



# Northamptonshire Archaeology

Archaeological geophysical survey of land  
at Kennel Farm, Biggleswade, Bedfordshire  
August 2012



## Northamptonshire Archaeology

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Northamptonshire  
County Council

John Walford

Report 12/150

August 2012





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## QUALITY CONTROL

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Approved by	Steve Parry	<i>SP</i>	15/8/2012

**OASIS REPORT FORM**

<b>PROJECT DETAILS</b>		
Project name	Archaeological geophysical survey of land at Kennel Farm, Biggleswade, Bedfordshire	
Short description	Northamptonshire Archaeology undertook a detailed magnetometer survey of c 7 ha of land at Kennel Farm, Biggleswade, Bedfordshire in August 2012. The survey identified two probable Iron Age or Romano-British enclosures in the north-eastern part of the site, and suggested the presence of a ring ditch, perhaps of Bronze Age date, to the south. Smaller features, including a section of ditch and some possible pits or kilns, were also identified, and ridge and furrow was shown to be ubiquitous across the area of survey.	
Project type	Geophysical survey	
Site status	None	
Previous work	None	
Current Land use	Meadow	
Future work	Trial trenching	
Monument type/ period	Iron Age or Romano-British enclosures, possible Bronze Age ring ditch, possible undated pits or kilns	
Significant finds		
<b>PROJECT LOCATION</b>		
County	Bedfordshire	
Site address	Kennel Farm, Biggleswade	
Study area	7ha	
OS Easting & Northing	TL 210 444	
Height OD	c 34-40 m AOD	
<b>PROJECT CREATORS</b>		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	Central Bedfordshire Council	
Project Design originator	Northamptonshire Archaeology	
Director/Supervisor	John Walford	
Project Manager	Mark Holmes	
Sponsor or funding body	Central Bedfordshire Council	
<b>PROJECT DATE</b>		
Start date	7 August 2012	
End date	15 August 2012	
<b>ARCHIVES</b>	Location	Content
Physical	N/A	
Paper	NA	Site survey records
Digital	NA	Geophysical survey & GIS data
<b>BIBLIOGRAPHY</b>	Journal/monograph, published or forthcoming, or unpublished client report	
Title	Archaeological geophysical survey of land at Kennel Farm, Biggleswade, Bedfordshire	
Serial title & volume	Northamptonshire Archaeology Reports 12/150	
Author(s)	John Walford	
Page numbers	6	
Date	15 August 2012	

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**ARCHAEOLOGICAL GEOPHYSICAL SURVEY OF LAND AT  
KENNEL FARM, BIGGLESWADE, BEDFORDSHIRE  
AUGUST 2012**

**ABSTRACT**

*Northamptonshire Archaeology undertook a detailed magnetometer survey of c 7 ha of land at Kennel Farm, Biggleswade, Bedfordshire in August 2012. The survey identified two probable Iron Age or Romano-British enclosures in the north-eastern part of the site, and suggested the presence of a ring ditch, perhaps of Bronze Age date, to the south. Smaller features, including a section of ditch and some possible pits or kilns, were also identified, and ridge and furrow was shown to be ubiquitous across the area of survey.*

**1 INTRODUCTION**

Northamptonshire Archaeology (NA) was commissioned by Central Bedfordshire Council to conduct an archaeological geophysical survey in advance of a proposed programme of woodland planting at Kennel Farm, Biggleswade, Bedfordshire (NGR TL 210 444; Fig 1). The fieldwork was conducted on 6 to 8 August 2012 and comprised the detailed magnetometer survey of five fields with a total area of c 7ha.

**2 LOCATION, TOPOGRAPHY AND GEOLOGY**

The survey area comprises a sub-rectangular block of meadow land located on the eastern side of Biggleswade, immediately north of Stratton Park and east of Kennel Farm. It is divided into five fields, all of which had been mown prior to the survey.

The survey area occupies a gentle north-west facing slope at an elevation of between 40m and 34m AOD. It lies close to the junction of two geological deposits – glacial till and glacial sands and gravels - both of which are underlain by Woburn Sand (BGS 2012).

