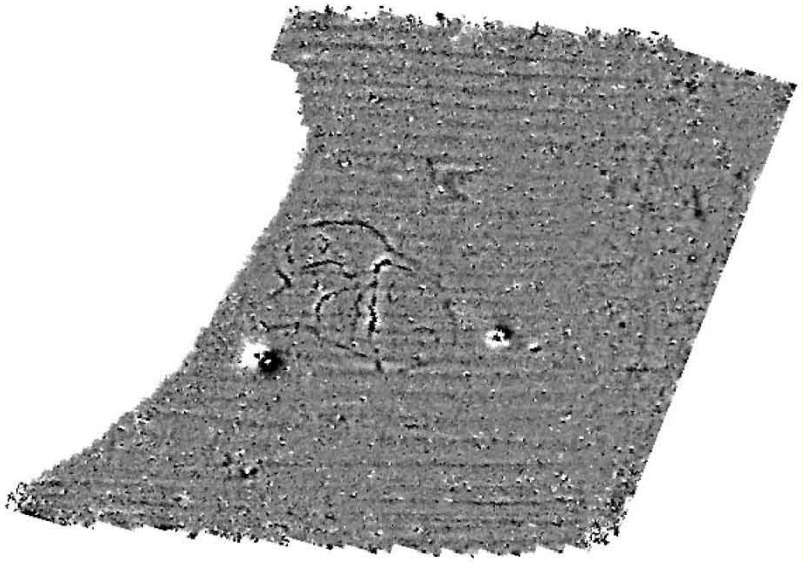
Northamptonshire Archaeology

Archaeological geophysical survey on land at Willoughby Road, Countesthorpe, Leicestershire
Accession No. X.A35.2010



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Report 10/58

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QUALITY CONTROL

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OASIS REPORT FORM

PROJECT DETAILS		
Project name	Archaeological Geophysical Survey on land at Willoughby Road, Countesthorpe, Leicestershire	
Short description	Northamptonshire Archaeology was commissioned by CgMs Consulting to conduct archaeological geophysical survey on land at Willoughby Road, Countesthorpe. A magnetometer survey was undertaken over an area of 6.5ha. A series of archaeological features comprising circular and sub-rectangular enclosures with associated internal features were located in the central part of the site. Medieval ridge-and-furrow was also present across the entire area.	
Project type	Geophysical survey	
Site status	None	
Previous work	Unknown	
Current Land use	Pasture	
Future work	Trial trench evaluation?	
Monument type/ period	Possible Iron Age/Roman settlement and medieval ridge-and-furrow	
Significant finds	None	
PROJECT LOCATION		
County	Leicestershire	
Site address	Willoughby Road, Countesthorpe	
Study area	6.5ha	
OS Easting & Northing	45760 29515	
Height OD	*c* 90m AOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	CgMs Ltd	
Project Design originator	Northamptonshire Archaeology	
Director/Supervisor	James Ladocha	
Project Manager	Adrian Butler	
Sponsor or funding body	CgMs Ltd	
PROJECT DATE		
Start date	23 March 2010	
End date	26 March 2010	
ARCHIVES	**Location**	**Content**
Physical	N/A	
Paper	X.A35.2010	Site survey records
Digital	X.A35.2010	Geophysical survey & GIS data
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	
Title	Archaeological Geophysical Survey on land at Willoughby Road, Countesthorpe, Leicestershire	
Serial title & volume	Northamptonshire Archaeology Reports 10/58	
Author(s)	Charlotte Walker and Ian Fisher	
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ARCHAEOLOGICAL GEOPHYSICAL SURVEY ON LAND AT WILLOUGHBY ROAD, COUNTESTHORPE, LEICESTERSHIRE

MARCH 2010

ACCESSION NO X.A35.2010

ABSTRACT

Northamptonshire Archaeology was commissioned by CgMs Consulting to conduct archaeological geophysical survey on land at Willoughby Road, Countesthorpe. A magnetometer survey of a 6.5ha area was undertaken. A series of archaeological features comprising circular and subrectangular enclosures with associated internal features were located in the central part of the site. Medieval ridge-and-furrow was also present across the entire area.

