



Northamptonshire County Council

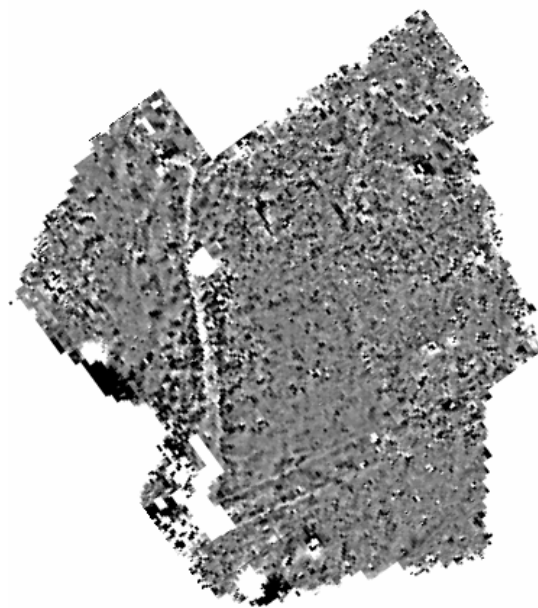
Northamptonshire Archaeology

Archaeological Geophysical Survey

Land south of Harrington Road

Rothwell, Northamptonshire

September 2009



Adrian Butler
October 2009

Report 09/137

Northamptonshire Archaeology

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OASIS REPORT FORM

PROJECT DETAILS		
Project name	Archaeological Geophysical Survey on land south of Harrington Road, Rothwell, Northamptonshire	
Short description	Phoenix Consulting Archaeology Ltd commissioned Northamptonshire Archaeology to carry out magnetometer survey south of Harrington Road, Rothwell, Northamptonshire. Although part of the area had been covered by a compound, survey succeeded in imaging a possible, truncated, ditched enclosure. Other anomalies described a former north-south watercourse, two possible plastic or concrete pipes in the south and possible walls	
Project type	Geophysical survey	
Site status	None	
Previous work	Unknown	
Current Land use	Rough Pasture	
Future work	Unknown	
Monument type/ period	Possible enclosure (undated)	
Significant finds	None	
PROJECT LOCATION		
County	Northamptonshire	
Site address	Harrington Road, Rothwell	
Study area	3.8ha	
OS Easting & Northing	481000 280650	
Height OD	105m – 110m AOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	Phoenix Consulting Archaeology Ltd	
Project Design originator	Andy Richmond, Phoenix Consulting Archaeology Ltd	
Director/Supervisor	Ian Fisher	
Project Manager	Adrian Butler	
Sponsor or funding body	Phoenix Consulting Archaeology Ltd	
PROJECT DATE		
Start date	01 October 2009	
End date	09 October 2009	
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BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	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 on land south of Harrington Road, Rothwell, Northamptonshire	
Serial title & volume	Northamptonshire Archaeology Reports 09/137	
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Fig 2 Gradiometer Survey Results, 1:2500

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General view of site.

**ARCHAEOLOGICAL GEOPHYSICAL SURVEY ON LAND SOUTH OF HARRINGTON
ROAD, ROTHWELL, NORTHAMPTONSHIRE**

OCTOBER 2009

ABSTRACT

Phoenix Consulting Archaeology Ltd commissioned Northamptonshire Archaeology to carry out magnetometer survey south of Harrington Road, Rothwell, Northamptonshire. Although part of the area had been covered by a compound, survey succeeded in imaging a possible, truncated, ditched enclosure. Other anomalies described a former north-south watercourse, two possible plastic or concrete pipes in the south and possible walls.

1 INTRODUCTION

Northamptonshire Archaeology was commissioned by Phoenix Consulting Archaeology Ltd, to conduct an archaeological geophysical survey on land south of Harrington Road, Rothwell, Northamptonshire (NGR 481000 280650; Fig 1).

The objectives of the geophysical survey were to identify the presence or absence of archaeological remains within the proposed 3.8 hectare development area. The fieldwork consisted of a reduced area of magnetic gradiometer survey covering approximately 2.8 hectares of land due to unexpected restrictions on site.

2 TOPOGRAPHY AND GEOLOGY

Rothwell is situated approximately 3km west of Kettering, Northamptonshire. The investigation area covers an area of land between Rothwell and the A14 to the south, just off Junction 3. The area is an uneven triangular shape, with the southern boundary being adjacent to the A14, the northern extent reaching Harrington Road (B576). To the east, the site is bounded by housing.

At the time of the fieldwork the area was covered in rough pasture with large stands of nettles and hawthorn making some areas unsurveyable. The field was divided into two by a post-and-barbed-wire fence in the south-eastern corner. A dry watercourse bisected the field north-south. The western edge of the site has been used by the contractors (Barhale) as a secure temporary compound with hard standing. The material removed from the

compound has been used to create a bund on the western boundary. The south-western corner of the investigation area was made up of heavily vegetated rough ground and a marshy pond area. These areas were not surveyed.

The maximum elevation of the site is approximately 110m AOD and the geology of the area is believed to be Upper Lias clays (BGS Sheet 170 Market Harborough via NCC Digital data).

