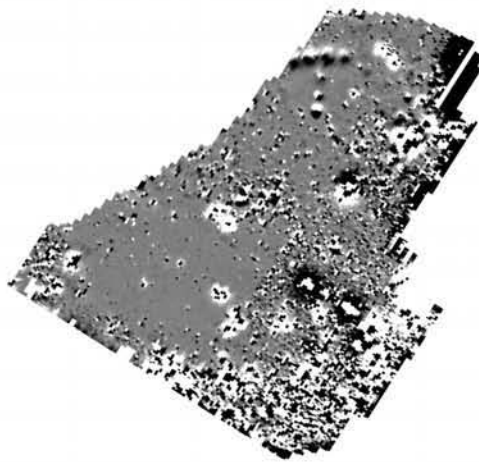




Northamptonshire  
County Council

# Northamptonshire Archaeology

Geophysical Survey at County Hall,  
Glenfield, Leicestershire  
February 2008



Ian Fisher

March 2008

Report 08/45

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Checked by	Pat Chapman		03/03/08
Approved by	Andy Chapman		03/03/08

**OASIS REPORT FORM**

<b>PROJECT DETAILS</b>		
Project name	Geophysical Survey at County Hall, Glenfield, Leicestershire	
Short description	Northamptonshire Archaeology conducted a geophysical survey of land at County Hall, Glenfield, Leicestershire. Approximately 1.8ha out of a possible 2.68 were examined by detailed gradiometer survey. An extensive area of disturbance and several unidentifiable anomalies were identified.	
Project type	Geophysical survey	
Site status	None	
Previous work	Unknown	
Current Land use	Sports field	
Future work	Unknown	
Monument type/ period	NA	
Significant finds	None	
<b>PROJECT LOCATION</b>		
County	Leicestershire	
Site address	County Hall, Glenfield, Leicestershire	
Study area	2.68 ha	
OS Easting & Northing	4548, 3068	
Height OD	83m AOD	
<b>PROJECT CREATORS</b>		
Organisation	Northamptonshire Archaeology	
Project brief originator	Leicestershire County Council	
Project Design originator		
Director/Supervisor	Ian Fisher, Northamptonshre Archarchaeology	
Project Manager	Ian Fisher, Northamptonshre Archarchaeology	
Sponsor or funding body	Leicestershire County council	
<b>PROJECT DATE</b>		
Start date	February 2008	
End date	February 2008	
<b>ARCHIVES</b>	<b>Location</b>	<b>Content (eg pottery, animal bone etc)</b>
	Leicestershire County Museum Service <b>(Accession no.)</b> X.A48.2008	
Physical	n/a	
Paper	NA	Site survey records
Digital	NA	Geophysical survey & GIS data
<b>BIBLIOGRAPHY</b>		
Journal/monograph, published or forthcoming, or unpublished client report		
Title	Geophysical Survey at County Hall, Glenfield, Leicesterhire February 2008	
Serial title & volume	NA Report 08/45	
Author(s)	Ian fisher	
Page numbers	4	
Date	3 March 2008	

## CONTENTS

1	INTRODUCTION	1
2	TOPOGRAPHY AND GEOLOGY	1
3	ARCHAEOLOGICAL BACKGROUND	2
4	METHODOLOGY	2
5	SURVEY RESULTS	3
6	CONCLUSION	3
	BIBLIOGRAPHY	4

### Figures

Fig 1 Site Location, 1:10,000

Fig 2 Detailed Gradiometer Survey Results, 1:1250

Fig 3 Detailed Gradiometer Survey Interpretation, 1:1250

**GEOPHYSICAL SURVEY AT COUNTY HALL,  
GLENFIELD, LEICESTERSHIRE  
FEBRUARY 2008**

***ABSTRACT***

*Northamptonshire Archaeology conducted a geophysical survey of land at County Hall, Glenfield, Leicestershire. Approximately 1.8ha out of a possible 2.68ha were examined by detailed gradiometer survey. An extensive area of disturbance and several unidentifiable anomalies were identified.*

**1 INTRODUCTION**

Northamptonshire Archaeology was commissioned by Gerry Walsh, Chief Architect at Leicestershire County Council (LCC) to undertake an archaeological geophysical survey of an area of land at County Hall, Glenfield, Leicestershire (NGR SK548,068, Fig 1). The work was undertaken to support a planning proposal for the development of a replacement sports facility.

