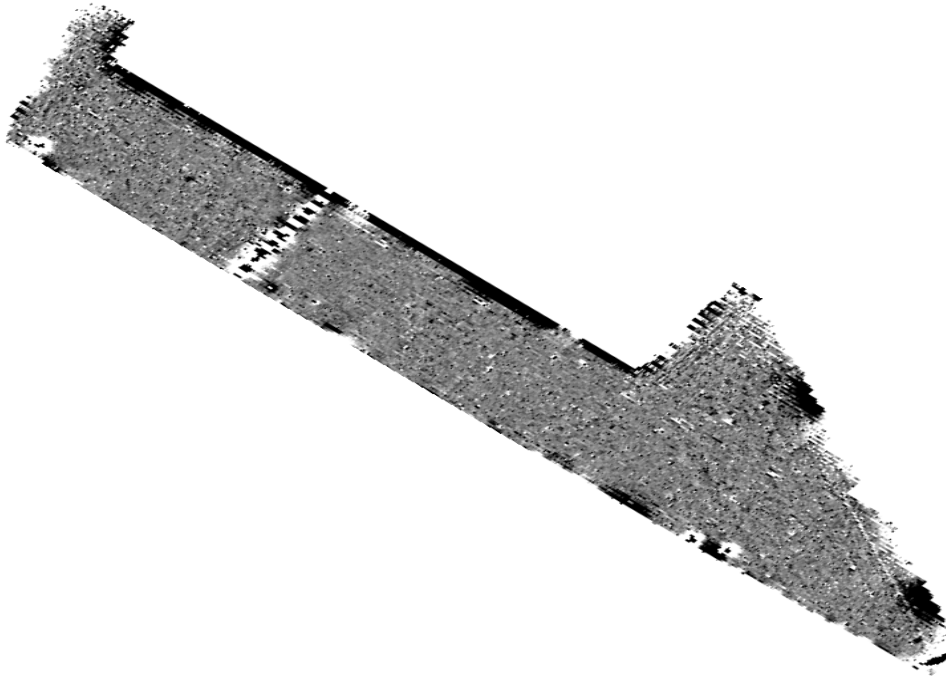




# Northamptonshire Archaeology

## Archaeological Geophysical Survey of Land East of Norwich Road, North Walsham, Norfolk



### Northamptonshire Archaeology

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Report 13/95

May 2013

ENF131548





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**QUALITY CONTROL**

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Checked by	<i>Pat Chapman</i>	<i>PC</i>	30/05/13
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Approved by	<i>Andy Chapman</i>	<i>AC</i>	30/05/13

**OASIS REPORT FORM**

PROJECT DETAILS		<b>OASIS No: 151587</b>	
Project name	Archaeological geophysical survey of land east of Norwich Road, North Walsham, Norfolk		
Short description	Northamptonshire Archaeology was commissioned by CgMs Consulting to carry out a magnetometer survey on a proposed development site located to the east of Norwich Road, North Walsham, Norfolk. The survey detected at least one, and possibly two modern pipes, as well as a ploughing headland and corresponding diagonal plough scars, relating to the site's use as arable land.		
Project type	Geophysical survey		
Site status	None		
Previous work	Desk-based assessment (Dawson 2013)		
Current Land use	Arable		
Future work	Not known		
Monument type/ period	None		
Significant finds	None		
PROJECT LOCATION			
County	Norfolk		
Site address	Land east of Norwich Road, North Walsham		
Study area	3.5ha		
OS Easting & Northing	TG 281 295		
Height OD	c 39m - 43m AOD		
PROJECT CREATORS			
Organisation	Northamptonshire Archaeology (NA)		
Project brief originator	CgMs Consulting		
Project Design originator	NA		
Director/Supervisor	Ian Fisher		
Project Manager	Mark Holmes		
Sponsor or funding body	CgMs Consulting		
PROJECT DATE			
Start date	8 May 2013		
End date	8 May 2013		
ARCHIVES			
	Location	Content	
Physical			
Paper	ENF131548	Site survey records	
Digital		Geophysical survey & GIS data	
BIBLIOGRAPHY			
	Journal/monograph, published or forthcoming, or unpublished client report		
Title	Archaeological geophysical survey of land east of Norwich Road, North Walsham, Norfolk, April 2013		
Serial title & volume	Northamptonshire Archaeology Reports 13/95		
Author(s)	Orlando Prestidge		
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**ARCHAEOLOGICAL GEOPHYSICAL SURVEY OF LAND EAST OF  
NORWICH ROAD, NORTH WALSHAM, NORFOLK  
MAY 2013**

*ABSTRACT*

*Northamptonshire Archaeology was commissioned by CgMs Consulting to carry out a magnetometer survey on a proposed development site located to the east of Norwich Road, North Walsham, Norfolk. The survey detected at least one, and possibly two modern pipes, as well as a ploughing headland and corresponding diagonal plough scars, relating to the site's use as arable land.*

**1 INTRODUCTION**

Northamptonshire Archaeology (NA) was commissioned by CgMs Consulting to carry out an archaeological geophysical survey in advance of a residential development at land east of Norwich Road, North Walsham, Norfolk (NGR TG 281 295, 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 works.

