



**Archaeological geophysical survey  
on land at Bedford Road,  
Great Barford, Bedfordshire  
July 2015**

Report No: 15/137

Author: Adam Meadows

Illustrator: Adam Meadows





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Illustrations: Adam Meadows

**OASIS REPORT**

<b>PROJECT DETAILS</b>		Oasis No. molanort1-219187	
Project name	Archaeological geophysical survey on land at Bedford Road, Great Barford, Bedfordshire, July 2015		
Short description	MOLA Northampton was commissioned to carry out a detailed magnetometer survey of land at Bedford Road, Great Barford, Bedfordshire in advance of a proposed development. The survey detected remnant furrows of medieval ridge and furrow cultivation.		
Project type	Geophysical survey		
Site status	None		
Previous work	Unknown		
Current Land use	Pasture		
Future work	Unknown		
Monument type/ period	Medieval ridge and furrow		
Significant finds	None		
<b>PROJECT LOCATION</b>			
County	Bedfordshire		
Site address	Bedford Road, Great Barford		
Study area	c 2.5ha		
OS Easting & Northing	TL 127 521		
Height OD	c 25m aOD		
<b>PROJECT CREATORS</b>			
Organisation	MOLA Northampton		
Project brief originator	Prospect Archaeology		
Project design originator	MOLA Northampton		
Director/Supervisor	John Walford		
Project Manager	John Walford		
Sponsor or funding body	Linden Homes		
<b>PROJECT DATE</b>			
Start date	23 July 2015		
End date	23 July 2015		
<b>ARCHIVES</b>	Location	Content	
Physical	N/A		
Paper	MOLA Northampton	Site survey records	
Digital	BEDFM:2015.58	Geophysical survey & GIS data	
<b>BIBLIOGRAPHY</b>	Journal/monograph, published or forthcoming, or unpublished client report		
Title	Archaeological geophysical survey on land at Bedford Road, Great Barford, Bedfordshire, July 2015		
Serial title & volume	MOLA Northampton Reports 15/137		
Author(s)	Adam Meadows		
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# Archaeological geophysical survey on land at Bedford Road, Great Barford, Bedfordshire July 2015

## ABSTRACT

*MOLA Northampton was commissioned to carry out a detailed magnetometer survey of land at Bedford Road, Great Barford, Bedfordshire in advance of a proposed development. The survey detected remnant furrows of medieval ridge and furrow cultivation.*

## 1 INTRODUCTION

MOLA was commissioned by Prospect Archaeology, on behalf of Linden Homes, to conduct a geophysical survey on land at Bedford Road, Great Barford, Bedfordshire (NGR TL 127 521; Fig 1). The magnetometer survey was undertaken on the 23 July and covered the full extent of the survey area which consisted of a field of short to middling length grass. This was then recorded under the Bedford Museum Accession Number: BEDFM:2015.58.

## 2 BACKGROUND

### 2.1 Topography and geology

The proposed development area lies to the southern edge of Great Barford, east of Bedford Road. It is a long rectangular field covering c 2.5 ha of land bounded by modern houses to the north, sports grounds owned by the Alban Middle School to the south and east and Bedford Road to the west.

The survey area lies on a gentle south-east facing slope between 25m and 29m above Ordinance Datum. The underlying geology is mapped as Peterborough member Oxford Clay under Boulder Clay to the west and river terrace gravels to the east (BGS 2015).

### 2.2 Historical and archaeological background

The survey area sits outside of the historic core of Great Barford. There is no known archaeology within the survey area and the first edition Ordnance Survey map does not indicate there being any recent features present.

A search of the Historic Environment Register (HER) for Bedfordshire indicates that many of the fields surrounding the survey area within a 1km radius contain cropmarks, though there is little indication as to whether these have been investigated further.

An Iron Age site was excavated just over a kilometre south-west of the survey area. Here, a number of ditches and possible pits were excavated containing shell tempered pot and large quantities of charcoal (HER: 9834). Further Iron Age remains were found between 600-700m east-south-east of the survey area. Here an Iron Age pit alignment with a series of parallel ditches was unearthed alongside a human cremation

(MBB32889). Near to this on another site a Roman ditched enclosure was revealed with possible contemporary pits (MBB21781).

An excavation made in relation to the Great Barford Flood Attenuation Scheme discovered evidence of Saxon occupation located around 850m north of the survey area. Finds here included nails, animal bones, pottery and slag within ditch field systems and postholes (HER No: 13358; MBD18637). Further evidence of the Saxon occupation lays c600m east of the survey area at College Farm, Great Barford. Here archaeological excavations uncovered two ditches and three postholes containing Saxon pottery (MBB21782).

