

Archaeological Geophysical Survey at Hamilton Lane Hamilton, Leicester January 2014

Report No. 14/15

Author: Paul Clements

Illustrator: Paul Clements



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at Hamilton Lane
Hamilton, Leicester
January 2014**

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OASIS REPORT FORM

PROJECT DETAILS		Molanort1 - 169705	
Project title	Archaeological geophysical survey on land at Hamilton Lane, Hamilton, Leicester, January 2014		
Short description	Northamptonshire Archaeology, now operating as MOLA, was commissioned by CgMs Consulting, on behalf of clients, to carry out a detailed magnetometer survey on c 17.5ha of pasture land in advance of proposed development on land west of Hamilton Lane, Hamilton, Leicestershire. The results have indentified weak circular anomalies of possible prehistoric origin, a possible former field boundary and evidence of medieval ridge and furrow cultivation.		
Project type	Geophysical survey		
Previous work	Unknown		
Current land use	Pasture		
Future work	Unknown		
Monument type and period	Possible ring ditches, ditch and medieval furrows		
Significant finds			
PROJECT LOCATION			
County	Leicestershire		
Site address	Hamilton Lane, Hamilton		
Easting Northing	SK 64100 06992		
Area (sq m/ha)	17.5 ha		
Height aOD	95m AOD		
PROJECT CREATORS			
Organisation	Northamptonshire Archaeology (now operating as MOLA)		
Project brief originator	CgMs Consulting		
Project Design originator	MOLA		
Director/Supervisor	Paul Clements (MOLA)		
Project Manager	Mark Holmes (MOLA)		
Sponsor or funding body	CgMs Consulting		
PROJECT DATE			
Start date	13/1/2014		
End date	16/1/2014		
ARCHIVES	Location (Accession no.)	Contents	
Physical		Site records (1 archive box)	
Paper		Client report PDF. Survey Data, Photographs	
Digital			
BIBLIOGRAPHY			
Title	Archaeological geophysical survey on land at Hamilton Lane, Hamilton, Leicester, January 2014		
Serial title & volume	MOLA report 14/15		
Author(s)	Paul Clements		
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Contents

1	INTRODUCTION	1
2	BACKGROUND	1
	2.1 Location and geology	1
	2.2 Historical and archaeological background	1
3	METHODOLOGY	2
4	SURVEY RESULTS	2
5	CONCLUSION	3
	BIBLIOGRAPHY	3

Figures

Cover Magnetometer survey results

Fig 1 Site location 1:20000

Fig 2 Magnetometer survey results 1:2500

Fig 3 Magnetometer survey interpretation 1:2500

**ARCHAEOLOGICAL GEOPHYSICAL SURVEY
ON LAND AT HAMILTON LANE, HAMILTON
LEICESTERSHIRE
JANUARY 2014**

Abstract

Northamptonshire Archaeology, now operating as MOLA Northampton, was commissioned by CgMs Consulting, on behalf of clients, to carry out a detailed magnetometer survey on c 17.5ha of pasture land in advance of proposed development on land west of Hamilton Lane, Hamilton, Leicester. The results identified three weakly magnetic circular anomalies of possible prehistoric origin, a possible former field boundary and evidence of medieval ridge and furrow cultivation.

1 INTRODUCTION

Northamptonshire Archaeology, now operating as MOLA, was commissioned by CgMs Consulting to undertake a geophysical survey in advance of proposed development on c 17.5ha of land at Hamilton Lane, Hamilton, Leicester (NGR SK 641 070; Fig 1). The aim of the survey was to detect any archaeological remains that may be present at the site, in accordance with the National Planning Policy Framework (NPPF). The fieldwork was conducted between the 13th and 16th January 2014 and comprised the detailed magnetometer survey.

2 BACKGROUND

2.1 Location and geology

The site consists of four pasture fields on the eastern edge of Hamilton. The site is bounded to the north by pasture fields, to the east by Hamilton Lane, and to the south by land newly under development. The site lies at c 95m aOD on a north facing slope. At the time of the survey the ground was waterlogged and in places standing water and deep rutting by farm machinery meant that some areas could not be surveyed.

The site is underlain by deposits of mudstone of the Blue Lias formation which is overlain by Oadby Member Diamicton deposits (BGS 2014). The soils are identified as slowly permeable, seasonally wet, slightly acid loamy and clayey soils (Landis 2014).

2.2 Historical and archaeological background

Prehistoric activity has been identified east of the survey area where a single Neolithic polished flint axe head was found (MLE7143).

A Romano-British villa (MLE456) was discovered in 1948 c 300m north of the survey area (Fig 1). During various fieldwalking surveys and excavations walls, tessellated pavements, tiles, painted wall plaster and pottery have been found. Gullies relating to the villa have been identified during trial trench evaluation. Further scatters of Roman pottery have been identified to the east of the survey area (MLE458 and MLE18419).

