



Northamptonshire Archaeology

Archaeological Trial Trench Evaluation of Land at Bonby Lane, Bonby North Lincolnshire



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Northamptonshire
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Report 13/66

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QUALITY CONTROL

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OASIS REPORT FORM

PROJECT DETAILS		OASIS No: 148682
Project name	Archaeological trial trench evaluation of land at Bonby Lane, Bonby, North Lincolnshire	
Short description (250 words maximum)	Northamptonshire Archaeology was commissioned by CgMs Consulting, acting on behalf of Tamar Energy, to carry out trial trench evaluation to inform a planning application for a proposed anaerobic digestion facility at Bonby Lane, Bonby, North Lincolnshire. Three trenches were excavated. Trenches 1 and 2 confirmed the presence of ditches indicated in a previous geophysical survey of the site (Fisher 2013). Trench 3 uncovered several small features, interpreted as postholes, which may represent part of a series of small fenced enclosures.	
Project type (eg DBA, evaluation etc)	Evaluation	
Site status (none, NT, SAM etc)	None	
Previous work (SMR numbers etc)	Geophysical survey (Fisher 2013)	
Current Land use	Arable	
Future work (yes, no, unknown)	Unknown	
Monument type/ period	None	
Significant finds (artefact type and period)	Roman pottery (1st century AD)	
PROJECT LOCATION		
County	Lincolnshire	
Site address (including postcode)	Bonby Lane, Bonby, Lincolnshire	
Study area (sq.m or ha)	c 2ha	
OS Easting & Northing (use grid sq. letter code)	TA 014 165	
Height OD	c 80 aOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	Planning Archaeologist, LCC	
Project Design originator	NA	
Director/Supervisor	Chris Chinnock	
Project Manager	Liz Muldowney (NA), Mike Dawson (CgMs)	
Sponsor or funding body	CgMs Consulting on behalf of Tamar Energy	
PROJECT DATE		
Start date	02/04/13	
End date	04/04/13	
ARCHIVES	Location (Accession no.)	Content (eg pottery, animal bone etc)
Physical	North Lincolnshire Museum - BYAP 13	Bone, Pottery
Paper	North Lincolnshire Museum - BYAP 13	Site file
Digital	Northamptonshire Archaeology - BYAP 13	Mapinfo plans, Word report
BIBLIOGRAPHY		
Journal/monograph, published or forthcoming, or unpublished client report (NA report)		
Title	Archaeological trial trench evaluation of land at Bonby Lane, Bonby, North Lincolnshire	
Serial title & volume	13/66	
Author(s)	Chris Chinnock	
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**ARCHAEOLOGICAL TRIAL TRENCH EVALUATION OF LAND
AT BONBY LANE, BONBY
NORTH LINCOLNSHIRE
APRIL 2013**

Abstract

Northamptonshire Archaeology was commissioned by CgMs Consulting, acting on behalf of Tamar Energy, to carry out trial trench evaluation to inform a planning application for a proposed anaerobic digestion facility at Bonby Lane, Bonby, North Lincolnshire. Three trenches were excavated. Trenches 1 and 2 confirmed the presence of ditches as indicated in a previous geophysical survey of the site (Fisher 2013). In Trench 3 several small features were interpreted as postholes which may be part of a series of small fenced enclosures.

1 INTRODUCTION

In April 2013, Northamptonshire Archaeology (NA) was commissioned by CgMs Consulting, acting on behalf of Tamar Energy, to conduct an archaeological evaluation of land at Bonby Lane, Bonby, Lincolnshire (TA 014 165; Fig 1). The purpose of the evaluation was to inform a planning application for a proposed anaerobic digestion facility.

Following geophysical survey (Fisher 2013) potential archaeology was identified. Consequently a programme of archaeological evaluation within the area of the proposed buildings was implemented to meet the requirements of a brief issued by CgMs Consulting and the Written Scheme of Investigation prepared by NA (2013). This report considers evidence from the evaluation.

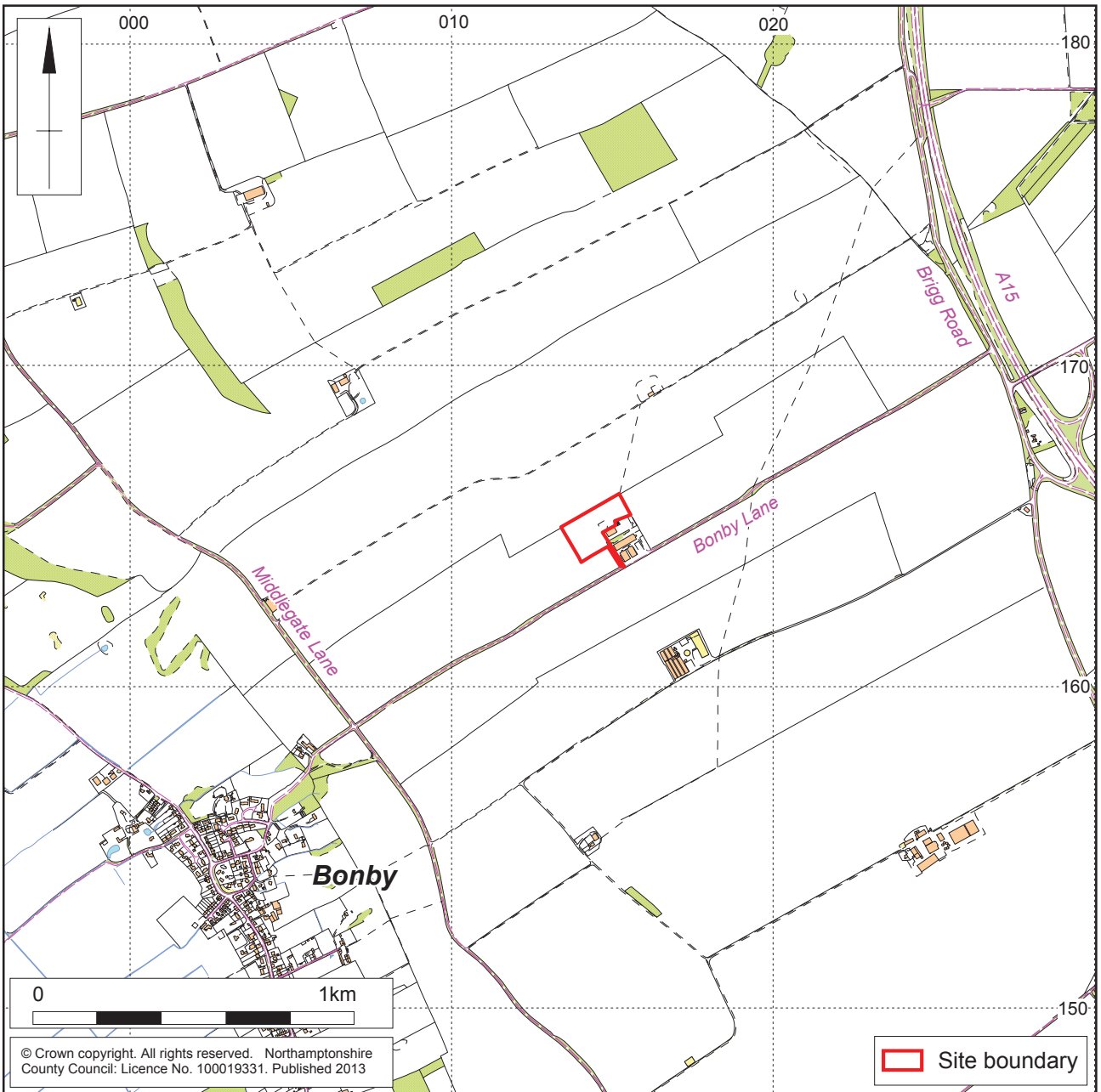
The evaluation comprised the excavation of three trial trenches. The fieldwork was undertaken 2nd-4th April 2013.

