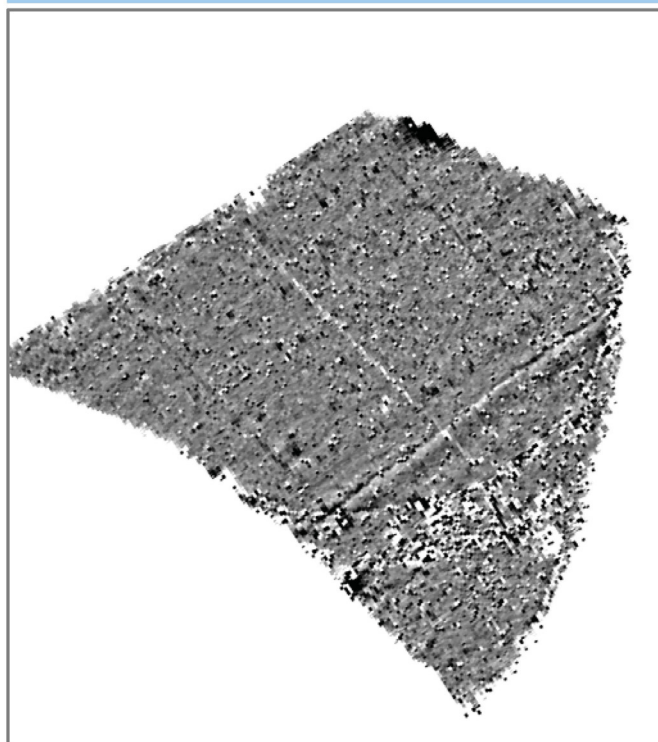




Northamptonshire Archaeology

Archaeological Geophysical Survey at Fenny Copse Farm, Quorn, Leicestershire



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Report 12/26

March 2012



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QUALITY CONTROL

	Print name	Signed	Date
Checked by	Ed Taylor	<i>ET</i>	2/3/2012
Verified by	Mark Holmes	<i>MH</i>	2/3/2012
Approved by	Adrian Butler	<i>AB</i>	5/3/2012

OASIS REPORT FORM

PROJECT DETAILS		
Project name	Archaeological Geophysical Survey at Fenny Copse Farm, Quorn, Leicestershire	
Short description	Northamptonshire Archaeology was commissioned to carry out a detailed magnetometer survey of a proposed development site located at Fenny Copse Farm, Quorn, Leicestershire. This survey, which covered an area of c 5.1 ha, identified a bank or headland of unknown date and some evidence of ridge and furrow cultivation. More recent features, including a ha-ha and the slight remains of some 19th century kennels, were observed on the ground but were not readily apparent in the magnetic data.	
Project type	Geophysical survey	
Site status	None	
Previous work	Desk-based assessment (Dawson 2011)	
Current Land use	Pasture	
Future work	Unknown	
Monument type/ period	Undated bank, medieval or later ridge and furrow, post-medieval ha-ha, 19th century kennels	
Significant finds		
PROJECT LOCATION		
County	Leicestershire	
Site address	Fenny Copse Farm, Meynell Road, Quorn	
Study area	c 5.1ha	
OS Easting & Northing	SK 564 171	
Height OD	c 40-45 m AOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	CgMs Consulting Ltd	
Project Design originator	CgMs Consulting Ltd	
Director/Supervisor	John Walford	
Project Manager	Adrian Butler	
Sponsor or funding body	CgMs Consulting Ltd	
PROJECT DATE		
Start date	1 February 2012	
End date	5 March 2012	
ARCHIVES	Location	Content
Physical	N/A	
Paper	NA	Site survey records
Digital	NA	Geophysical survey & GIS data
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	
Title	Archaeological Geophysical Survey at Fenny Copse Farm, Quorn, Leicestershire	
Serial title & volume	Northamptonshire Archaeology Reports 12/26	
Author(s)	John Walford	
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**ARCHAEOLOGICAL GEOPHYSICAL SURVEY AT
FENNY COPSE FARM, QUORN, LEICESTERSHIRE
MARCH 2012**

ABSTRACT

Northamptonshire Archaeology was commissioned to carry out a detailed magnetometer survey of a proposed development site located at Fenny Copse Farm, Quorn, Leicestershire. This survey, which covered an area of c 5.1 ha, identified an undated bank or headland, and possible evidence of ridge and furrow cultivation. More recent features, including a ha-ha and the slight remains of some 19th century kennels, were observed on the ground but were not readily apparent in the magnetic data.

