



**Archaeological geophysical survey of land
to the rear of East Street,
Fritwell, Oxfordshire
September 2014**

Report No. 14/190

Author: Ian Fisher

Illustrator: John Walford



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OASIS REPORT

PROJECT DETAILS		Oasis No. molanort1-192017	
Project name	Archaeological geophysical survey of land to the rear of East Street, Fritwell, Oxfordshire.		
Short description	MOLA was commissioned to carry out a detailed magnetometer survey on land to the rear of East Street, Fritwell, Oxfordshire. The survey identified two possible ditched enclosures and a complex pattern of positive magnetic anomalies which are not fully interpretable.		
Project type	Geophysical survey		
Site status	None		
Previous work	None		
Current Land use	Pasture		
Future work	Unknown		
Monument type/ period	None		
Significant finds	Undated ditched enclosures		
PROJECT LOCATION			
County	Oxfordshire		
Site address	East Street		
Study area	c 1ha		
OS Easting & Northing	SP 527 293		
Height OD	c 125 – 129m aOD		
PROJECT CREATORS			
Organisation	MOLA Northampton		
Project brief originator			
Project design originator	MOLA Northampton		
Director/Supervisor	Adam Meadows		
Project Manager	John Walford		
Sponsor or funding body	EDP		
PROJECT DATE			
Start date	18 September 2014		
End date	18 September 2014		
ARCHIVES	Location	Content	
Physical	N/A		
Paper	MOLA Northampton	Site survey records	
Digital		Geophysical survey & GIS data	
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report		
Title	Archaeological geophysical survey of land to the rear of East Street, Fritwell, Oxfordshire, September 2014		
Serial title & volume	MOLA Northampton Reports 14/190		
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ABSTRACT

MOLA was commissioned to carry out a detailed magnetometer survey on land to the rear of East Street, Fritwell, Oxfordshire. The survey identified two possible ditched enclosures and a complex pattern of positive magnetic anomalies which are not fully interpretable.

1 INTRODUCTION

MOLA was commissioned by EDP to conduct a geophysical survey on 1ha of pasture land to the west of East Street, Fritwell, Oxfordshire (NGR SP 527 293; Fig 1). A detailed magnetometer survey was undertaken on the 18 September 2014.

2 BACKGROUND

2.1 Location and geology

The survey area consists of an irregular-shaped parcel of land located within the historic core of Fritwell. It is surrounded on three sides by a mixture of historic and modern buildings, whilst fields form the southern boundary. A small stream bisects the area from north-east to south-west.

The survey area lies on a shallow south-west facing slope at an elevation of c 125m – 129m aOD. The geology of the area is recorded as Great Oolite Limestone with a narrow band overlying alluvium alongside the stream (BGS 2014).

2.2 Historical and archaeological background

The survey area lies within the historic core of Fritwell, 200m north-east of the 12th-century St Olave's Church, and is surrounded on three sides by a mix of historic and modern buildings. However, it is depicted as undeveloped land on both the 1815 and 1881 editions of the Ordnance Survey, and the only known evidence for pre-19th-century activity is a scatter of medieval pottery which was discovered in a sewer pipe easement in 1997 (Oxfordshire HER MOX4876).

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).

A network of 30m grid squares was established across the survey area. The grid was set out with a tape measure and optical square and was tied in to the Ordnance Survey

National Grid by means of a Leica Viva 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. All fieldwork methods complied with the guidelines issued by English Heritage and by the Institute for Archaeologists (EH 2008; IfA 2011).

The survey data was processed using Geoplot 3.00v software. The striping was removed using the 'Zero Mean Traverse' function and destaggering of the data was performed where necessary. The processed data is presented in this report in the form of a greyscale plot at a range of +4nT (black) to -4nT (white). This has been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2) and is shown with an interpretative overlay in Figure 3. A separate plot of the unprocessed data is presented in Figure 4.

4 SURVEY RESULTS

The survey data contains anomalies of probable archaeological origin. The north-western field contains a set of linear anomalies that may represent part of a rectilinear enclosure. However, it may just represent two enhanced plough furrows and a single linear ditch aligned north-west to south-east. In the north-eastern part of the field, two isolated linear anomalies have been identified. They are approximately 10m long and their purpose cannot be determined. Faint ridge and furrow cultivation can be identified on a north-east to south-west alignment across the field.

The south-eastern field displays a complex pattern of linear and amorphous anomalies. On the southern edge of the field, two parallel sinuous anomalies are intersected by a dog-legged linear anomaly. Two linear parallel anomalies also intersect the anomalies and possibly define a narrow rectilinear enclosure. Scattered about the central part of the field are a jumble of short linear anomalies and amorphous anomalies. The linear anomalies may indicate ditches, whilst the amorphous anomalies may be pits.