2 AIMS AND OBJECTIVES

The evaluation of the site was designed to provide information that will allow for the effective targeting of further investigation of the site, if required, prior to or during the early phases of its development.

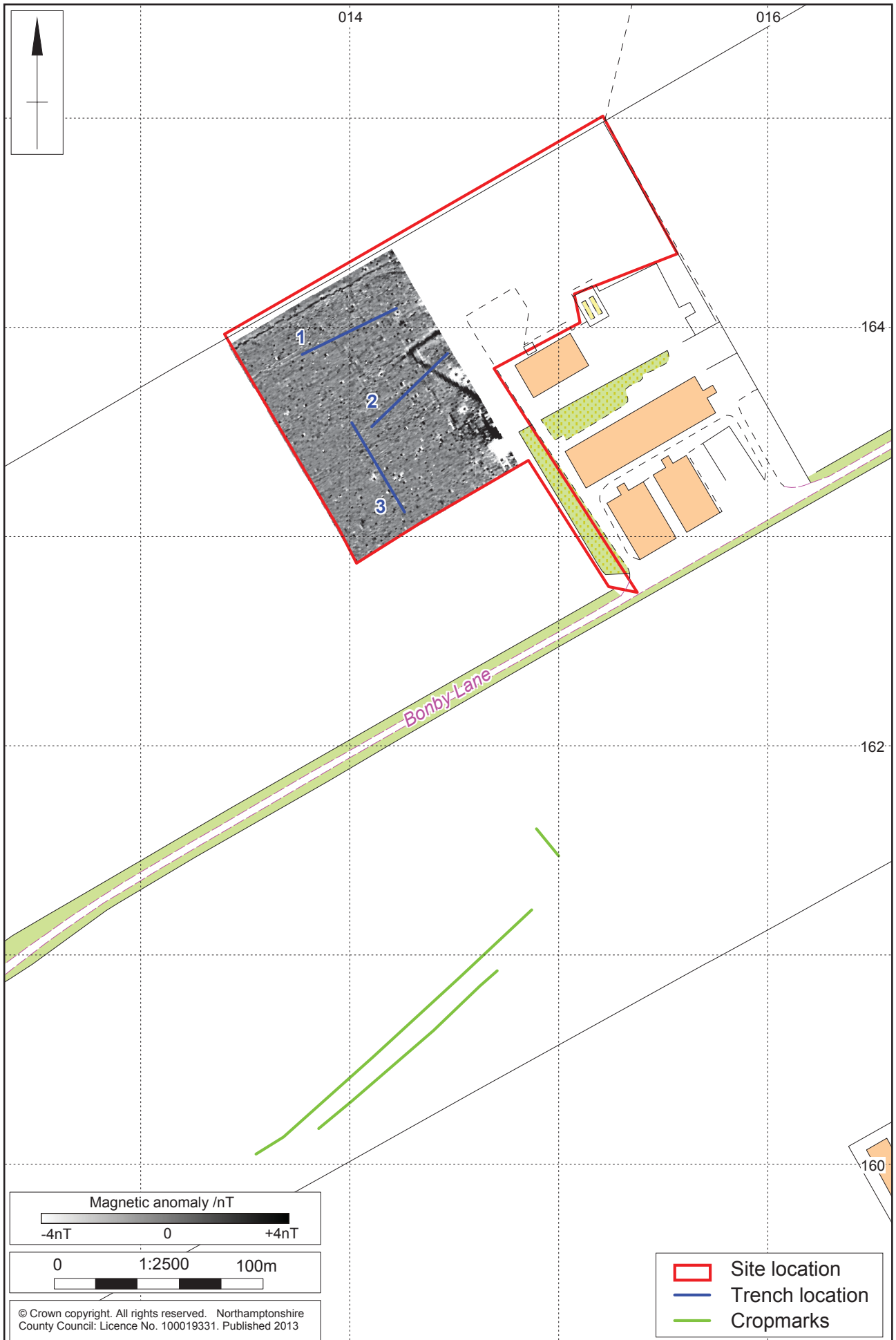
The following information was required to allow the development of a strategy for further investigation of the site:

- *The location, extent, nature, and date of any archaeological features or deposits that may be present;*
- *The integrity and state of preservation of any archaeological features or deposits that may be present.*



Scale 1:20,000

Site Location Fig 1



The evaluation has been carried out within the parameters suggested by the *East Midlands Regional Research Framework, The Archaeology of the East Midlands: an Archaeological Resource Assessment and Research Agenda* (Cooper 2006) and the updated *East Midlands Heritage: An Updated Research Agenda and Strategy for The Historic Environment of The East Midlands* (Knight et al 2012).

3 BACKGROUND

3.1 Topography and geology

Bonby is a village and civil parish in North Lincolnshire, England, about five miles south of Barton-upon-Humber. The site is bounded on all sides by arable fields with the current bio-fuel recycling plant immediately to the north-east. It lies at approximately 80m aOD. The underlying geology is mapped as Welton chalk (www.bgs.ac.uk/geoindex/home.html).

