

Middle Bronze Age and Roman Settlement at Manor Pit, Baston, Lincolnshire

Excavations 2002-2014



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Leon Field and Adam Yates

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ARCHAEOPRESS ARCHAEOLOGY



ARCHAEOPRESS PUBLISHING LTD

Summertown Pavilion

18-24 Middle Way

Summertown

Oxford OX2 7LG

www.archaeopress.com

ISBN 978-1-78969-583-0

ISBN 978-1-78969-584-7 (e-Pdf)

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Acknowledgements

MOLA is grateful to Cemex UK Materials for funding the works. The efforts of the quarry staff ensured the archaeological works were smoothly integrated into the running of the quarry. In particular Quarry Managers Andy Wright and Phil Mcomb; Ray Bell, the Assistant Quantity Manager; and the Estate Managers Stephen Redwood and Stephen Woods who provided invaluable help and assistance.

Archaeological works were devised and co-ordinated by Adrian Havercroft of The Guildhouse Consultancy. The authors are grateful for all his support during the course of the project and for providing the benefit of his extensive archaeological experience and knowledge. Management for MOLA Archaeology was initially by Andy Mudd, followed in the main by Adam Yates. Fieldwork through the various excavation programs was directed by Leon Field, Mark Spalding, Tim Upson-Smith, Alisa Westgarth and Jim Burke from 2012 onwards. The efforts of the site teams who worked through the most extreme of weather conditions are all greatly appreciated.

Dr Beryl Lott of Lincolnshire County Council monitored the works and provided many valuable insights; Jenny Young, South Kesteven Archaeologist was most helpful in providing background information, including her own personal recollections of previous works at Manor Pit. Alison Dickens and Craig Cessford of Cambridge Archaeological Unit kindly provided the information on the CAU excavations.

Margaret Darling would like to thank Paul Tyers for providing access to the Plotdate pottery analysis program.

The authors are grateful to all their colleagues who provided help and encouragement in the preparation of this report, in particular Steve Parry Head of MOLA Northampton. The report was edited and proofread by Claire Finn, Mark Holmes and Adam Yates. Adrian Havercroft added information on the Baston Hedge and other useful details to the report.

Chapter 1

Introduction

Project background

Excavations found a range of archaeological remains dating from the early Bronze Age to the post-medieval period with the principal discoveries comprising middle Bronze Age settlements within a substantial field system and parts of two adjacent Roman settlements.

The Baston Manor pit archaeological project progressed over a 12 year period (2002-2014). The work began when the potential of the site was assessed with a desk-based assessment by John Samuels (JSAC 2002), followed by a series of works by Northamptonshire Archaeology (now MOLA (Museum of London Archaeology)) with a geophysical survey (NA 2002), fieldwalking (Upson-Smith 2003) and a trial excavation (Morris 2004). This was followed by a programme of excavation prior to mineral extraction. Excavations in the southern area took place over two consecutive years (2006-2007) and the westernmost part of the northern area in 2008 (Fig 1.1). The 2006-2008 excavations were reported as a client report in 2010 (Yates and Field 2010). Further excavations occurred in stages every year with the exception of 2013 where a small watching brief took place within the northern area from 2009-2014. This present report incorporates the results of all fieldwork carried out between 2002 and 2014 into a single standalone volume. Excavation areas by year are detailed in Table 1.1 and on Fig 1.1.

Location, topography and geology

The Manor Pit excavations were centred on NGR TF 1260 1500 and located on land to the east of the village either side of Baston Outgang Road (Fig 1.1). Baston itself is situated in the southern part of Lincolnshire on the edge of the Fens, some 4km north-west of Market Deeping and 6km south of Bourne. The topography of the area is typical of the western Fen Edge, comprising generally flat land between 3m and 5m above Ordnance Datum (aOD) gently sloping down to the east. In the Baston Manor Pit area only the western fifth of the site was below 3m aOD with the remainder between 3m and 5m aOD (Fig 1.2). It is pertinent that all the archaeological remains were found in the higher extent of the site.

The site lies on a narrow band of river terrace sands and gravels that lie on the western fen edge south of Bourne, although these are considerably more extensive in the Welland Valley itself to the south of Market Deeping. To the west lie sedimentary rocks of the Great and Inferior

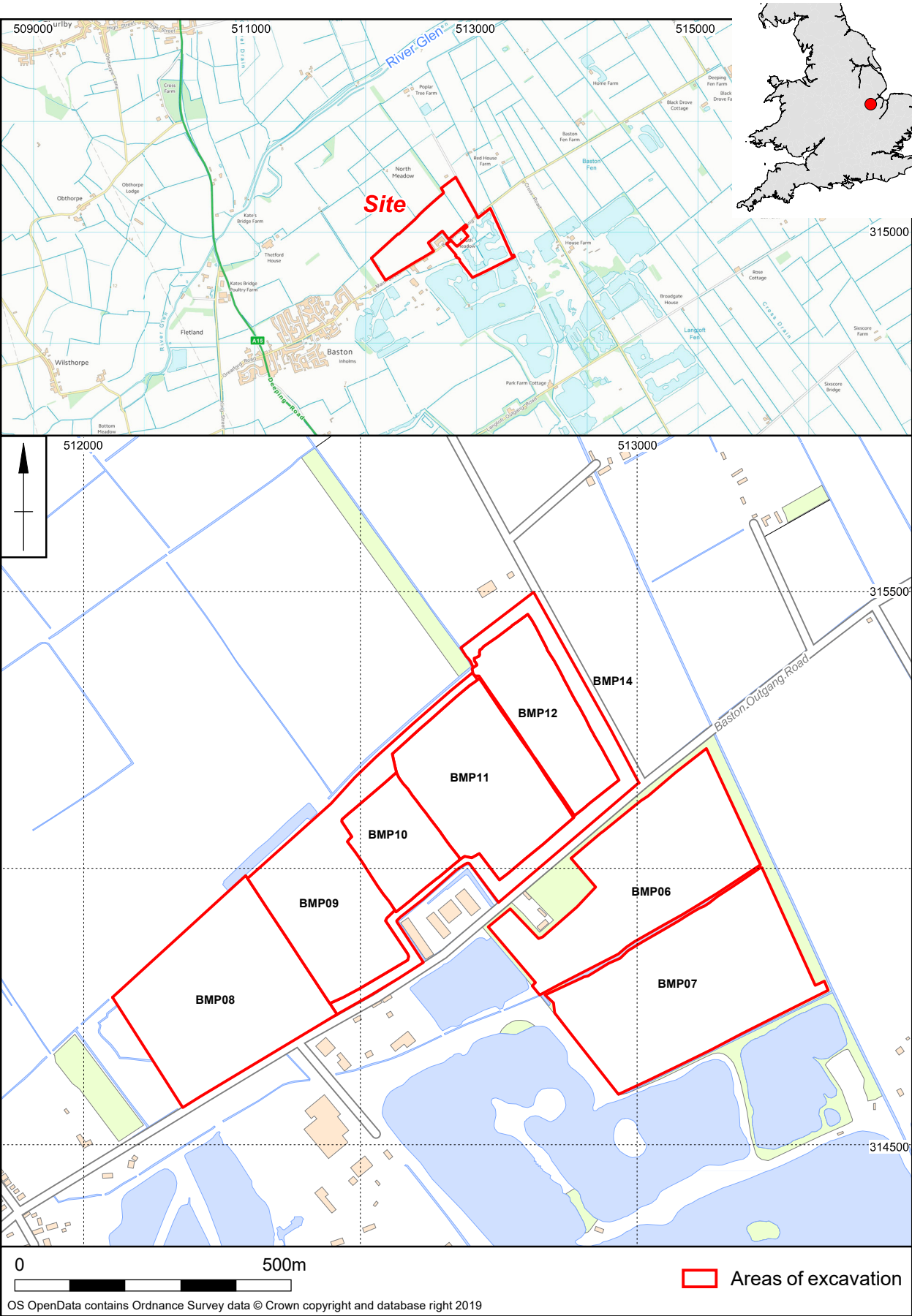
Oolite Groups and Oxford Clays, which extend beneath the terrace gravels. To the east are the intercalated clays and peats of the Fen. Soils are well-drained calcareous loams of the Badsey 2 association (SSEW 1983).