### **3      ARCHAEOLOGICAL BACKGROUND**

The area to the east of Biggleswade is rich in pre-medieval archaeological sites, including three prehistoric ring ditches (HER Nos 518, 15328 & 16159), an oval enclosure (15080) a possible Neolithic cursus (16818) and various Roman boundary ditches and enclosures (446, 18301, EBD429). However, there are no recorded cropmarks or finds from within the proposed development area.

During the medieval period, the proposed development area seems to have lain within the open fields of Biggleswade. The nearest known settlement was c 500m to the south east, where the village and manor of Stratton once stood.

In the sixteenth century, a new manor house was constructed at Stratton Park, immediately south of the proposed development area. The surrounding land was emparked, and continued in such use until the early years of the twentieth century.

The date of construction for Kennel Farm is unknown, but it must have been in existence by 1804, when it was depicted on the Ordnance Survey drawing for Baldock and the surrounding area (<http://www.bl.uk/onlinegallery/onlineex/ordsurvdraw/index.html>).

### **4      METHODOLOGY**

The survey was conducted with Bartington Grad 601-2, twin sensor array, vertical component fluxgate gradiometers (Bartington and Chapman 2003). These are standard instruments for archaeological survey and can resolve magnetic variations as slight as 0.1 nanoTesla (nT).

An independent system of 30m grids was established within each of the fields to be surveyed. The grids were established with a tape measure and optical square and were tied in to the Ordnance Survey National Grid by means of a Leica Systems 1200 dGPS. The gradiometers were carried at a brisk but steady pace through each grid square, collecting data along 1m spaced traverse lines. Measurements were automatically triggered every 0.25m along the traverses, giving a total of 3600 measurements per square.

The fieldwork methods were in accordance with the written scheme of investigation for the project (NA 2012), and complied with the guidelines issued by English Heritage and by the Institute for Archaeologists (EH 2008; IfA 2011).

The survey data were processed using Geoplot 3.00v software. Striping, caused by slight mismatches in sensor balance, was removed using the 'Zero Mean Traverse' function and destaggering of the data was performed as necessary.

The processed data are presented in this report in the form of grey-tone plots, at a scale of +/- 4nT black/white. The plots have been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2). An interpretative overlay has been produced and is shown in Figure 3.

## 5 SURVEY RESULTS

### *Archaeological features*

The survey has revealed an archaeological site in the north-east of Field 1. It consists of an 'H'-shaped arrangement of ditches, defining parts of two conjoined enclosures, and some other features of less certain significance. The date of the site cannot be closely determined, but its general appearance would be consistent with an Iron Age or Romano-British origin.

It is not possible to trace the full extent of either enclosure. The eastern one extends beyond the edge of the survey area, and the western one is represented by anomalies which fade out rapidly to the west. This may be because the western enclosure is incomplete, but it may also reflect a transition to less magnetic (and therefore less detectable) fills within the ditch.

A number of short linear anomalies occur within both of the enclosures. It is possible that these represent parts of roundhouses or other internal structures, but they are too disjointed to permit a more detailed or confident interpretation.

To the west of the enclosures there is an exceedingly weak linear anomaly, which possibly represents a field boundary radiating away from the main focus of the site.



At the southern end of Field 3 there is a weakly positive curvilinear anomaly which describes about two thirds of a circle. It is too ill-defined to be interpreted with confidence but, its size and shape might be consistent with a Bronze Age ring ditch.

To the south of the putative ring ditch there are a number of large dipolar anomalies, some of which are intensely magnetic ( $>1000\text{nT}$ ) and others of which are comparatively weak ( $c\ 50\text{nT}$ ). The more intense anomalies will represent either large individual buried iron objects, or concentrations of smaller ferrous debris, such as might be found in modern rubbish pits. The less intense ones are more suggestive of ceramic material or burnt soil and could, for instance, represent brick-filled pits, or small industrial features such as kilns.

Further north in Field 3 there is a weak positive linear anomaly which extends westwards into Field 4. This seemingly represents a section of ditch, of indeterminate date and purpose. A less distinct linear anomaly in Field 2 may also represent a ditch.

At the western end of Field 5 there is a single dipolar anomaly which attains a maximum intensity of  $c\ 12\text{nT}$  and could represent a large pit. Another pit may occur in Field 2, but it is represented by a much weaker and more amorphous anomaly.

