

**Archaeological geophysical survey at
Weston Road, Aston Clinton
Buckinghamshire
December 2015**

Report No. 15/231

Author: Adam Meadows

Illustrator: Adam Meadows



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Project Manager: John Walford

Author: Adam Meadows

Illustrator: Adam Meadows

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MOLA
Bolton House
Wootton Hall Park
Northampton
NN4 8BN
01604 809 800
www.mola.org.uk
sparry@mola.org.uk

STAFF

Project Manager: John Walford MSc

Fieldwork: Adam Meadows BSc
Graham Arkley MSc
Piotr Szczepanik BA

Text: Adam Meadows

Illustrations: Adam Meadows

OASIS REPORT

PROJECT DETAILS		Oasis No. molanort1-235482	
Project name	Archaeological geophysical survey at Weston Road, Aston Clinton, Buckinghamshire		
Short description	MOLA Northampton was commissioned to carry out a detailed magnetometer survey on land off Weston Road, Aston Clinton, Aylesbury, Buckinghamshire. The survey identified three weak linear trends of potential archaeological interest and a modern metal pipeline.		
Project type	Geophysical survey		
Site status	None		
Previous work	None		
Current Land use	Pasture		
Future work	Uncertain		
Monument type/ period	Unknown		
Significant finds	None		
PROJECT LOCATION			
County	Buckinghamshire		
Site address	Weston Road, Aston Clinton		
Study area	c 2.8ha		
OS Easting & Northing	SP 8688 1201		
Height OD	c 92m 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	Prospect Archaeology for CALA Homes		
PROJECT DATE			
Start date	11 December 2015		
End date	11 December 2015		
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	Journal/monograph, published or forthcoming, or unpublished client report		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 at Weston Road, Aston Clinton, Buckinghamshire December 2015		
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ABSTRACT

MOLA Northampton was commissioned to carry out a detailed magnetometer survey on land off Weston Road, Aston Clinton, Aylesbury, Buckinghamshire. The survey identified three weak linear trends of potential archaeological interest and a modern metal pipeline.

1 INTRODUCTION

MOLA Northampton was commissioned by Prospect Archaeology, on behalf of CALA Homes, to conduct a geophysical survey on c 2.8ha of pasture land off Weston Road, Aston Clinton, Buckinghamshire (NGR SP 868 120; Fig 1). A detailed magnetometer survey was undertaken on 11th December 2015.

2 BACKGROUND

2.1 Location and geology

The survey area comprises five small pasture fields on the south-western edge of Aston Clinton. It is bounded by Longhorn Farm and Weston Court to the north-east and residential properties by Weston Road to the south-east. Other pasture fields are located along the north-western boundary and a wooded ditch and stream along the south-western boundary. This also marks the parish boundary between Aston Clinton and Weston Turville.

The survey area lies on level ground at an elevation of c 92m aOD. The solid geology of the area is mapped as Gault formation and Upper Greensand Formation mudstone, siltstone and sandstone bedrock. There are no recorded drift deposits (BGS 2015).

2.2 Historical and archaeological background

There have been multiple phases of archaeological works on land c 1.5km north of the survey area, between the Grand Union Canal to the north, the A41 to the south and west and the land now occupied by the Arla dairy to the east. These include geophysical surveys (Clements and Smith 2010; Walford 2015), trial trench evaluations (Simmonds 2015) and open area excavations (Clarke 2013; Simmonds 2015). These studies have discovered multiple sites of occupation ranging in date from late Iron Age to Roman.

A Heritage Assessment has been carried out on the survey and surrounding area (Field 2015). This contains a full historical and archaeological background of the survey area, the findings are summarised below.

A number of Iron Age finds have been discovered within a field located c 400m north-west of the survey area. These include a Belgic pottery cup (HER 4301000), a bone pin (HER 4302000) and a spindle whorl (HER 4303000). Objects of Roman date have also

been discovered in this area, including an amphora found in 1871 (HER 4300000/1) and sherds of Roman pottery (MBC 29492-3). Aylesbury Road, located c 500m north of the survey area follows the route of Akeman Street Roman road. This would have been a fairly busy route, linking Watling Street and the Fosse Way.