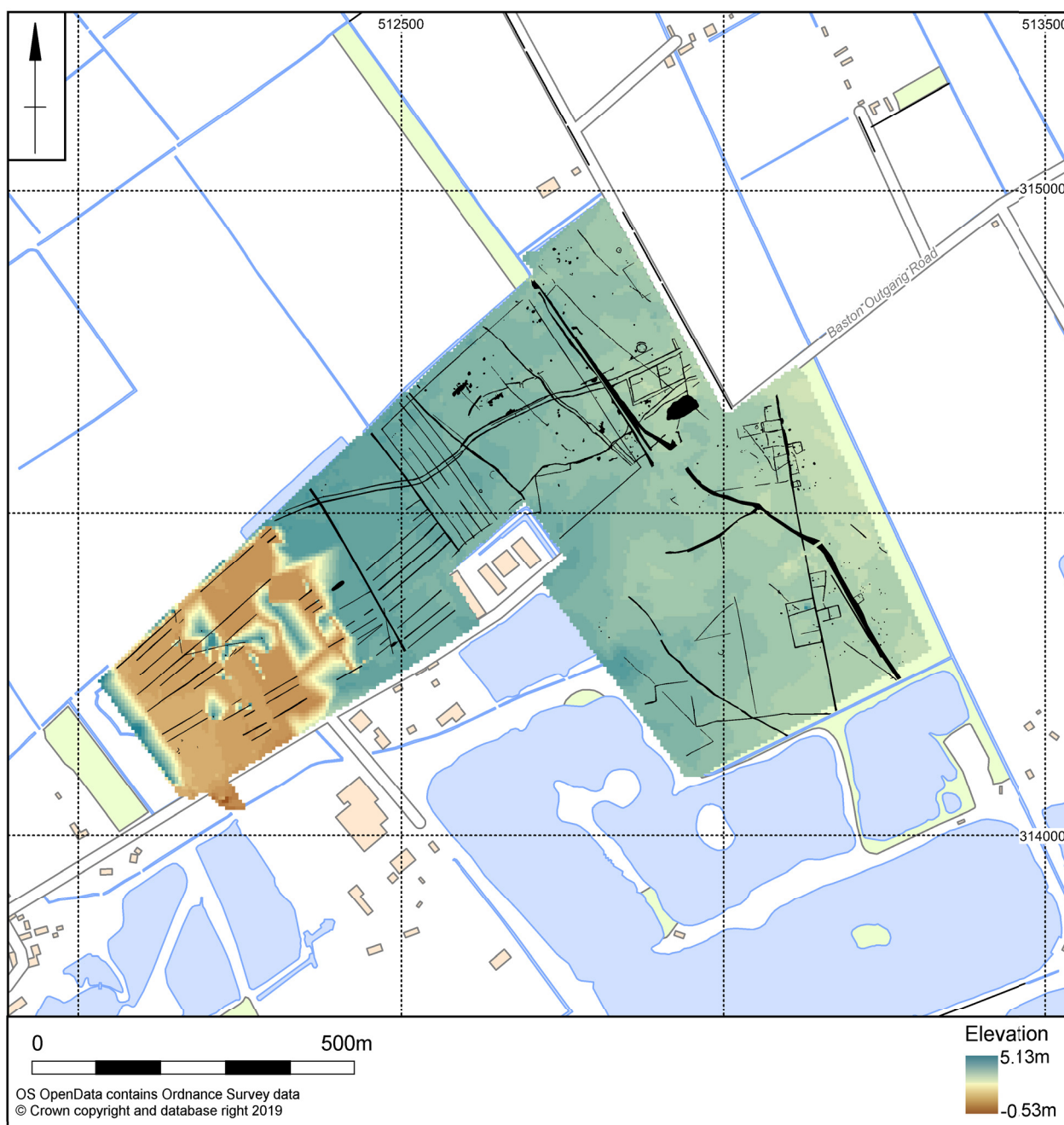
The drainage pattern is dominated by a series of generally easterly flowing streams and rivers, which run from the higher ground to the west, across the terrace gravels and through the Fens, before draining ultimately into the Wash. These include the River Glen, a tributary of the River Welland, which lies approximately 1km to the north of Baston (Fig 1.3).

Cropmarks and archaeological excavations

Excavations at Baston Manor Pit took place in a landscape where a plethora of cropmarks have previously been recorded in the Historic Environment Record (HER) from aerial photographs, including some cropmarks within the Manor Pit excavation area itself (Fig 1.3; cropmark locations courtesy of the Lincolnshire HER). These aerial photographs had been taken in the middle of the 20th century after some of the areas around Baston Manor Pit had been already quarried. In a few other locations quarrying had occurred after cropmarks had been captured by air photography but before archaeology had become linked to the planning process and therefore no excavations were carried out. This can be clearly seen in one c0.60 by 0.30km area less than 1km to the south of Baston Manor Pit where many cropmarks had been recorded on land which was subsequently quarried (Fig 1.3). The quarried areas are now large water features (Fig 1.4).

Most of the archaeological work within the landscape around Baston has occurred over the last 20 years. There have been 15 other phases of archaeological intervention by other archaeological units in the immediate vicinity of Baston Manor Pit during this period (Fig 1.3). This archaeological work has collectively provided significant insight into the wider Baston landscape. The archaeological works have collectively managed to date some of the cropmarks, suggesting there was a substantial Bronze Age field system over an area at least 4km by 1km, largely aligned north-west to south-east. The main element of the system comprised up to seven parallel ditches. This field system was recorded within the BMP06-07 and BMP10-12 excavation areas. Other cropmarks identified within the Manor Pit area included a north to south a ribbon type settlement as well as an east to west routeway which headed towards the Car Dyke.





Scale 1:10,000

Figure 1.2. Elevation plan

The evidence from Baston Manor Pit has been put into a local and regional context in the Discussion partly using the results of the other excavations and this cropmark evidence.

Previous site investigations within Baston Manor Pit

Desk-based assessment

A desk-based assessment was undertaken by John Samuels Archaeological Consultants (JSAC 2002). This determined that although no significant archaeological

finds were known from the proposed development site itself, it lay within an area that contained remains largely dating from the prehistoric and Roman periods. It concluded that there was medium potential for undiscovered archaeological remains to exist within the development area.

Geophysical survey by John Walford

Geophysical magnetic susceptibility survey was undertaken over the entire 56ha of the application site by Northamptonshire Archaeology in 2002. This identified ten areas of magnetic enhancement (Fig

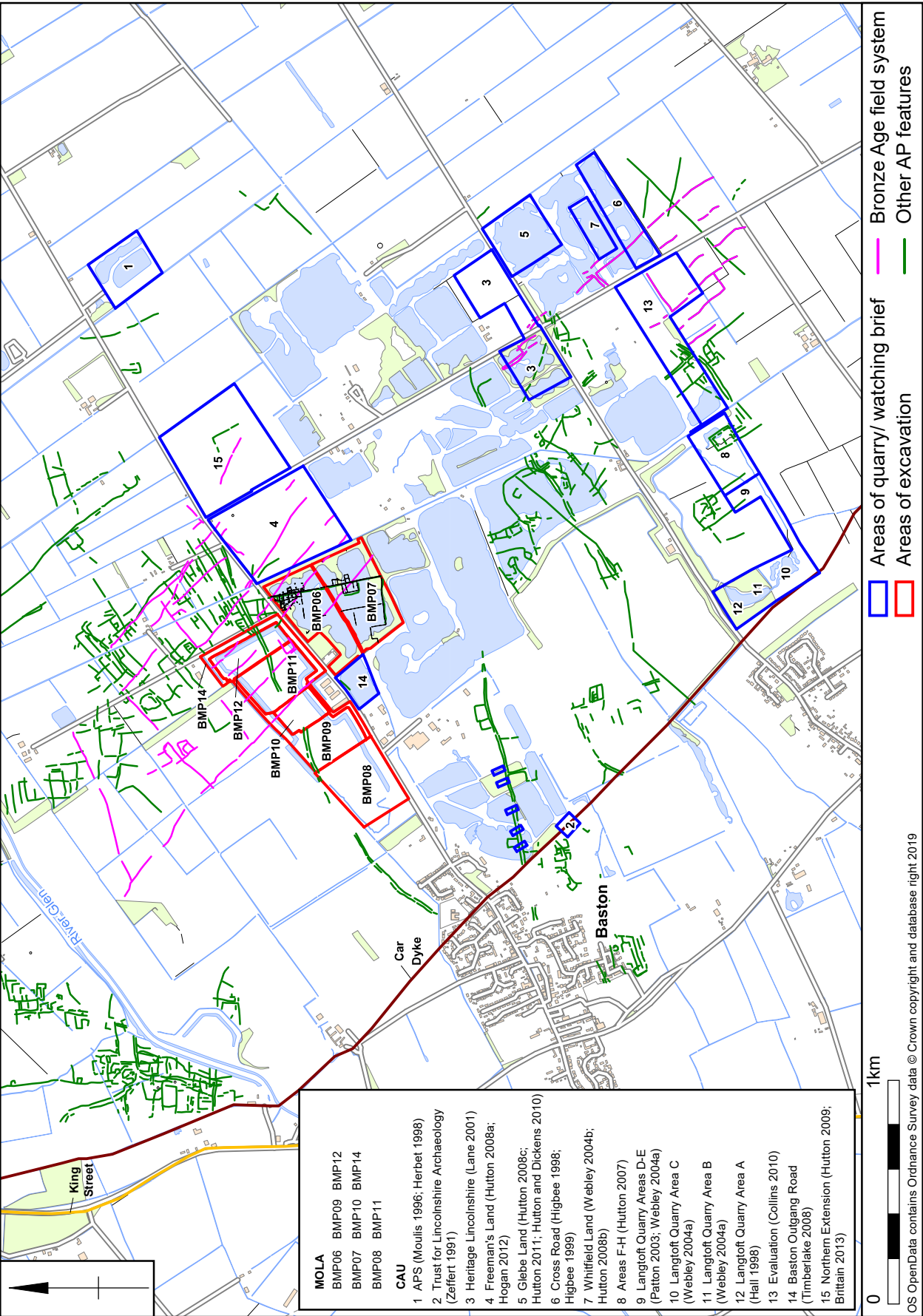


Figure 1.3. Aerial photographic plot (courtesy of Lincolnshire HER) overlaid by excavations