A random scatter of ferrous objects has been identified in the two fields, as well as magnetic debris and ferrous halos. The ferrous objects are of probable agricultural origin and or modern rubbish, whilst the magnetic debris and ferrous halos are the result of metal fencing and rubbish accumulations around the edges of the fields.

5 CONCLUSION

The magnetometer survey has detected two possible rectilinear enclosures of probable archaeological origin. The remaining anomalies detected may also be of archaeological origin. However, due to the fragmentary nature, it is not possible to fully interpret them.

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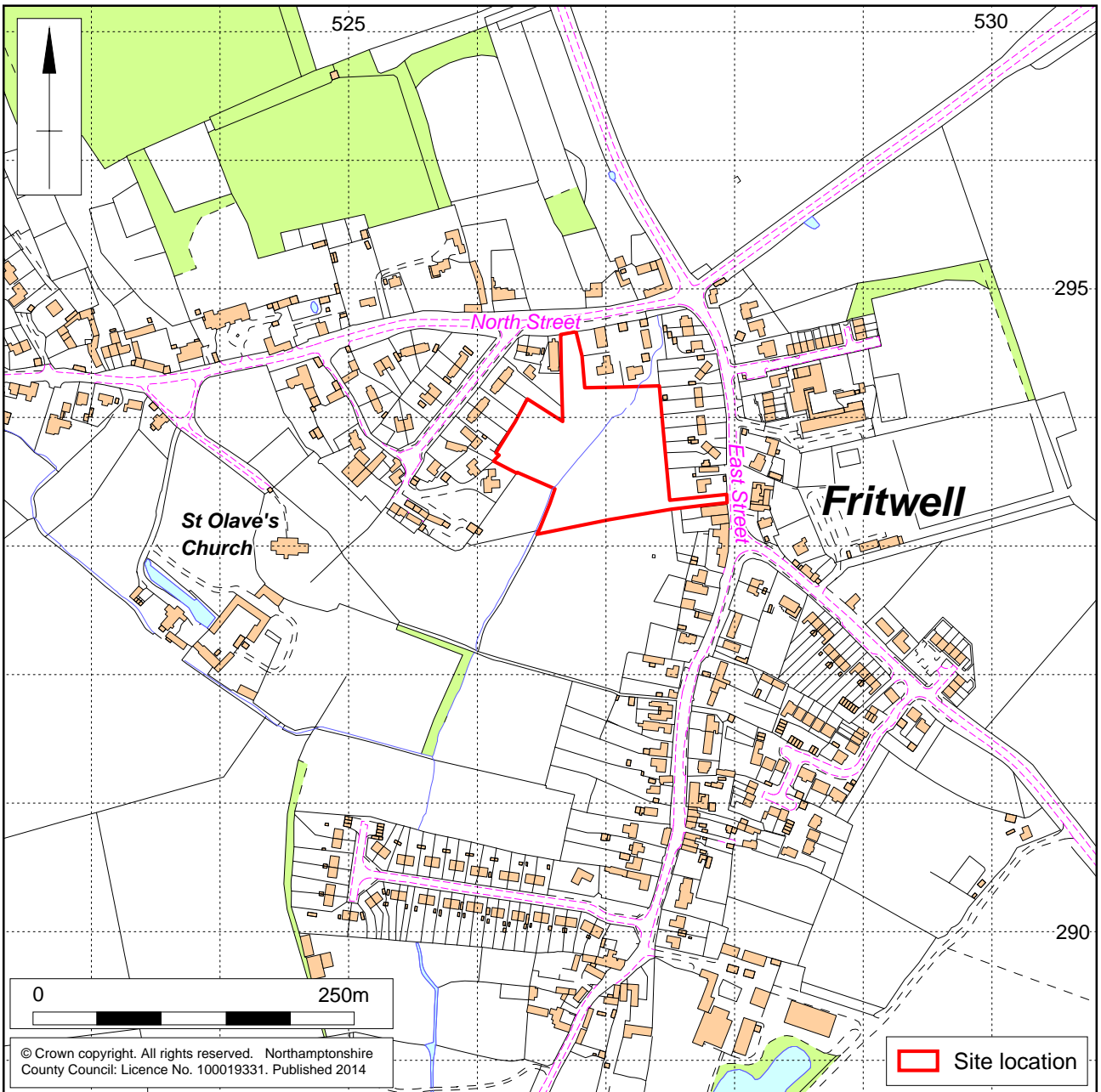
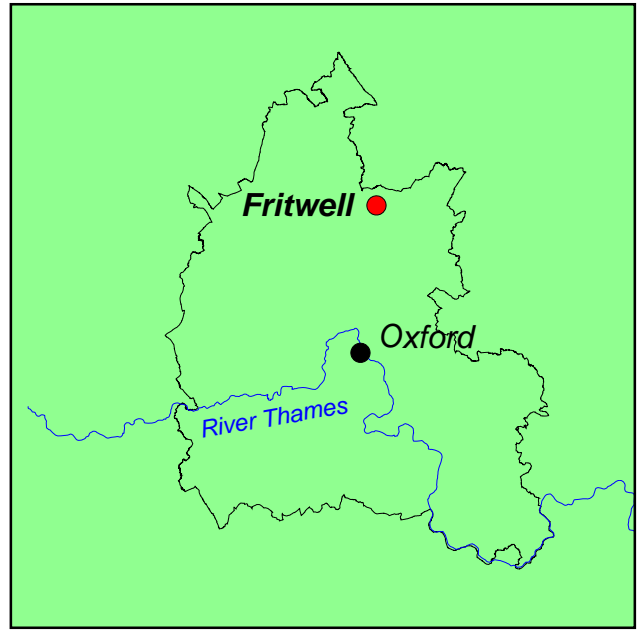
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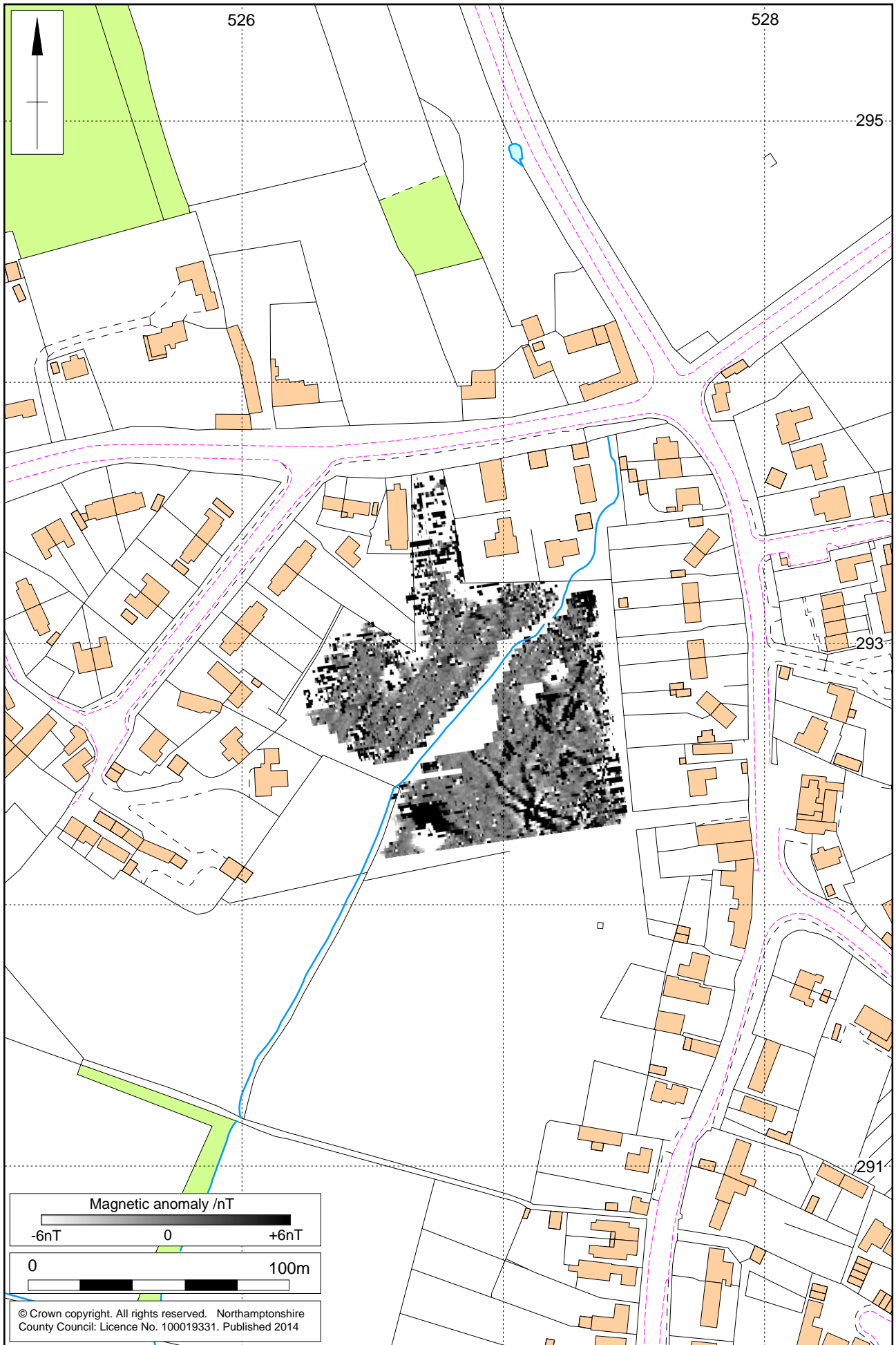
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MOLA
8 October 2014



