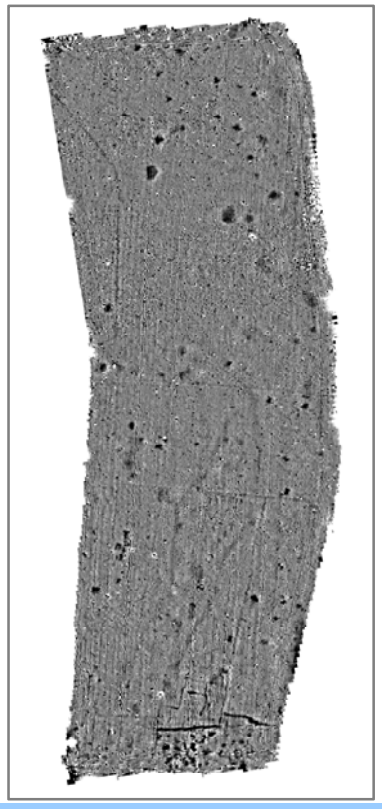
Northamptonshire Archaeology

Archaeological Geophysical Survey of Land at Salhouse Road, Wroxham, Norfolk April to May 2012



Northamptonshire Archaeology
2 Bolton House
Wootton Hall Park
Northampton NN4 8BE
t. 01604 700493 f. 01604 702822
e. sparry@northamptonshire.gov.uk
w. www.northantsarchaeology.co.uk

Northamptonshire County Council

John Walford

Report 12/89

May 2012

STAFF

Project Manager: Adrian Butler MA BSc AIfA

Fieldwork: John Walford MSc
Samuel Egan BSc
Chris Chinnock MA

Text and Illustrations: John Walford

QUALITY CONTROL

	Print name	Signed	Date
Checked by	Pat Chapman	*PC*	3/5/12
Verified by	Adrian Butler	*AB*	3/5/12
Approved by	Andy Chapman	*AC*	3/5/12

OASIS REPORT FORM 125040

PROJECT DETAILS		
Project name	Archaeological Geophysical Survey of Land at Salhouse Road, Wroxham, Norfolk	
Short description	Northamptonshire Archaeology was commissioned to carry out a detailed magnetometer survey of a proposed development site at Salhouse Road, Wroxham, Norfolk. The survey identified a rectilinear enclosure, a pit cluster and several other ditches, all of which were of uncertain date. A large number of pit-like anomalies were also detected, but it was unclear whether these represented archaeological or geological features.	
Project type	Geophysical survey	
Site status	None	
Previous work	None known	
Current Land use	Arable	
Future work	Unknown	
Monument type/ period	Undated enclosure, pits and field system	
Significant finds		
PROJECT LOCATION		
County	Norfolk	
Site address	Salhouse Road, Wroxham	
Study area	*c* 13ha	
OS grid reference	TG 301 168	
Height OD	*c* 5-15 m AOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	AMEC Environment and Infrastructure UK Ltd	
Project Design originator	NA	
Director/Supervisor	John Walford	
Project Manager	Adrian Butler	
Sponsor or funding body	AMEC Environment and Infrastructure UK Ltd	
PROJECT DATE		
Start date	24 April 2012	
End date	4 May 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BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	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 Salhouse Road, Wroxham, Norfolk, April to May 2012	
Serial title & volume	Northamptonshire Archaeology Reports 12/89	
Author(s)	John Walford	
Page numbers	4	
Date	4 May 2012	

Contents

Figures

ARCHAEOLOGICAL GEOPHYSICAL SURVEY OF LAND AT SALHOUSE ROAD, WROXHAM, NORFOLK APRIL TO MAY 2012

ABSTRACT

Northamptonshire Archaeology was commissioned to carry out a detailed magnetometer survey of a proposed development site at Salhouse Road, Wroxham, Norfolk. The survey identified a rectilinear enclosure, a pit cluster and several other ditches, all of which were of uncertain date. A large number of pit-like anomalies were also detected, but it was unclear whether these represented archaeological or geological features.

1 INTRODUCTION

Northamptonshire Archaeology (NA) was commissioned by AMEC Environment and Infrastructure UK Ltd to conduct a geophysical survey in advance of a proposed development on land at Salhouse Road, Wroxham, Norfolk (NGR TG 301 168; Fig 1). The aim of the survey was to investigate whether there were any archaeological remains present which might be affected by the proposed development.