The centre of the medieval settlement is located within 600m east of the survey area, near the modern church. During an evaluation, features of medieval date were discovered may suggest the positioning of individual structures (HER: 17150).

The village of Great Barford contains a number of listed buildings that mostly follow Green End Road within the historic core of the village. These include a 17th-century block of houses along the High Street that are grade III listed (HER: 2321) and a mid19th-century school built by Thomas Johnson Jackson of Bedford (HER: 7181).

### **3 METHODOLOGY**

The magnetometer 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 network of 30m grid squares was established across the field to be surveyed. These were set out with a tape measure and optical square and were tied in to the Ordnance Survey National Grid by means of a Leica Viva RTK GPS. 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. All fieldwork methods complied with the guidelines issued by Historic England and by the Chartered Institute for Archaeologists (HE 2015; ClfA 2014) and with a method statement approved by Prospect Archaeology.

The survey data were visualised in Geoplot 3.00v and were largely processed using the same software. Striping, caused by slight imbalances between the sensor probes, was removed where possible with Geoplot's 'Zero Mean Traverse' function, although some data grids had to be de-striped separately, using an Excel spreadsheet based routine, in order to preserve linear anomalies lying parallel to the traverse direction. The 'Destagger' function in Geoplot was used as necessary to correct reading displacements caused by an uneven survey pace.

The processed data is presented in this report as a greyscale plot (range +4nT to -4nT / black to white), rotated and scaled for display against the Ordnance Survey base mapping (Fig 2). An interpretative plot is provided as Figure 3 and a plot of the unprocessed data as Figure 4.



#### 4 SURVEY RESULTS

The survey results detected remnant furrows of medieval ridge and furrow cultivation covering much of the site. To the west there are approximately 11 discernible furrows, orientated north-west to south-east. Along the south-eastern boundary there are a further two furrows orientated north-east to south-west. The area between these furlongs is generally featureless with the occasional weakly positive anomaly that is likely to relate to a geological variation.

The survey results also detected a number of intense dipoles and halos arising from various small pieces of ferrous debris within the soils. The north, east and southern boundaries display strong positive and negative magnetic halos originating from metal within the fences surrounding the field.

#### 5 CONCLUSION

The survey detected two differing alignments of medieval ridge and furrow cultivation that covers the south-eastern and north-western parts of the survey area. The rest of the data has detected slight fluctuations in the natural geology and modern debris.