1 INTRODUCTION

Northamptonshire Archaeology was commissioned by CgMs Consulting, on behalf of their clients, to carry out a geophysical survey on land at Willoughby Road, Countesthorpe (NGR SP 5760 9515; Fig 1). The methodology for the geophysical survey was set out in the Method Statement prepared by NA (2010). The survey forms part of a planning application for residential development and associated works (Planning Application No 09/0780/1/OX).

The objectives of the geophysical survey were to identify the presence or absence of archaeological remains within the proposed development area. The fieldwork consisted of an area magnetic gradiometer survey in three fields totalling 6.5ha (Fig 2).

2 TOPOGRAPHY AND GEOLOGY

The site is situated to the east of Willoughby Road on the southern edge of the village of Countesthorpe. The village is itself situated approximately 9km south of Leicester city centre. The investigation site covers a roughly rectangular area of land and is spread over three fields. Field 1 is bounded by Willoughby Road to the west, and housing to the north-west and Fields 2 and 3 are bounded to the north by housing and to the south by a playing field. Field 3 is bounded to the east by allotments. All three fields are currently pasture.

The underlying geology of the area predominately comprises Lower Lias clays (CgMs 2009). The site lies at approximately 90m aOD.

3 ARCHAEOLOGICAL BACKGROUND

A desk-based assessment of the development area was carried out by CgMs Consulting (2009). No previous archaeological investigation has been undertaken within the development area. There is very little evidence of prehistoric activity in the vicinity of the site; the closest monument, that of three undated mounds now destroyed, is situated

750m to the north-west. Similarly, though the Roman period is well-represented in the region, there was no evidence of activity of this period in the vicinity.

The village is first mentioned in the early 13th century, although a coin of Justinian dating to the late 5th/6th centuries suggests that there may have been earlier activity in the area. The development area probably lay in the open fields surrounding the village throughout the medieval and post-medieval periods. Late 19th and 20th century mapping of the area shows a gradual encroachment of housing and factories. Field 3 was part of an allotment garden from at least 1904 until the middle of the 20th century.

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).

The area was split into Fields 1 to 3, with each of these divided into a network of whole and partial, 30m x 30m grid squares. These were set out manually by tape measure and optical square. The instruments were carried at a brisk but steady pace through each grid, collecting data along 1m spaced traverse lines. Measurements were automatically triggered every 0.25m along the traverses, giving a total of 3600 measurements per grid.

All fieldwork was carried out in accordance with the guidelines issued by English Heritage and by the Institute for Archaeology (EH 2008; Gaffney, Gater and Ovendon 2002).

The data was processed using Geoplot 3.00u software. Striping, occasionally caused by slight mismatches in sensor balance, was removed using the 'Zero Mean Traverse' function (ZMT) and destaggering of the data was performed as necessary.

The processed data is presented in this report in the form of a greyscale plot (scale +4nT to -4nT black ~ white). This has been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2). An interpretative plot has been produced and is shown overlain onto the data in Figure 3.

5 SURVEY RESULTS

The major magnetic anomalies detected at Willoughby Road were a series of curvilinear and rectangular enclosures and probable associated ditches located in Field 2. There is evidence for circular ditches inside the enclosures; these may be roundhouses. Their form would suggest a possible Iron Age-Roman date. There were two strongly dipolar anomalies south of the enclosures which are likely to be caused by modern ferrous material. However, there is a possibility that they have an archaeological origin.

The alternate linear positive and negative bands represent a remnant ridge and furrow cultivation pattern and are present in all three fields, orientated east to west.

Two trees in Field 1 caused the strong dipolar responses.

An area of magnetic disturbance at the north of Field 3 is likely to be a result of its use as allotment gardens. Further strongly dipolar anomalies in this field are likely to be ferrous in nature and modern in origin.

6 CONCLUSION

The magnetometer survey at Willoughby Road identified a probable Iron Age/Roman site in the central part of the proposed development area as well as evidence of former medieval ridge and furrow cultivation.