The fieldwork was conducted from 24 April to 1 May 2012, and comprised the magnetometer survey of *c* 13ha of land.

2 TOPOGRAPHY AND GEOLOGY

The proposed development area consists of two fields located to the south of Wroxham, on either side of the B1140 Salhouse Road. At the time of the survey, both fields were under cereal crop.

The proposed development area stands between 5m and 15m AOD, on a very gentle east-facing slope. It overlooks the River Bure and Wroxham Broad, a large artificial lake formed by the flooding of medieval peat cuttings (NHER 44123). The underlying geology is mapped as Wroxham Crag (BGS 2012).

3 ARCHAEOLOGICAL BACKGROUND

The proposed development area lies on the northern edge of an extensive complex of cropmarks (AMEC 2012). These are recorded on the Norfolk Historic Environment Record (NHER) where they are described as representing various enclosures and field systems dating from the Iron Age to post-medieval times (NHER 50074, NHER 32239, NHER 49163, NHER 49165 and NHER 30567). Few cropmarks occur within the area itself and most are concentrated beyond its borders to the east and the south-west.

The historic mapping of the proposed development area shows that it has been in agricultural use since at least the 19th century. Other historical sources record that Beech House, immediately to the east of the area, served as a secret operations base for the Wroxham Auxiliary Unit during the Second World War (CART 2012).

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 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 by measurement to field boundaries and other points of detail. 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. A single grid of data was recollected on each day of survey, for quality management purposes as required by Norfolk Historic Environment Service.

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 a grey-tone plot, 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 repeat survey data is presented in Figure 4.

5 SURVEY RESULTS

5.1 The western field

The most striking characteristic of the data from this field is the presence of many small localised positive anomalies, each of which attains a maximum intensity of *c* 5-10nT. These could, in theory, represent man-made pits, but their abundance and widespread random distribution suggests that they are more likely to represent natural hollows in the surface of the underlying geology.

The rest of the data from this field calls for little comment. There are a few small ferrous anomalies, indicating pieces of buried scrap and, in the north-west of the field, a strong dipolar magnetic halo caused by a pair of telegraph poles. Lesser halos elsewhere around the field margins are the product of various adjacent modern structures.

5.2 The eastern field

The survey has revealed a concentration of archaeologically significant anomalies at the eastern end of this field, close to Beech House. Two strong positive linear anomalies, both aligned north-south, represent a dog-legged section of ditch. To the east of these is a dense cluster of localised anomalies, representing pits, and to the west are some weak linear anomalies which define a rectilinear ditched enclosure with an internal partition.

The northern ditch of the enclosure is represented by a weakly positive linear anomaly which extends westwards for 140m, following a course that is roughly parallel to the northern boundary of the modern field. This ditch terminates perpendicularly against a north-south aligned ditch, represented by a similarly weak anomaly. Another north-south

aligned ditch occurs approximately 75m to the west. Together, these three ditches seem to define parts of a field system which is aligned conformably with both the modern landscape and the rectilinear enclosure.

Towards the south-western part of the field, there is a long, curving linear anomaly, representing an undated ditch which has previously been identified from a cropmark (AMEC 2012). A much shorter linear anomaly in the south-western corner of the field may also represent a section of ditch.

Pit-like anomalies occur across the field. Those at the eastern end have been interpreted as archaeological because they are tightly clustered and clearly bounded by enclosure ditches, but those elsewhere are harder to interpret with confidence and could well prove to be of natural origin.

Two broad and sinuous linear anomalies run approximately west to east through the eastern half of the field. They almost certainly represent variations within the natural geology – either natural channels or bands of particularly magnetic sediment.

A few small ferrous anomalies are distributed randomly across the field, and there are some magnetic halos around the field edge. None of these are of any archaeological significance.

6 CONCLUSION

The survey has detected several features of archaeological interest, the most notable of which are a rectilinear ditched enclosure and associated pit cluster located at the eastern end of the proposed development area. Generally speaking, such enclosures tend to be of Iron Age or Romano-British date, but the fact that this example seems to lie conformably within the modern landscape means that a medieval or early post-medieval date cannot be entirely ruled out.

A single curving ditch has been detected to the east of Salhouse Road, and can be correlated with a previously recorded cropmark. It cannot be interpreted in detail, but perhaps represents a boundary feature or one element within a former field system.