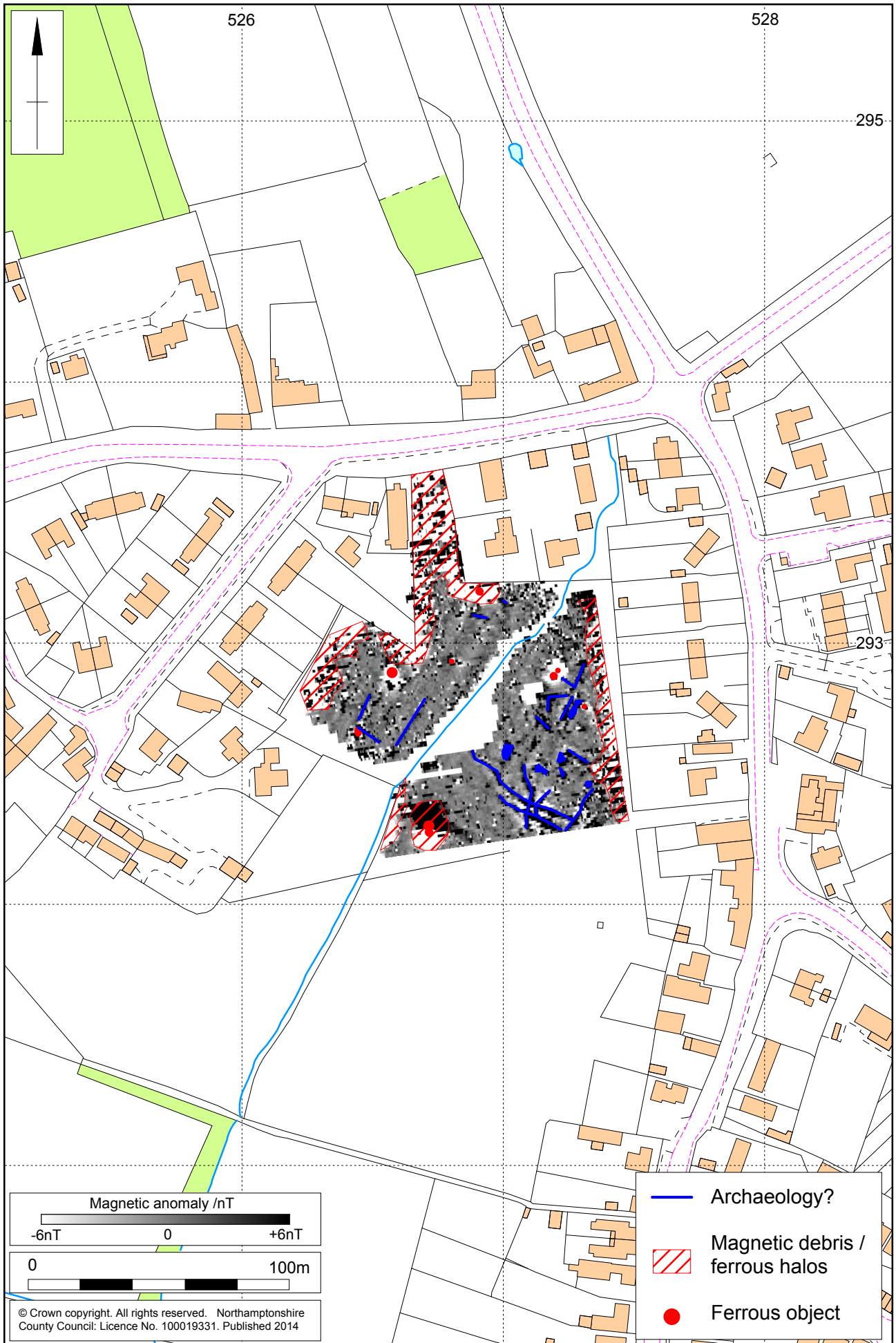
Scale 1:5000

Site Location Fig 1



1:2000 (A4)

Magnetometer survey results Fig 2



1:2000 (A4)

Magnetometer survey interpretation Fig 3



1:2000 (A4)

Unprocessed magnetometer data Fig 4

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