The deserted medieval village (DMV) of Hamilton (MLE440) lies 200m to the north of the development site. The name of Hamilton is first recorded in c 1125. At this time it consisted of 374 acres of land. By 1377 only four taxpayers remained and it is evident that the village had become deserted by the next century. The earthwork remains of the village cover an area roughly 330m by 300m comprising house platforms, streets, ponds and, within the south-east of the village complex, a manorial enclosure (MLE442).

Other evidence of medieval activity has been identified north-east of the development area (MLE456 and MLE18418). Finds including pottery sherds, buckles and coins were recovered during fieldwalking and metal detecting surveys (Heritage Gateway 2014).

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).

A series of 30m grid-squares was laid out in each field to be surveyed. The grid was established with a tape measure and optical square and tied in to the Ordnance Survey National Grid by taking measurements from points on grid baselines to field boundaries and other known points of detail. 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 square. All fieldwork methods complied with the guidelines issued by English Heritage and by the Institute for Archaeologists (EH 2008; IfA 2011).

The survey data was processed using Geoplot 3.00v software. Striping 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. These have been scaled, rotated and re-sampled (georectified) for display against the Ordnance Survey base mapping (Fig 2). An interpretative overlay is shown in Figure 3.

4 SURVEY RESULTS

The survey identified several anomalies of possible archaeological origin. In Field 2 there are two weak circular positive anomalies and a third weak circular negative anomaly has been identified in Field 4. Based on their shape and location, overlooking lower ground to the north, they could be tentatively interpreted as ring ditches, possibly plough-levelled Bronze-Age barrows. However, the very weak magnetic response of the anomalies makes it difficult to be confident in such an interpretation. The size of the smallest circular anomaly in Field 2 is consistent with that of an Iron Age hut circle but it would be unusual to have such an isolated example. It may be that the anomalies are not in fact fully circular but are smaller elements of curvilinear ditches representing enclosures of unknown date.

Two segments of a possible ditch within Field 4 are aligned north-south and may represent a former field boundary. An east-west linear concentration of ferrous debris,

also in Field 4, may again signify a former boundary or, given its proximity to a field entrance, a trackway across the field.

Remnant furrows of medieval to post-medieval ridge and furrow cultivation, on an east-west alignment, have been identified within Field 1.

Scattered, isolated magnetic anomalies across the survey area indicate ferrous objects within the topsoil. These are likely to be of recent origin. Ferrous anomalies around the edge of the fields are the result of metal fences.

5 CONCLUSION

The survey has indicated the presence of three weakly positive circular anomalies. These have tentatively been interpreted as ring ditches of possible prehistoric date. Undated ditch segments of a possible former field boundary and remnant furrows of medieval to post-medieval ridge and furrow cultivation have also been identified.

BIBLIOGRAPHY

Bartington, G, and Chapman, C, 2003 A high-stability fluxgate magnetic gradiometer for shallow geophysical survey applications, *Archaeological Prospection*, **11**, 19-34

EH 2006 *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers Guide*, English Heritage

EH 2008 *Geophysical Survey in Archaeological Field Evaluation*, English Heritage

IfA 2011 *Standard and Guidance for Archaeological Geophysical Survey*, Institute for Archaeologists