3 ARCHAEOLOGICAL BACKGROUND

The Northamptonshire Historic Environment Record (NHER) contains no known sites from within the survey area; however, archaeological remains are suspected within 0.5km. Cropmarks 200m north-west of the site indicate a possible prehistoric/Romano-British farmstead and settlement (NHER: MNN132233; MNN1546). Aerial photography has shown a possible Saxon or medieval oval enclosure (NHER: MNN122256) 400m south-east of the investigated 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 area was divided into a single network of 35 contiguous, whole and partial, 30m x 30m grid squares. These were set out manually by tape measure and optical square, and were tied to the Ordnance Survey grid by Leica System 1200 differential GPS. The instruments were carried at a brisk but steady pace through each grid, 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 was carried out in accordance with the guidelines issued by English Heritage and by the Institute for Archaeology (EH 2008; Gaffney, Gater and Ovendon 2002).

The data was processed using Geoplot 3.00u software. Striping, occasionally caused by slight mismatches in sensor balance, was removed using the 'Zero Mean Traverse' function (ZMT) and destaggering of the data was performed as necessary.

The processed data is presented in this report in the form of a greyscale plot (scale +4nT to -4nT black ~ white). This has been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2). An interpretative plot has been produced and is shown overlain onto the data in Figure 3.

5 SURVEY RESULTS

The following discussion should be read in conjunction with Figures 2 and 3. Considerable amounts of strong dipolar magnetic anomalies (paired positive/negative) were detected around the site. These are likely to represent ferrous or thermoremnantly magnetised (fired) debris such as iron fragments and brick waste, and thus may indicate random discarded construction litter. Of the two large dipolar anomalies on the western extremes of the area, the southerly was caused by a section of discarded Heras fencing and it is likely that the northern one indicates a similar, un-recorded, panel.

The dry watercourse that divides the site (above, para 2) was reflected by a negative magnetic anomaly orientated north to south. The negative magnetic anomaly was probably the result of a combination of denuded mineralization in alluvium combined with the air-filled hollow formed by the old stream bed. Three positive linear anomalies were detected immediately to the east of the former stream in the north of the site. These short lengths of possible ditch features, although not joined, were arranged in a roughly rectangular pattern that could indicate three sides of a highly truncated enclosure.

A pair of parallel negative linear anomalies was identified orientated north-east to south-west in the southern half of the site. The features do not appear to cross the line of the fence in the south-east. The nature of these anomalies is unclear, they could represent a pair of concrete or plastic pipes filled with air or water, making them less magnetic than the surrounding soil. Similarly, three negative linear magnetic anomalies detected in the north-east corner of the site are of unclear provenance. With these anomalies, as with the southern examples, the possibility exists that they represent buried walls or poorly

enhanced ditch fills.

6 CONCLUSION

Survey of an area south of Harrington Road, Rothwell was restricted by a compound imposed on the area and other landscape features. The results indicated the possible remains of a rectangular ditched enclosure in the north of the site, not an unlikely feature considering the prehistoric/Romano-British remains indicated by cropmarks across the road to the north-west. A pair of linear features in the south of the field could indicate plastic or concrete pipes, essentially voids. Negative anomalies in the northern corner are considered to be possible buried walls or other reduced magnetism features. An example of such is the north-south former watercourse, a topographic hollow and likely alluvial deposit.