Figure 1.4. Aerial photograph of the landscape around the development area in the present day

1.5). Three of these were linear anomalies which were thought likely to represent former field boundaries. Seven other areas of irregular anomalies were thought to reflect human activity, although this could not be determined from the survey itself. Subsequently six blocks of 1ha were subject to detailed magnetometry (NA 2002; Fig 1.6). The results of these blocks were 'mixed' (i.e. they confirmed the presence of some anomalies highlighted in the magnetic enhancement but not others). Overall, however, the provisional survey results did not indicate a great density of sub-surface features in the areas sampled.

Fieldwalking survey

A surface artefact collection (fieldwalking) survey was undertaken by Northamptonshire Archaeology in two stages (Upson-Smith 2003 and Morris 2004). This identified a significant density of Roman pottery and tile in the north-eastern corner of the site; elsewhere minor scatters of worked flint and medieval pottery appeared to represent a general background of activity (Fig 1.7).

Trial excavation

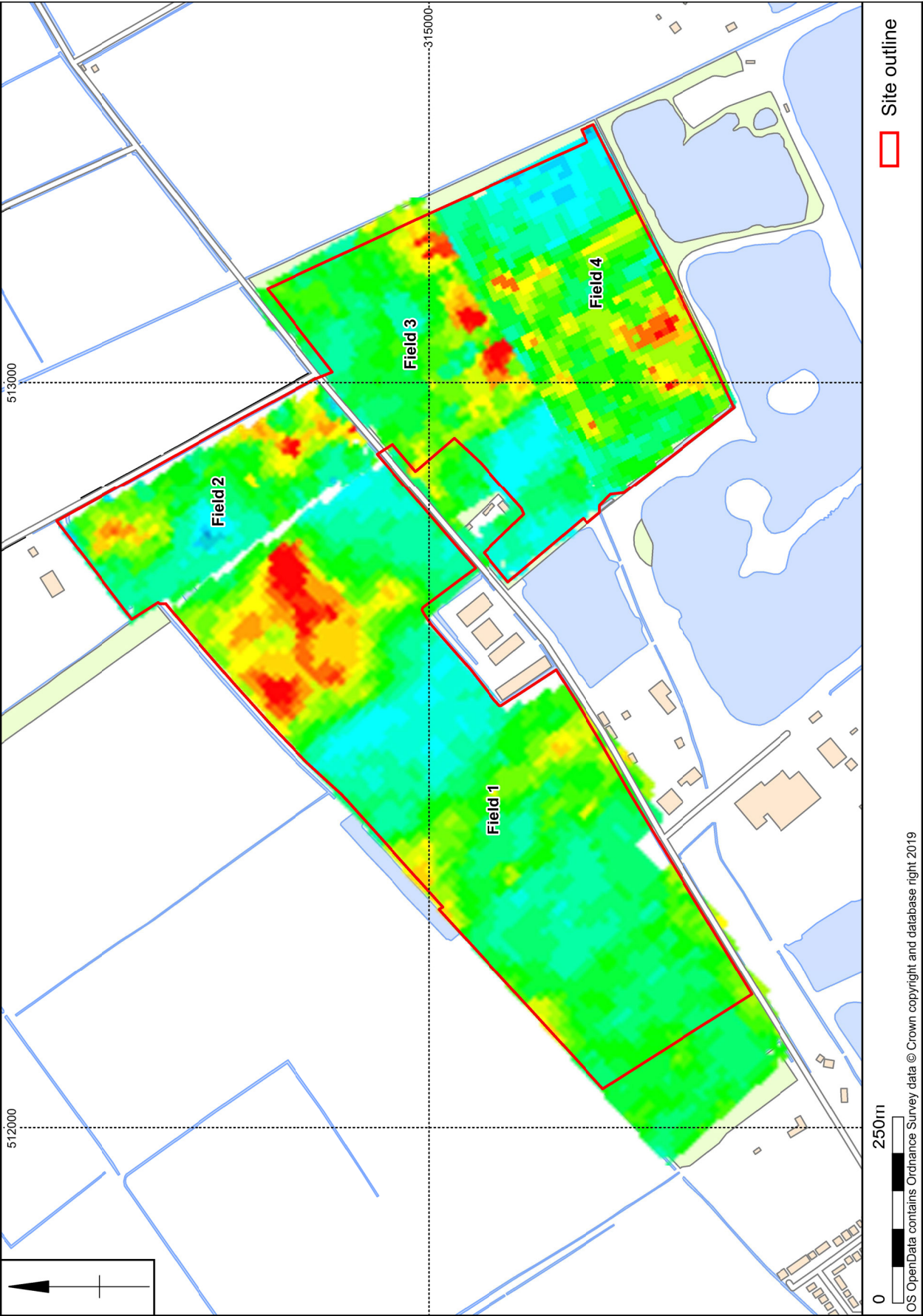
A trial trench evaluation by Northamptonshire Archaeology (Morris 2004) comprised the excavation of 98 trenches (Fig 1.8). This identified remains dating from the later prehistoric to the post-medieval period.

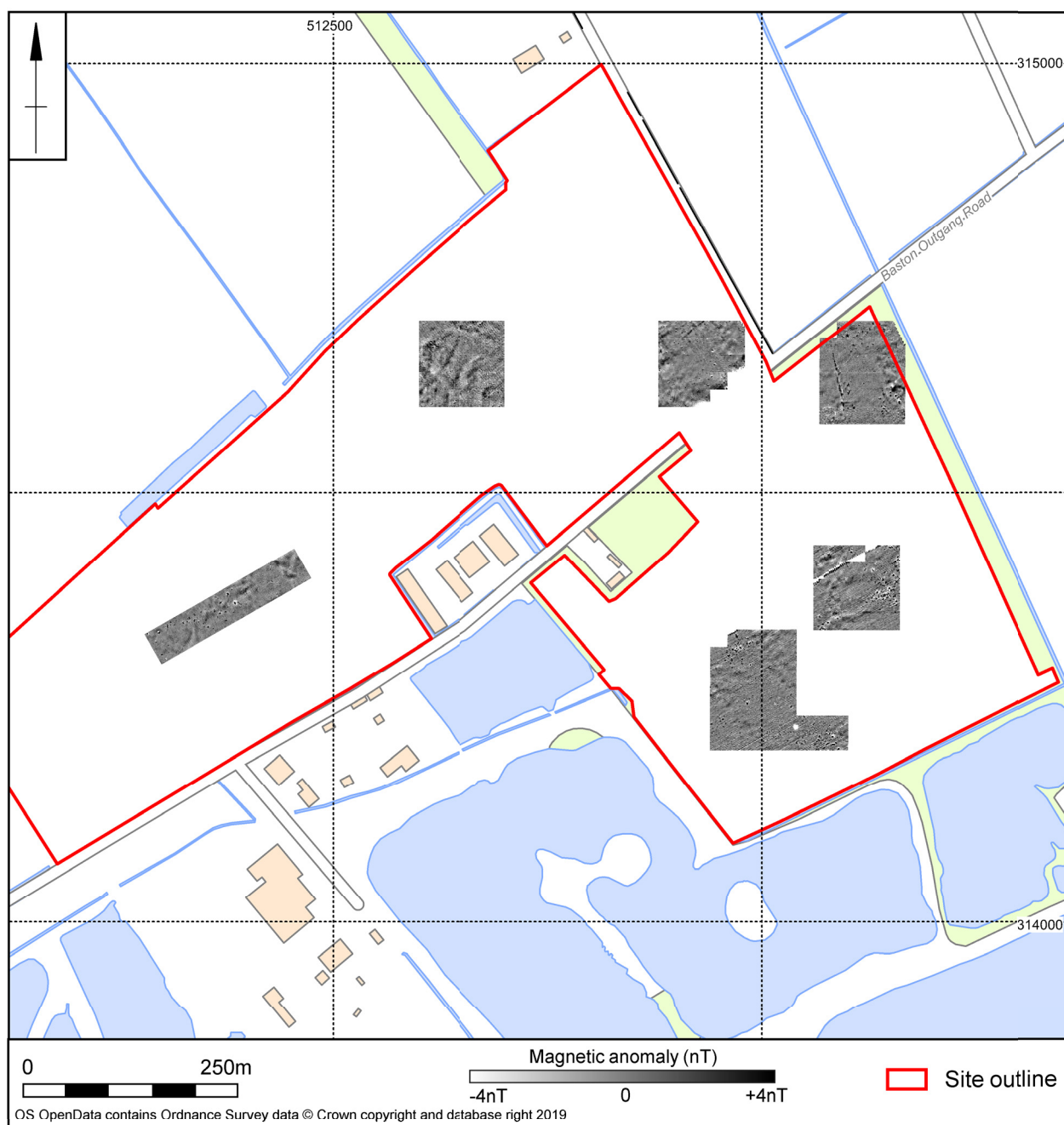
These included Iron Age pits and Roman enclosures and associated field systems. Finds of any period were not prolific, with the exception of several interesting objects that were recovered from ditch [7512] in Trench 75, comprising two Roman copper alloy mounts. The palaeo-environmental samples indicated that waterlogging was present in a number of the deeper features with the potential for environmental information therefore being high.