BIBLIOGRAPHY

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

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Gaffney, C, Gater, J, and Ovendon, S, 2002 *The Use of Geophysical Techniques in Archaeological Evaluations*, Institute for Archaeologists Technical Paper, **6**

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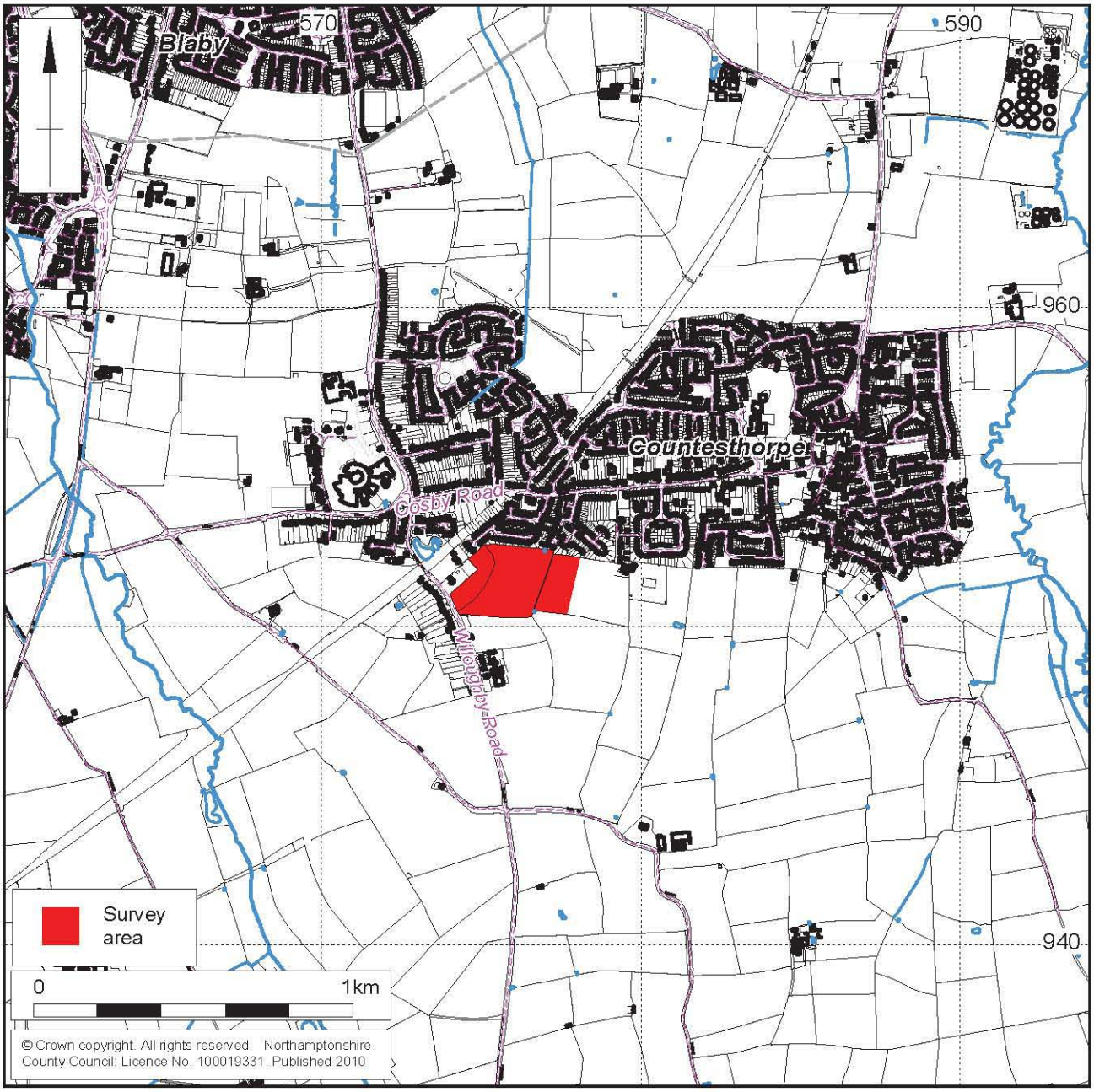

