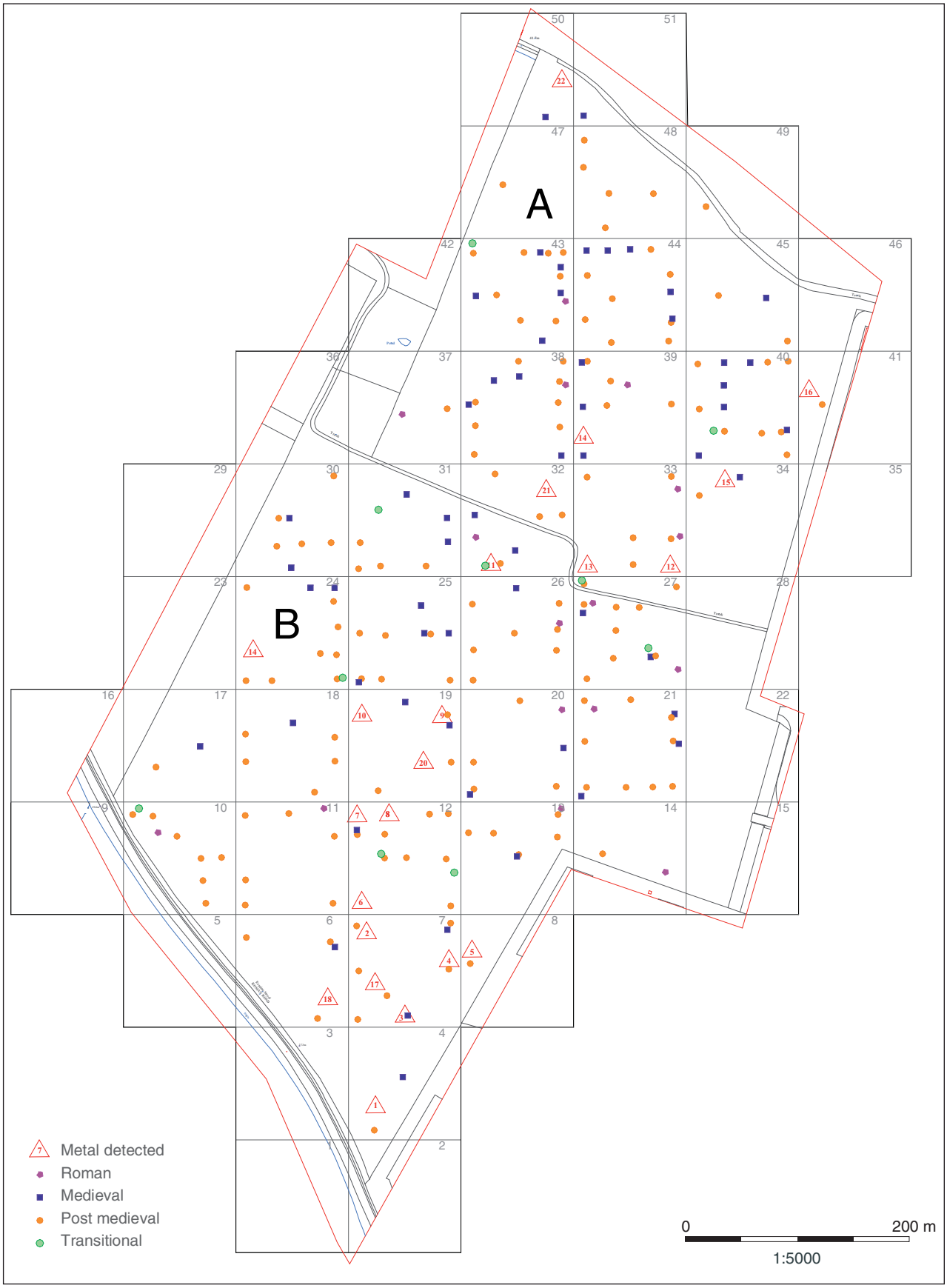


Figure 4: Field walking results

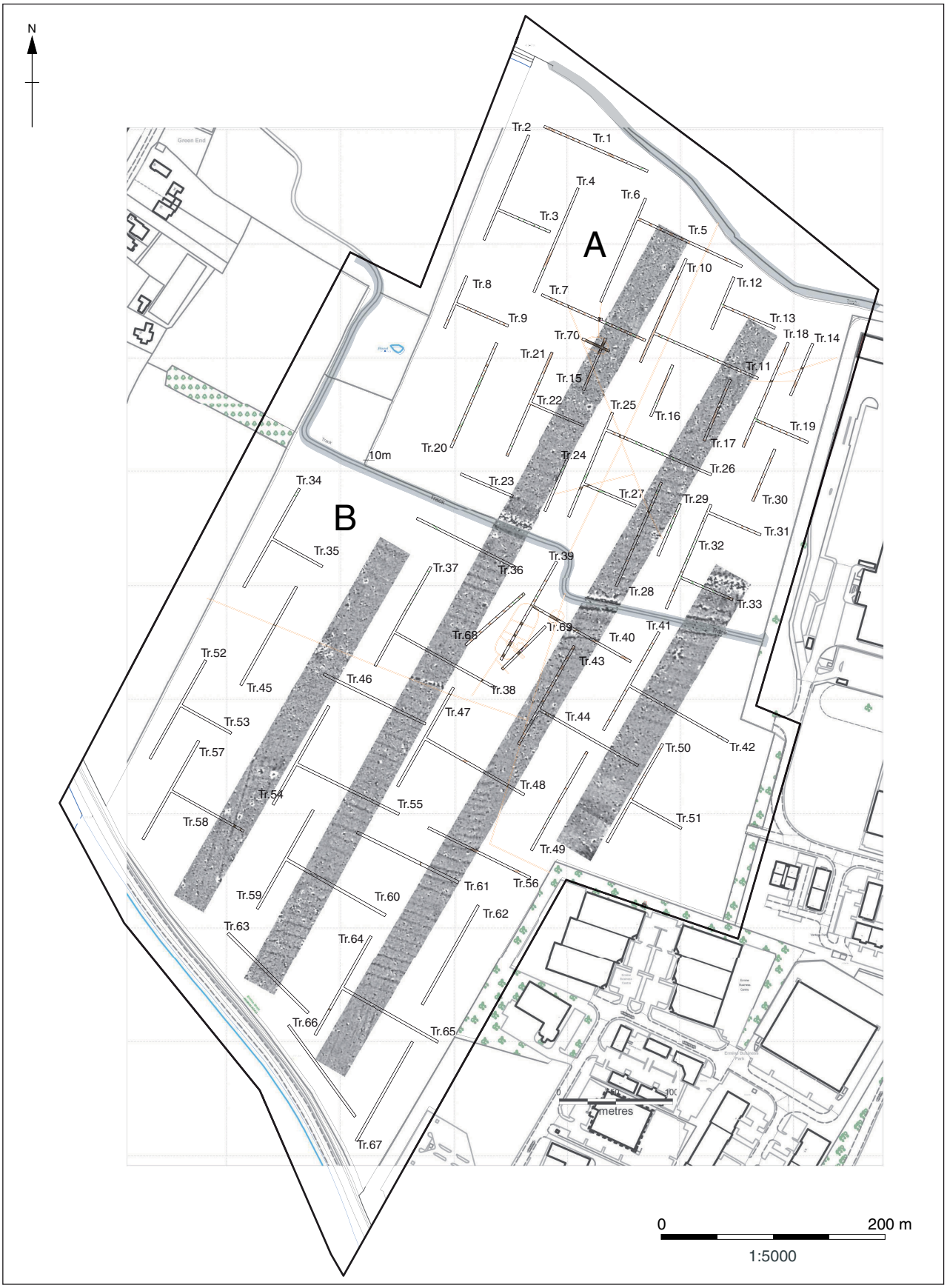