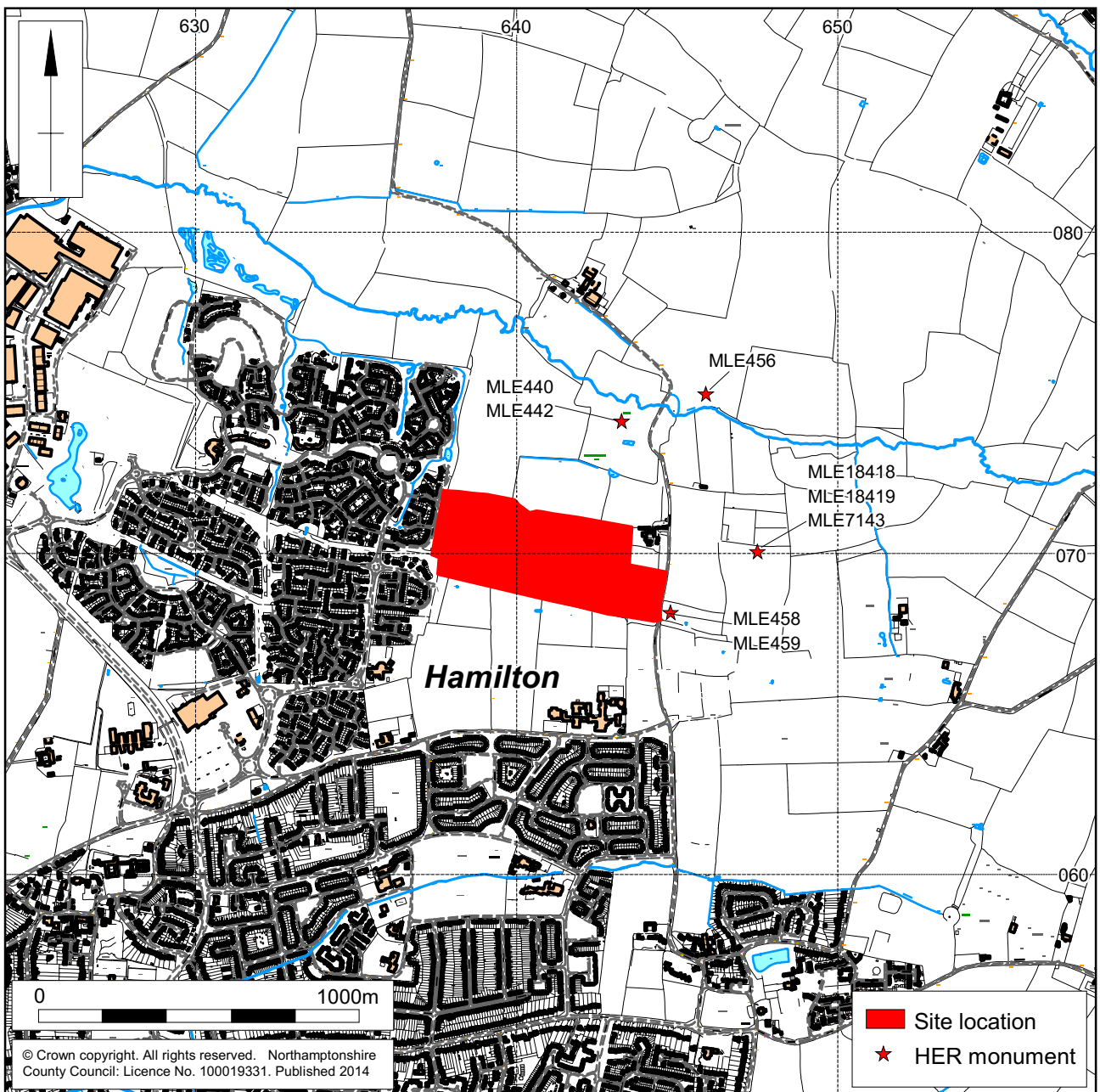
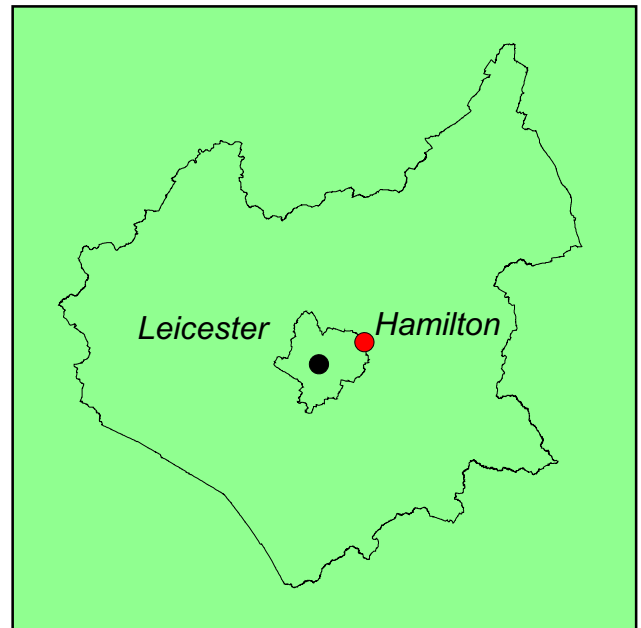
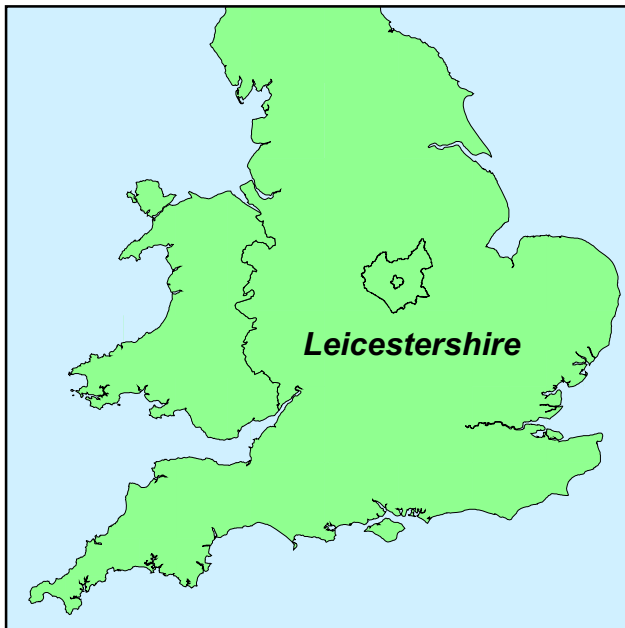
IfA 2010 *Code of Conduct*, Institute for Archaeologists

