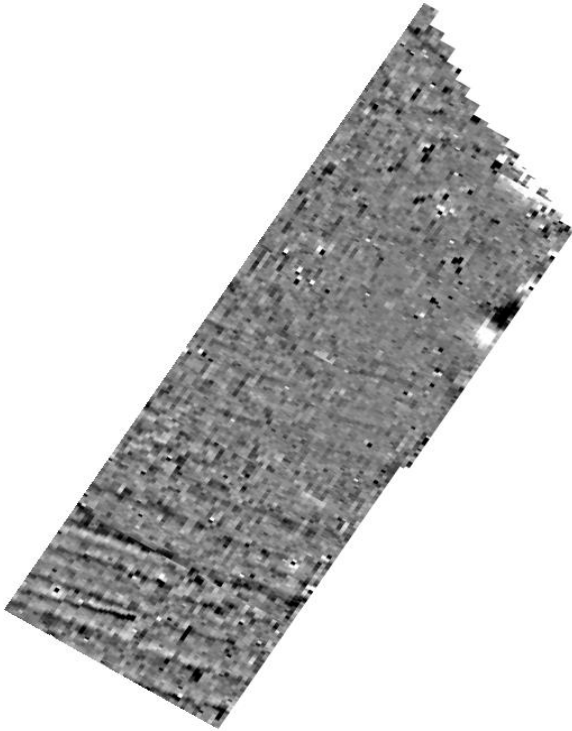




Northamptonshire Archaeology

Archaeological geophysical survey of land north of Lilford
Lodge, Barnwell, Northamptonshire
November 2013



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Report 13/222

November 2013



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QUALITY CONTROL

	Print name	Signed	Date
Checked by	Mark Holmes	<i>MH</i>	07/11/13
Verified by	Pat Chapman	<i>PC</i>	07/11/13
Approved by	Andy Chapman	<i>AC</i>	07/11/13

OASIS REPORT FORM

PROJECT DETAILS		OASIS No. 163723	
Project title	Archaeological geophysical survey of land north of Lilford Lodge, Barnwell, Northamptonshire, November 2013		
Short description	Northamptonshire Archaeology was commissioned by S B Rice Consulting to carry out a detailed magnetometer survey on 0.9ha of arable land, north of Lilford Lodge, Barnwell, Northamptonshire. The survey identified medieval ridge and furrow cultivation but no other archaeological features were evident.		
Project type	Geophysical survey		
Previous work	Desk-Based Assessment		
Current land use	Arable		
Future work	Unknown		
Monument type and period	Medieval ridge and furrow field cultivation		
Significant finds	None		
PROJECT LOCATION			
County	Northamptonshire		
Site address	Lilford Lodge, Barnwell		
Easting Northing	TL 040 850		
Area (sq m/ha)	0.9ha		
Height aOD	36-37m aOD		
PROJECT CREATORS			
Organisation	Northamptonshire Archaeology (NA)		
Project brief originator	NA		
Project Design originator	NA		
Director/Supervisor	Ian Fisher (NA)		
Project Manager	Mark Holmes (NA)		
Sponsor or funding body	S B Rice Consulting		
PROJECT DATE			
Start date	01/11/2013		
End date	01/11/2013		
ARCHIVES	Location (Accession nos.)	Contents	
Physical			
Paper		Site survey records	
Digital		Survey data	
BIBLIOGRAPHY			
Title	Archaeological geophysical survey of land north of Lilford Lodge, Barnwell, Northamptonshire, November 2013		
Serial title & volume	Northamptonshire Archaeology Report 13/222		
Author(s)	Ian Fisher		
Page numbers	12 pages of text and figures		
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**ARCHAEOLOGICAL GEOPHYSICAL SURVEY OF LAND
NORTH OF LILFORD LODGE, BARNWELL
NORTHAMPTONSHIRE
NOVEMBER 2013**

Abstract

Northamptonshire Archaeology was commissioned by S B Rice Consulting to carry out a detailed magnetometer survey on 0.9ha of arable land, north of Lilford Lodge, Barnwell, Northamptonshire. The survey identified medieval ridge and furrow cultivation but no other archaeological features were evident.

1 INTRODUCTION

Northamptonshire Archaeology was commissioned by S B Rice Consulting Ltd to conduct a detailed magnetometer survey on 0.9ha of arable land at Lilford Lodge, Barnwell, Northamptonshire (NGR TL 040 850). The field work was conducted on the 1st November 2013 and conformed to a specification prepared by Northamptonshire Archaeology (NA 2013) as a condition of a planning application for development of the land.

