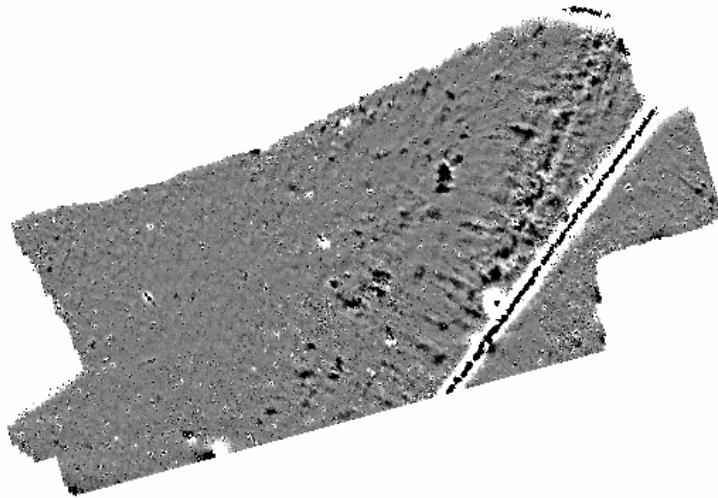




Northamptonshire
County Council

Northamptonshire Archaeology

Archaeological geophysical survey
of land at Spencer's Park
Hemel Hempstead
Hertfordshire
December 2007



Heather Smith & Adrian Butler

January 2008

Report 08 / 001

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NORTHAMPTONSHIRE COUNTY COUNCIL

NORTHAMPTONSHIRE ARCHAEOLOGY

JANUARY 2008

ARCHAEOLOGICAL GEOPHYSICAL SURVEY OF

LAND AT SPENCER'S PARK, HEMEL HEMPSTEAD, HERTFORDSHIRE

DECEMBER 2007

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QUALITY CONTROL

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OASIS REPORT FORM

PROJECT DETAILS		
Project name	Archaeological Geophysical Survey of Land at Spencer's Park, Hemel Hempstead, Hertfordshire	
Short description (250 words maximum)	Northamptonshire Archaeology was commissioned by Entec UK, on behalf of English Partnerships (the Urban Regeneration Agency) to undertake a magnetometer survey of 12.9 hectares of land at Spencer's Park, Hemel Hempstead, Hertfordshire. The majority of the magnetic anomalies identified by the survey are thought to be a result of local geology and some modern utilities. There was a linear anomaly which could be a ditch and two discrete pit-like anomalies.	
Project type	Geophysical Survey	
Site status (none, NT, SAM etc)	None	
Previous work (SMR numbers etc)	None	
Current Land use	Arable	
Future work	Unknown	
Monument type/ period	Unknown	
Significant finds (artefact type and period)	N/A	
PROJECT LOCATION		
County	Hertfordshire	
Site address (including postcode)	Spencer's Park, Hemel Hempstead, Hertfordshire	
Study area (sq.m or ha)	12.9 ha	
OS Easting & Northing	TL 0800 0945 (centre)	
Height OD	125m	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology	
Project brief originator	Stephen Townend, Entec UK	
Project Design originator	Mark Holmes, Northamptonshire Archaeology	
Director/Supervisor	Adrian Butler	
Project Manager	Adrian Butler	
Sponsor or funding body	Entec UK	
PROJECT DATE		
Start date	December 2007	
End date	December 2007	
ARCHIVES	Location (Accession no.)	Content (eg pottery, animal bone etc)
Physical		
Paper	Northamptonshire Archaeology	Survey notes
Digital	Northamptonshire Archaeology	Geophysical data
BIBLIOGRAPHY		
	Journal/monograph, published or forthcoming, or unpublished client report (NA report)	
Title	Archaeological Geophysical Survey of Land at Spencer's Park, Hemel Hempstead, Hertfordshire	
Serial title & volume	NA Report 08/001	
Author(s)	Heather Smith, Adrian Butler	
Page numbers	6	
Date	07/01/2008	

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ARCHAEOLOGICAL GEOPHYSICAL SURVEY
LAND AT SPENCER'S PARK, HEMEL HEMPSTEAD

HERTFORDSHIRE

DECEMBER 2007

ABSTRACT

Northamptonshire Archaeology was commissioned by Entec UK, on behalf of English Partnerships (the Urban Regeneration Agency) to undertake a magnetometer survey of 12.9 hectares of land at Spencer's Park, Hemel Hempstead, Hertfordshire. The majority of the magnetic anomalies identified by the survey are thought to be a result of local geology and some modern utilities. There was a linear anomaly which could be a ditch and two discrete pit-like anomalies.