The fieldwork was conducted from 8 May 2013 and comprised the detailed magnetometer survey of c 3.5ha of land.

**2 TOPOGRAPHY AND GEOLOGY**

The survey area is located on the southern edge of North Walsham town centre, to the east of Norwich Road. It is bound to the north by the former site of the Norfolk Pride canning factory, to the east by the Bittern Railway Line between Norwich and Cromer, Nursery Lane to the south and residential housing to the west. It is a thin strip of land, c 3.5ha in extent. At present the site is arable land.

The geology of the area is mapped as part of the Crag group of sand and gravel, a sedimentary bedrock formed up to 5 million years ago (Dawson 2013).

### **3 ARCHAEOLOGICAL BACKGROUND**

The proposed development area has been the subject of an archaeological desk-based assessment (DBA) which concluded that “the potential to yield further, as yet undiscovered, archaeological evidence is very low” (Dawson, 2013, 26). It stated that site itself had a mixed history, remaining in arable use throughout the medieval period up until the mid-19th century, and then used as a farmstead and saw mill before the cannery development in 1966. Historic mapping shows that the proposed development area, although part of the cannery site, was also used for arable activity into the 20th century. Iron Age and Roman activity in the area was represented only by sparse metal detecting finds and sites identified from aerial photography.

The only archaeological artefact previously discovered within the proposed development area was a Neolithic polished axe (HER 55383), which was discovered in the garden of a nearby residential property. This is thought to be an isolated discovery, and further, similar discoveries are not anticipated.

The proposed development area is located outside the historic core of North Walsham, which includes a large number of listed buildings, and forms part of The North Walsham Conservation Area, which was designated in 1972.

### **4 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).

The survey area was sub-divided into a system of 30m grid squares, which were established by means of a tape measure and optical square. The grids were tied into the national grid by means of a Leica 1200 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 grid. In accordance with the written scheme of investigation (NA 2013), one grid was surveyed twice each day to demonstrate the repeatability of the results (Fig 4).

All fieldwork methods complied with the written schemes of investigation for the respective phases of the project (NA 2013) and with 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. Most of the striping was removed using the 'Zero Mean Traverse' function. Destaggering of the data was performed where necessary.

The processed data is presented in this report in the form of greyscale plots ( $\pm 4\text{nT}$  black/white) which have been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2). Interpretative overlays have been produced and are shown in Figure 3. The repeated survey grids are shown as greyscale plots in Figure 4.

## **5 SURVEY RESULTS**

Three anomalies cross the survey area on different alignments. The most distinct of these is an intense anomaly with alternating magnetic polarity, which crosses the centre of the field on a north-east/south-west alignment. In the south-east, an area of weakly negative linear anomalies extends across the corner of the survey area on a north-west/south-east alignment, running parallel to the field boundary. A smaller anomaly, also showing strong, alternating magnetic polarity, is present in the extreme south-east corner of the survey area.

It is almost certain that the first of these anomalies represents a modern pipe, possibly relating to the 20th century canning factory development.

The second set of anomalies relate to the arable use of the site, represented on the survey results as diagonal linear features. These lines, running at a regular spacing from north-west to south-east, and parallel with the field boundary, represent a ploughing headland and corresponding plough scars from 19th/20th century ploughing.

The third anomaly also possibly represents a 20th century pipe. However, its proximity to the site boundaries and the railway line makes further interpretation difficult.



There are some discreet dipolar anomalies within the plough soil throughout the survey area, and these are a result of debris from the agricultural, and nearby industrial use of the site. Magnetic noise/disturbance are visible at the margins of the survey area. These are the result of metallic perimeter fencing.

## 6 CONCLUSION

The survey does not give any indication of significant archaeological remains on the site although it has detected a few features of low or indeterminate archaeological significance. There is a strong, linear anomaly which represents a modern service pipe. There is also a smaller anomaly at the south-eastern edge of the survey area which may represent a similar feature. A series of evenly-spaced parallel anomalies almost certainly relate to a post-medieval ploughing headland and corresponding plough scars. Given the recognised limitations of magnetometer survey (EH 2008:14), however, it is always possible that small or otherwise ephemeral features such as pits or posthole may not appear in the survey results.

