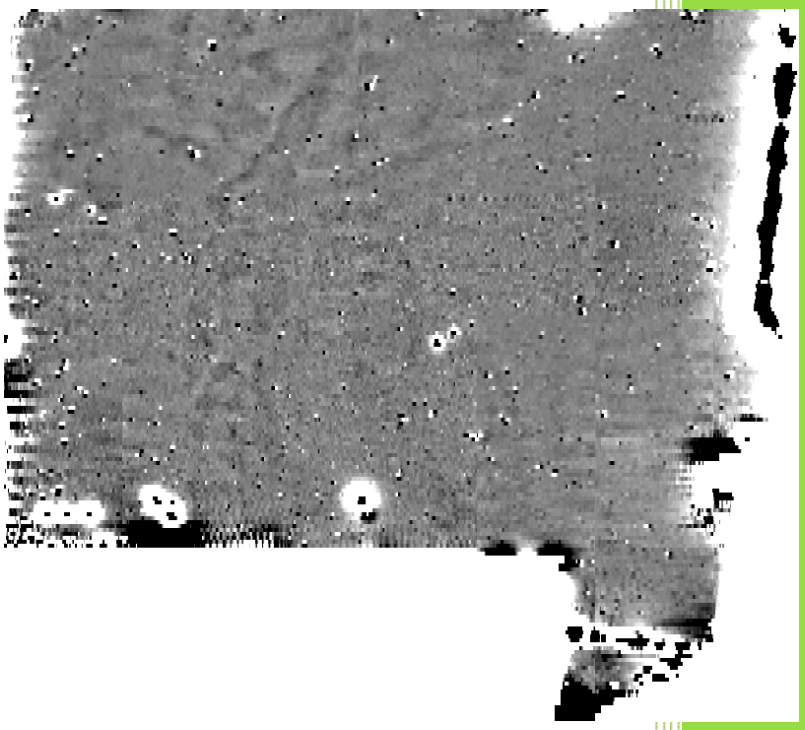
Northamptonshire Archaeology

Archaeological geophysical survey on land at Hinckley Road, Stoke Golding, Leicestershire



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Report 11/24
February 2010

REGISTERED ORGANISATION IfA

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QUALITY CONTROL

	Print name	Signed	Date
Verified & Approved by	Andy Chapman	*AC*	04/02/2011

OASIS REPORT FORM

PROJECT DETAILS		
Project name	Archaeological Geophysical Survey on land at Hinckley Road, Stoke Golding, Leicestershire	
Short description	Northamptonshire Archaeology was commissioned to carry out a magnetometer survey on 3.15ha of land to the west of Hinckley Road, Stoke Golding, Leicestershire. The survey has detected evidence for medieval or post-medieval ridge and furrow cultivation along the axis of the field. Geological changes were noted in the north-west of the site and two pipelines, possibly related to the nearby pumping station on the east side.	
Project type	Geophysical survey	
Site status	None	
Previous work	DBA (Flitcroft 2010)	
Current Land use	Pasture	
Future work	Unknown	
Monument type/ period		
Significant finds	None	
PROJECT LOCATION		
County	Leicestershire	
Site address	Hinckley Road, Stoke Golding	
Study area	3.15ha	
OS Easting & Northing	SP 4055 9738	
Height OD	*c*113m AOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	Teresa Hawtin, Senior Planning Archaeologist, Leicestershire County Council	
Project Design originator	CgMs Consulting	
Director/Supervisor	John Walford	
Project Manager	Adrian Butler	
Sponsor or funding body	CgMs Consulting	
PROJECT DATE		
Start date	29 January 2011	
End date	2 February 2011	
ARCHIVES	Location	Content
Physical	NA	
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BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	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 on land at Hinckley Road, Stoke Golding, Leicestershire	
Serial title & volume	Northamptonshire Archaeology Reports 11/24	
Author(s)	Adrian Butler	
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Date	02/02/2011	

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ARCHAEOLOGICAL GEOPHYSICAL SURVEY ON LAND AT HINCKLEY ROAD, STOKE GOLDING, LEICESTERSHIRE JANUARY 2010

ABSTRACT

Northamptonshire Archaeology was commissioned to carry out a magnetometer survey on 3.15ha of land to the west of Hinckley Road, Stoke Golding, Leicestershire. The survey has detected evidence for medieval or post-medieval ridge and furrow cultivation along the axis of the field. Geological changes were noted in the north-west of the site and two pipelines, possibly related to the nearby pumping station on the east side.