A large number of enigmatic pit-like anomalies have also been detected. These could represent man-made pits, but are too abundant and widespread for such an interpretation to be entirely convincing. It is more probable that they represent natural features – for instance tree throw pits or periglacially formed hollows. If so, then they would not be of direct archaeological significance, although they might contain stray finds or sediments of geo-archaeological interest.

BIBLIOGRAPHY

AMEC 2012 *Land South of Wroxham, NMR Cropmark Transcript*, Drawing No **31311_Arch_002**

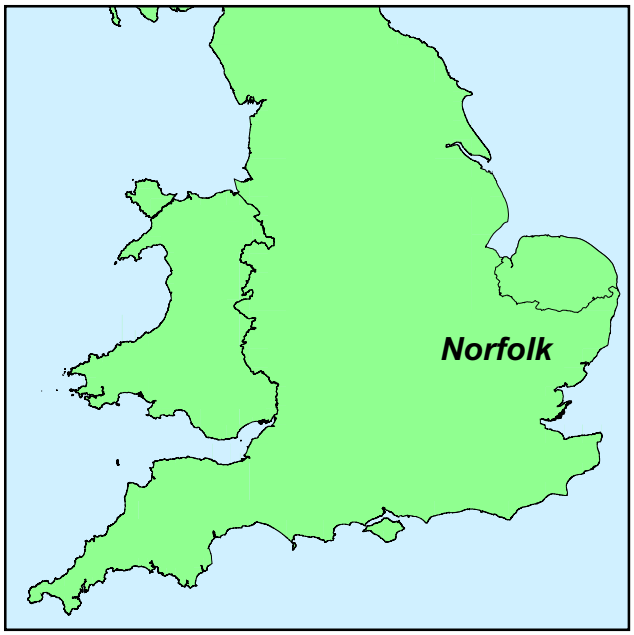
Bartington, G, and Chapman, C, 2003 A high-stability fluxgate magnetic gradiometer for shallow geophysical survey applications, *Archaeological Prospection*, **11**, 19-34

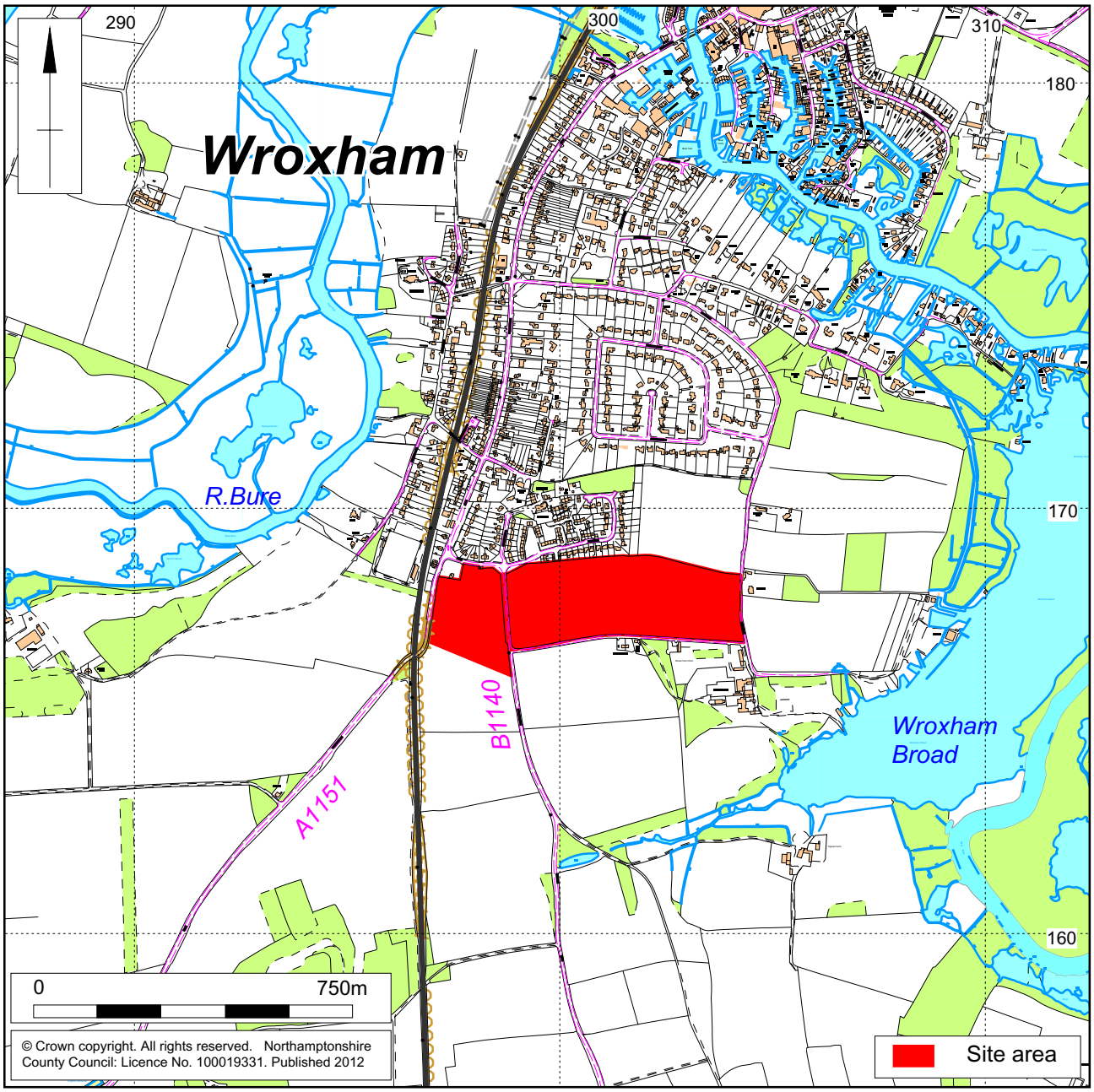
BGS 2012 *GeoIndex*, http://mapapps2.bgs.ac.uk/geoindex/home.html, consulted 2/5/2012