2 BACKGROUND

2.1 Location and geology

The survey area comprises 0.9ha of land, west of Barnwell village, in the north-east corner of an arable field. It is bounded on the north and east sides by a track and arable fields to the south and west. The River Nene is located approximately 400m to the north-west. The site lies at c 36-37m aOD.

The survey area is located within the River Nene valley. The solid geology comprises Cornbrash Formation – Limestone. No superficial deposits are recorded (BGS 2013).

2.2 Historical and archaeological background

A desk-based assessment (Flitcroft 2013) was prepared in advance of works and discusses the historical and archaeological background in detail.

The site lies within an area of archaeological interest, with remains of prehistoric, Roman and medieval date known in and around the village of Barnwell, to the east. A watching brief undertaken during the construction of fishponds to the north-west of the application area revealed a range of discarded artefacts dating from the Neolithic through to the Middle Ages in alluvial deposits, suggesting regular flooding of the area over the last 5000 years (HER ENN100533). No finds or archaeological monuments are recorded from the application area itself.

There are a small number of prehistoric cropmarks along the lower reaches of the Nene valley to the north at Barnwell Mill Farm, and on the west bank of the Nene in the parishes of Pilton to the south-west and Stoke Doyle to the west. They are rectilinear in form and may be of later prehistoric date. Cropmarks in the field adjoining the application area to the east, possibly represent prehistoric funerary activity (HER 2360/1/2).

Evidence for Roman settlement lies both north and east of Barnwell and includes a stone structure and hypocaust building at TL 074 848. All are located a considerable distance from the site.

Medieval remains are largely confined to Barnwell village and comprise evidence of ridge and furrow cultivation, the manor house, a castle and possible moat (RCHME 1975).

3 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).

An independent system of 30m grids was established within each of the fields to be surveyed. The grids were established with a tape measure and optical square and were tied in to the Ordnance Survey National Grid by using Leica System 1200 dGPS (EH 2008, 19). The gradiometers were carried at a brisk but steady walking 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 square.

All fieldwork methods complied with the guidelines issued by English Heritage and by the Institute for Archaeologists and with the agreed method statement for this project (EH 2008; IfA 2011; NA 2013).

The survey data was processed using Geoplot 3.00v 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 processed data is presented in this report in the form of grey-tone plots, at a scale of +/- 4nT black/white. The plots have been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2). An interpretative overlay has been produced and is shown in Figure 3.

4 SURVEY RESULTS

The survey identified furrows of medieval ridge and furrow cultivation, aligned north-west to south-east, in the southern part of the survey area. Two possible ferrous objects were also detected. No significant archaeological features were detected by the survey.

5 CONCLUSION

The survey has detected evidence of medieval ridge and furrow cultivation; however, no significant archaeological features were identified.