3.2 Historical and archaeological background

A desk-based assessment (Dawson 2013) of the site has previously been undertaken. A geophysical survey (Fisher 2013) of the western half of the site has also been completed and identified some archaeological potential.

Known evidence for prehistoric archaeology in the vicinity comprises stray finds of worked flint and cropmarks indicating sites associated with burial or occupation, although none of the sites appear close to the proposed development area. Similarly in the late prehistoric and Roman periods there are no sites within or close to the proposed development area, however, trackways of possible late prehistoric date are known in the vicinity and the line of a Roman road passes c 400m to the east.

Settlements in these periods appear to focus on the higher ground in the area. To the south of the site two parallel cropmarks may define the flanking ditches of a trackway (MLS20599).

The subsequent geophysical survey identified ditches belonging to two enclosures in the western part of the site. Both enclosures appeared to extend into the east of the site, although the extent of any survival beneath the yard surface associated with the anaerobic digestion facility is currently unknown. Though undated, their form would not be unusual in an Iron Age or Roman context. A single find spot of pottery to the east of Bonby village is the only direct archaeological evidence of the Anglo-Saxon period and evidence for later activity comprises medieval pottery scatters around the village.

4 EXCAVATION METHODOLOGY

The three trenches were excavated using a JCB mechanical excavator fitted with a 1.8m-wide toothless ditching bucket. All three trenches were 50m x 1.8m. The topsoil and subsoil were removed under archaeological supervision to reveal natural substrate or archaeological features, whichever was encountered first. The topsoil and subsoil were stacked separately at the side of the excavated area. All procedures complied with Northamptonshire County Council Health and Safety provisions and Northamptonshire Archaeology Health and Safety at Work Guidelines.

The excavated areas were cleaned sufficiently to define any features. The excavated area and spoil heaps were scanned with a metal detector to ensure maximum finds retrieval.

All archaeological deposits encountered during the course of the excavation were fully recorded, following standard NA procedures (NA 2011). All deposits were given a separate context number in a sequence allocated during the evaluation. They were described on *pro-forma* context sheets to include details of the context, its relationships and interpretation. Unstratified animal bones and modern material were not retained.

The sampling strategy followed the guidelines laid out in English Heritage's *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (EH 2011). The objective was to understand the preservation, concentration, distribution and significance of the environmental remains in their local, regional and national context.

The location of the trenches were surveyed and related to the Ordnance Survey National Grid. A full photographic record comprising both 35mm black and white negatives and colour transparencies was maintained, supplemented with digital images. The field data from the evaluation has been compiled into a site archive with appropriate cross-referencing.

The evaluation conformed to the Institute for Archaeologists *Standard and guidance for archaeological field evaluation* (revised Oct 2008). All stages of the project were undertaken in accordance with English Heritage, *Management of Research Projects in the Historic Environment* (MoRPHE) (EH 2006). The evaluation was carried out in accordance with the brief issued by the Northamptonshire County Council (NCC 2012) and the Written Scheme of Investigation (WSI) prepared by Northamptonshire Archaeology (NA 2012).

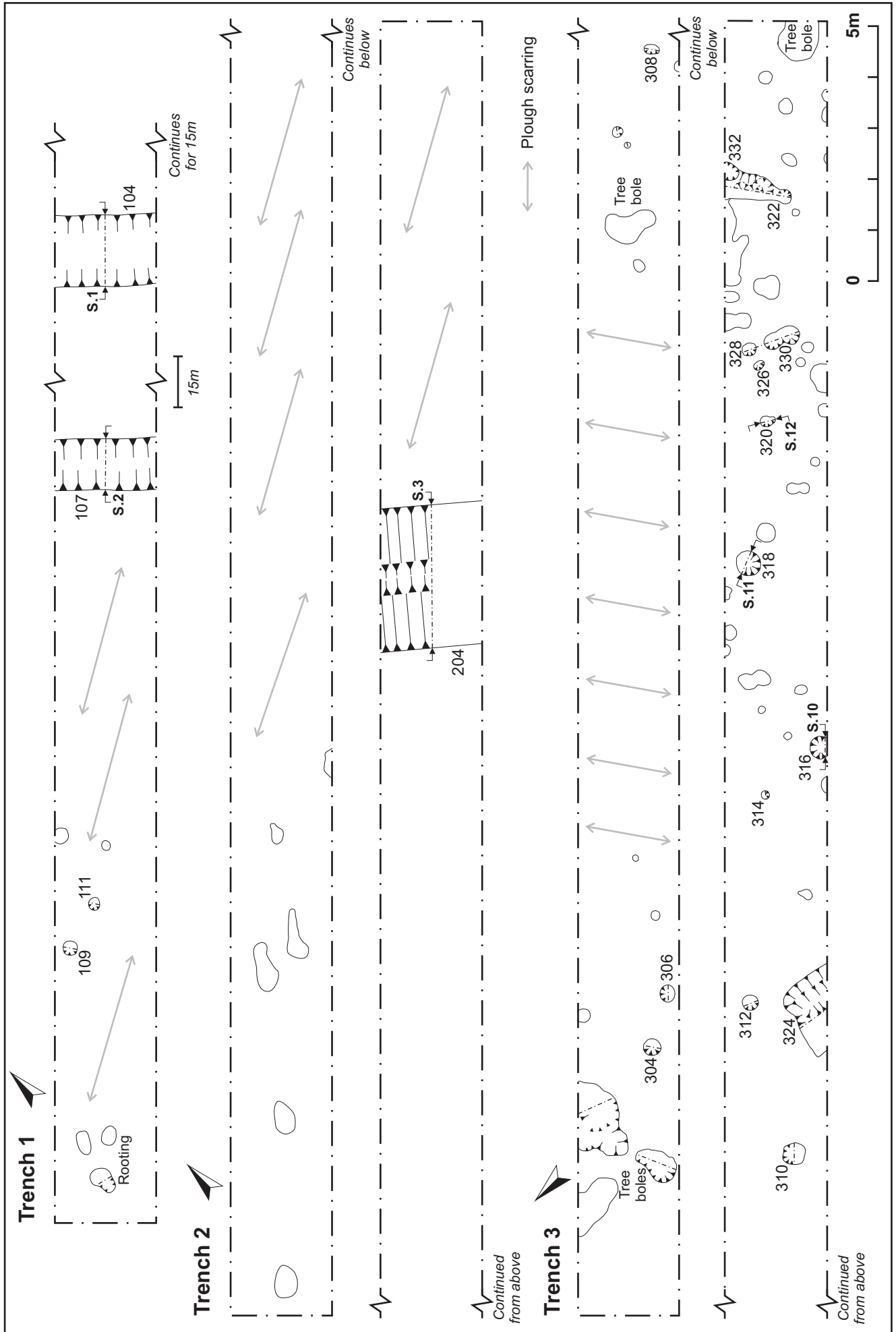
All trenches were backfilled with their up-cast, lightly compacted by the mechanical digger.