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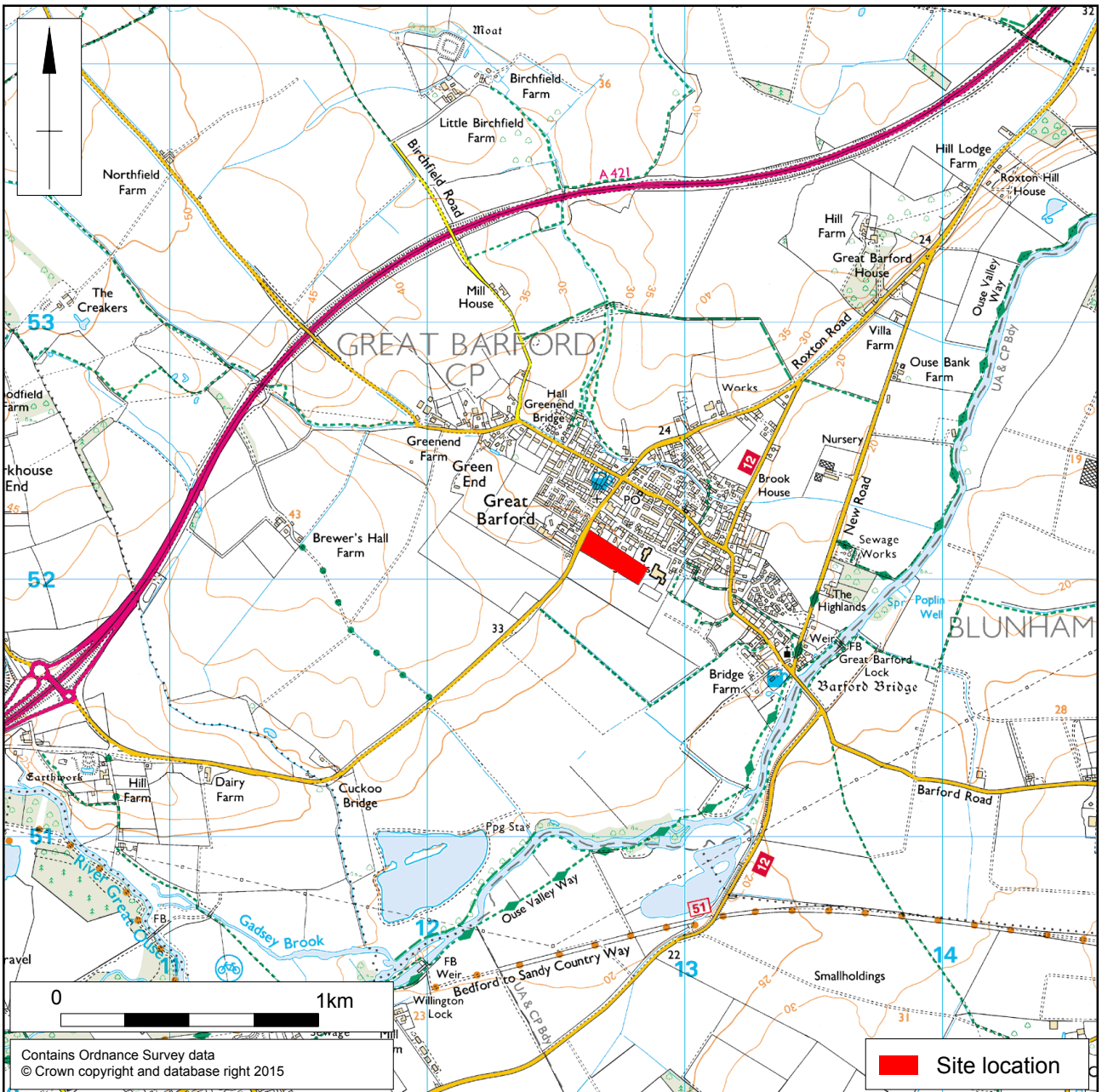
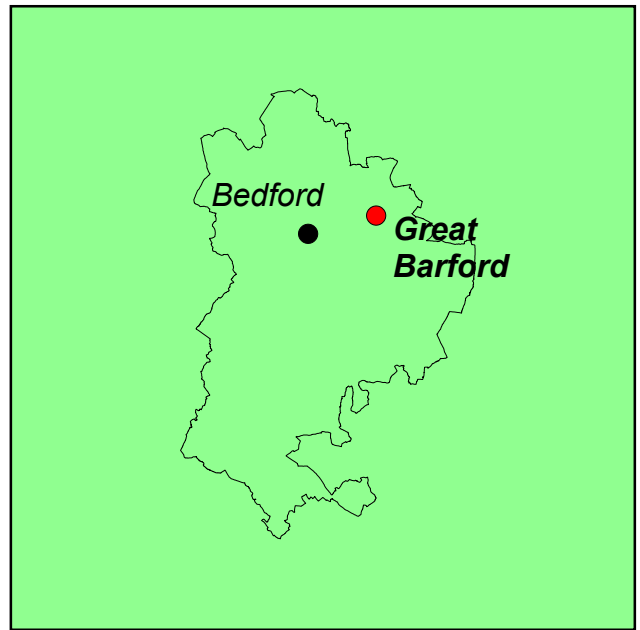
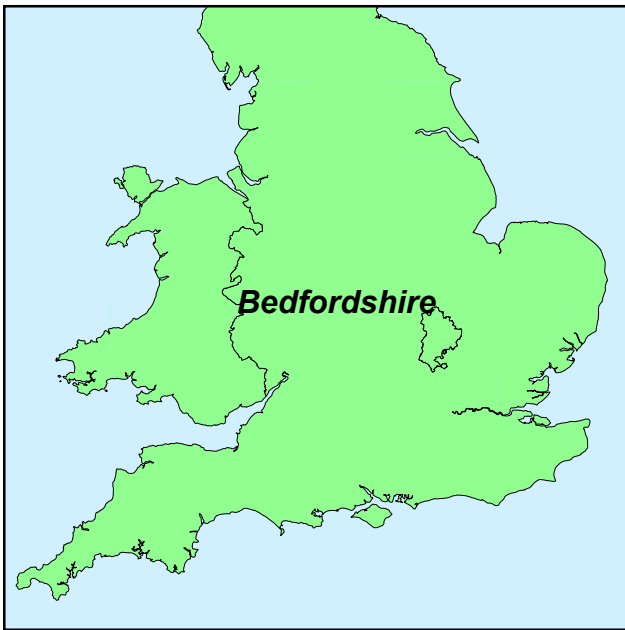
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31 July 2015