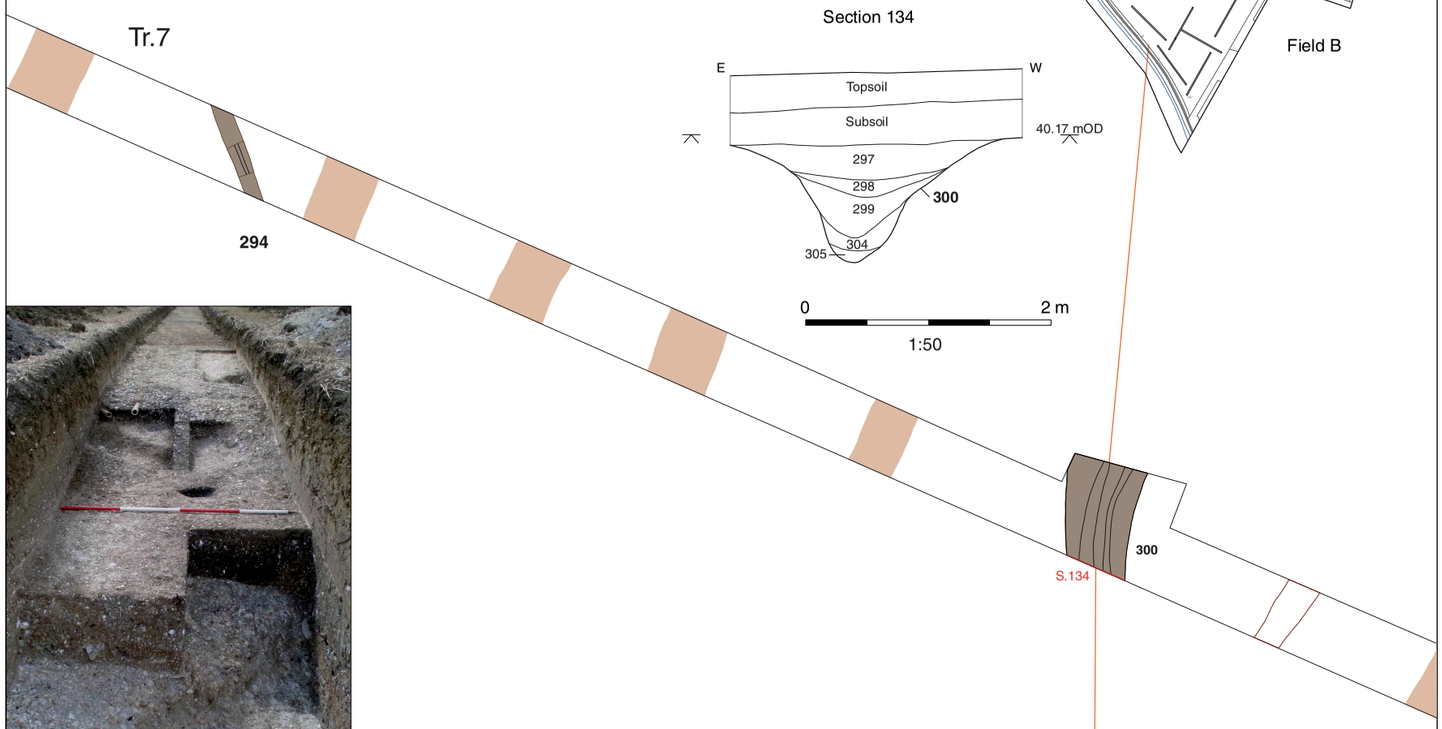