### ***Ridge and furrow***

Ploughed out ridge and furrow, of presumed medieval date, is almost ubiquitous across the survey area. It is represented by parallel positive linear anomalies which aligned approximately north-north-west to south-south-east.

### ***Miscellaneous features***

Two linear anomalies align with modern field boundaries, and are thus presumed to represent features of relatively recent date. One crosses the southern end of Field 3, continuing the line of an east-west boundary to the north of Stratton Park. The other crosses Field 5, and aligns with a drainage ditch to the west. Either anomaly could represent a former field boundary, but the one in Field 5 might also indicate a drain or culvert discharging into the ditch.

A weak linear anomaly with an alternating polarity occurs in Field 5, and a network of similar anomalies occurs in the eastern half of Field 1. Anomalies of this type are very diagnostic, and can be confidently interpreted as field drains.

A line of intense magnetic halos, of alternating polarity, runs along the eastern edge of Fields 2 and 3. They almost certainly arise from an iron pipe, lying either at the very edge of the fields, or beneath the adjacent track. A very large dipolar anomaly which lies close to the pipe, at the southern end of Field 3, indicates a substantial ferrous object of unknown character.

There is an area of weak magnetic noise at the northern end of Field 2, adjacent to Kennel Farm. This is likely to have been caused by a combination of scrap iron, building rubble and general farmyard detritus mixed into the topsoil in this area.

## **6 CONCLUSION**

The survey has been successfully undertaken and has identified two conjoined enclosures, of probable Iron Age or Romano-British date, in the north-east of the proposed development area. It has also suggested the presence of a ring ditch, perhaps of Bronze Age date, in the south of the area. Smaller features, including a section of ditch and several possible pits or kilns, have also been detected, and ridge and furrow has been shown to be ubiquitous across the area surveyed.

The results add to the corpus of archaeological data for the area, showing that the landscape has been occupied and exploited from prehistory, through the Roman and medieval periods, to the present day.