Excavation areas 2006-2014

The excavation strategy was set out in a Project Design prepared by Northamptonshire Archaeology (NA 2006) following a Written Scheme of Investigation prepared by The Guildhouse Consultancy (2005). This report zoned the site into areas of archaeological potential for which differing levels of response were to be enacted. The work mostly consisted of a seasonal programme of stripping designed to release new areas for extraction as well as a small watching brief area in 2013 (Fig 1.7). The archaeological work in each of the years varied in size (see below).

The 2006-2008 excavations comprised three separate excavations in distinct areas and were reported on in 2010 (Yates and Field 2010). Interim reports were prepared after the 2009 and 2010 excavations (Field 2009; Burke 2010) and a summary report on the 2011 and 2012 works (NA 2013).





Scale 1:7500

Figure 1.6. Geophysical magnetometry survey (NA 2002)

The total development area (2006-2014) excavated comprised 49.65ha. The areas examined between 2006 and 2014 are detailed below (Figs 1.1 and 1.7).

A post-medieval sheep dip was found at the extreme northern part of the site. After it had been recorded it was backfilled with soil and as a result of its discovery this structure was intended for preservation *in situ*.

Methodology

In all areas the removal of the topsoil and other overburden was carried out by a tracked 360-degree mechanical excavator, fitted with a toothless ditching bucket, operating under archaeological supervision. Mechanical excavation proceeded to the natural substrate or the first significant archaeological horizon.

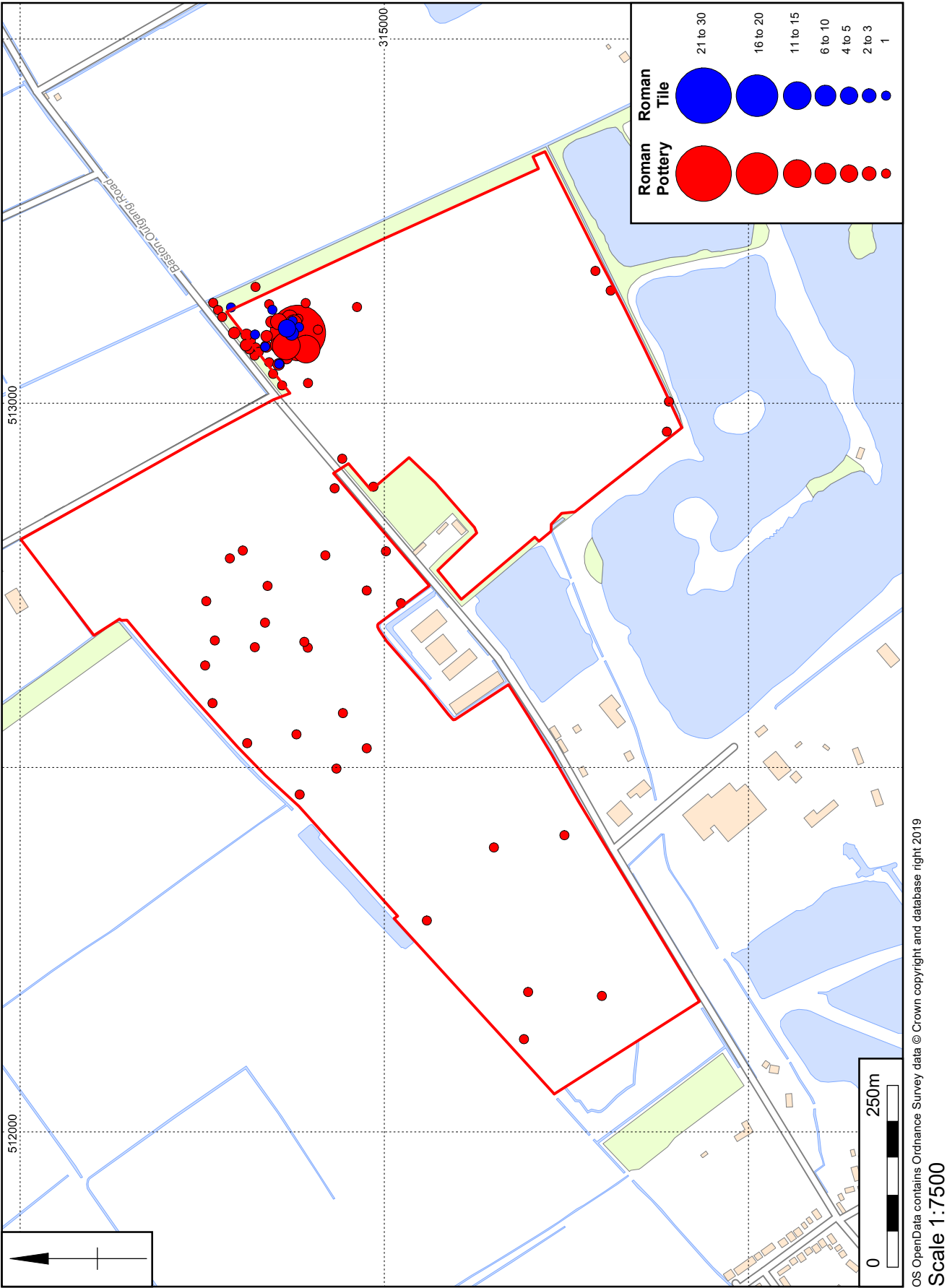


Figure 1.7. Fieldwalking (Roman pottery and tile) (Upson-Smith 2003 and Morris 2004)