5 THE EXCAVATED EVIDENCE

Trench 1 was located close to the northern boundary of the site, aligned north-east to south-west. This trench targeted two enclosure ditches identified in the magnetometer survey. Both ditches, aligned north-west to south-east, were visible in the trench and ditch [107] produced pottery of Romano-British date.

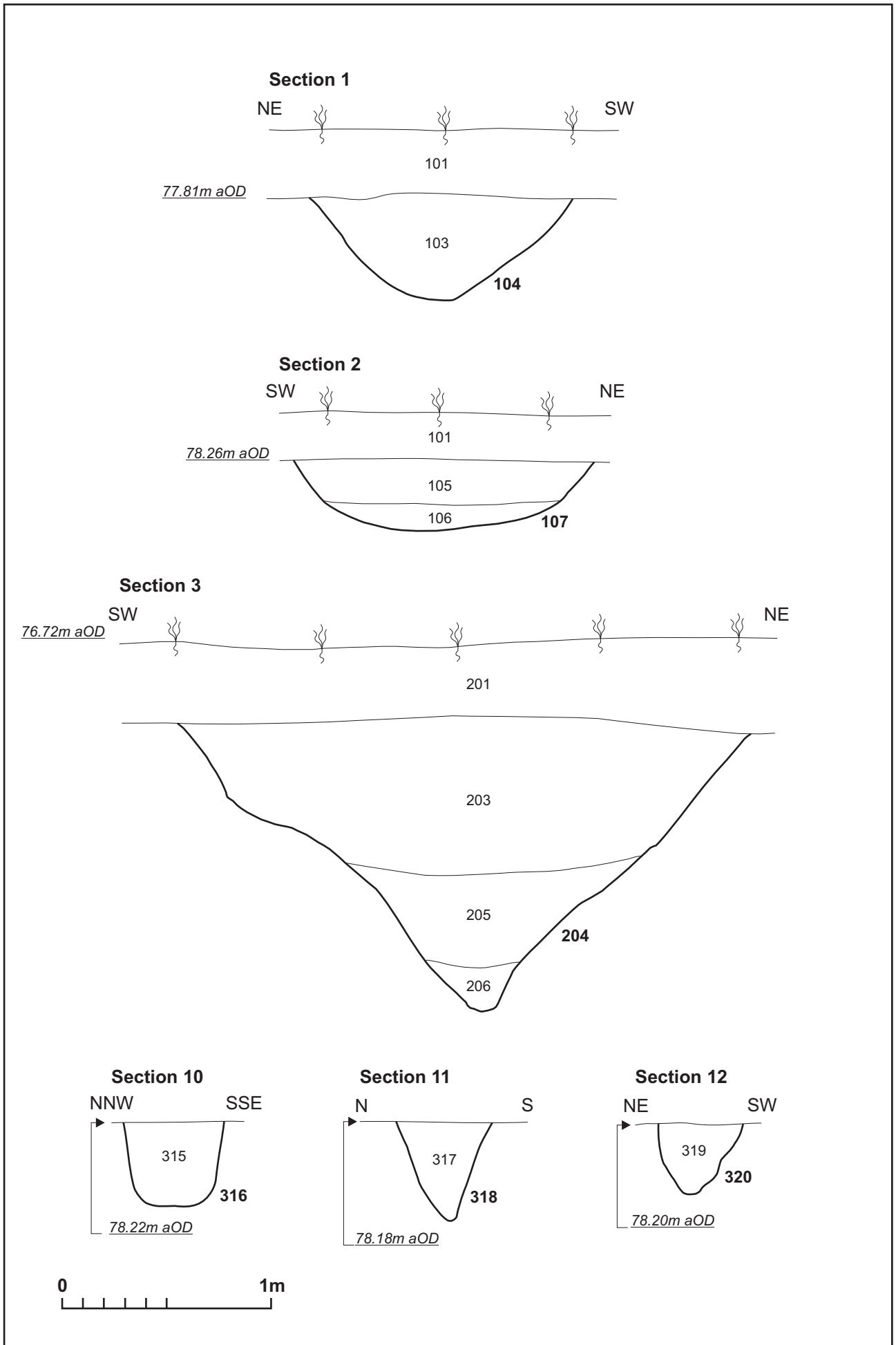
Trench 2 was placed in the centre of the proposed area for development aligned north-east to south-west. One large ditch, aligned north-west to south-east, represented by a strong positive anomaly in the geophysical data was targeted and identified in the trench. The ditch [204] produced further Romano-British pottery.

Trench 3 was placed in the south-west of the development area, aligned north-west to south-east. This trench revealed a number of small features, some of which may be attributed to animal and/or root disturbance. However, from the sample excavated many look to be postholes in a series of linear arrangements in a zig-zag pattern along the trench. None of the posthole fills or samples taken have produced any dating evidence.



Scale 1:100

Trench plans Fig 3



Scale 1:25

Sections Fig 4

5.1 Trench 1

Trench 1 was aligned north-east to south-west.

The natural substrate (102) was mid-orange-brown sandy clay with pockets of chalk and flint throughout, occurring at 0.35m below the ground surface. No subsoil was observed in the trench. The natural was directly overlain by the topsoil (101), 0.35m thick, which comprised mid-dark brown silty clay with some small chalk and flint inclusions and root intrusion throughout.

Two ditches, [104] and [107], were identified in this trench, both were aligned north-west to south-east and reflected the features identified in the geophysical survey.

Ditch [104] was 1.25m wide and 0.46m deep, located toward the north-eastern end of the trench (Figs 3; 4, section 1; and 5). The ditch had a U-shaped profile with eroded upper edges. The fill (103) was mid-reddish-brown silty sand with rare chalk and flint inclusions. No dating evidence was recovered and given the similarity between the fill and the natural, it is possible that the ditch was backfilled with re-deposited material.