## BIBLIOGRAPHY

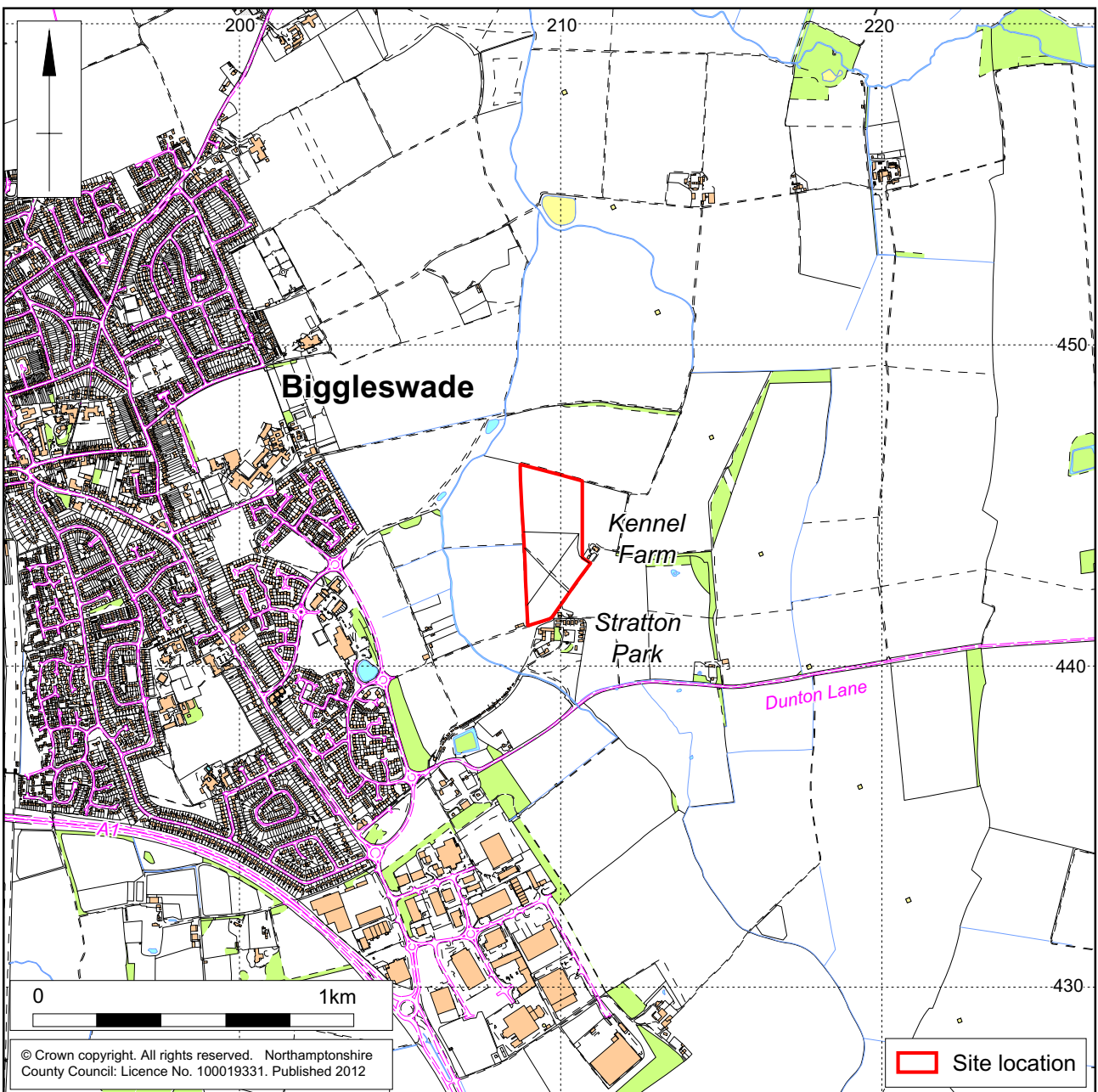
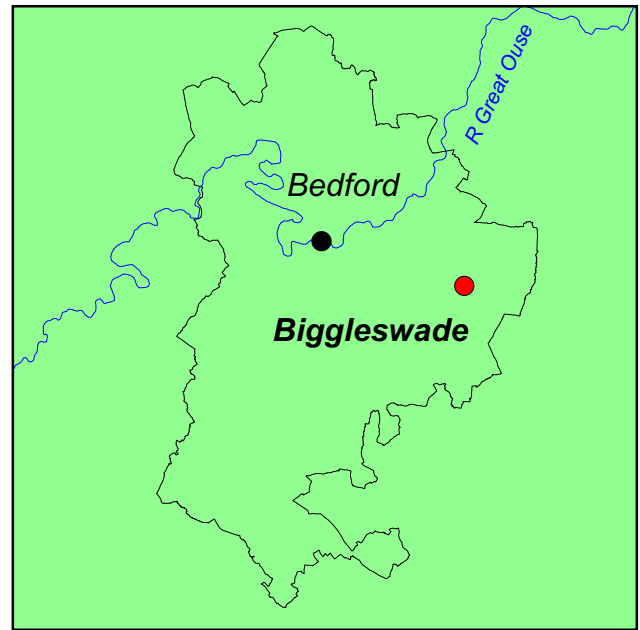
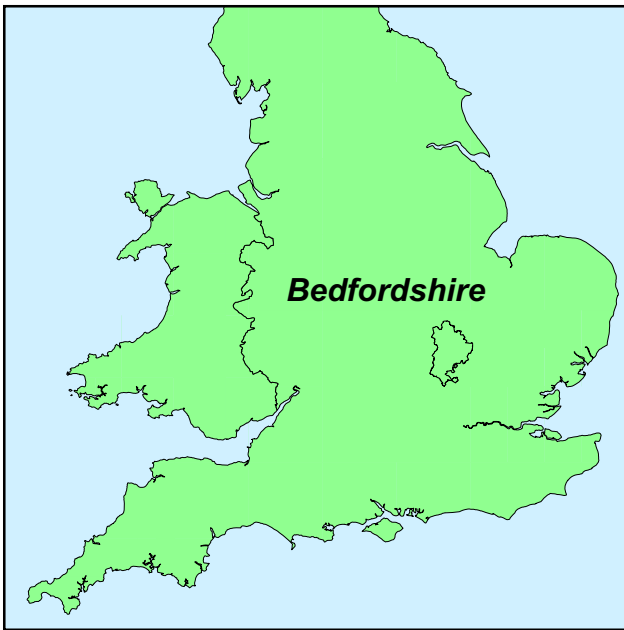