1 INTRODUCTION

Northamptonshire Archaeology (NA) was commissioned by CgMs Consulting to conduct an archaeological geophysical survey in advance of a proposed development at Fenny Copse Farm, Meynell Road, Quorn, Leicestershire (NGR SK 564 171; Fig 1). The survey area encompassed five paddocks and pasture fields with a combined area of c 5.1ha. The aim of the survey was to investigate whether there were any archaeological remains present which might be affected by the proposed development.

2 TOPOGRAPHY AND GEOLOGY

The survey area is located immediately to the north of Quorn, and is bounded to the north and south by the A6 and Meynell Road. It is an approximately level piece of ground, standing between 40 and 45m AOD.

The geology of the survey area comprises river terrace deposits overlying the Branscome mudstone and siltstone (BGS 2012).

3 ARCHAEOLOGICAL BACKGROUND

The proposed development area has been the subject of a desk-based assessment (Dawson 2011), from which this summary largely derives.

The assessment noted that there are no certain sites of Prehistoric or Roman date within a 500m radius of the proposed development area, but that the Leicester HER lists a possible enclosure of unknown date to its immediate north, on the far side of the A6 (Fig 1) (Dawson 2011, fig 2). On this basis, it was judged that the area had a slight potential to contain remains dating from these periods.

With regard to Saxon and Medieval remains, the assessment noted that the known sites and findspots in the near vicinity were concentrated towards the historic core of Quorn and alongside the River Soar. It was thus suggested that the only remains likely to be encountered by the present survey would relate to agricultural activity.

To the immediate east of the survey area are the grounds of Quorn Hall, a Grade II listed building dating from c 1680. These grounds were once more extensive, and incorporated the easternmost field of the survey area (Field 5). This field still retains some parkland features, including a line of mature trees along its western boundary and a ha-ha along its eastern one (*pers obs*, see also Dawson 2011, fig 7). Also, in the south-western corner of the field, there are some overgrown brick footings which are presumably the remains of the kennels depicted on the 1st edition of the 6" Ordnance Survey map (1884).

Fenny Copse Farm itself is a very recent establishment, having been built from new in the late 1970s. The A6 dual carriageway and the western part of Meynell Road are even more recent, both having been constructed in the early 1990s.

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 five 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 with a Leica Systems 1200 dGPS. The gradiometers were then 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.

All fieldwork methods 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 is 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. A plot of the unprocessed ('raw') survey data is given in Figure 4.

5 SURVEY RESULTS

Field 1 (Figs 2-3)

Most of the data from Field 1 are magnetically subdued, and therefore uninformative. The only anomalies of note occur at the western end of the field, where there is one negative linear anomaly and a zone of less coherent magnetic noise. The linear anomaly perhaps indicates the line of a plastic or concrete pipe, or else a gravel filled drain. The magnetic noise relates to disturbed and embanked ground alongside the modern road.

Field 2 (Figs 2-3)

The data from this field are magnetically subdued and entirely uninformative.

Field 3 (Figs 2-3)

The data from this field are dominated by a series of ill-defined parallel linear anomalies, aligned from south-west to north-east, which perhaps represent the ploughed out remnants of medieval or later ridge and furrow cultivation. These anomalies are obscured in the south-western part of the field, where there are intense magnetic halos from the adjacent barns and a dense scatter of dipolar anomalies caused by modern rubbish.