1 INTRODUCTION

Northamptonshire Archaeology (NA) was commissioned by CgMs Consulting on behalf of Morris Homes (East Midlands) Ltd, to carry out an archaeological geophysical survey on 3.15ha of land to the west of Hinckley Road, Stoke Golding, Leicestershire (NGR: SP 4055 9738; Fig 1). The fieldwork comprised a detailed magnetometer survey of the site and was carried out in January 2010.

2 TOPOGRAPHY AND GEOLOGY

The survey area is contained within a single pasture field immediately to the west of Hinckley Road as it passes through the east side of of the village of Stoke Golding. The Hinckley Road borders the site on the eastern side, houses to the south and west, and fields to the north. A pumping station projects into the field from the road on the south-eastern side (Fig 2). Low ridge and furrow is evident along the east-north-east axis of the field, at an elevation of c 113m AOD.

The solid geology of the survey area comprises Mercia Mudstone, overlain by a drift of Diamicton Till on the eastern side and Sand and Gravel on the west (BGS 2011).

3 ARCHAEOLOGICAL BACKGROUND

The survey area and its environs has been the subject of a recent desk-based assessment (Flitcroft 2010). This document notes no archaeological find from within the site, although some 25 discoveries have been made within a 1km radius, although most are standing buildings. A flint scatter is recorded from a garden on Hinckley Road. Other than a single sherd of pottery, no Roman remains are recorded near the site, although remains are known towards Dadlington to the north. An Anglo-Saxon burial mound survives as an earthwork 800m to the west of the site. It also states that ridge and furrow earthworks, of presumed medieval origin, survive across part of the survey area.

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).

The survey area was divided into a grid of 30m x 30m squares which were established by means of a tape measure and optical square.

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.

All fieldwork methods complied with the Specification (CgMs 2011) and guidelines issued by English Heritage and by the Institute for Archaeologists (EH 2008; Gaffney, Gater and Ovendon 2002).

The survey data was processed using Geoplot 3.00u 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 data is presented in this report in the form of greyscale plots; as unprocessed (Fig 2, +/- 10nT black/white) and processed (Fig 3, +/- 4nT black/white). These have been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 3). Interpretative overlays have been produced and are shown in Figure 4.

5 SURVEY RESULTS

In common with many suburban fields, survey at Hinckley Road (Figs 2 - 4) detected a widespread distribution of small dipolar (intensely magnetised paired positive/negative) anomalies, indicating ferrous items, eg nails, likely contained within the topsoil. Several larger ferrous anomalies of unknown provenance were detected in the south-west quarter of the area. Magnetic disturbance occurred on the margins of the site where iron fences and the pumping station were located.

An area of subdued response in the north-west and in a band towards the south of the field is likely to reflect a geological change, possibly between sand and gravel and till (above Para 2). The ridge and furrow is discernable in the data as alternate weak positive and negative magnetic banding on an east-north-east – west-south-west orientation. Two likely ferrous pipelines were detected, one in the south-east corner of the field orientated east-west and the other parallel with the road on the north-east edge of the field.

6 CONCLUSION

The survey has detected evidence for medieval or post-medieval ridge and furrow cultivation along the axis of the field. Geological changes were noted in the north-west of the site and two pipelines, possibly related to the nearby pumping station on the east side. No likely archaeological remains were detected by this survey.