Ditch [107] was 1.50m wide and 0.25m deep with a broad shallow bowl-shaped profile, and was located towards the south-west end of the trench and parallel with ditch [104] (Figs 3; 4, section 2; and 6). However it is likely that some of the ditch has been truncated by modern ploughing. Plough scars mirroring the current crop alignment were seen throughout the trench. One small fragment of early Roman pottery was recovered from upper fill (105). The fill was mid-orange-brown silty sand with chalk and flint inclusion, as with (103) it was likely to be re-deposited natural.



Ditch [104], looking south-east

Fig 5



Ditch [107], looking north-west Fig 6



Ditch [204], looking north-west Fig 7

5.2 Trench 2

Trench 2 was aligned north-east to south-west.

The natural substrate (202) was mid-orange-brown sandy clay with pockets of chalk and flint throughout, occurring at 0.35m below ground level. No subsoil was observed in this trench. The natural was directly overlain by the topsoil (201), 0.35m thick, which comprised mid-dark brown silty clay with some small flint and chalk inclusions and root intrusion throughout.

One large ditch [204], aligned north-west to south-east, measured 2.8m wide and 1.37m deep (Figs 3; 4, section 3; and 7). A small amount of pottery and animal bone was recovered. The lower, darker brown silty clay fill (205), 0.51m thick, may represent the period when the ditch was in use as it contained the largest concentration of early Roman pottery and animal bone. The uppermost fill (203) was mid-dark brown silty sand, 0.75m thick, which may be the result of natural silting or a single deposition of material, this also produced early Roman pottery.

Further modern plough scarring and some root disturbance were noted throughout the trench

5.3 Trench 3

Trench 3 was aligned north-west to south-east.

The natural substrate (302) was mid-orange-brown sandy clay with pockets of chalk and flint throughout, occurring at 0.30m below the current ground surface. No subsoil was observed in this trench. The natural was directly overlain by the topsoil (301), 0.30m thick, which comprised mid-dark brown silty clay with some chalk and flint inclusions and root intrusion throughout.

Several discrete circular features were observed across the trench with most of them in the south-east half of the trench (Fig 3, Fig 11). Some of these features after excavation are likely to be root or animal disturbance. However a number of the features appeared regular in plan and may be postholes. Upon excavation some were more convincing than others, [316], [318] and [320] were the best examples from the excavated sample. It should be noted that plough scarring was present throughout the trench, obscuring much of the natural surface. This was removed where possible and as a result many of the features may have been 50-100mm deeper than observed.

Posthole [316] was 0.43m in diameter and 0.40m in depth (Figs 3; 4, section 10; and 8). Posthole [318] was 0.46m in diameter and 0.47m deep (Figs 3; 4, section 11; and 9). The other posthole [320] was 0.40m in diameter by 0.34m deep (Figs 3; 4, section 12; and 10). All of these features had the same homogeneous mid-brown sandy silt fill with rare inclusions of chalk and flint and some root disturbance. The fills were the same in all of the excavated features and those observed in plan. No finds were recovered from any of the features.

A sub-rectangular feature [324] was partially exposed in the trench, aligned north-north-east to south-south-west (Fig 3, 12). It was 1.40m wide and 0.51m deep with an irregular concave base. Given the small amount visible in the trench, a representative profile could not be recorded; however, the fill was the same as that of the small circular features throughout Trench 3 and again no finds were recovered (Fig 11).



Potential posthole [316], looking south-west (Fig 8)



Potential posthole [318], looking north-east (Fig 9)



Potential posthole [320], looking south-east (Fig 10)



Possible arrangement of postholes in trench 3, looking north-east Fig 11



Sub-rectangular feature [324] protruding into Trench 3, looking south-west Fig 12

6 THE FINDS

6.1 Roman pottery by Rob Perrin

Seventeen sherds, weighing 180g, and with a rim EVE of 0.8 were recovered from two ditches. The pottery came from the upper fill (105) of one small ditch [107] and from fills (203) and (205) of a large boundary ditch [204] (Table 1).

Table 1: Total number of sherds recovered per context

Feature Fill/Cut	No	Wgt (g)	Rim%
105/107	2	12	
203,205/204	16	168	8
Total	17	180	8

Two main fabrics are represented, shell-gritted ware and sandy grey ware, with the latter occurring in two different sub-fabrics (Table 2). All of the shell-gritted ware comes from Ditch 204 and the shell inclusions in the fabric are quite large (up to 8mm).

Table 2: Total number of sherds per fabric type

Fabric	NoSh	Wgt	R%
Shell gritted	14	144	8
Dark grey brown	1	24	
Brown	2	12	
Total	17	180	8

The two contexts in ditch 204 each contain a rim fragment from different vessels in shell-gritted ware. The two vessels appear to be different sizes of the same basic type; a lid seated jar or bowl with a short, everted rim. The form is similar to vessels from nearby sites at North Ferriby (Corder and Davies Pryce 1938, fig 3, 29-30), Old Winteringham (Rigby and Stead 1976, fig 74, 9-10) and Winterton (*ibid.* fig 80, 18; 81, 46). The sherds in a brown ware with a grey core from ditch [105] are too small to be able to tell the form of the vessel from which they derive, but the dark grey-brown sherd, which has a smoothed external surface, appears to be from a jar or bowl with a long neck and a noticeable carination. The form is possibly similar to vessels from Old Winteringham (*op. cit.* fig. 75, 30-31; fig 76, 50) and Winterton (*op. cit.* fig. 80, 25).

Overall, the small assemblage is likely to be of mid to late 1st century in date, though the vessel forms and fabrics continue in use and can be found in later contexts. The pottery is almost certainly of local manufacture and a number of kiln sites, mainly for the production of grey wares, are known (Stead 1976b).

6.2 Animal bone by Stephanie Vann

An assemblage of 90 fragments was recovered from pits, ditches and gullies of Roman date, and consisted of cattle, pig, large mammal and medium mammal.

The assemblage was subjected to macroscopic examination. Species identification was undertaken at a context level. Fragments of mammal bone that could not be attributed to a taxonomic group equal or lower than genus were categorised as either 'large mammal' or 'medium mammal'. A summary of the results is presented in Table

3. Fused and unfused elements were recorded. For the main domestic species – cattle, sheep/goat and pig – tooth wear on mandibles was recorded to calculate age where possible following Grant (1982) and the results are presented in Table 4. This is a widely-used, published procedure that records the stage of tooth eruption and wear based on a series of defined stages, enabling an age to be assigned to individual animals and thus analysis of age at death patterns to be undertaken. There were no bones suitable to be measured.