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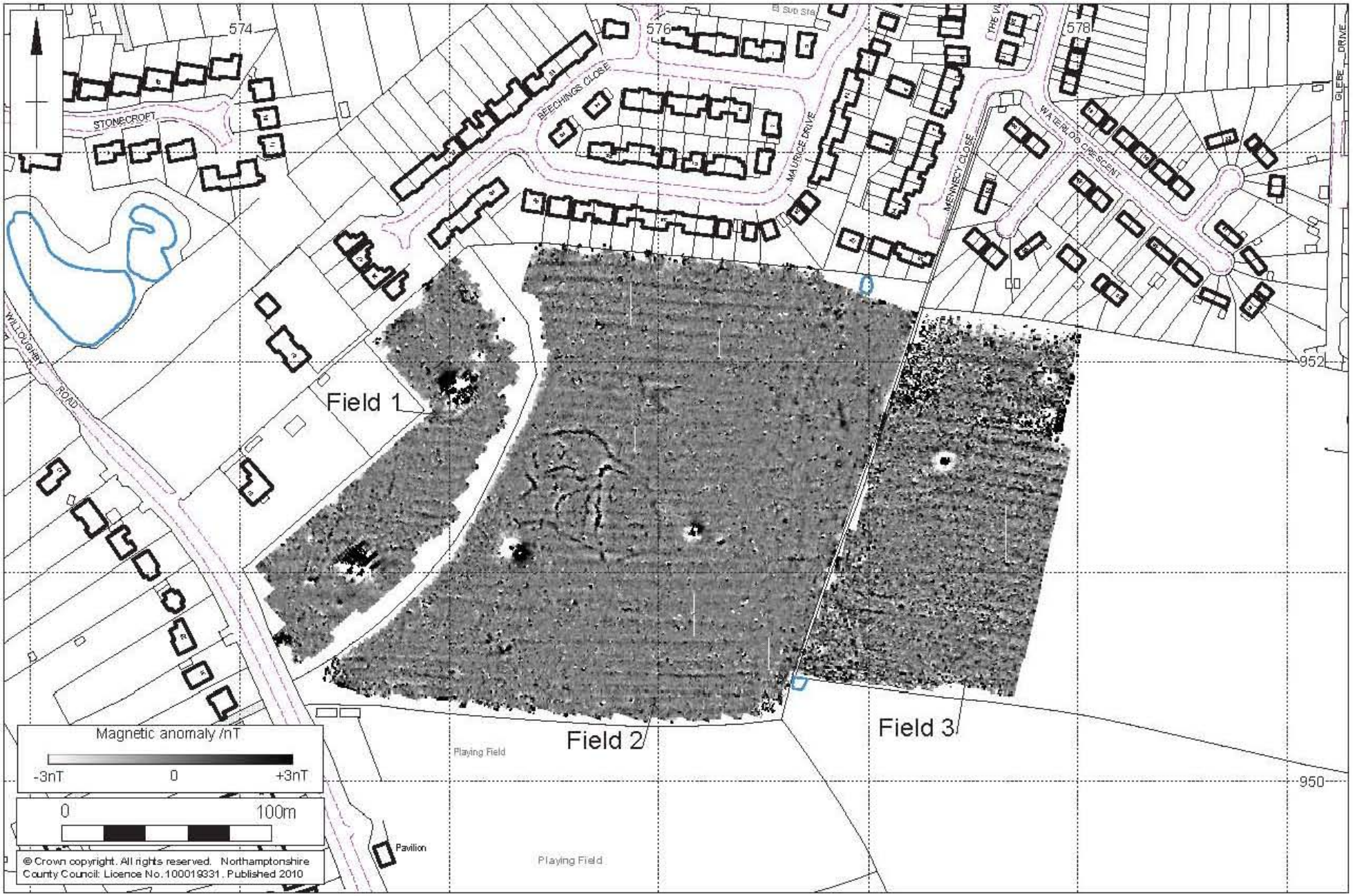
Site Location Fig 1