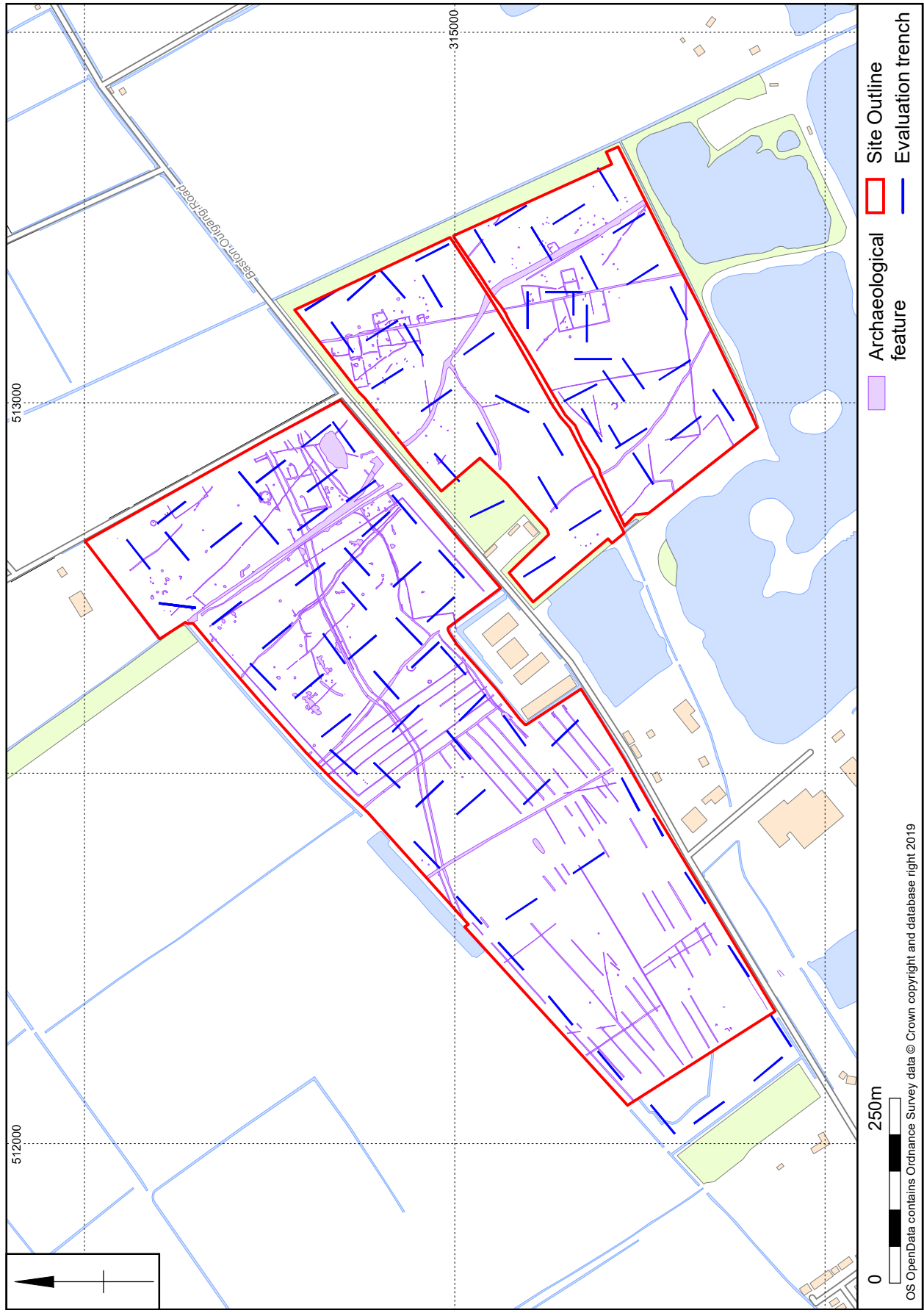


Figure 1.8. Excavation features and evaluation trenches (Morris 2004)

Table 1.1: Site codes and locations

Site code	Area (ha)	Location	Grid Ref (centred)	Year
BMP06	8.43	Almost the entirety of the field to the south of Baston Outgang Road.	TF 13020 14974	2006
BMP07	9.99	Immediately south of the 2006 excavations	TF 13091 14796	2007
BMP08	8.61	North of Baston Outgang Road, 300m to the west of the 2006/7 excavations	TF 12245 14771	2008
BMP09	6.28	North of Baston Outgang Road, directly to the east of the 2008 excavations.	TF 12433 14928	2009
BMP10	2.77	Immediately east of the 2009 excavations	TF 12551 15079	2010
BMP11	6.29	Immediately east of the 2010 excavations.	TF 12760 15199	2011
BMP12	4.04	Immediately east of the 2011 excavations.	TF 12854 15282	2012
BMP14	3.24	On the extreme eastern side of Area 3, directly to the north of Baston Outgang Road	TF 12817 15018	2014



Figure 1.9. Site affected by flooding in 2012, looking north-west

All archaeological and potential archaeological features were investigated. Standard Northamptonshire Archaeology recording procedures were employed (NA 2003). Works were conducted in accordance with *Standard and Guidance for Archaeological Field Excavation* (1994, revised 2001) and the *Code of Conduct* (1985, revised 2000) of the Institute for Archaeologists (now the Chartered Institute for Archaeologists). All work was carried out in accordance with the requirements of the Project Design (NA 2006).

The archaeological remains were moderately truncated, although some shallow features survived including ring ditches. Deeper features were generally waterlogged at their base with wood surviving in some. The ground was low lying and was prone to flooding during the excavations (Fig 1.9). Across the excavation area there was a mixed density of features, with parts busy and intercutting and parts which were fairly blank of remains (Fig 1.10).

There were two main excavation areas with the northern parts comprising (BMP08-BMP14) and the southern area (BMP06-07) with a road (Baston Outgang Road) between the two areas (Fig 1.1). Some of the middle Bronze Age features cross between

the two main excavation areas, but the two Roman settlements are located in the different areas. Mostly the archaeological remains are described in Chapter 2 by period and separated between the areas, apart from instances where features can be demonstrated to relate across both areas.

The archaeological work took place in all weather conditions including a tornado which struck the site on Thursday 17th August 2006 when staff was within a portable cabin. This event was recorded in the BBC news, “a tornado lifted a portable building into the air in south Lincolnshire...archaeologists ... were working inside a sand and gravel pit at Baston, near the Cambridgeshire border, on Thursday, when it hit. Four people were taken to Peterborough Hospital in Cambridgeshire with minor injuries, after the building was lifted up by high winds and dragged 70 feet.” (<http://news.bbc.co.uk/1/hi/england/lincolnshire/5261198.stm>).

Site phasing

The excavations demonstrated the presence of human activity on the site from the Neolithic through to modern times (see Chapter 2). The chronological sequence has been summarised in Table 1.2 below.

Table 1.2: Site chronology

Period	Description
Late Mesolithic to early Neolithic	Residual flint
Early Bronze Age (Period 2, Phase 1)	Three pits and a possible well pit
Middle Bronze Age (Period 2, Phase 2)	Extensive field system, settlements, pits and well pits
Roman (Period 3, Phase 1: 2nd century)	Linear ditch and associated enclosures
Roman (Period 3, Phase 2: 3rd to early 4th centuries)	Later enclosures, burials
Medieval	Trackway, enclosure, fields
Medieval to post-medieval (15th to mid 17th centuries)	Field system