Figure 5: Geophysics and trench layout with extrapolation.

Ditch 300, Tr. 7, looking south. 2m scale

Dog burial in base of Ditch 300. 30cm scale



Industrial Pits, Tr.15, looking south. 2m scale.

Pit 248 and 250, Tr.15, looking west. 2m scale

Figure 6: Site 1; Late Iron Age possible industrial area, Field A

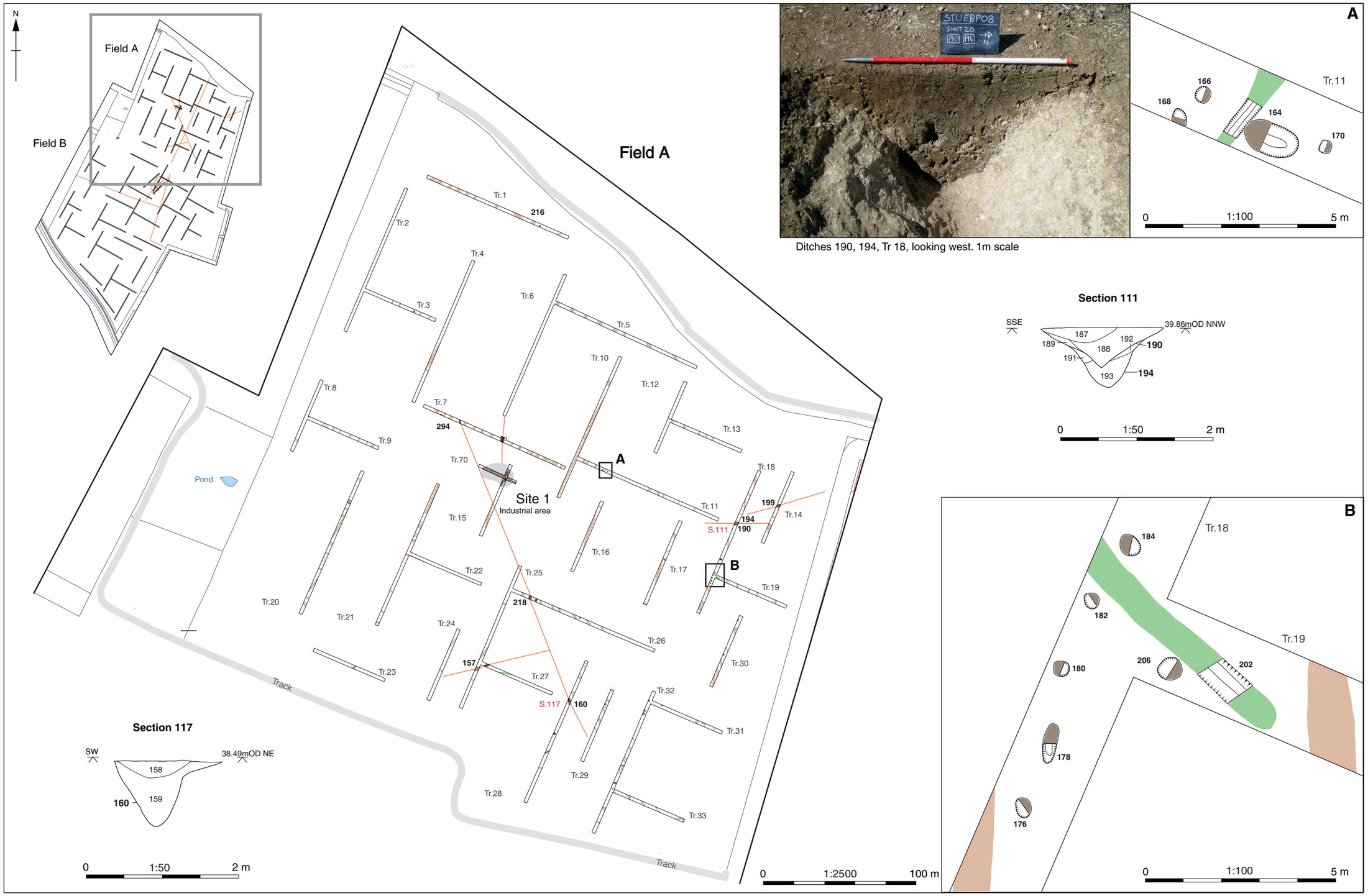


Figure 7: Prehistoric field system and other significant features in Field A.