Preservation of the animal bone at this site was poor to moderate. Fragmentation was moderate to high and surface abrasion was moderate to high with bone exhibiting signs of erosion, weathering and other taphonomic damage in many instances. Fragmentation was the result of both old and fresh breaks. There was no evidence of burning, butchery, gnawing or pathology, although the numerous root marks and other evidence of taphonomic damage could explain this.

Table 3: Total number of fragments per species per context

Context Fill/Cut	Bos Cattle	Sus Pig	Large Mml	Medium Mml	Unid
203/204	0	0	1	2	2
205/204	1	1	48	0	35
Total	1	1	49	2	37

The total number of fragments was 90, of which 53 (59%) were identifiable. The species present were cattle, pig, large mammal (most likely cattle) and medium mammal (most likely sheep/goat or pig). There was no evidence of bird or fish remains.

Table 4: Ageing of Species by Tooth Wear (Grant 1982)

Context Fill/Cut	Species	DP4	M1	M2	M3
205/204	Pig	B	-	-	-

Whilst it is true that the small size of the assemblage makes it difficult to draw any significant conclusions, there is nothing about it that is in any way extraordinary for a domestic assemblage of the Iron Age to Romano-British period. Cattle are regularly exploited throughout the Iron Age and Romano-British periods, along with other domestic species such as ovicaprids (sheep/goat) and pigs (Maltby 1981). The dominance of such remains within the assemblage from Bonby is therefore not unusual. The good survivability of large, strong bones such as those of cattle does also need to be taken into consideration, however, as this dominance may be a reflection of preservation rather than husbandry practices at this site.

Following the York System (Table 5), the pig mandible from context (205) would be classified as juvenile. Adult stages are defined by reference to Tooth Wear Stage sensu Grant (1982; also Reitz and Wing 1999, 163-5). After O'Connor (2003, table 31)

Table 5: Definitions of dental eruption and attrition stages used in analysis of age at death, using mandibles with at least one recordable molar or 4th premolar.

Cattle and Sheep Mandibles		
N	Neonatal	DP4 Un-erupted or just in the process of eruption
J	Juvenile	DP4 in wear, M1 not in wear
I	Immature	M1 in wear, M2 not in wear
SA	Subadult	M2 in wear, M3 not in wear
SA1		M3 forming, to just erupting
SA2		M3 erupting
A	Adult	M3 in wear
A1		M3 up to minor dental exposure (stages a and b)
A2		M3 dentine exposure across central column (stages c and d)
A3		M3 dentine exposure on distal column (stages e to h)
E	Elderly	Dentine exposure to or beyond stage j
Pig Mandibles		
N	Neonatal	DP4 Un-erupted or just in the process of eruption
J	Juvenile	DP4 in wear, M1 not in wear
I	Immature	M1 in wear, M2 not in wear
I1		M2 present in crypt
I2		M2 erupting
SA	Subadult	M2 in wear, M3 not in wear
SA1		M3 present in crypt
SA2		M3 erupting
A	Adult	M3 in wear
A1		M3 with enamel attrition only (stage a)
A2		M3 with minor dentine exposure (stages b to d)
A3		M3 dentine exposure merging on mesial cusps (stages e to h)
E	Elderly	Three main zones of dentine exposure across M3 merging (stage j)

Only one element had an unfused epiphysis, a large mammal sacrum from fill (205), ditch [204], although this may be an artefact of preservation as only one other element, a complete cattle astragalus also from fill (205), had recordable epiphyses. The fused epiphyses of the astragalus would indicate that this individual animal was adult. The unfused sacrum indicates an individual who was not completely skeletally mature.

6.3 Environmental evidence by Val Fryer

Five samples for the retrieval of the plant macrofossil assemblages were taken and submitted for assessment. The samples were bulk floated by NA and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16 and the plant macrofossils and other remains noted are listed in Table 6. Nomenclature within the table follows Stace (1997) for the plant macrofossils and Kerney and Cameron (1979) for the molluscan remains. All plant macrofossils were charred. Modern fibrous roots, seeds and arthropod remains were also present within all five assemblages.

Results

The assemblages were all small (0.1 litres in volume or less) and plant macrofossils were scarce. Charcoal/charred wood fragments were present within all but sample 5 from fill (319) of posthole [320]. The remaining plant macrofossils, comprising indeterminate fragmentary cereal grains, dock (*Rumex* sp.) fruits, a wild radish (*Raphanus raphanistrum*) siliqua ('seed pod') and a possible grass (Poaceae) seed,

Table 6: Plant macrofossils and molluscs

Sample No	1	2	3	4	5
Context/feature/type	105/107 ditch	205/204 ditch	317/318 posthole	315/316 posthole	319/320 posthole
Plant macrofossils					
Cereal indet. (grains)	-	x	-	-	-
Small Poaceae indet. <i>Raphanus raphanistrum</i> L. (siliqua)	xcf	-	-	-	-
<i>Rumex</i> sp.	-	x	-	-	-
Charcoal <2mm	x	x	x	x	-
Charcoal >2mm	x	x	-	-	-
Charcoal >5mm	-	x	-	-	-
Charcoal >10mm	-	x	-	-	-
Charred root/stem	x	x	-	-	-
Other remains					
Black porous and/or tarry material	x	x	-	x	-
Small coal frags.	x		x	x	x
Small mammal/amphibian bones	-	x	-	-	-
Molluscs					
Woodland/shade loving species					
<i>Aegopinella</i> sp.	-	x	-	-	-
<i>Oxychilus</i> sp.	-	x	-	-	-
<i>Punctum pygmaeum</i>	-	xx	-	-	-
<i>Vitrea</i> sp.	-	x	-	-	-
Zonitidae indet.	-	x	-	-	-
Open country species					
<i>Helicella itala</i>	x	xxx	x	-	-
Helicidae indet.		xxx	-	-	-
<i>Pupilla muscorum</i>	x	xxx	-	-	-
<i>Vallonia</i> sp.	x	xxxx	-	x	-
<i>V. costata</i>	-	xxxx	-	-	-
<i>V. excentrica</i>	-	x	-	-	-
<i>V. pulchella</i>	-	xcf	-	-	-
<i>Vertigo pygmaea</i>	-	xx	-	-	-
Catholic species					
<i>Cepaea</i> sp.	-	x	-	-	-
<i>Cochlicopa</i> sp.	x	xx	-	-	-
<i>Nesovitrea hammonis</i>	-	x	-	-	-
<i>Trichia hispida</i> group	x	xxxx	x	-	-
Sample volume (litres)	40	40	10	10	10
Volume of flot (litres)	<0.1	0.1	<0.1	<0.1	<0.1
% flot sorted	100%	100%	100%	100%	100%

Key to Table

x = 1 – 10 specimens xx = 11 – 50 specimens xxx = 51 – 100 specimens xxxx = 100+ specimens; cf = compare

were confined to the assemblages from sample 1, fill (105) of ditch [107] and sample 2 fill (205) from ditch [204].