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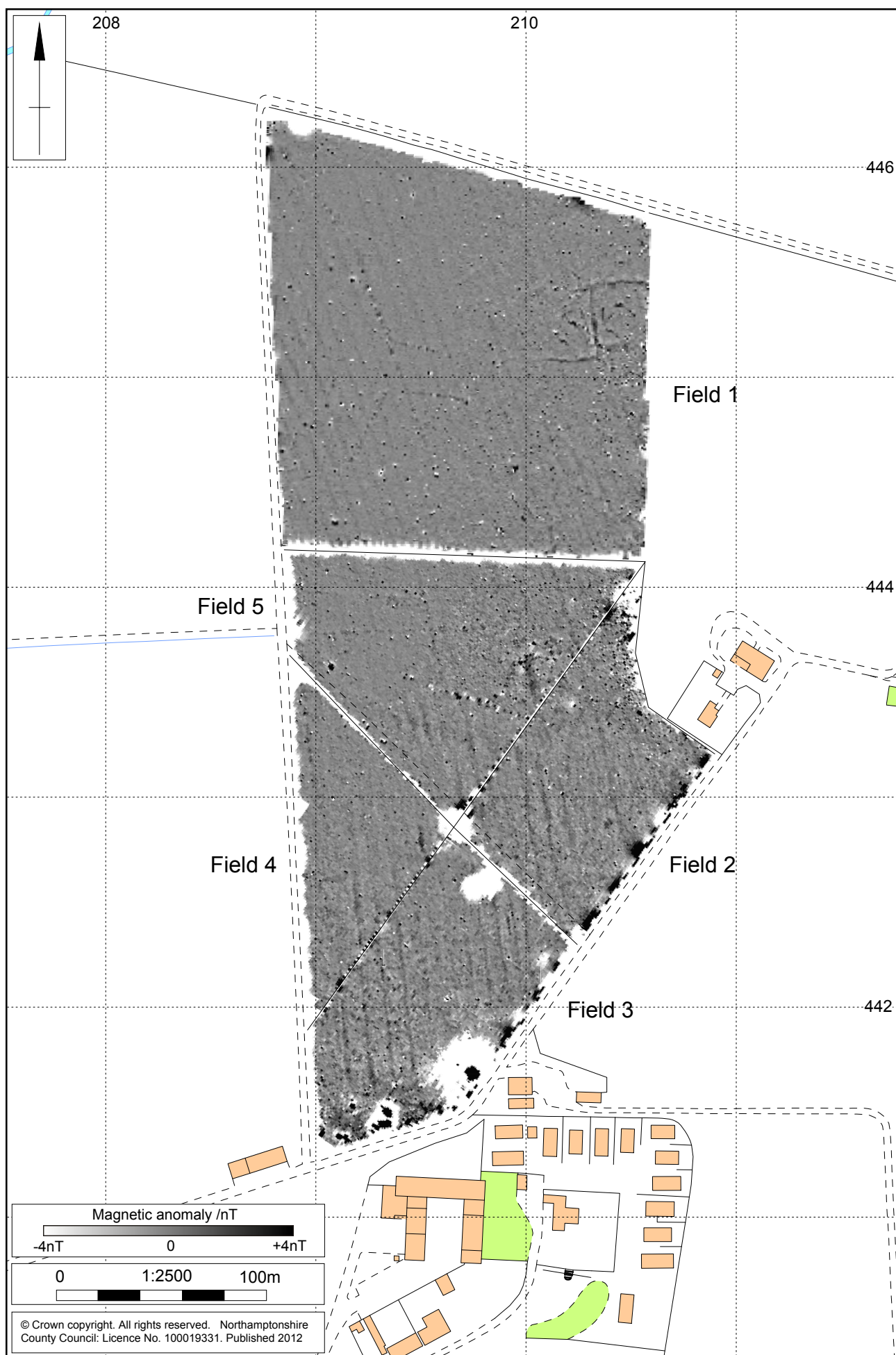
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Scale 1:20,000