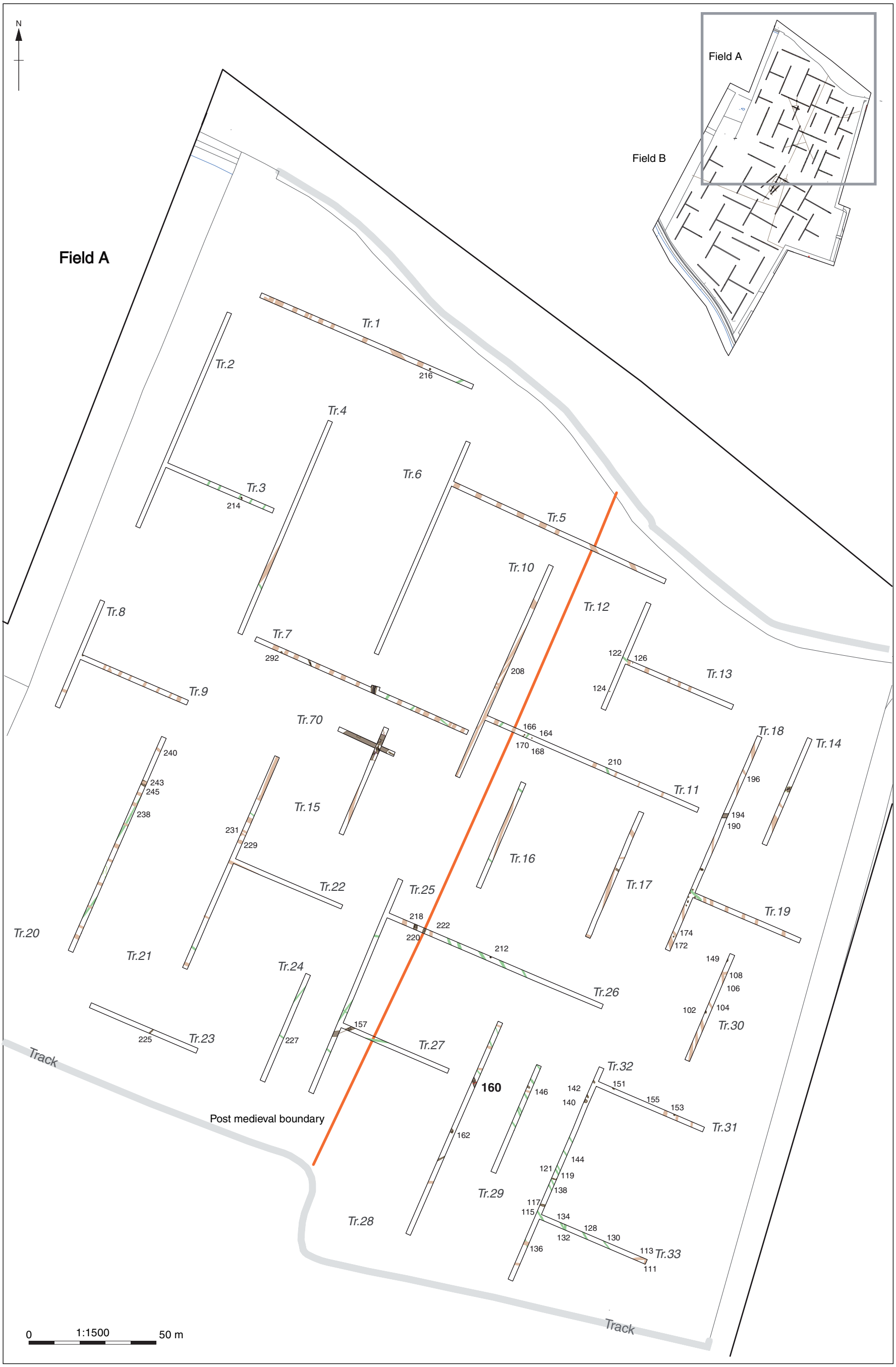