Other remains were also scarce. Fragments of black porous and tarry material and small pieces of coal were recorded, but it was unclear whether these were contemporary with the features from which the samples were taken, or later contaminants introduced via the bioturbation of the deposits by roots and the burrowing snail *Cecilioides acicula*.

Shells of common terrestrial molluscs were present within all but sample 5, and were particularly abundant within the assemblage from sample 2. Although some specimens were very well preserved, suggesting that they may have been intrusive within the feature fills, others were bleached, abraded and fragmented and were almost certainly contemporary with their contexts. Three of Evans (1972) ecological groups were represented, with shells of open country species being particularly abundant.

Conclusions and recommendations for further work

In summary, charred plant macrofossils are extremely scarce within the recovered assemblages, and it would appear most likely that the few remains which are recorded are derived from scattered or wind-dispersed detritus, which was accidentally incorporated within the feature fills. It is possibly of note that the charcoal/charred wood fragments within sample 2 are very abraded, possibly suggesting that they had been exposed to the elements for some considerable period prior to deposition. The composition of the mollusc assemblage from sample 2 almost certainly indicates that ditch [204] was situated within an area of open, short-turfed grassland. However, the feature itself may have been sufficiently deep to be slightly damp at its base, and it may also have included a layer of leaf litter within its basal fill.

As plant macrofossils are so scarce, further analysis of these remains is not recommended. Although sample 2 does contain a sufficient density of mollusc shells for quantification (ie 100+ specimens), analysis of a single assemblage in isolation would add little to the data already contained within this assessment and, therefore, no further work is required. However, a summary of this assessment should be included within any publication of data from this site.

7 DISCUSSION

The features recorded from the excavated trenches largely confirm the presence of north-west to south-east aligned linear enclosure ditches identified as a result of previous geophysical survey (Fig 3). Ditch [107] is very shallow and may have suffered truncation due to ploughing. Ditches [104] and [204] are much more substantial, providing a more representative profile (Fig 4). Roman pottery dating to around the 1st century AD was recovered from ditches [104] and [204]; ditch [107] remains undated but is likely to be of a similar date.

Possible posthole like features were recorded in Trench 3, some of which can be attributed to root and/or animal disturbance, though others appear to be archaeological in nature. In plan some of these features look to be aligned either in a curvilinear fashion or in linear arrangements at right angles to one another (Figs 3 and 12), though this is not clear due to the width of the trench. Whilst it could be said that these features may be a result of natural solution hollows in the degraded chalky substrate, many of them exhibit regular shapes and profiles indicative of postholes. No finds were recovered and the fills were homogeneous silty sand in all of the

excavated and planned features. A sub-rectangular feature [324] partially exposed in Trench 3 may relate to a ditch terminal or a large pit, though the fill was homogeneous with no dating evidence.

The evaluation produced little conclusive evidence for the palaeo-economy or palaeo-ecology of the area. The animal bone evidence indicated that cattle were the predominant species present, although the size of the assemblage was limited and this may be due to differential preservation. However, a pastoral economy would be consistent with the mollusca which indicate short-turfed grass land in the immediate area of the site.

BIBLIOGRAPHY

Cooper, N, 2006 *The Archaeology of the East Midlands, An Archaeological Assessment and Research Agenda*, Leicester Archaeology Monog, **13**

Corder, P, and Davies-Pryce, T, 1938 Belgic and other early pottery found at North Ferriby, Yorks, with comments on pre-Claudian Romano-Gaulish influence in Britain, *Antiquaries Journal* **18, 3** (July), 262-77

DCLG 2012 *National Planning Policy Framework*, Department of Communities and Local Government

Dawson, M, 2013 *Archaeological desk-based assessment: Land at Bonby, Lincolnshire*, CgMs Consulting, **MD/14972**

EH 2006 *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers Guide*, English Heritage

EH 2011 *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation, 2nd edition*, English Heritage

Evans, J, 1972 *Land Snails in Archaeology*, London

Fisher, I, 2013 *Archaeological geophysical survey of land at Bonby, North Lincolnshire, March 2013*, Northamptonshire Archaeology report, **13/47**

Grant, A, 1982 The use of toothwear as a guide to the age of domestic ungulates, in B Wilson *et al* (eds) 1982, 91 - 108

IfA 2008 *Standard and guidance for archaeological field evaluation*, Institute for Archaeologists

Jones, M, and Dimbleby, G, (eds) 1981 *The Environment of Man: the Iron Age to the Anglo-Saxon Period*, British Archaeological Reports, British Series, **87**, Oxford

Kerney, M P, and Cameron, R A D, 1979 *A Field Guide to the Land Snails of Britain and North-west Europe*, Collins

Knight, D, Vyner, B, and Allen, C, 2012 *East Midlands Heritage: An Updated Research Agenda and Strategy for The Historic Environment of The East Midlands*, Nottingham University monog, **6**, and York Archaeological Trust

- LCC 2012 *Archaeology Handbook*, Lincolnshire County Council
- LCC 2013 *Brief for the archaeological field evaluation at Bonby, North Lincolnshire*, Lincolnshire County Council
- Maltby, M, 1981 Iron Age, Romano-British and Anglo-Saxon animal husbandry – a review of the faunal evidence, in M Jones and G Dimbleby (eds) 1981, 155-203
- NA 2011 *Archaeological Fieldwork Manual*, Northamptonshire Archaeology
- NA 2013 *Written Scheme of Investigation for Archaeological Field Evaluation at Bonby, North Lincolnshire*, Northamptonshire Archaeology
- O'Connor, T P, 2003 *The Analysis of Urban Animal Bone Assemblages: A Handbook for Archaeologists*, The Archaeology of York, **19**: Principles and Methods, York Archaeological Trust and Council for British Archaeology
- Reitz, E J, and Wing, E S, 1999 *Zooarchaeology*, Cambridge Manuals in Archaeology, Cambridge University Press
- Rigby, V, and Stead, I M, 1976 Coarse Pottery, in I M Stead 1976a, 136-90
- Stace, C, 1997 *New Flora of the British Isles*, 2nd edition, Cambridge University Press
- Stead, I M, 1976a *Excavations at Winterton Roman Villa and Other Roman Sites in North Lincolnshire, 1958-67*, Department of the Environment Archaeological Reports, **9**, HMSO
- Stead, I M, 1976b The pottery industry in North Lincolnshire, in I M Stead 1976a, 95-101
- Wilson, B, Grigson, C, and Payne, S, (eds) 1982 *Ageing and Sexing Animal Bones from Archaeological Sites*, British Archaeological Reports, British Series, **109**, Oxford