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

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



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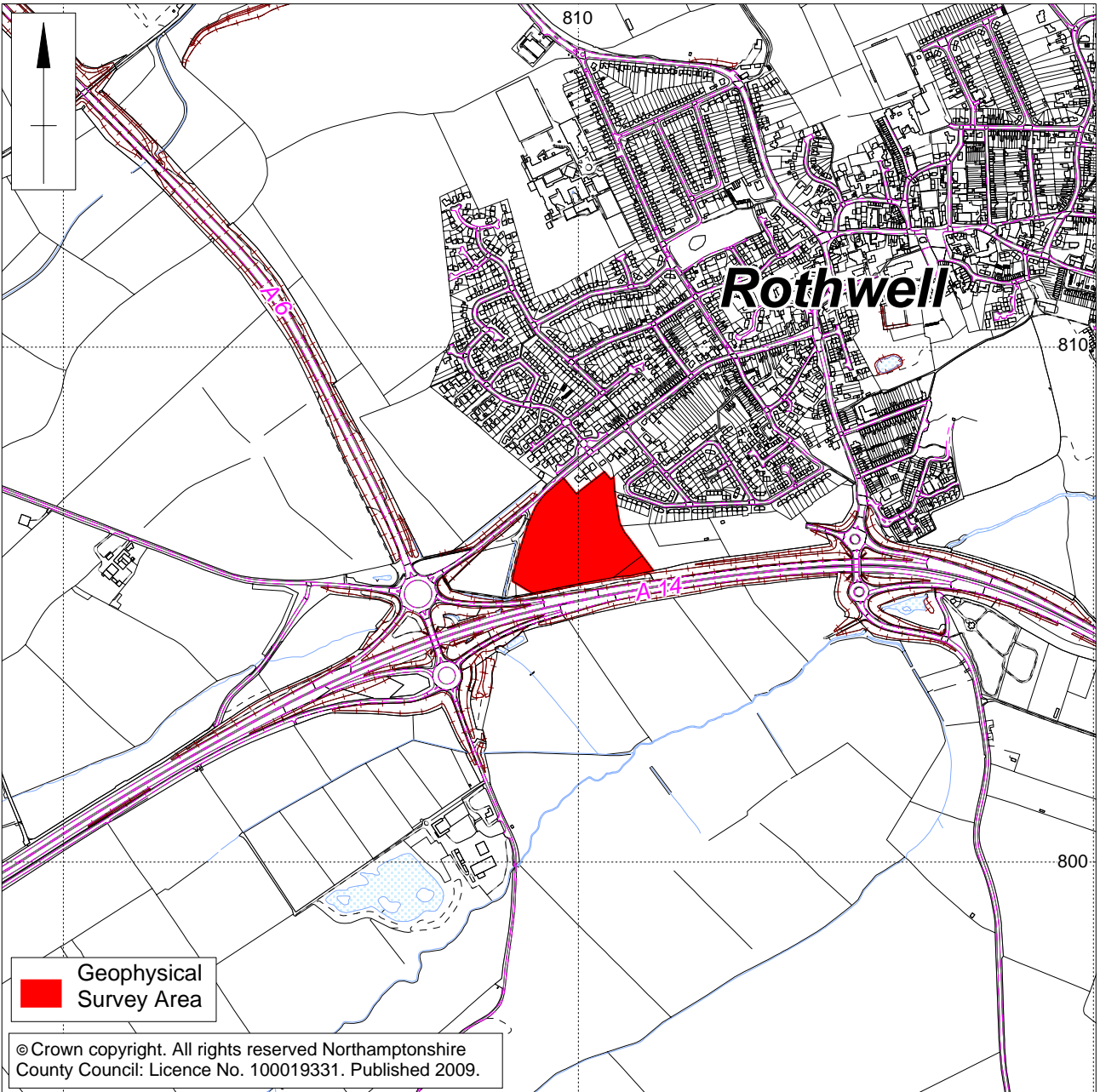
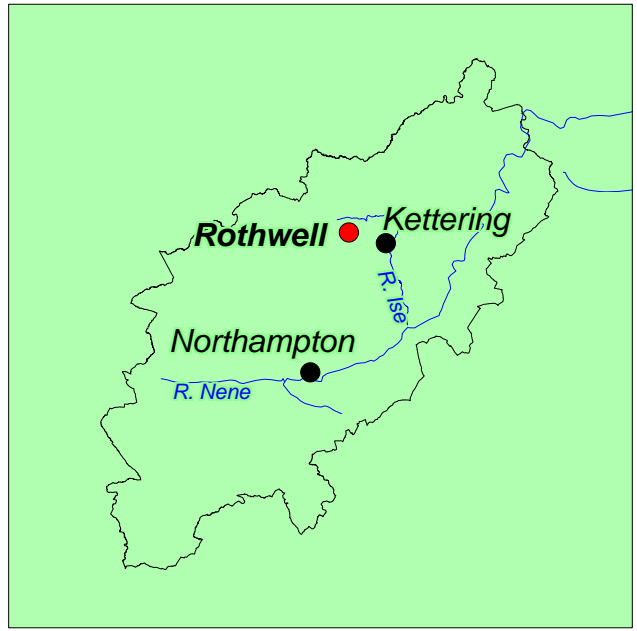
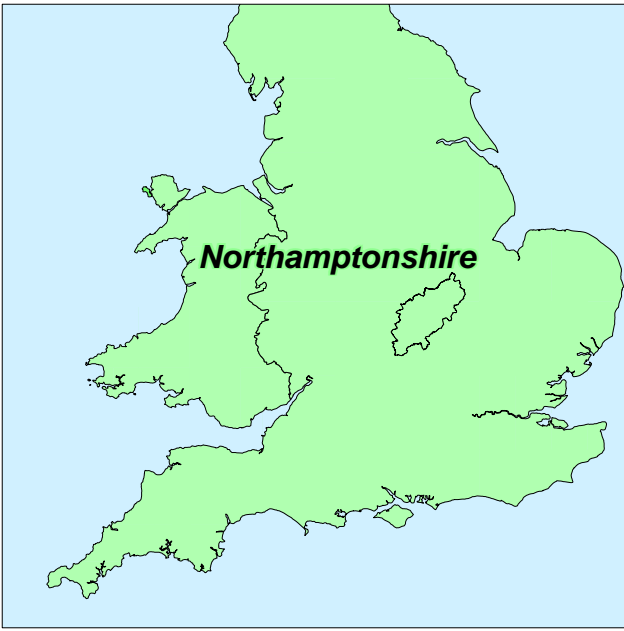
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Scale 1:12,500

Site location Fig 1



Scale 1:2500

Gradiometer Survey Results Fig 2



Scale 1:2500

Gradiometer Survey Interpretation Fig 3