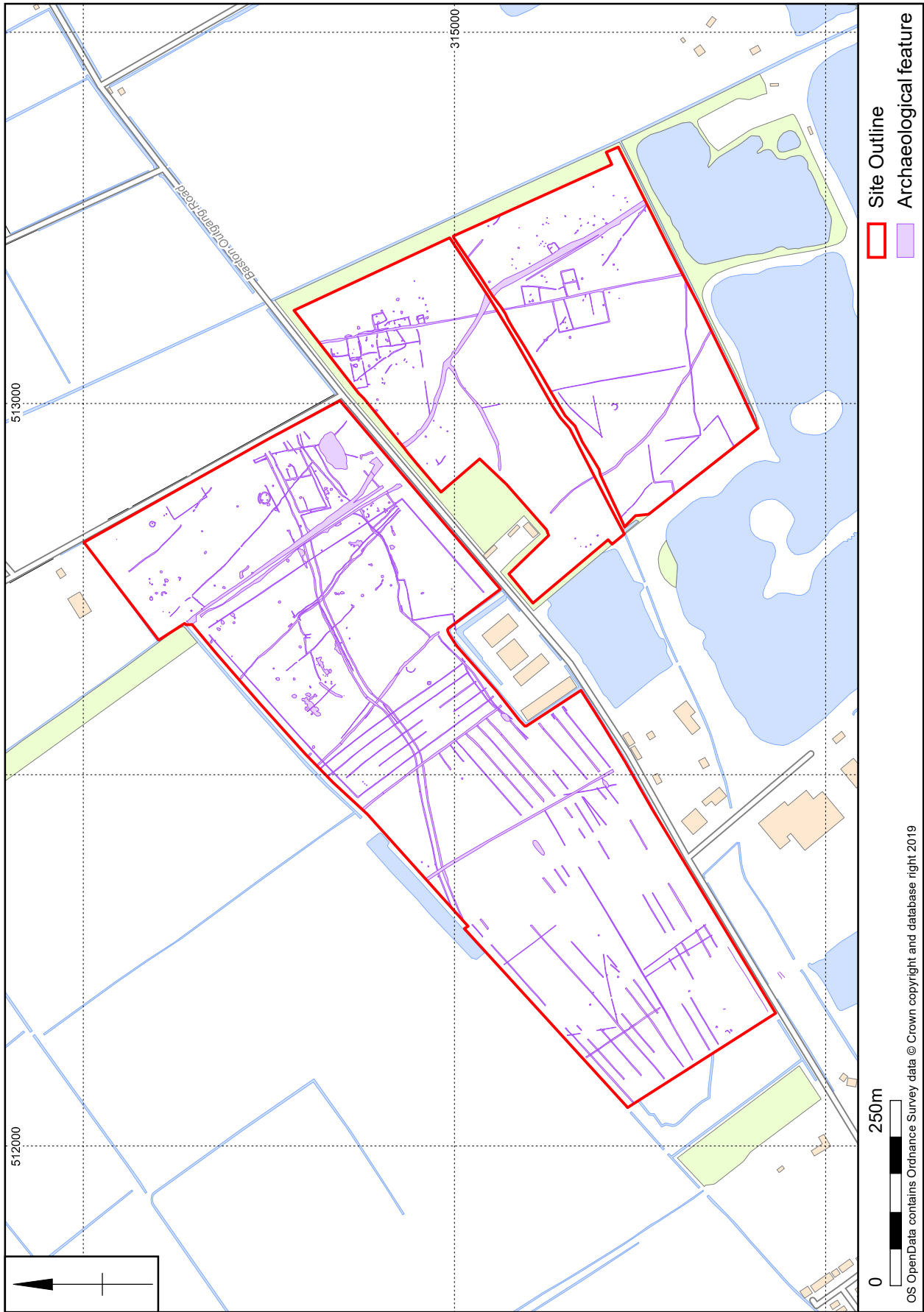


Figure 1.10. All features plan

Chapter 2

Archaeological results

Chapter 2 is divided into four dated periods. The early and middle Bronze Age (Period 2) and Roman (Period 3) features were by far the most extensive. Period 1 (late Mesolithic to late Neolithic) comprised only a very minor background activity within the site. The first observable occupation and activity within the site consisted of a few features which dated to the early Bronze Age (Period 2.1). Notable settlement evidence and field systems were recovered dating from the middle Bronze Age (Period 2.2). After a period of abandonment, occupation of the site began again in the Roman period in two different areas, and possibly also a third location. This Roman occupation only occurred from the 2nd century, with the Period subdivided into two phases. Medieval to post-medieval agricultural activity has been found within the site with evidence of fields in the earliest phase, followed later by evidence for ploughing furrows. The site later probably became part of a farm and a few specialist features, including a sheep pen, are likely to date to this phase.

PERIOD 1, EARLIER PREHISTORIC ACTIVITY (late Mesolithic to early Neolithic)

No earlier prehistoric features were recovered and only a small component of the 25 worked flints found in the Manor Pit excavations were dated to this period. Small quantities of late Mesolithic to early Neolithic flint comprised struck blades and flakes and this seems to suggest background activity in this period in the area (See Chapter 3, Wolframm-Murray). There is also some later flint which could only loosely be dated late Neolithic to early Bronze Age and may date to either Period 1 and/or Period 2, Phase 1.

PERIOD 2, EARLY TO MIDDLE BRONZE AGE

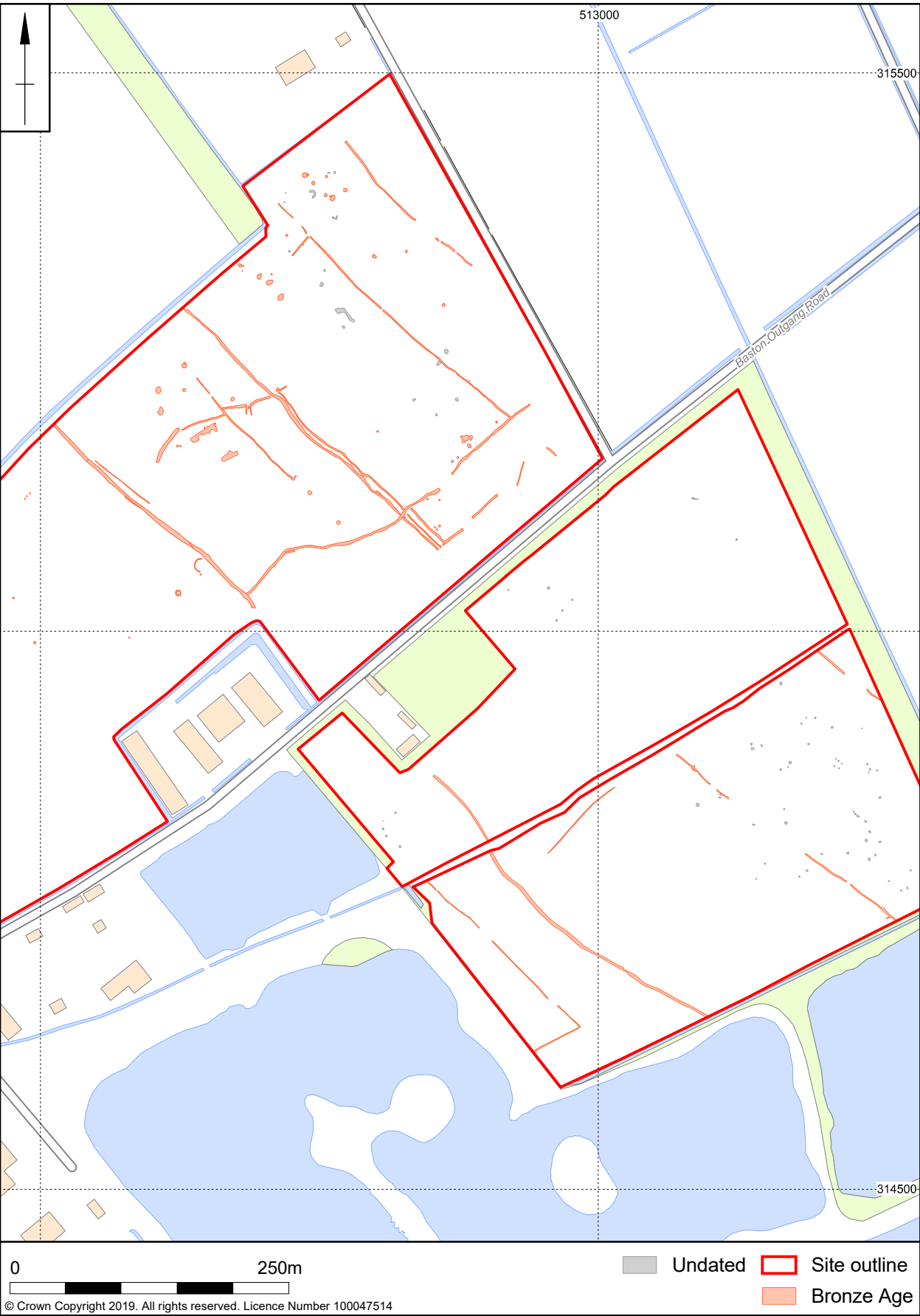
Evidence suggests that early and middle Bronze Age activity and occupation took place across the site but was especially located within the northern excavation area (Fig 2.1). There was a relatively small quantity of early Bronze Age remains and it is uncertain whether there was a gap between this phase and the extensive middle Bronze Age occupation within the site, or if activity was continuous. Period 2 has therefore been subdivided into two different phases: early Bronze Age and middle Bronze Age. In Phase 2 the middle Bronze Age domestic occupation and a widespread field system were recorded across the northern excavation

area and to a lesser extent the southern area. The middle Bronze Age features comprised ditches, pits and wells/watering holes as well as some tree throws. In the early Bronze Age there was a very small quantity of artefacts and ecofacts found and these remains contrast with the large assemblage of middle Bronze Age artefacts and ecofacts including a notable pottery collection, loomweights, worked wood, animal bone and other environmental evidence. Several tree throws contained middle Bronze Age pottery and one tree throw had a single early Bronze Age worked flint. Therefore it is likely that most Period 2 tree throws were middle Bronze Age in date. As a consequence all Period 2 tree throws (even those dated on stratigraphic grounds only as pre-Roman) have been recorded as being Phase 2.