WEBSITES

www.bgs.ac.uk/geoindex/home.html

APPENDIX: CONTEXT INVENTORY

Trench 1	Length, Width & Alignment 50m x 1.8m NE-SW		Surface Height 77.71m aOD	Depth & Height of Natural 0.35m 77.36m aOD
Context	Context Type	Description	Dimensions	Artefacts/ Samples
101	Topsoil	Mid brown silty clay, some chalk flecks	0.35m thick	-
102	Natural	Orange sandy clay with bands of chalk and flint, plough scarring evident	-	
103	Fill of ditch 104	Mid reddish-brown silty sand, rare chalk flecks, very rare flint	1.25m wide 0.46m thick	-
104	Ditch	Linear, aligned N-S, U-shaped profile, eroded upper edges	1.25m wide, 1.8m visible length, 0.46m deep	
105	Upper fill of ditch 107	Orange-brown silty sand with chalk flecks, merges with 106	0.72m wide, 2m+ long, 0.20m deep	Roman pottery, sample 1
106	Lower fill of ditch 107	Orange-brown silty sand with chalk flecks, merges with 105	1.35m wide, 2m+ long, 0.05m deep	sample 1
107	Ditch	Linear, aligned N-S, U-shaped profile with eroded upper edges	1.50m wide, 2m+ long, 0.25m deep	
108	Fill of 109	Mid brown sandy clay with chalk and flint		-
109	Possible posthole	Irregular cut	0.35m diameter, 0.20m deep	
110	Fill of 111	Mid brown sandy clay with chalk and flint		-
111	Possible posthole	Irregular cut	0.40m diameter, 0.16m deep	

Trench 2	Length, width & alignment 50mx1.8m NE-SW		Surface Height 76.68m aOD	Depth & Height of Natural 0.31m 76.37m aOD
Context	Context Type	Description	Dimensions	Artefacts/ Samples
201	Topsoil	Mid brown silty clay, some chalk flecks	0.31m thick	-
202	Natural	Orange sandy clay with bands of chalk and flint, plough scarring evident	-	
203	Upper fill of ditch 204	Dark brown silty sand, infrequent small chalk fragments	2.80m wide, 2m+ long, 0.75m deep	Roman pottery, animal bone
204	Ditch	Linear, V-shaped profile, aligned WNW-SSE	2.80m wide, 2m+ long, 1.37m deep	
205	Lower fill of ditch 204	Mid brown sandy clay, frequent small to medium flint and chalk fragments	1.20m wide, 2m+ long, 0.51m deep	Roman pottery, animal bone, sample 2
206	Primary fill of ditch 204	Soft mid yellow sandy silt, infrequent small chalk fragments	0.50m wide, 2m+ long, 0.20m deep	-

Trench 3	Length, width & alignment 50m x 1.8m NW-SE		Surface Height 78.75m aOD	Depth & Height of Natural 0.29m 78.36m aOD
Context	Context Type	Description	Dimensions	Artefacts/ Samples
301	Topsoil	Mid brown silty sandy loam, some chalk fragments	0.29m thick	-
302	Natural	Mid orange-brown sandy clay with chalk fragments	-	
303	Fill of 304	Firm to friable mid brown sandy silt, a little clay, small chalk inclusions		-
304	Possible posthole	Sub-circular V-shaped profile	0.27m diameter, 0.18m deep	
305	Fill of 306	As 303		-
306	Possible posthole	Sub-circular U-shaped profile	0.27m diameter 0.27m deep	
307	Fill of 308	As 303		-
308	Possible posthole	Sub-circular Shallow bowl shape	0.10m diameter 0.35m deep	
309	Fill of 310	As 303		- Sample 5
310	Possible posthole	Sub-circular slightly concave	0.41m diameter 0.15m deep	
311	Fill of 312	As 303		-
312	Possible posthole	Sub-circular Shallow bowl shape	0.38m diameter 0.06m deep	
313	Fill of 314	As 303		-
314	Possible posthole	Sub-circular, steep edges, irregular base	0.19m diameter 0.22m deep	
315	Fill of 316	As 303		- Sample 4
316	Posthole	Sub-circular, steep edges U-shaped profile	0.40m diameter 0.40m deep	
317	Fill of 318	As 303		- Sample 3
318	Posthole	Sub-circular, steep edges V-shaped profile	0.46m diameter 0.47m deep	
319	Fill of 320	As 303		-
320	Posthole	Sub-circular, steep edges Irregular U-shaped profile	0.34m diameter 0.34m deep	
321	Fill of 322	As 303		-
322	Possible posthole	Sub-circular, irregular U-shaped profile, root disturbance	0.20m diameter 0.25m deep	
323	Fill of 324	As 303		-
324	Sub-rectangular cut	Ditch terminal or large pit, steep edge	1.20m visible, 1.40m wide, 0.51m deep	
325	Fill of 326	As 303		-
326	Possible posthole	Sub-circular, irregular U-shape	0.30m diameter 0.18m deep	
327	Fill of 328	As 303		-
328	Possible posthole	Sub-circular, U-shaped profile	0.30m diameter 0.17m deep	
329	Fill of 330	As 303		-

Trench 3	Length, width & alignment 50m x 1.8m NW-SE		Surface Height 78.75m aOD	Depth & Height of Natural 0.29m 78.36m aOD
Context	Context Type	Description	Dimensions	Artefacts/Samples
330	2 possible intercutting postholes	Oblong, slightly narrower in middle, U-shaped profile and shallow shelf	0.83m long 0.34m wide 0.36m deep	
331	Fill of 332	As 303		-
332	Possible posthole	Sub-circular, shallow bowl shape	0.30m diameter 0.10m deep	



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