Field 4 (Figs 2-3)

The principle anomalies in this field are a broad linear anomaly, with positive and negative components, aligned from south-west to north-east, and three parallel anomalies, two positive and one negative, aligned from north-west to south-east.

The broad linear anomaly coincides with a low earthen bank, which may be a plough headland or a boundary marker. It is not possible to suggest a date of origin for this feature, but it should be noted that a narrow strip field occupying much the same position and alignment is depicted the 1st edition of the 6" Ordnance Survey map (1884).

The central of the three parallel anomalies is negative, and coincides with a very slight linear depression in the field surface. Like the similar anomaly in Field 1, it seems likely to represent a plastic or concrete pipe or a gravel filled drain. The positive linear anomalies to its north and south are slightly harder to interpret. Such anomalies can be caused by infilled ditches, but in this case their spacing and alignment makes it more likely that they represent ceramic field drains or similar features of fairly recent date.

At the eastern end of the field there is an area of magnetic noise, consisting of a dense scatter of small dipolar anomalies. These probably indicate an area where there is a concentration of small ferrous debris or magnetic hardcore (granite, brick rubble, etc) in the topsoil. The exact significance of this is uncertain, but the fact that the scatter has one well defined curving edge suggests that it is more than just a random spread of material. Conceivably, it might mark the line of a former driveway or other landscape feature associated with Quorn Hall.

Field 5 (Figs 2-3)

The data from this field exhibits a high level of magnetic disturbance, and the only anomalies which can be interpreted with confidence relate to modern features. In particular, there are magnetic halos flanking the footbridge in the eastern side of the field, and further magnetic anomalies marking the line of the footpath to the south.

A concentration of smaller dipolar anomalies occurs along the western edge of the field. Some of these anomalies will have been caused by the iron railings which surround the individual trees in this area, others by ferrous debris in the topsoil and others, in the south-western corner of the field, by brickwork from the demolished 19th century kennels (see Section 3, above).

6 CONCLUSION

The magnetic survey has identified only a few features of minor archaeological interest. There is a low bank across Field 4, which may be an old headland or boundary marker, and there are also some possible traces of ridge and furrow cultivation. Some further features of post-medieval date were observed on the ground, but are not readily apparent in the magnetic data. In particular, there is a ha-ha along the eastern edge of Field 5, and there are some overgrown brick footings in the south-western corner of the same field. The latter presumably represent the kennels depicted the 1st edition of the 6" Ordnance Survey map (1884).

The survey results thus suggest that the proposed development area is devoid of any substantial archaeological features pre-dating the ridge and furrow. However, bearing in mind the limitations of magnetometer survey (EH 2008, 14), there remains a low possibility that some slight or ephemeral archaeological features may exist in the area and not have been detected.

BIBLIOGRAPHY

Bartington, G, and Chapman, C, 2003, A high-stability fluxgate magnetic gradiometer for shallow geophysical survey applications, *Archaeological Prospection*, **11**, 19-34