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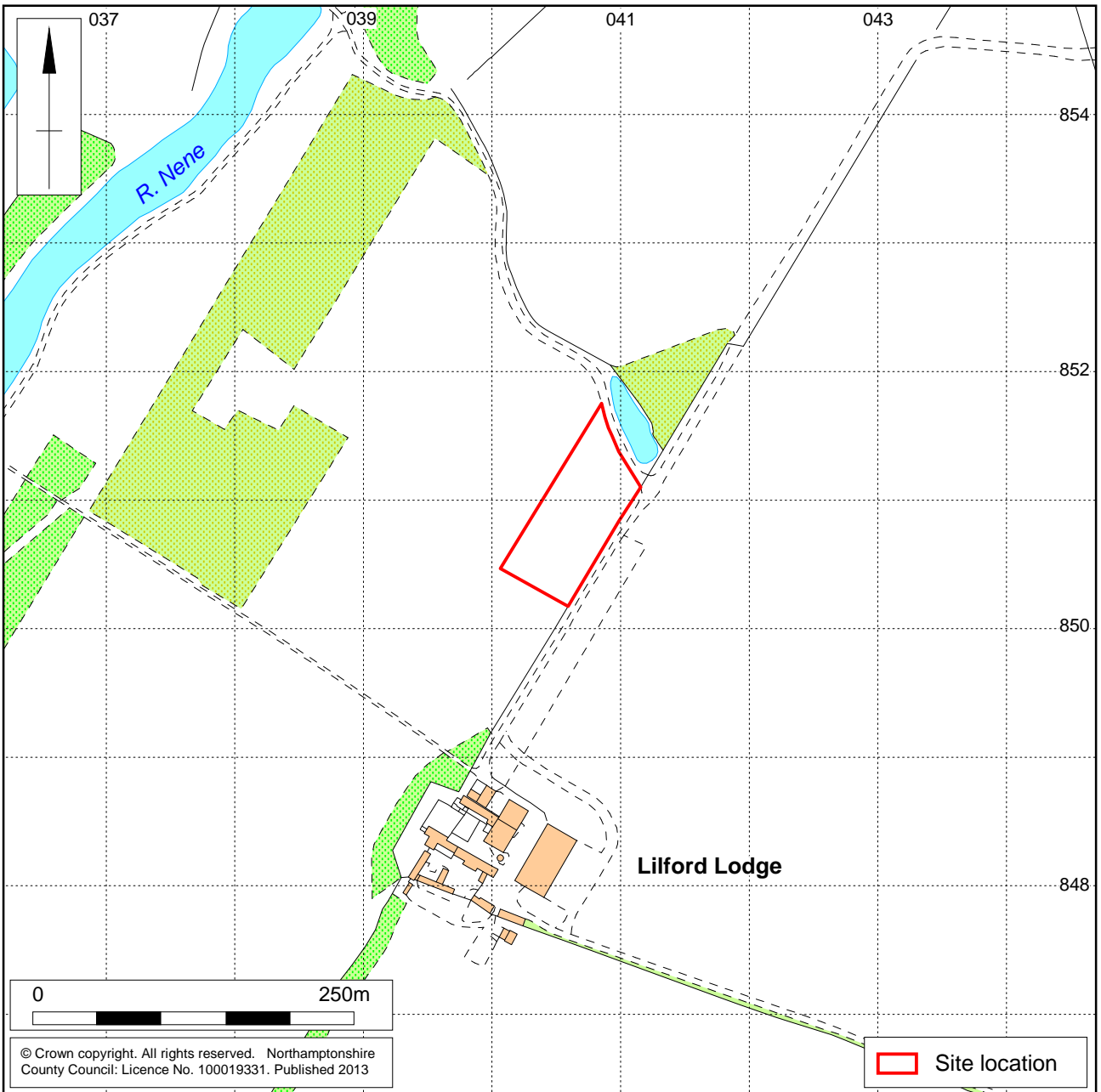
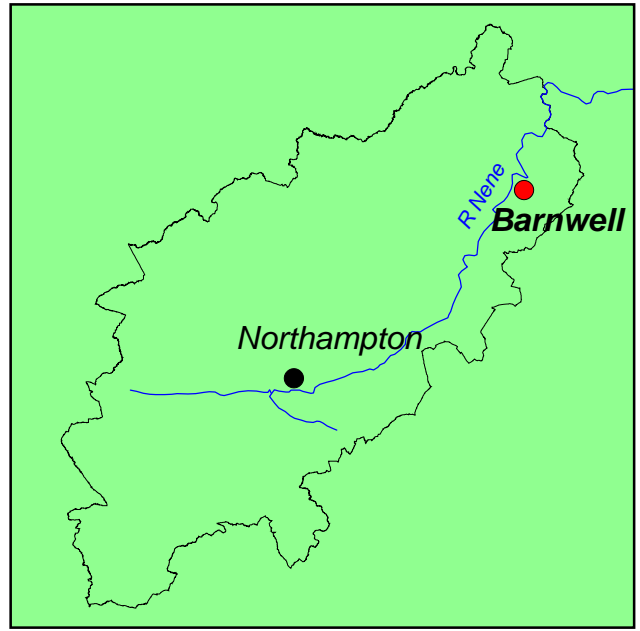
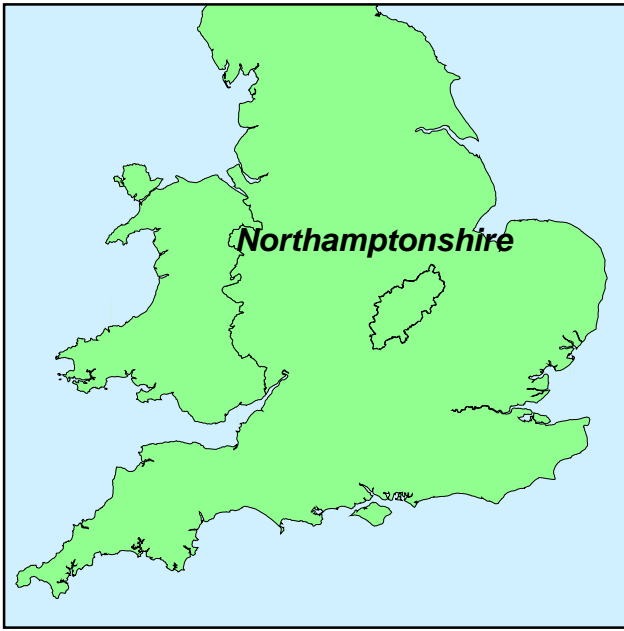