The objectives of the geophysical survey were to identify the presence or absence of buried archaeological remains within the proposed development area. A single detailed magnetometer survey of the 2.68ha area of land was undertaken in February 2008.

**2 TOPOGRAPHY AND GEOLOGY**

The land subject to geophysical survey lies to the west of County hall on a former football pitch and mobile office site. The site is currently grassed. During the construction of County Hall the site may have been infilled. The northern part of the site appears purposefully levelled while the western part would have seem to have been filled. The site is bounded to the east and south by a metal fence and access roads, whilst the west is bounded by a drop in ground level overgrown with scrub and trees. A housing development borders the site to the north.

The proposed development area is mapped as lower drift geology of glaciofluvial sands and Diamicton till overlying Mercia Mudstone (Geological Survey of Great Britain, Leicester, Sheet 156)

### 3 ARCHAEOLOGICAL BACKGROUND

The Leicestershire & Rutland Historic Environment Environment Record (HER) indicates the potential for archaeological remains within the proposed development area. However, no known archaeological work has been conducted in the site area.

Fieldwalking recovered a perforated clay slab (MLE 119). This type of artefact is commonly, but not exclusively, used in the Late Bronze Age.

To the north of the proposed development area there is a Romano-British occupation site (HER Ref: MLE 117). The site was first identified from Roman pottery recovered from fieldwalking. Subsequent excavation in advance of the Gynsills Hall site identified an enclosed rural settlement occupied during the 1st and 2nd centuries AD. The site also yielded a Roman disc brooch.

### 4 METHODOLOGY

Geophysical survey was carried out in accordance with English Heritage and the Institute of Field Archaeologists Guidelines (EH 1995 & Gaffney, Gater and Ovendon 2002).

#### Magnetometer Survey

All detailed magnetometer survey was undertaken using Bartington Grad601-2 fluxgate gradiometers. The Grad601-2 is constructed as a dual-sensor instrument with two vertical gradiometers separated on a yoke to enable two lines of survey to be recorded in tandem.

The area was sub-divided into 30m x 30m grid-squares. These were laid out manually, using tapes and an optical square. The survey consisted of 28 whole and partial 30m x 30m grid-squares. Each grid square was traversed at rapid walking pace in zigzag traverses spaced at 1m intervals with data recorded every 0.25m along these. All fieldwork was carried out in accordance with the aforementioned guidelines (EH 1995 & Gaffney, Gater and Ovendon 2002).

The data was analysed using Geoplot 3.00u software. Low (negative) magnetism is shown as white and high (positive) magnetism as black in the resultant greyscale plots. To avoid the introduction of errors, minimal manipulation was carried out on the data. The 'Zero Mean Traverse' function was applied in order to bring the average level of each data line into a balanced zero.

The processed data is presented here in the form of a greyscale georectified to the Ordnance Survey base (-10nT / +10nT scale; Fig 2). An interpretative plot has been generated from the results (Fig

3), both figures are referred to directly in the following section.

## 5 SURVEY RESULTS

The survey results and interpretation can be found in Figures 2 and 3. The survey area was found to be magnetically effected by large quantities of thermoremnantly magnetised material (brick, tile etc) and ferrous material in the ground.

The geophysical survey did not identify any significant archaeological remains. The results indicate the level of disturbance in the area and may mask potential archaeology buried beneath the debris. However, archaeology may be absent in the area. A ferrous utility was also detected, orientated east to west across the south of the area.

To the west the survey identified an area possibly undisturbed, but no archaeological features were detected. In the north, the survey identified seven distinct anomalies. The anomalies can be divided into two categories. Four broad circular positive magnetic anomalies are aligned east to west, possibly deeply buried, and of uncertain origin. Three ferrous anomalies are aligned north to south. It is unclear whether the two sets of anomalies are related and what they are.