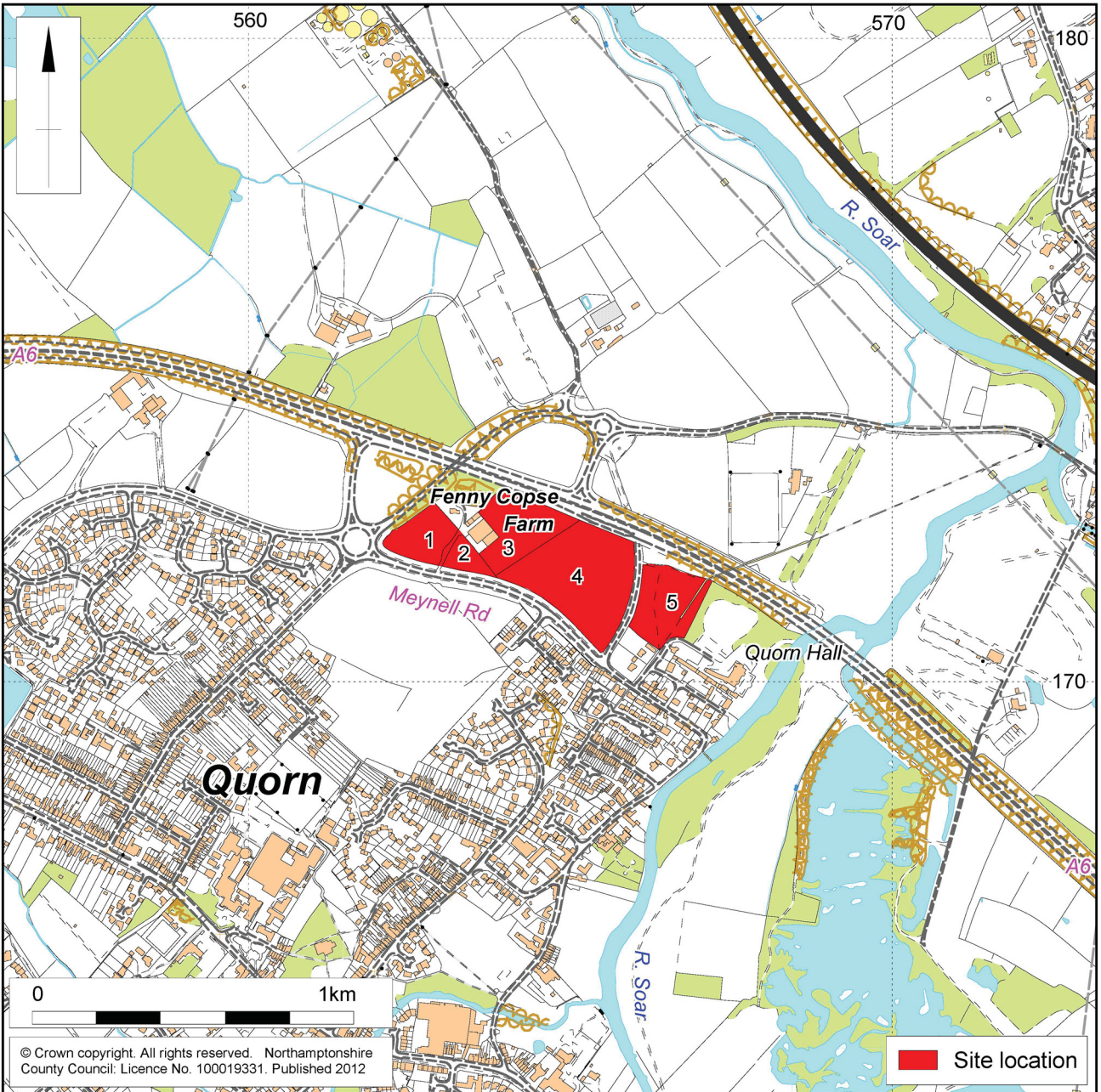
BGS 2012, *GeoIndex*, <http://mapapps2.bgs.ac.uk/geoindex/home.html>, consulted 1/3/2012

Dawson, M, 2011 *Heritage Assessment: Land at Fenny Copse Farm, Meynell Road, Quorn, Leicestershire*, CgMs report **MD/12542**

EH 2008 *Geophysical Survey in Archaeological Field Evaluation*, English Heritage