CART 2012, *Wroxham Auxiliary Unit Scout Section*, http://www.coleshillhouse.com/wroxham-auxiliary-unit-scout-section.php, Coleshill Auxiliary Research Team, consulted 2/5/2012

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

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





Scale 1:15,000

Site location Fig 1

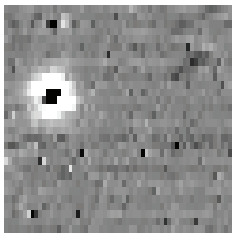
Scale 1:2500

Magnetometer survey results Fig 2

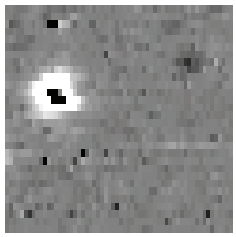
Scale 1:2500

Magnetometer survey interpretation Fig 3

Tuesday 24/4/12

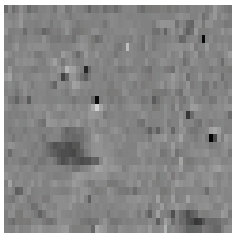


F1 YA3

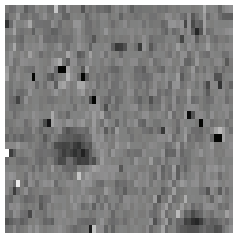


F1 SA6

Wednesday 25/4/12

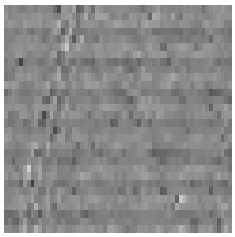


F2 SA1

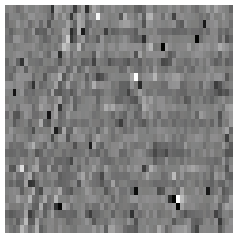


F2YA5

Monday 30/4/12

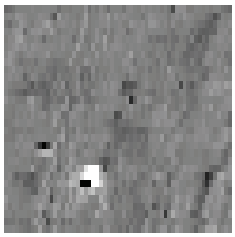


F2 SB3

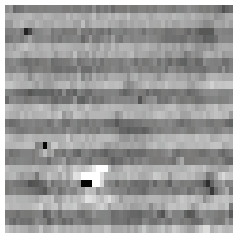


F2 YB13

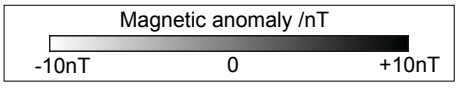
Tuesday 1/5/12



F2 YD11



F2 SA15



1:1000

Repeated survey grids (unprocessed) Fig 4

Northamptonshire County Council

Northamptonshire Archaeology

Northamptonshire Archaeology
2 Bolton House
Wootton Hall Park
Northampton NN4 8BE
t. 01604 700493 f. 01604 702822
e. sparry@northamptonshire.gov.uk
w. www.northantsarchaeology.co.uk