## BIBLIOGRAPHY

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

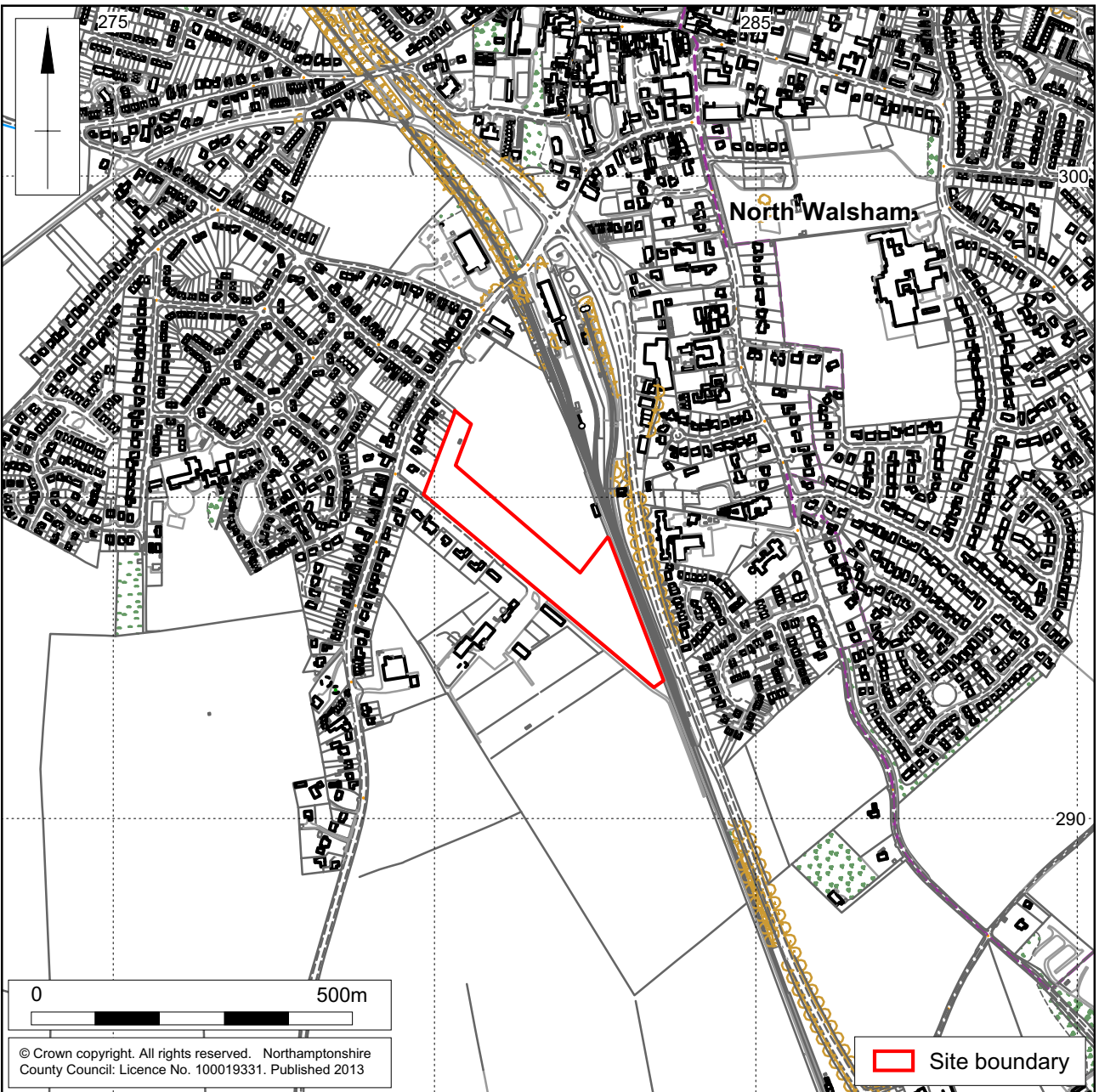
EH 2008 *Geophysical Survey in Archaeological Field Evaluation*, English Heritage

Dawson, M 2013 *Land at North Walsham, Norfolk: Heritage assessment*, CgMs Consulting

IfA 2011 *The Use of Geophysical Techniques in Archaeological Evaluations*, Institute for Archaeologists

NA 2013 *Archaeological Geophysical Evaluation of Land East of Norwich Road, North Walsham, Norfolk Written Scheme of Investigation*





Scale 1:10,000

Site location Fig 1





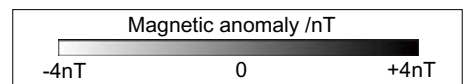
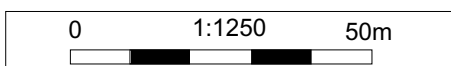
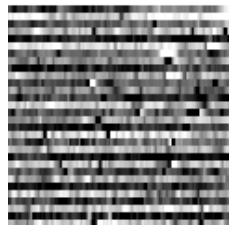
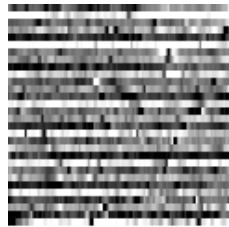








Weds 08/05/2013





Northamptonshire County Council

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