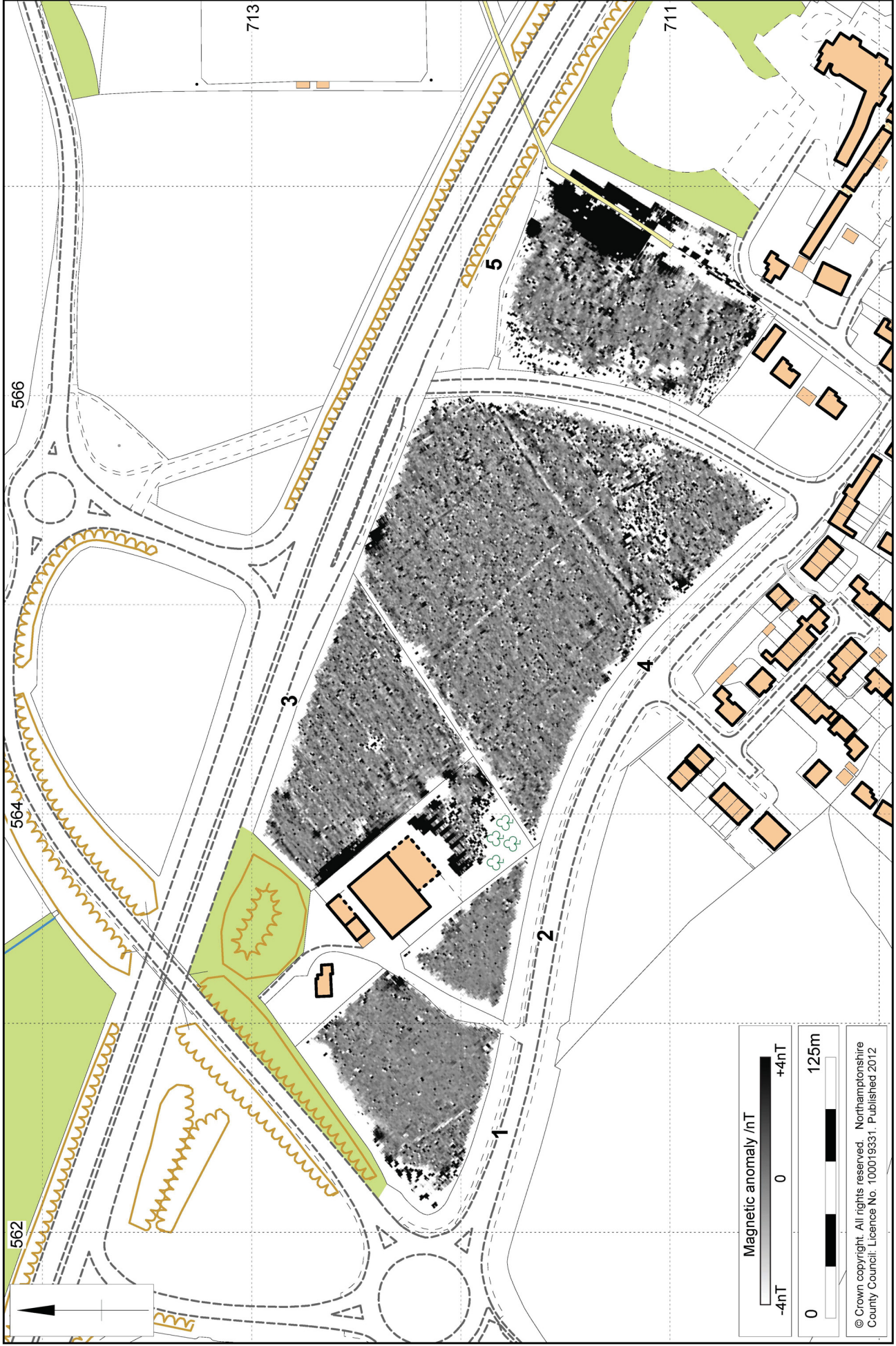
Gaffney, C, and Gater, J, 2003, *Revealing the buried past: Geophysics for archaeologists*, Tempus Publishing

IfA 2011, *Standard and Guidance for Archaeological Geophysical Survey*, Institute for Archaeologists