## 6 CONCLUSION

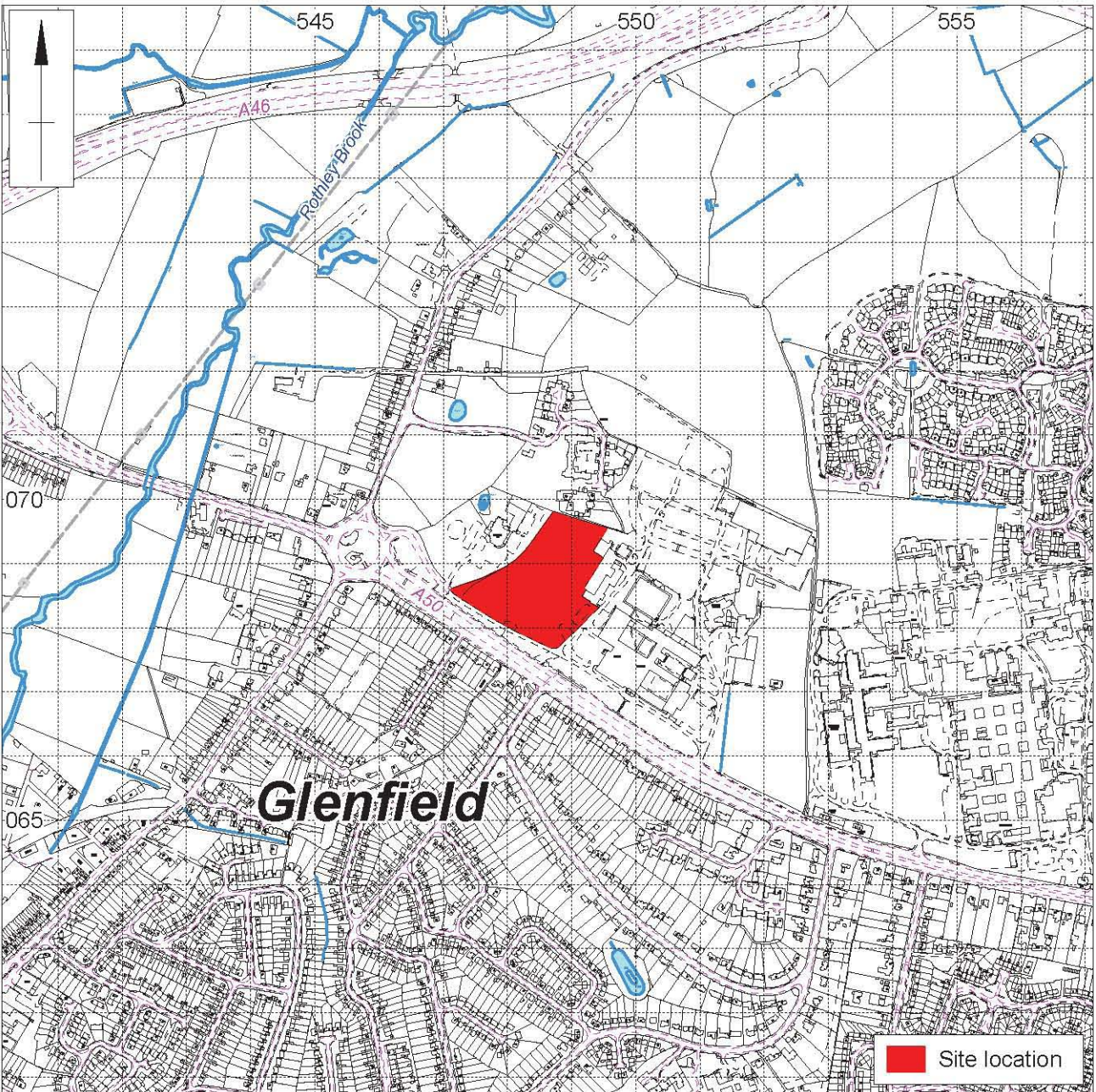
Magnetometer prospection of land at County Hall, Glenfield, Leicester served to map the extensive disturbance and one modern utility. Four anomalies of unclear provenance were detected adjacent to three large ferrous features. Archaeologically, nothing significant was detected. However, archaeological features, should they exist, may be masked by the modern debris or simply not exhibiting a strong magnetic contrast with the background level.