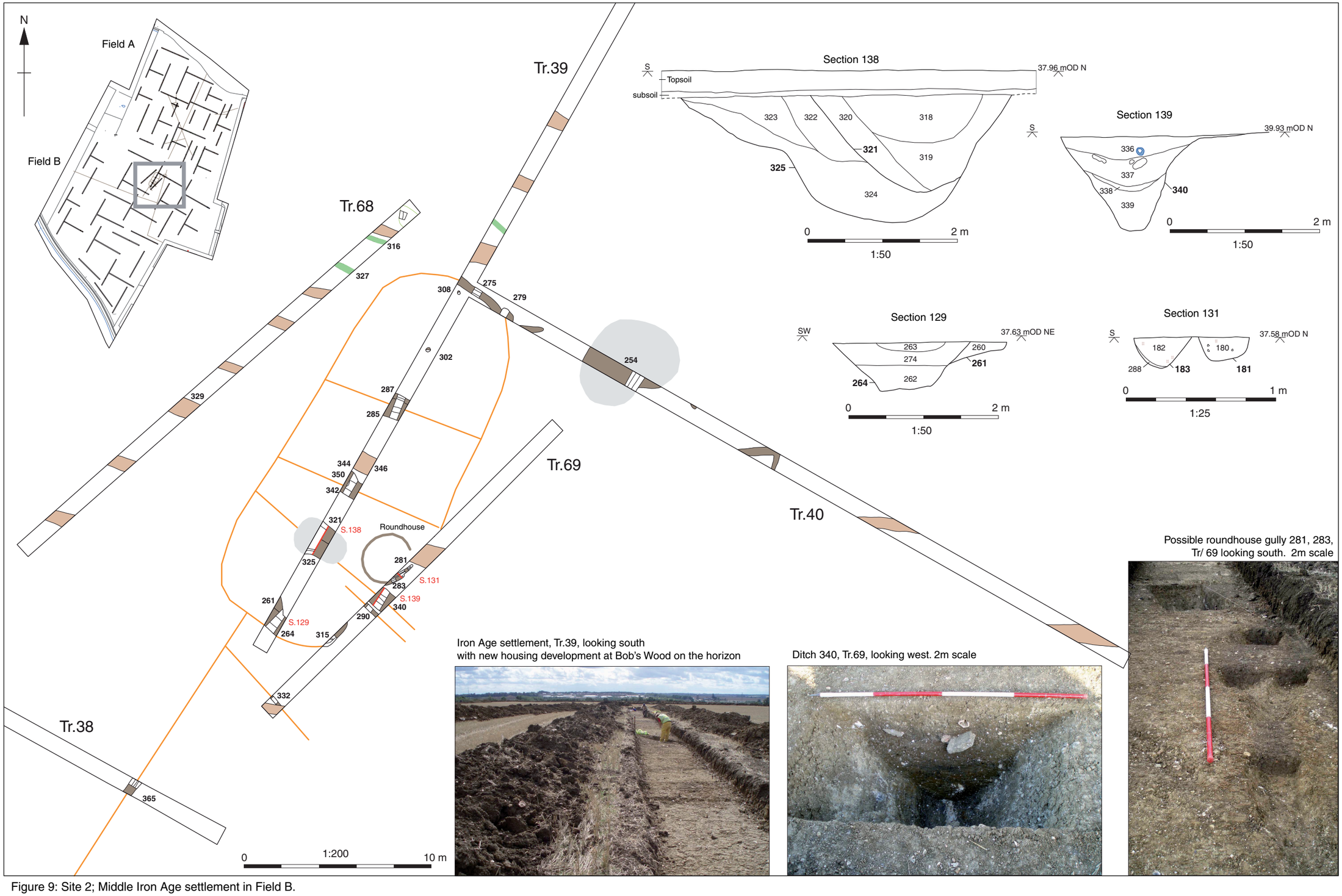