Period 2, Phase 1 (early Bronze Age)

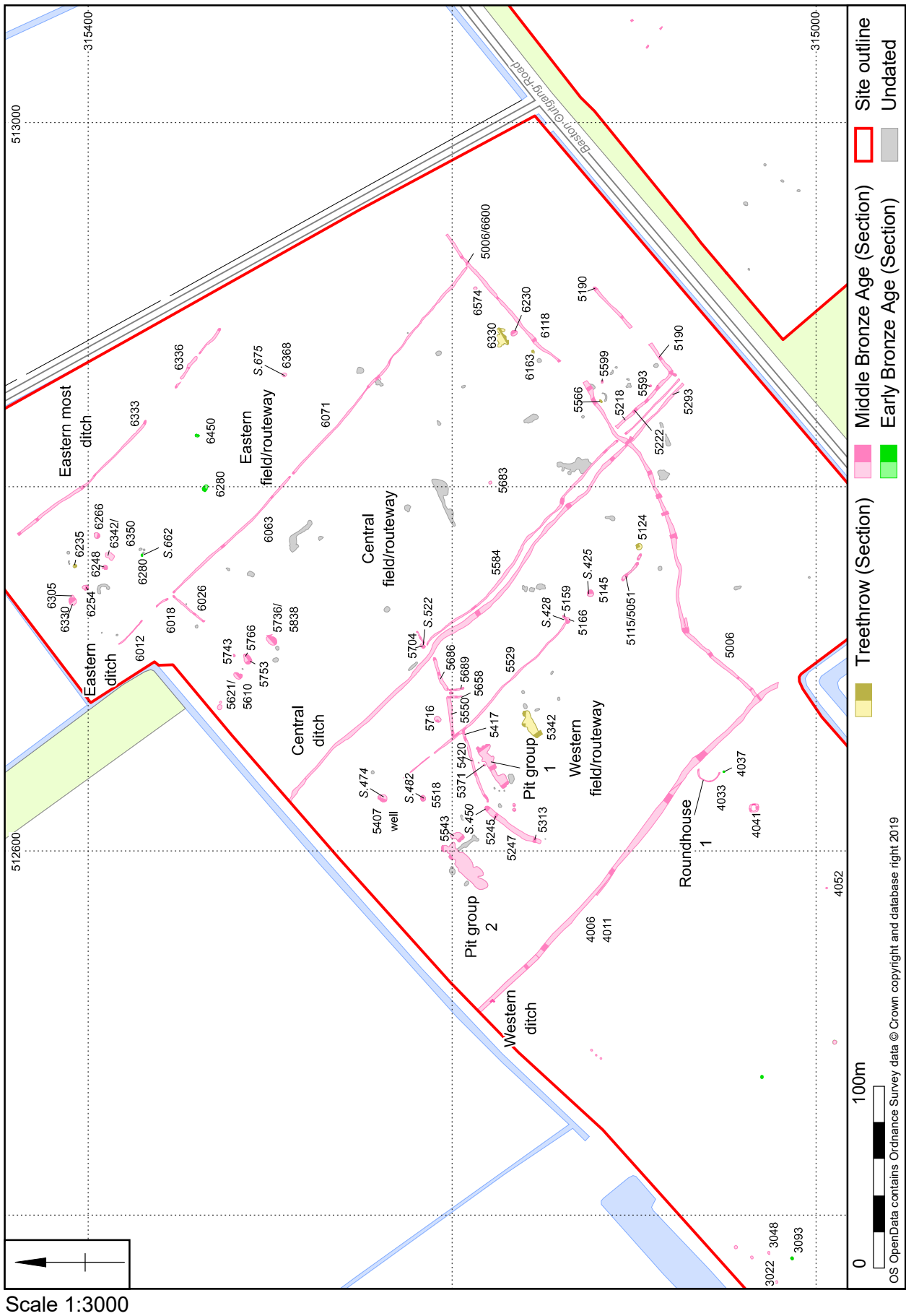
The quantity of evidence for Period 2, Phase 1 was slight with just four pits and at least one tree throw found (Fig 2.1). The four early Bronze Age pits, one of which may have been a well [3093, 4037, 6280 and 6450/6439], were found within the northern excavation area. No features of this period had been uncovered in the southern excavation area and no residual artefacts from this period were found there (Fig 2.2).

The early Bronze pits in the northern area were found spread over a c400m by 400m area with no concentration in any part of the site. Two pits [3093 and 4037] lay c230m apart at the far south-western corner of the northern excavation area. Two pits [6280 and 6439/6450] were c50m apart in the north-east part of this site with the latter being a possible well with a recut [6439/6450]. A few early Bronze Age pottery sherds were also found as residual artefacts in later features in the northern excavation area, and this may suggest that other features dating to this phase did not survive later activity. Collectively there were 29 sherds (180g) of early Bronze Age pottery recovered from the site as well as a single flint dating to this period. Two environmental samples taken from these features found a few dryland and wetland type herbs and small quantities of hazel, indicating the type of environment around the site during this period. No evidence for agricultural activity was found in the environmental samples.



Scale 1:5000

Figure 2.1. Period 2 all features plan



Early Bronze Age pits and a possible well

A single pit [3093] dating to the early Bronze Age was located at the far south-western extent of the northern excavation area. It was excavated in 2009 (Fig 2.2). The pit was oval in shape and measured 0.90m long by 0.76m wide and 0.17m deep with moderate sides (45°-55°) and a concave base. It was filled by a mid grey-brown silt which contained frequent small angular stones between 15mm and 50mm in size comprising c15% of the fill. Eight sherds (102g) of early Bronze Age pottery decorated with cord impression were recovered from this deposit (Fig 3.3, no.1). An environmental soil sample (70) collected from the fill produced only a few macrofossils (See Fryer, Table 4.36). These consisted of a few dryland herbs (greater plantain) as well as evidence for hazel.

Pit [4037] was undated and had been cut by middle Bronze Age roundhouse 1. It was more than 0.89m in diameter and 0.38m deep with steep sides and a fairly flat base and was filled with a sterile single deposit.

Two or three early Bronze Age pits [6280 and 6450/6439] lay at the north-eastern extent of the 2012 excavation area. Pit [6280] was 1.56m diameter, 0.78m deep with moderate to steep sloping sides (50° to 60°) and a fairly flat base (Fig 2.3). The basal deposit (6279), 0.21m thick, comprised a dark grey silty clay with frequent charcoal flecks. In this deposit was a residual Neolithic proximal flint flake and animal bone fragments. This was sealed by a sterile mid to dark brown silty sandy clay (6278) with some charcoal flecks. The upper fill was a dark grey to black silty clay with frequent charcoal flecks. It contained four sherds (15g) of abraded early Bronze Age pottery.

Pit or well [6450], which may have been recut [6439], was found 50m to the south-east of pit [6280]. The original pit or well [6450] was undated and was circular in plan, 2.65m in diameter and 1.32m deep with steep to near vertical sides and a fairly flat base. The lowest two deposits (6448 and 6449) comprised dark grey to black peaty silt lenses collectively up to 0.15m thick which contained charcoal flecks, carbonised roots and occasional small stones. An environmental sample (55) from the pit produced small

Section 662

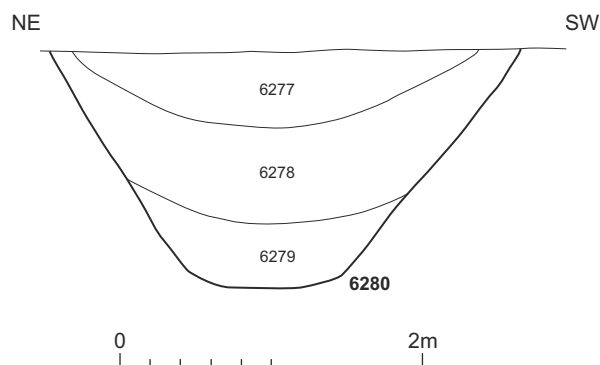


Figure 2.3. Section of early Bronze Age pit [6280]

quantities of both dryland herbs and wetland/aquatic plants as well as evidence for hazel and hawthorn trees (Table 4.36). The pit recut [6439] was circular, 2.0m diameter and was 0.88m deep with moderate sloping sides (45° to 50°) which steepened (60° to 70°) towards its concave base. It was filled with six deposits, all of which were sterile apart from the upper fill which contained eight sherds (19g) of early Bronze Age pottery.