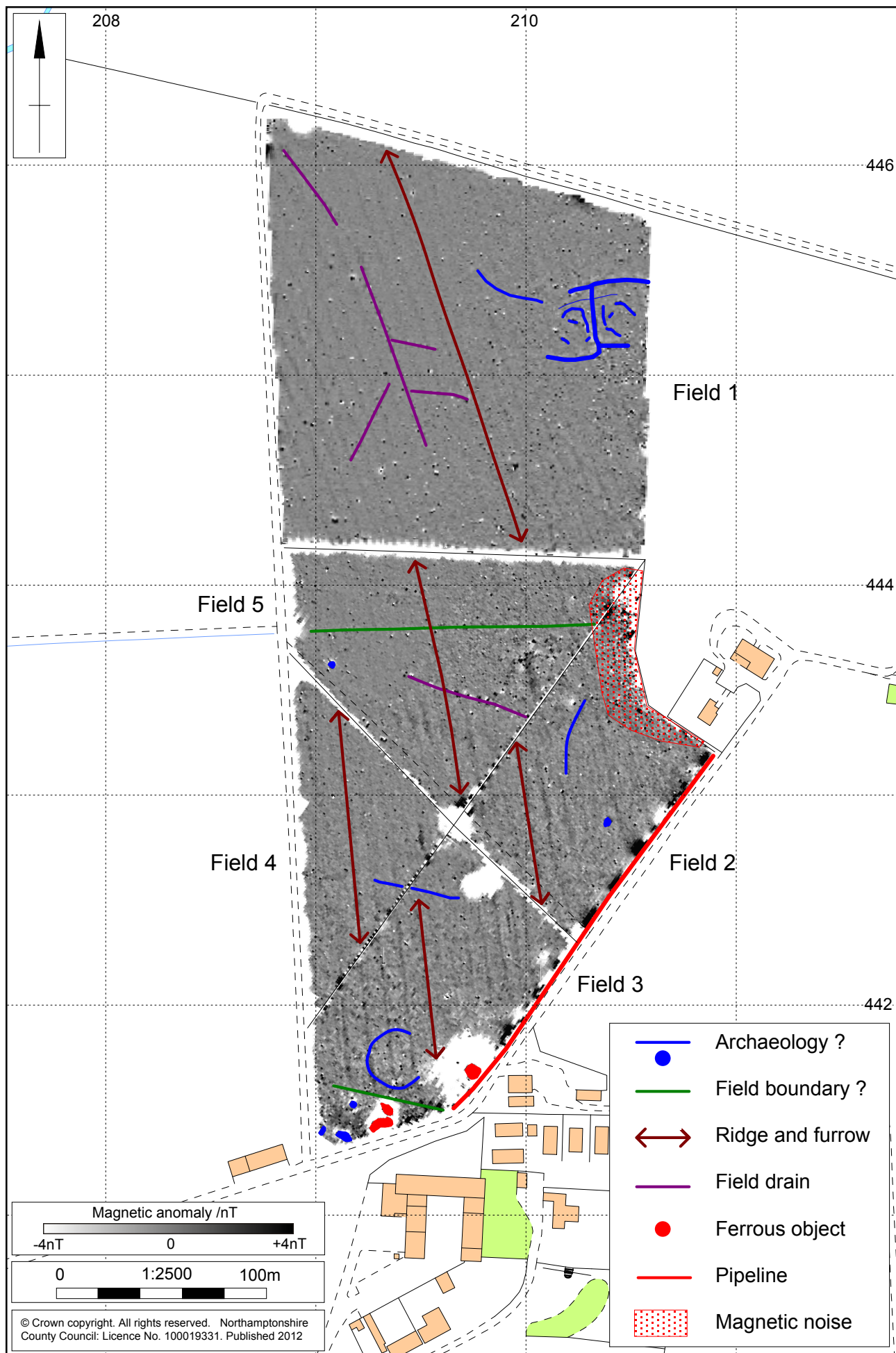
Site location Fig 1



1:2500

Magnetometer survey results Fig 2

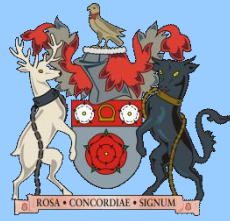




1:2500

Magnetometer survey interpretation Fig 3





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