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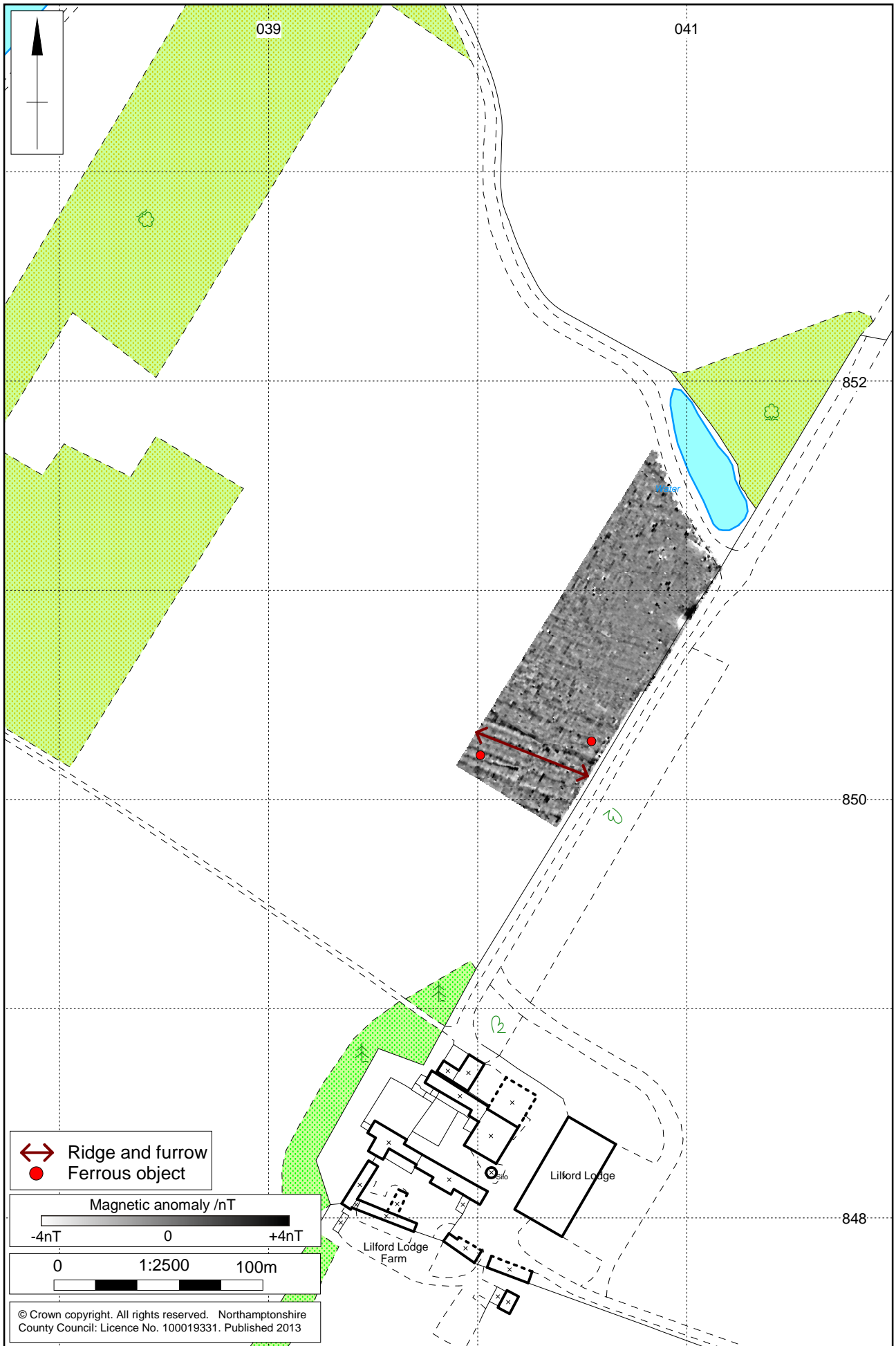
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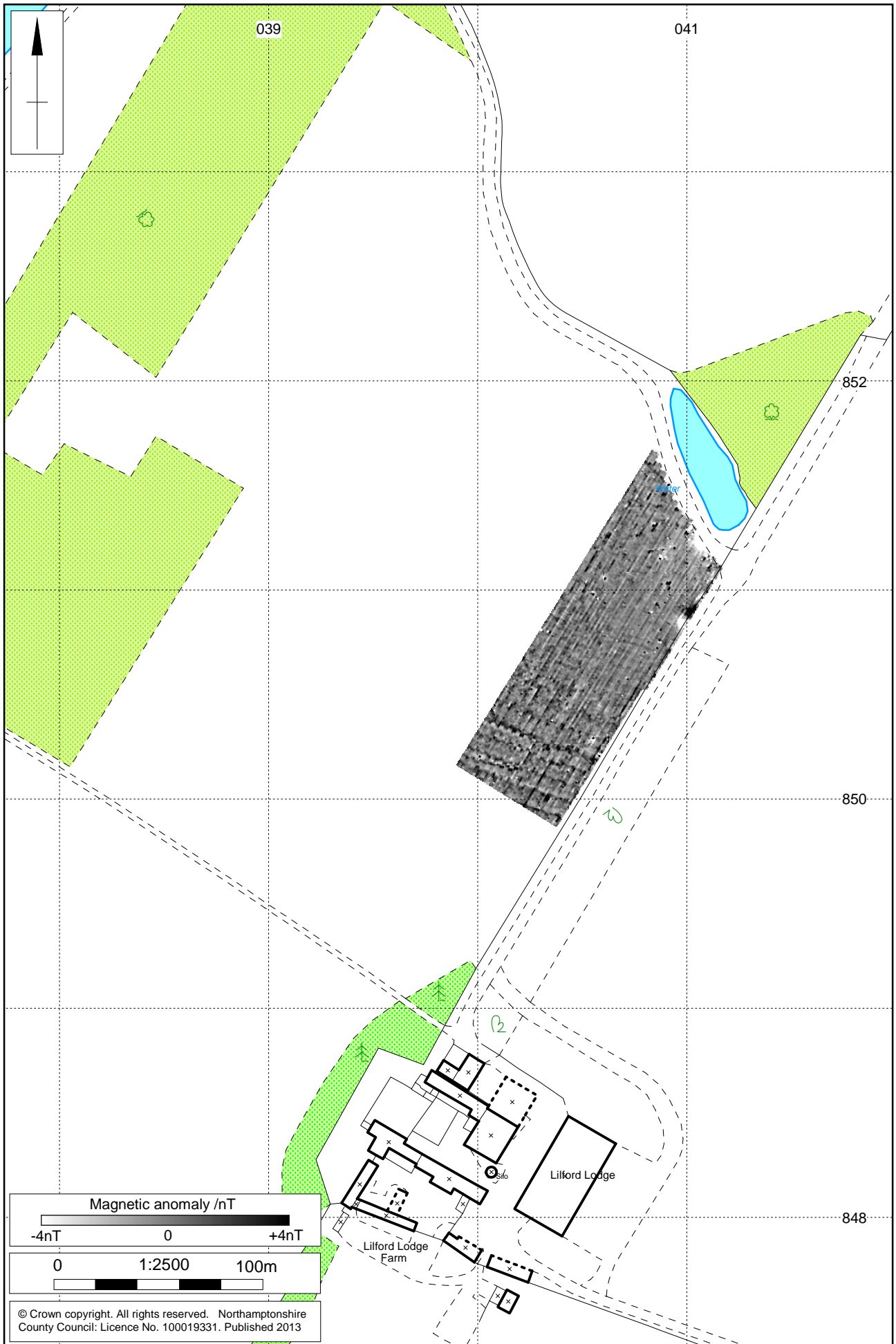
Site location Fig 1



1:2500 (A4)

Magnetometer survey results Fig 2





1:2500 (A4)

Magnetometer survey raw data Fig 4



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