1 INTRODUCTION

Northamptonshire Archaeology was commissioned by Entec UK, on behalf of English Partnerships (the Urban Regeneration Agency), to undertake a magnetometer survey of land at Spencer's Park, Hemel Hempstead, Hertfordshire. The parcel of land is centred on NGR TL 0800 0945 and is approximately 12.9 hectares (Fig 1). The survey was carried out between 17-20 December 2007.

2 ARCHAEOLOGICAL BACKGROUND

No records were found of any archaeological remains or previous surveys on the site. However, the broader locality has yielded archaeological remains particularly from the Roman period, including the temple/mausoleum at Wood Lane End at NGR TL 08 07 (English Heritage National Inventory) and High Street Green barrow at NGR TL 0716 0845 (English Heritage National Inventory).

3 TOPOGRAPHY AND GEOLOGY

The solid geology of the survey area is believed to consist of chalk and red chalk, the drift geology is clay with flints (www.bgs.ac.uk/geoindex/index.htm accessed 03/01/2008).

The area surveyed was part of a large arable field on the edge of Hemel Hempstead. A dismantled railway line runs along the northern edge of the field and there is a reservoir adjacent to the north-east corner. Overhead power lines run across the western end of the field. The north-west corner was overgrown with scrub and was not surveyable. The ground slopes noticeably in the eastern section of the field with the base of the slope running south-west to north-east.

4 METHODOLOGY

Fieldwork

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 121 of these 30m grid-squares.

The survey was conducted with Bartington Grad601-2, twin sensor array, vertical component fluxgate gradiometers. These 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 at a maximum resolution of 0.1nT.

All fieldwork was carried out in accordance with the guidelines issued by English Heritage and by the Institute of Field Archaeologists (EH 1995 & Gaffney, Gater and Ovendon 2002)

Data processing

The data was displayed and processed using Geoplot 3.00s software. In accordance with our normal policy, minimal processing was carried out on the data. The 'Zero Mean Traverse' function was applied as a standard in order to balance the data to centre at zero. Other functions were applied only where necessary to correct specific data flaws.

The processed data is presented in this report in the form of a greyscale plot (scale +4nT to -4nT black ~ white; Fig 2). An interpretative plot (Fig 3) has been overlaid on the greyscale to aid in the discussion.

5 SURVEY RESULTS

There was a scatter of small dipolar anomalies across the field which indicate the presence of ferrous litter.

A linear, highly positive magnetic anomaly with a negative halo crosses the south-east of the field orientated approximately south-west to north-east. This is typically a response to a ferrous pipeline, presumably a water pipeline as it is aligned towards the reservoir adjacent to the surveyed area. There were two highly positive magnetic anomalies with negative halos located along the pipeline, which correspond with drain covers on the ground.

A similar linear highly positive magnetic anomaly with a negative halo situated at the extreme north-east corner of the surveyed area, oriented approximately north-west to south-east and also leading to the reservoir, is also likely to be a water pipeline.

A dipolar highly magnetic anomaly at the south of the surveyed area is associated with a power cable pole in this location.

A sweeping pattern of positive magnetic anomalies was detected across much of the eastern half of the field, with a concentration trending approximately south-west to north-east across the field. These anomalies relate to the geology of the area and have also been detected nearby in a field north of the reservoir and south of Redbourne road (Butler 2005). They appear to coincide with the fall of slope and the dry valley across the field.

In the north-east corner of the surveyed area there was a smaller linear positive magnetic anomaly aligned south-west to north east. This anomaly could reflect the presence of a ditch (Fig 3). There were also two discrete positive pit-like anomalies in the same part of the field as the ditch.

6 CONCLUSIONS

The gradiometer survey was completed over the 12.9 hectares of land at Spencer's Park Hemel Hempstead. Magnetic anomalies were mainly interpreted as being caused by modern utilities or as being geological anomalies. There is one short linear anomaly which could be a ditch and two pit-like anomalies.