Evidence of immediate post-Roman occupation is sparse with a solitary Anglo-Saxon brooch discovered by a metal-detectorist in a field c 700m south of the survey area (MBC 29498).

The remains of the medieval moated Vaches manor house is located c 800m north-west of the survey area. This is a scheduled site that contains earthworks for a moat and fish ponds (HER12901000; 12903000). The survey area itself was part of the medieval open field system for the village of Aston Clinton and has been used for agriculture ever since.

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 single network of 30m grid squares was established across the fields. 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 Historic England and by the Chartered Institute for Archaeologists (HE 2015; ClfA 2014).

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 greyscale plots at a range of +4nT (black) to -4nT (white). These have been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2) and are shown with an interpretative overlay in Figure 3. Separate plots of the unprocessed data are presented in Figure 4.

4 SURVEY RESULTS

The survey has detected three weak positive linear trends. These are most easily identified on the raw data plot (Fig 4), as the 'zero mean traverse' de-striping function has weakened their appearance in the processed data set. One of these anomalies is located in the north-eastern part of the largest field, aligned north-east to south-west. The remaining two are located within the smaller paddocks in the north-eastern part of the survey area. One of these is a short straight weakly positive anomaly that is aligned north-west to south-east. The other anomaly is located east of this and consists of a weak positive curvilinear, aligned north to south, turning eastwards. It is unclear as to whether these linear anomalies represent the remains of ridge and furrow cultivation, ditches, or non-archaeological features.

A number of ferrous magnetic responses have also been detected. These include a magnetically alternating linear anomaly which runs along the south-eastern boundary towards a barn. This is likely to represent a metal pipe. There are some strongly

positive and negative magnetic halos present, located around the edges of the survey area. These arise from adjacent buildings, fences and a metal feeding trough.

Areas of magnetic disturbance, represented by concentrations of dipolar ferrous anomalies, have been detected in the north-west of the larger field. This is commonly associated with areas of made ground or hardcore in the soil. In this field, the small area highlighted in the north of the large field is likely to represent a hardcore spread around a gateway. The larger area of magnetic disturbance is located near to the edge of dumped waste materials that include soil, gravel and cow manure.

Finally, the survey data has detected a random scatter of small magnetic dipolar anomalies that represent small ferrous objects within the soil.

5 CONCLUSION

The survey has detected three extremely weak linear anomalies of uncertain origin. They do not appear, on the face of it, to be particularly significant, but it should be noted that previous magnetometer surveys in the Aston Clinton area, over similar Gault Clay bedrock, have not always produced clear sets of results. There have been instances where known archaeology has been represented by very weak magnetic anomalies, or by none at all (Clements and Smith 2010; Walford 2015). Thus it is not possible to discount that the anomalies identified in this survey may represent ditches or traces of ridge and furrow.