Figure 8: All other features in Field A.



Iron Age settlement, Tr.39, looking south
with new housing development at Bob's Wood on the horizon

Ditch 340, Tr.69, looking west. 2m scale

Possible roundhouse gully 281, 283,
Tr/ 69 looking south. 2m scale

Figure 9: Site 2; Middle Iron Age settlement in Field B.

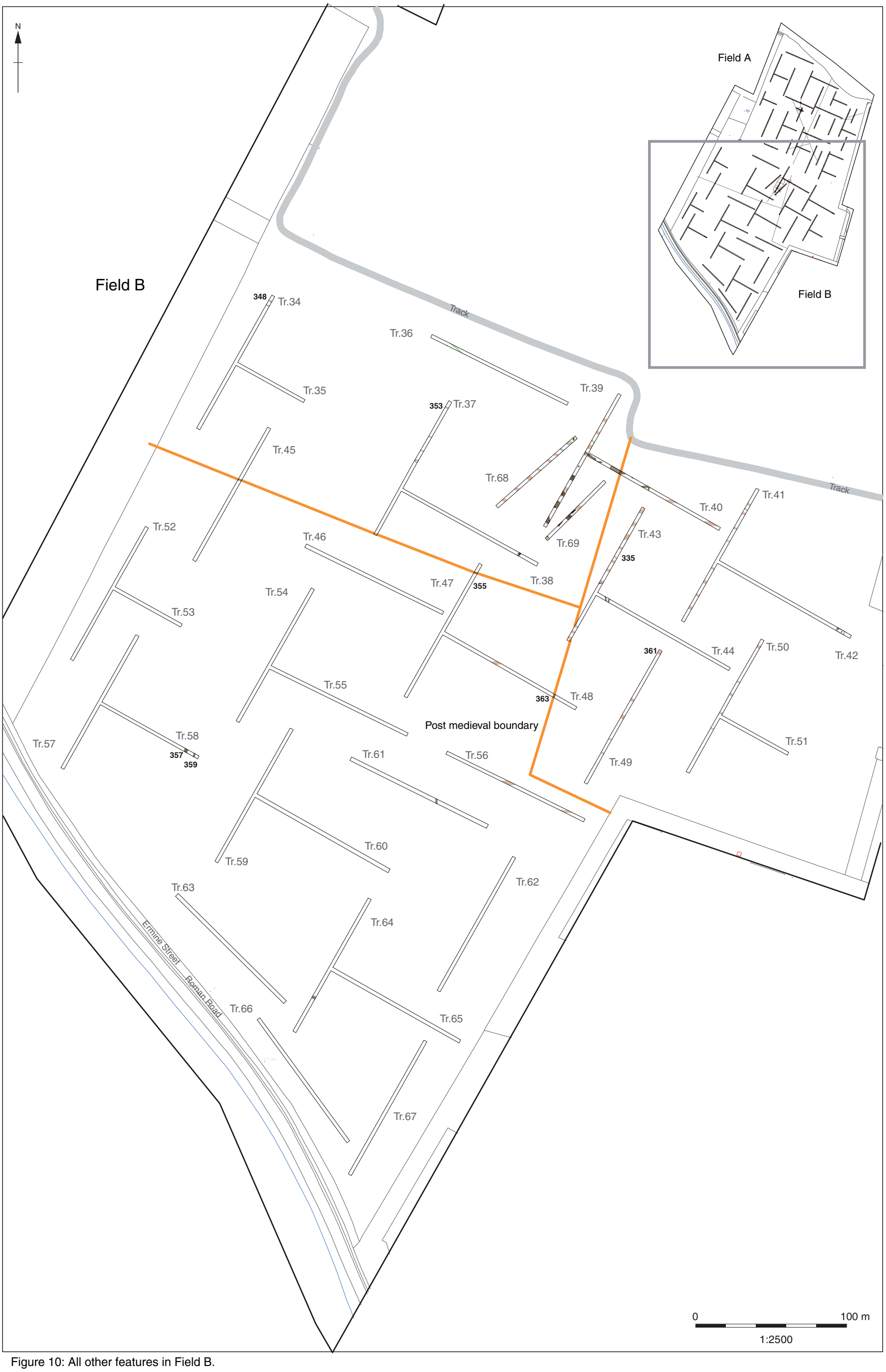


Figure 10: All other features in Field B.

Figure 11: Site location in relation to archaeological sites in the vicinity.

Plate 1: Trenches in Field A being opened by machine

Plate 2: Trench 39 after excavation, looking north. 2m scale

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