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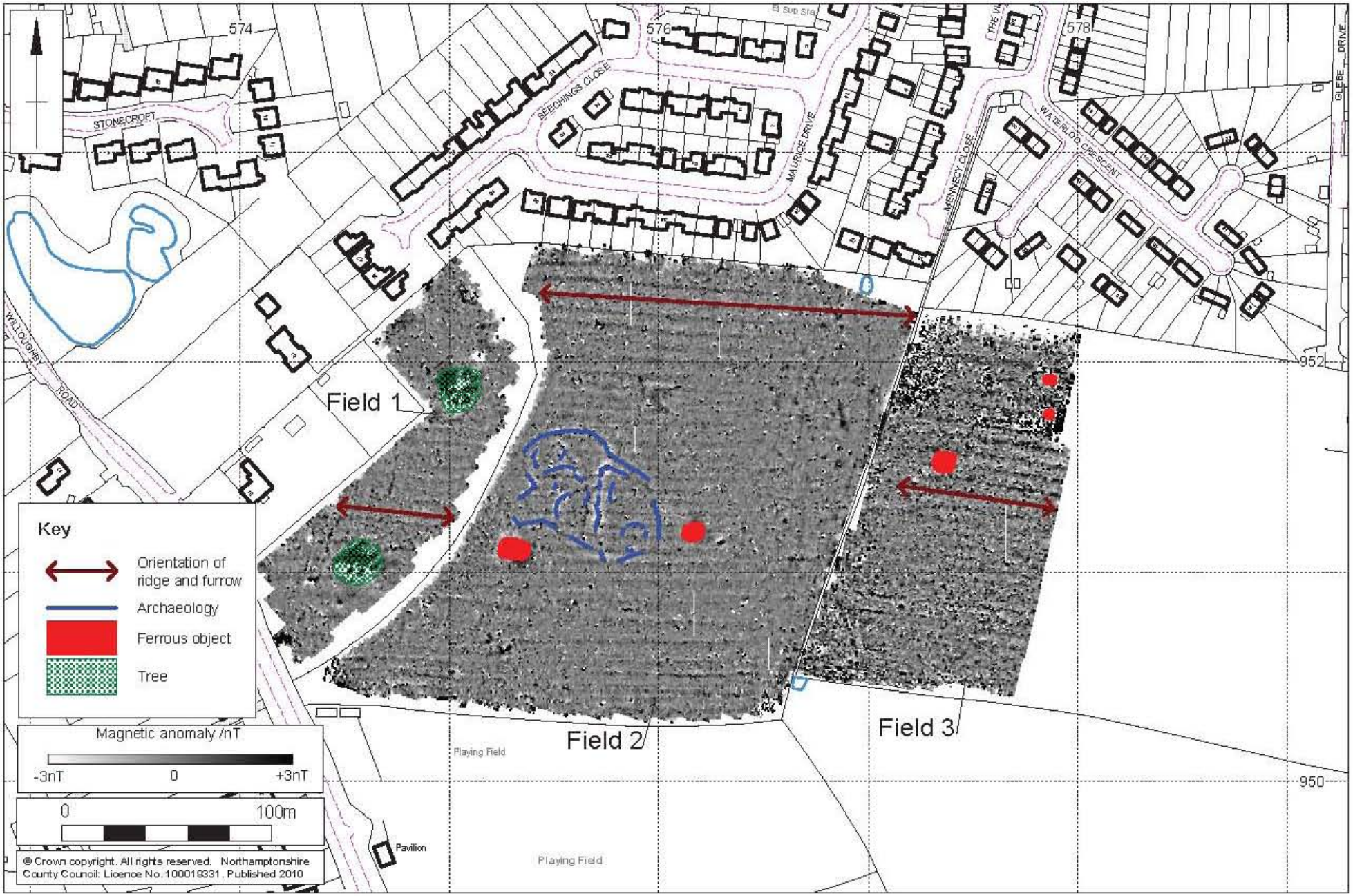
Countesthorpe, Willoughby Road, Magnetometer Results Fig 2



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Countesthorpe, Willoughby Road, Magnetometer Interpretation Fig 3

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