## BIBLIOGRAPHY

EH 1995 *Geophysical Survey in Archaeological Field Evaluation*, English Heritage Research and Professional Services Guideline, 1

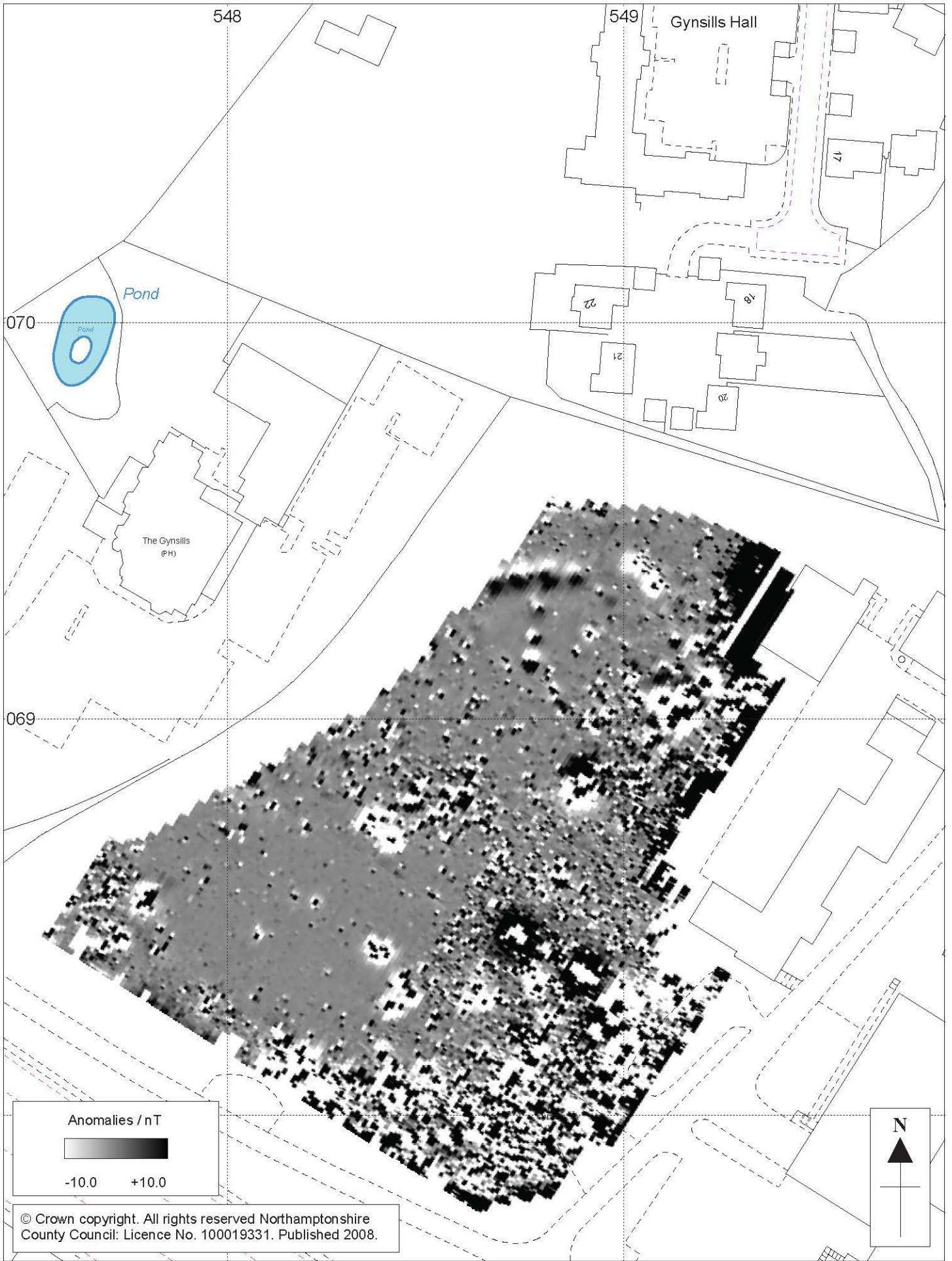
Gaffney, C, Gater, J, and Ovendon, S, 2002 *The Use of Geophysical Techniques in Archaeological Evaluations*, Institute of Field Archaeologists Technical Paper, 6





Scale 1:10,000

Site location Fig 1



Scale 1:1250 @ A4

Detailed Gradiometer Survey Results Fig 2