Websites

BGS 2014 <http://www.bgs.ac.uk/geoindex/home.html> British Geological Survey website

Heritage Gateway 2014 <http://www.heritagegateway.org.uk>

Landis 2014 <https://www.landis.org.uk/soilscapes/> Cranfield University National Soil Resources Institute



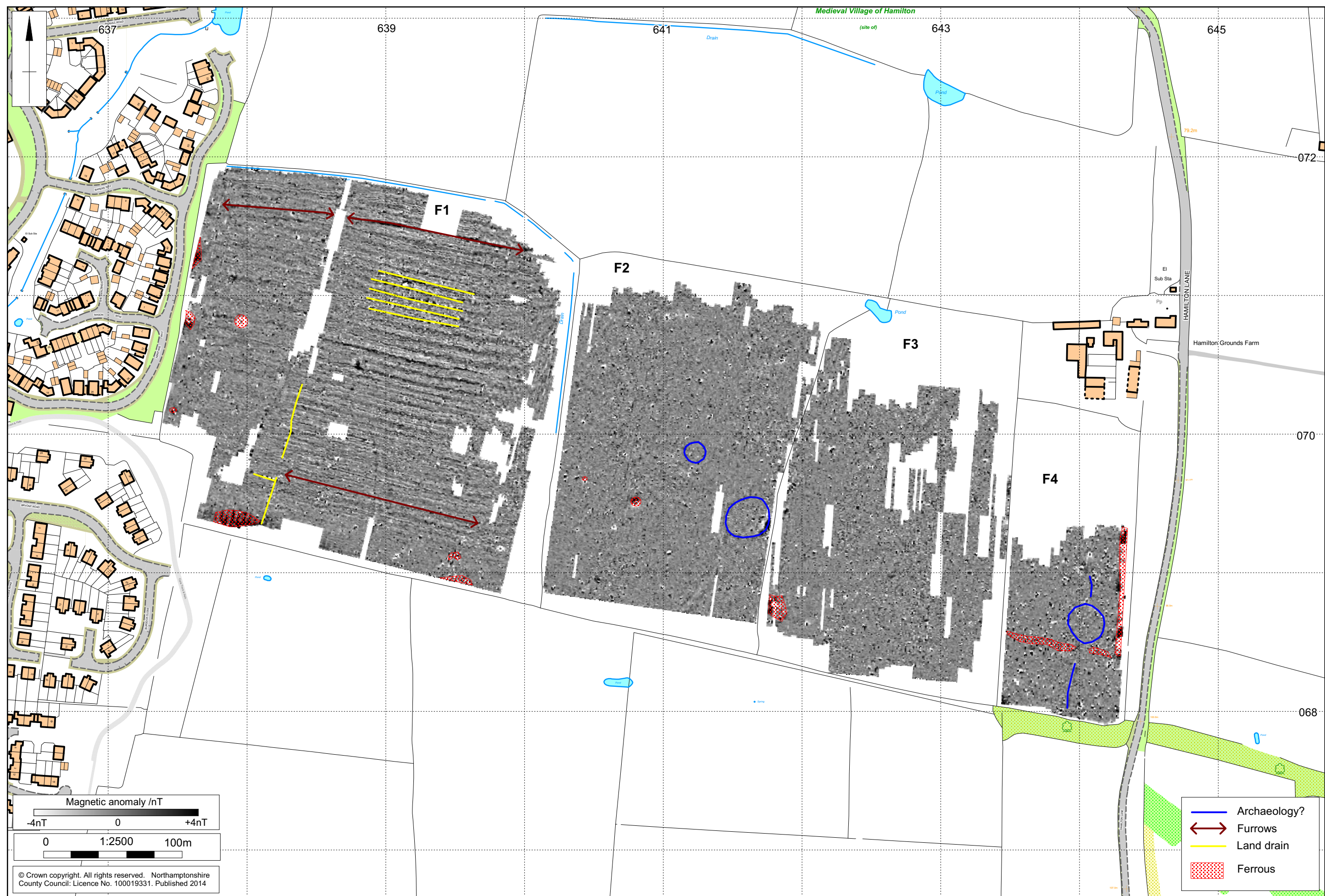
Scale 1:20000

Site Location Fig 1



Scale 1:2500 (A3)

Magnetometer survey results Fig 2



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