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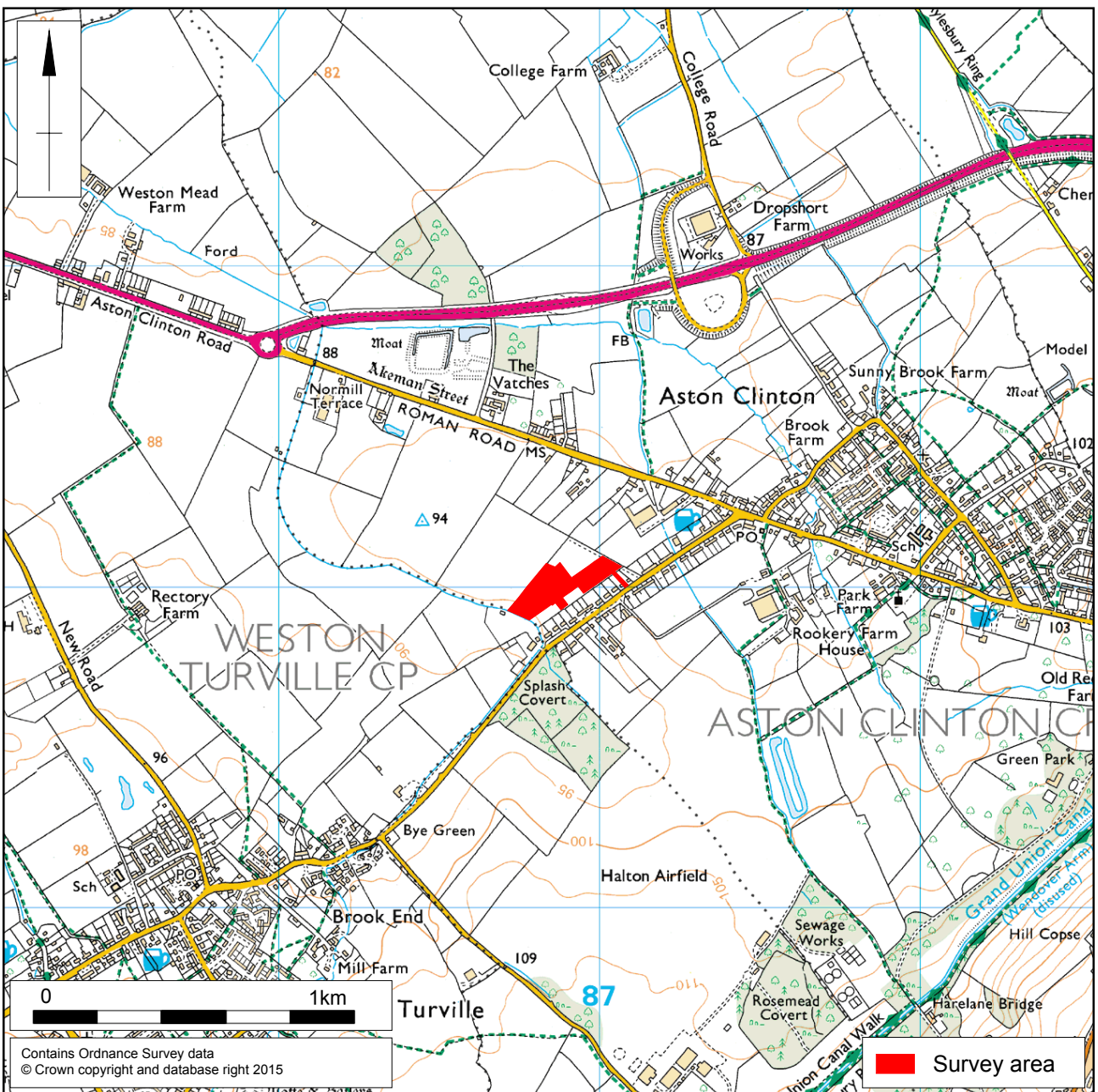
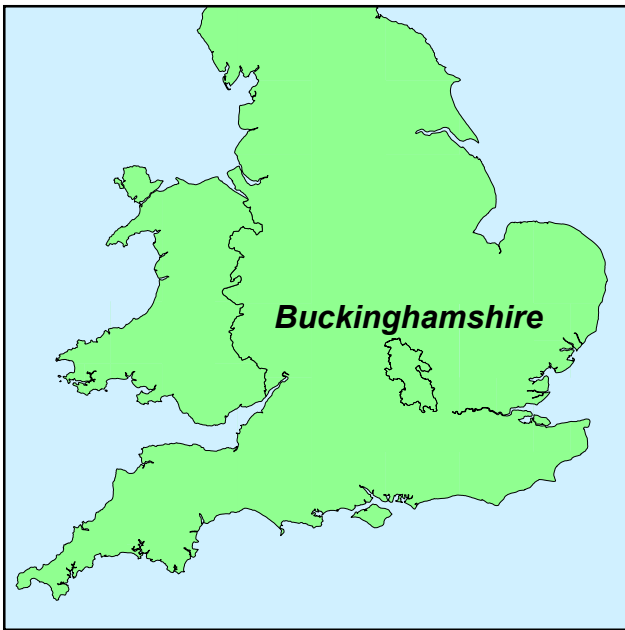
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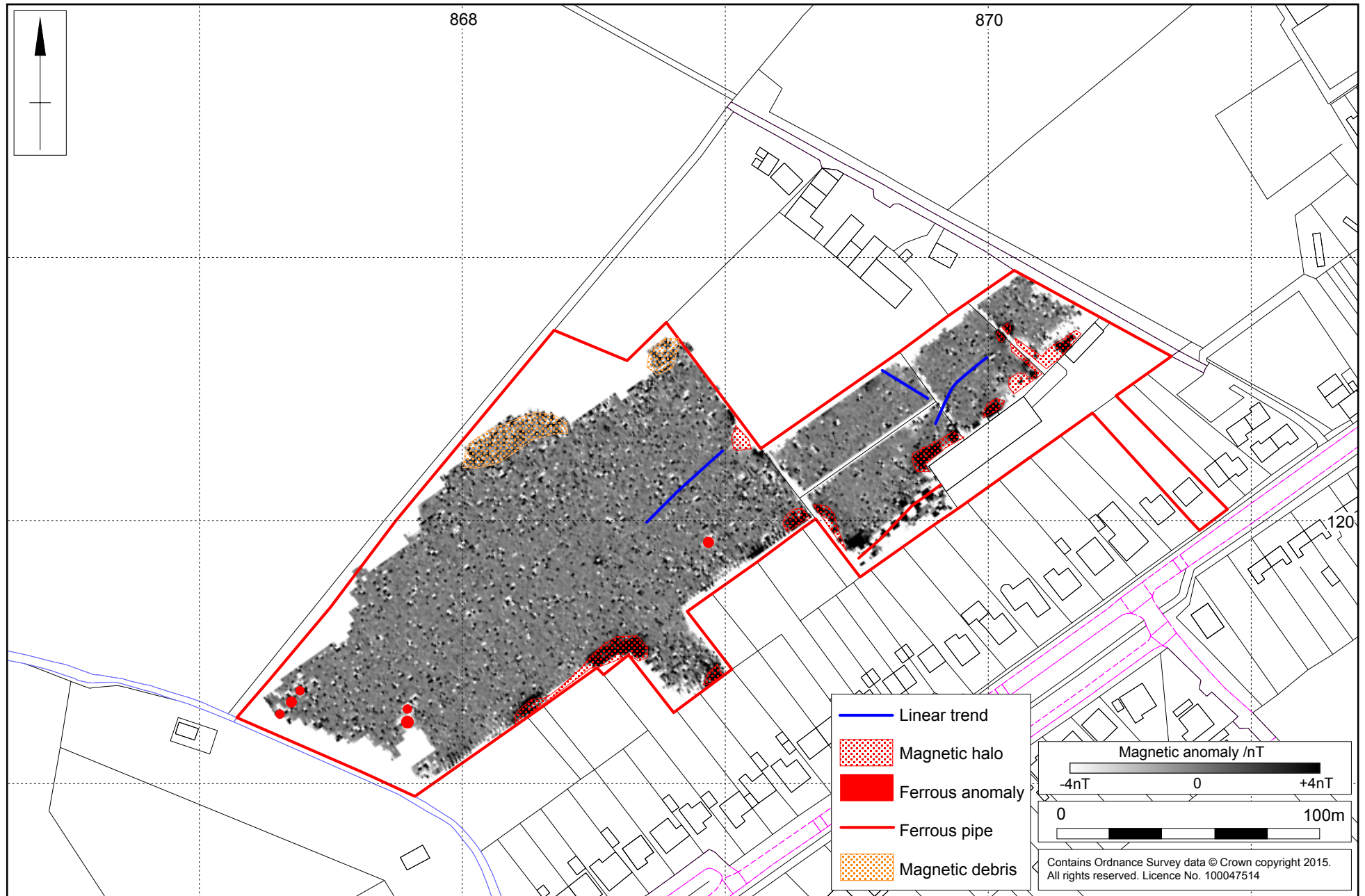
Scale 1:20,000

Survey area Fig 1



Scale 1:2000

Magnetometer survey results Fig 2



Scale 1:2000

Magnetometer survey interpretation Fig 3



Scale 1:2000

Unprocessed magnetometer data Fig 4



MOLA
Bolton House
Wootton Hall Park
Northampton
NN4 8BN
01604 700 493
www.mola.org.uk
sparry@mola.org.uk