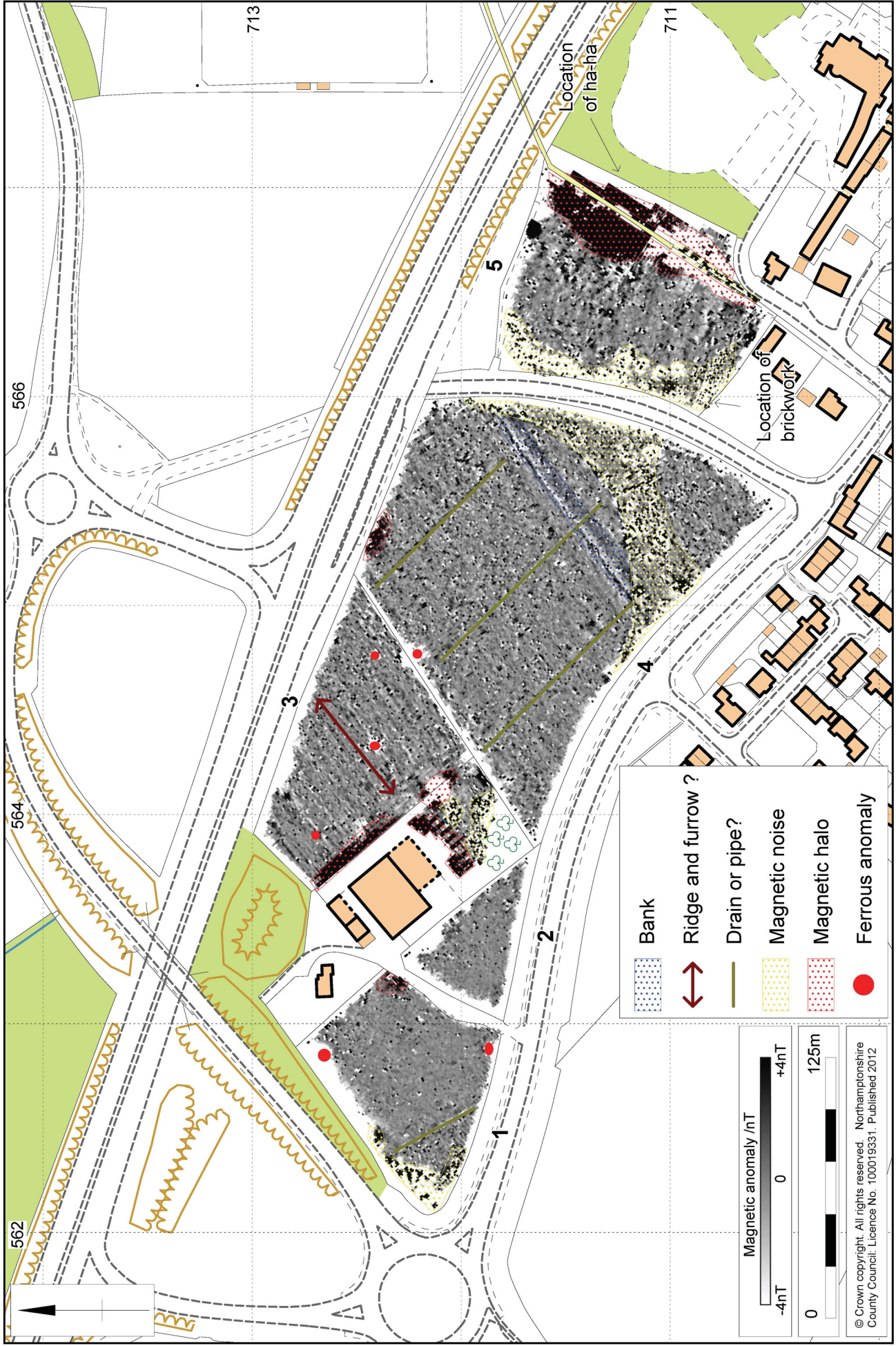
Scale 1:10,000

Site Location Fig 1



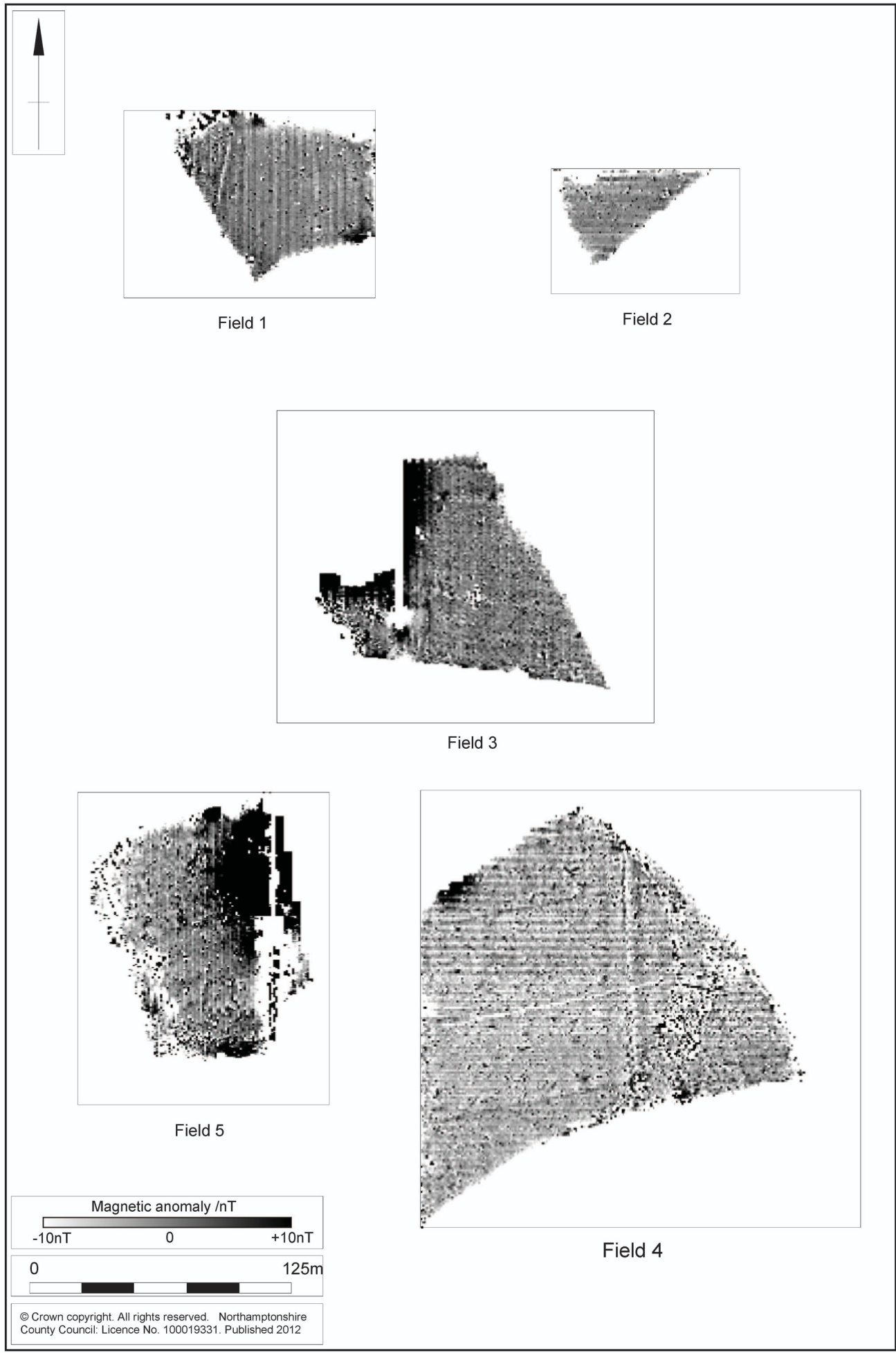
Magnetometer Survey Results Fig 2

Scale 1:2,500



Magnetometer Survey Interpretation Fig 3

Scale 1:2,500





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