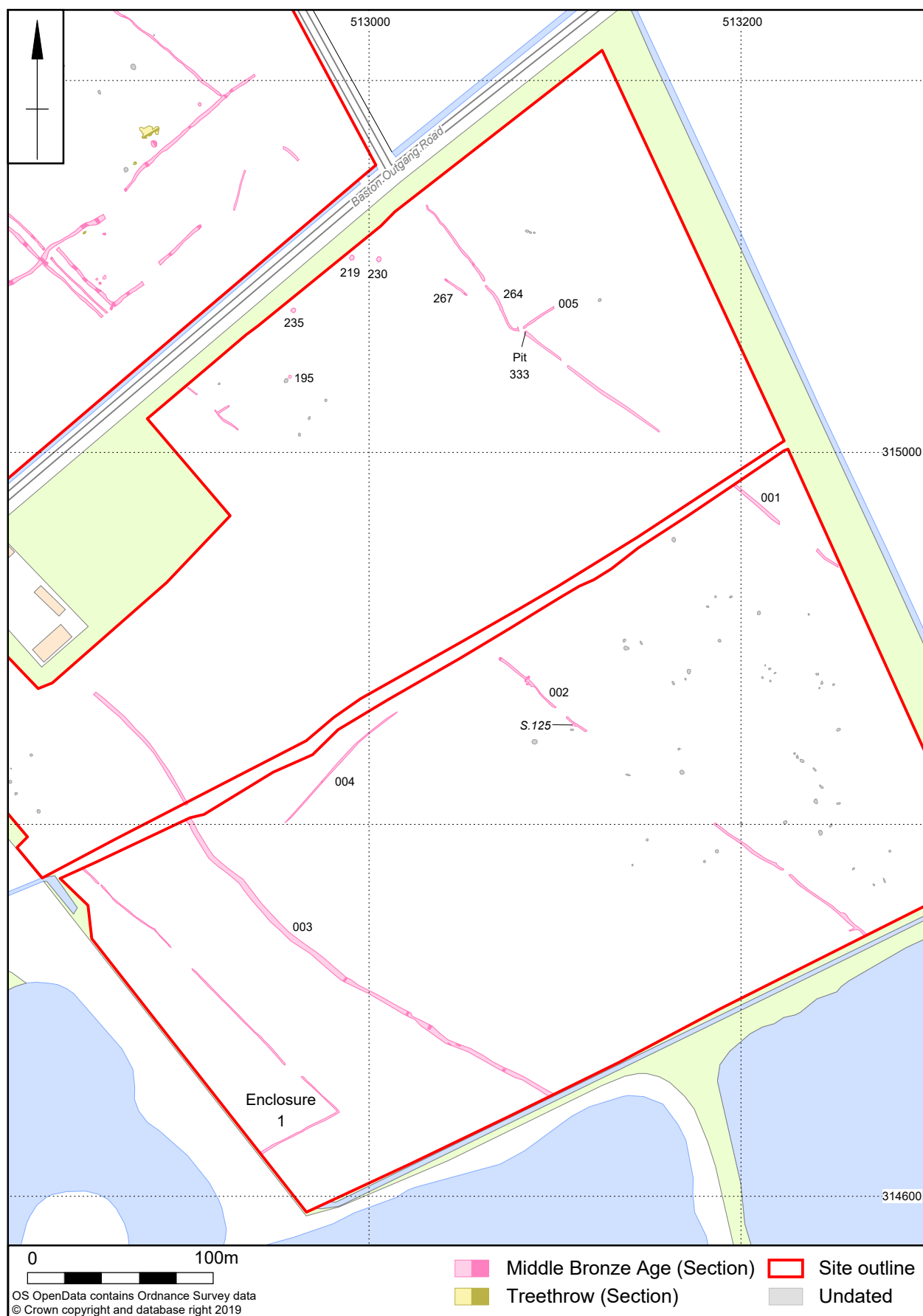
Period 2, Phase 2 (middle Bronze Age)

In the northern part of the excavation area middle Bronze Age domestic settlement is likely to have been located in at least five areas within or adjacent to a related field system. The only proposed domestic structure on site comprised a single ring ditch, which lay just outside to the west of the field system. Other possible domestic areas within the site had probably been within the field system itself and their general locations are implied by notable deposits of domestic artefacts found in features at specific areas. Without features such as postholes surviving, settlement in these areas should be classed as likely (see Chapter 5, Discussion). The suggested domestic areas were located within all three of the linear fields/routeways bounded by the four ditches. The areas of significant finds deposition were between 80m and 140m apart with features between these concentrations containing few artefacts.

The field system itself was recorded within the excavation area over a c800m distance aligned north-west to south-east. Cropmarks identified from aerial photographic surveys suggest that the field system found in the present excavation areas was part of a far more extensive system that extended to the north-west as well as to the east of Manor Pit (Fig 1.3). Part of this field system was excavated during the nearby archaeological works at Freeman's Land directly to the east of the present excavation by the University of Cambridge Archaeological Unit, which also dated that part of the system to the middle Bronze Age (Hutton 2008a; see Discussion).

In the Baston Manor Pit excavation the main features of the field system comprised four roughly parallel ditches aligned north-west to the south-east in the northern area although only the three most westerly could be observed to continue into the southern excavation area. These three ditches slightly converged at the northern extent of the site compared with the southern excavation area. The three ditches in the southern excavation area were spaced at 150m and 180m apart but measured 120m and 160m apart respectively at the northern end (Figs 2.2 and 2.4).

The four primary ditches in the northern part of the site were presumably large fields/routeways adjacent to which stock control/corraling occurred in at least two locations. These corraling areas survived in the archaeological record as locations where there were internal ditches in the field system and where there were more pits/wells.



Scale 1:3000

Figure 2.4. Middle Bronze Age features in the southern area

In addition some discrete features butted up to the main linear ditches of the field system and seem to respect them. Finds recovered from within the ditches indicates specialist activities were taking place in different areas.

The southern excavation area had far fewer middle Bronze Age features within the field system with only a single possible enclosure and a few watering holes/pits.

A few ditches and discrete features were recut and there were also a few intercutting features which together suggest there had been at least one sub-phase in the middle Bronze Age. However, the small numbers of discrete features involved and the general broad middle Bronze Age date of the pottery assemblages has meant that sub-phasing was not attempted within Phase 2. Recutting affected at least two of the main boundary ditches of the field system and also some of the internal ditches, with two of these being recut twice. A few of the pits and wells intercut either each other or ditches. Collectively this may suggest the middle Bronze Age use had been 'long-lived'.

From the northern area there were nearly 3,600 middle Bronze Age pottery sherds (including some briquetage) recovered weighing 32kg. In contrast, artefacts were rare from features in the southern area, with the field ditches themselves collectively producing 72 sherds of pottery and briquetage.

Domestic settlement located outside the field system within the northern excavation area

Roundhouse 1 and feature [4041] lay directly to the west of the field system within the northern excavation area. In addition to these two features three pits [3022, 3048 and 4052] also lay outside to the west of the field system and may date to this phase.

Ring ditch (roundhouse 1)

Roundhouse 1 was adjacent to the west of the field system, directly west of ditch [4011/recut 4006]. A semi-circular ditch [4033] (Figs 2.2 and 2.5) was likely to have been the remnants of a former roundhouse drainage ditch. It measured c12.30m externally in diameter with its ditch between 0.53m to 0.84m wide and 0.22m to 0.40m deep for most of the surviving circuit. The exception was on the far southern extent where it 'stopped' – and here it was only 0.35m wide and 0.07m deep. Its sides were mostly moderately sloping (c45°) with a slightly rounded base. A similar single backfill deposit was recovered from all four of the excavated slots possibly suggesting it had been backfilled at the same time using a single source. This fill comprised a dark grey-brown silty clay and it contained seven fragments (0.14kg) of middle Bronze Age pottery which were recovered collectively from within two separate excavation slots. A radius bone from an adult horse was also retrieved.

Feature [4041]

A roughly square enclosure/feature [4041] defined by a ditch was located c22m to the south-west of roundhouse 1 (Figs 2.2 and 2.6). It was isolated with no features nearby. The feature measured 4.20m across, and its ditch was between 0.32m to 0.52m wide and between 0.29m to 0.40m deep, with steep sides and a flat base. Within the ditch was a single deposit which comprised an orange-brown silt and contained nine sherds (66g) of middle Bronze Age pottery. Two environmental soil samples (81 and 82) were taken from this feature and although they produced little that could help elucidate function. One sample produced no seeds and very small quantities of charcoal flecks whilst the other had a few unidentified seeds and no charcoal. Small to moderate quantities of dryland herbs, wetland/aquatic plants and trees and shrubs were also recovered (Table 4.41). The lack of artefacts and ecofacts may suggest that the feature was related to pastoral farming, possibly functioning as a small animal pen.

Pits [3022, 3048 and 4052] west of the field system in the northern excavation area

To the west of roundhouse 1 and feature [4041] were three pits [3022, 3048 and 4052] which were the only pits assigned to the middle Bronze Age outside the field system. Two pits [3022 and 3048] were phased on stratigraphic grounds as they were cut by Roman routeway 1 Phase 3.2 ditch, but neither had any artefacts within their backfills. The pits were c200m to the north-west of roundhouse 1 and feature [4041]. Pit [3048] was 1.80m in diameter whereas [3022] was more than 0.72m in diameter, but both were of a similar depth at 0.53m and 0.66m deep respectively. The two pits had very steep sides and flat bases, and were filled by sterile deposits.

Pit [4052] lay 60m to the south-west of feature [4041]. It was small, 0.78m in diameter and 0.26m deep with moderately sloping sides and a flattish base. Its single fill comprised a mid to dark grey brown sandy silt and contained 28 fragments (27g) of pottery which could only be broadly assigned an early or middle Bronze Age date. Its inclusion within Phase 2.2 is therefore equivocal. An environmental soil sample (84) from this deposit produced very small quantities of several different dryland and one wetland herb species as well as moderate quantities of charcoal flecks (Table 4.37).

Field system boundaries

Three of the main field system ditches (western, central, eastern) were found in both the northern and southern excavation areas (Fig 2.1). These ditches are described in turn in the text below. The other middle