BIBLIOGRAPHY

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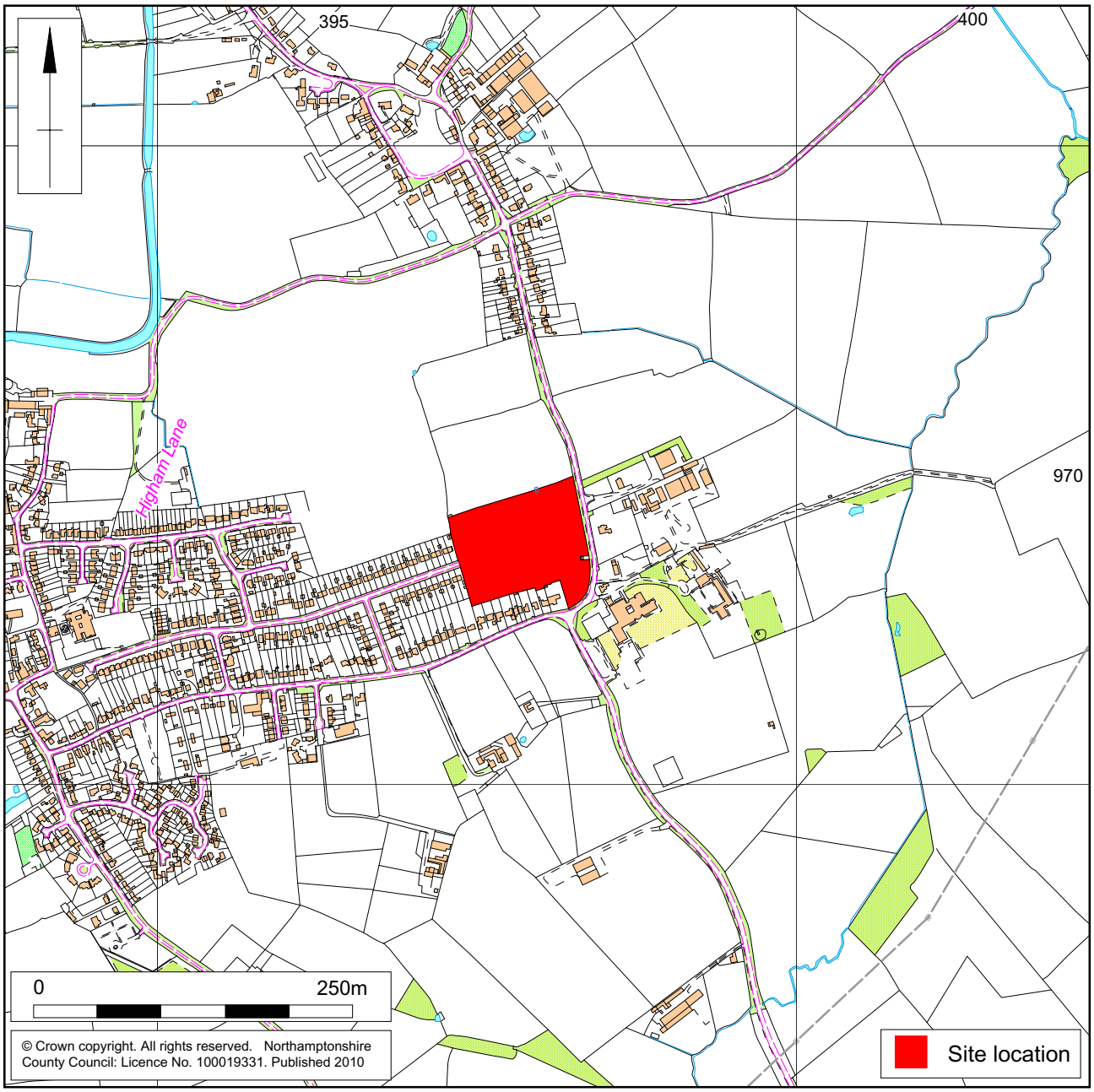
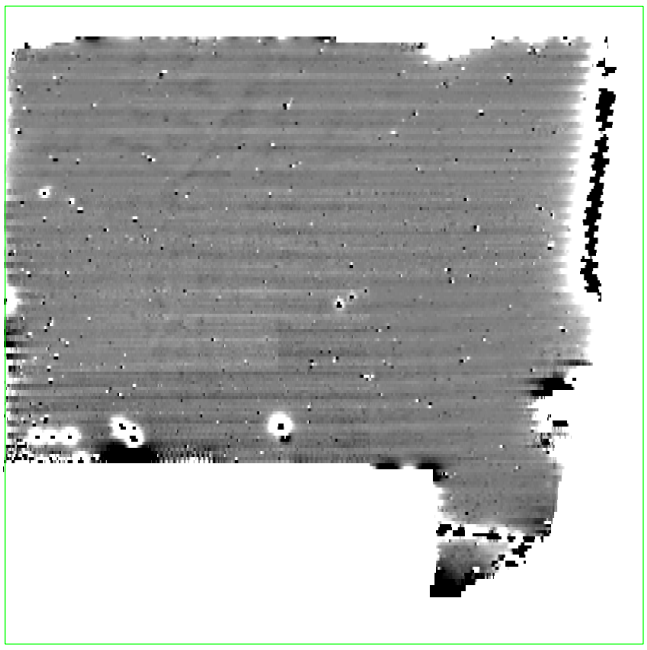