Scale 1:25,000

Site location Fig 1



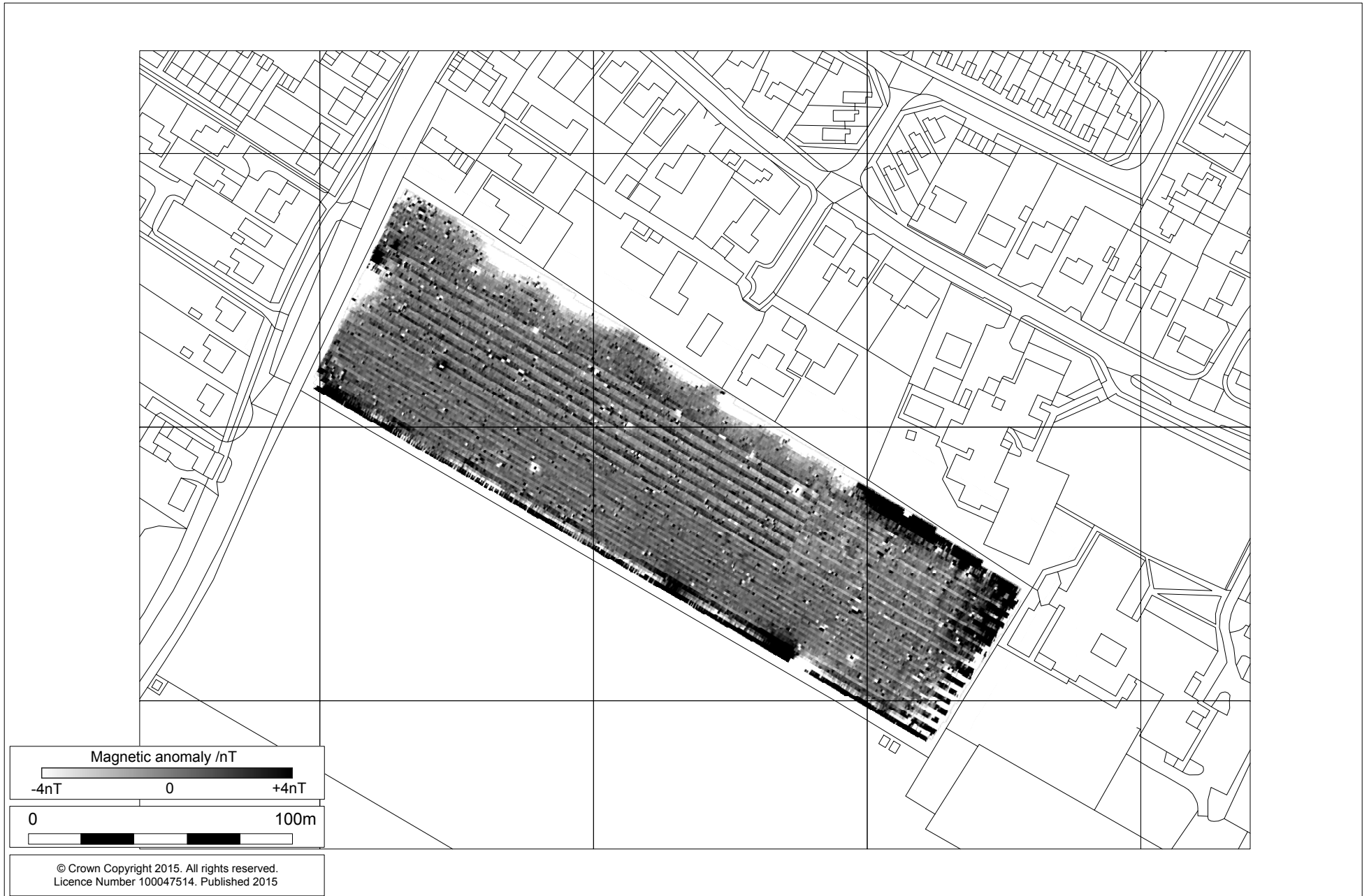
1:2000

Magnetometer survey results Fig 2



1:2000

Magnetometer survey interpretation Fig 3



1:2000

Unprocessed magnetometer survey data Fig 4



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