BIBLIOGRAPHY

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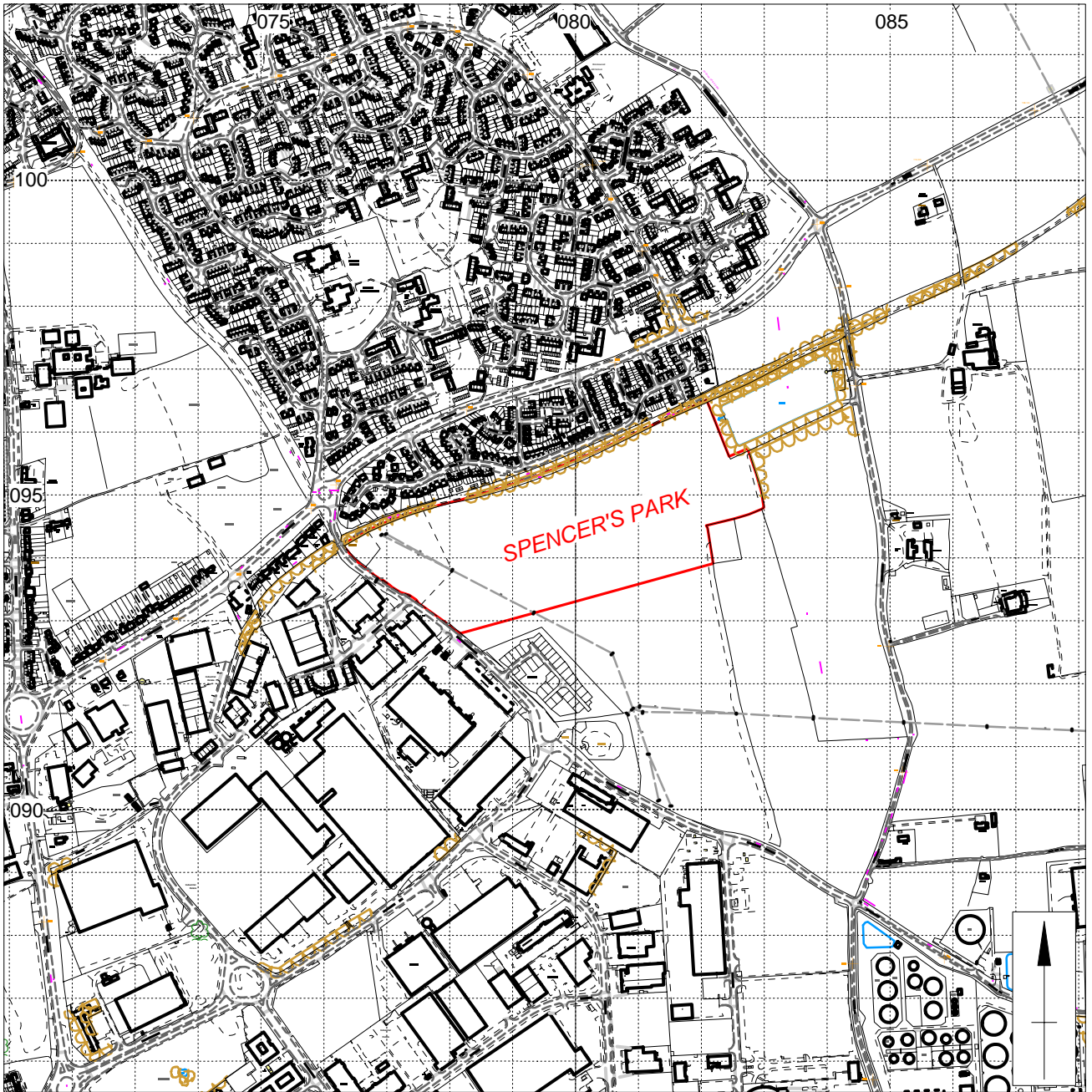
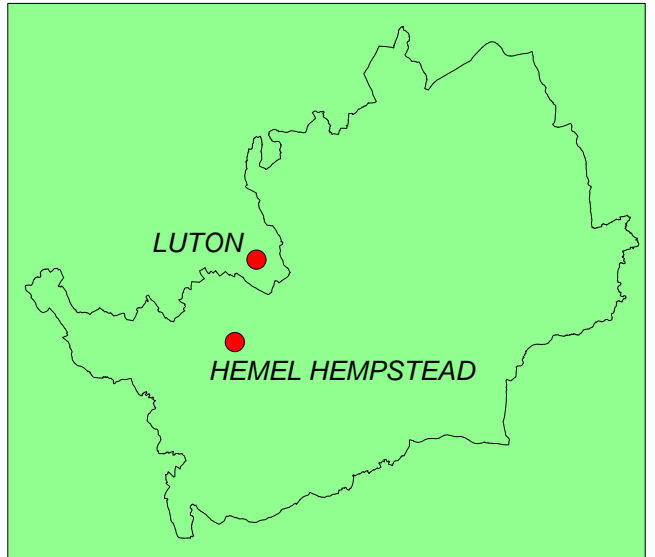
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Scale 1:10,000

Site Location Fig 1



Gradiometer Survey Results Fig 2