Scale 1:5000

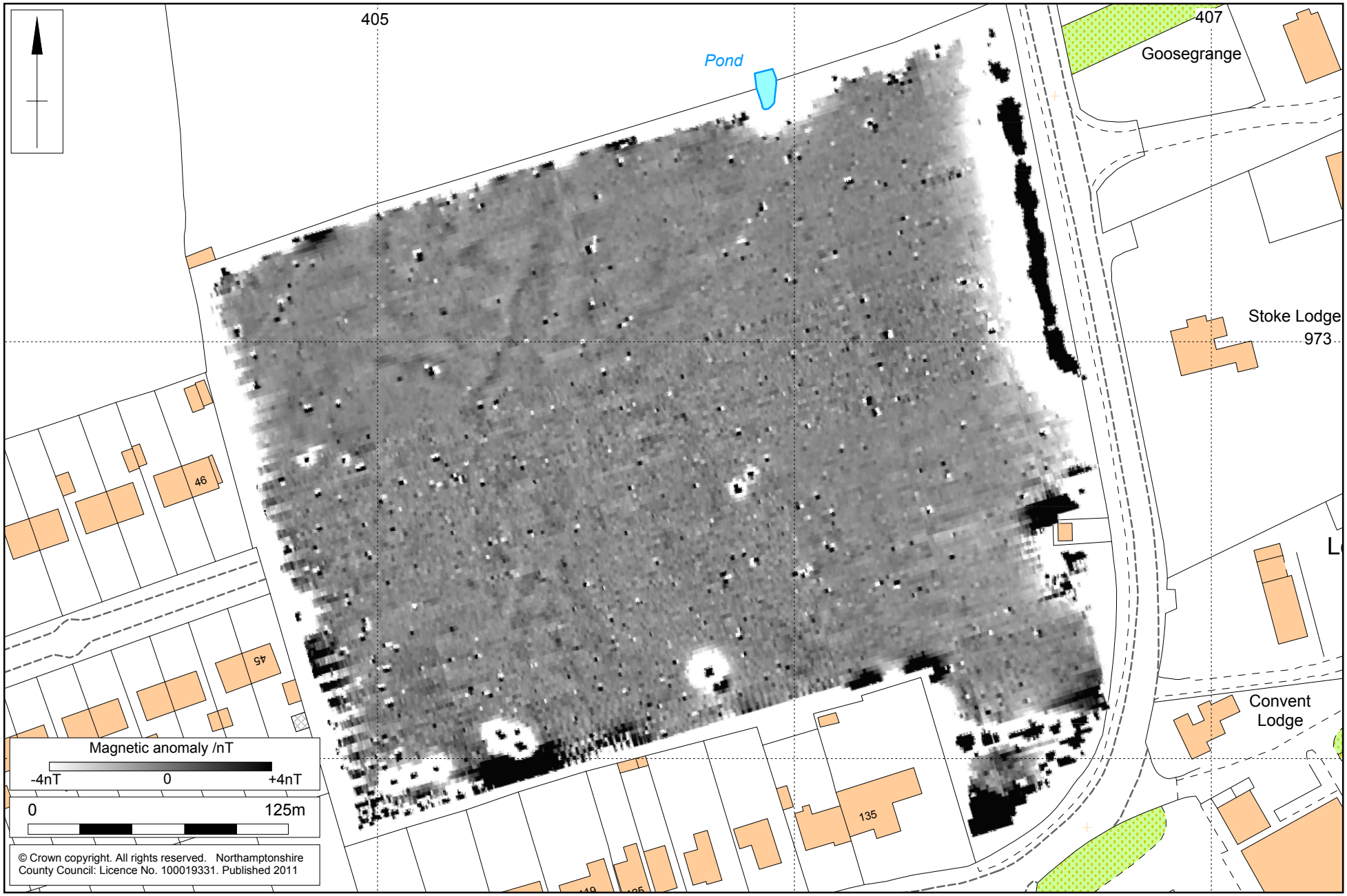
Site Location Fig 1



Magnetic anomaly /nT

-10nT 0 +10nT

0 1:2500 100m



1:2500 @ A4

Stoke Golding, Magnetometer Survey Results Fig 3

1:1250 @ A4

Stoke Golding, Magnetometer Survey Interpretation Fig 4

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