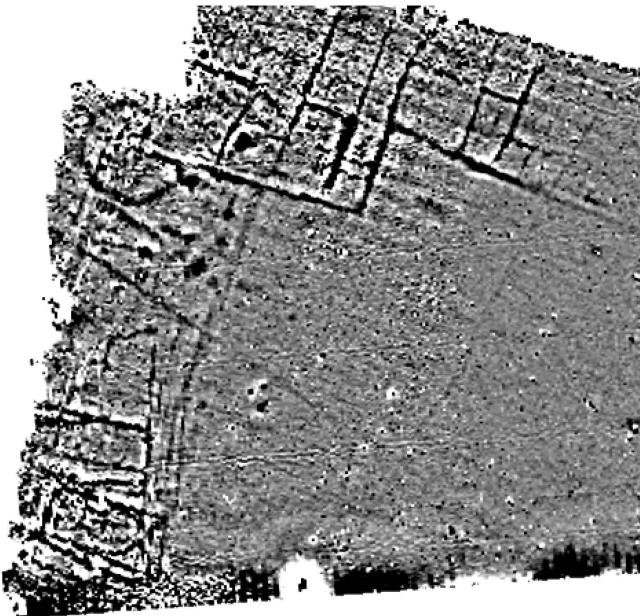




# Northamptonshire Archaeology

## Archaeological Geophysical Survey on land at High Flyers Farm, Ely, Cambridgeshire



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Report 10/217

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ELY HIGH FLYERS FARM

**OASIS REPORT FORM**

PROJECT DETAILS	158112	
Project name	Archaeological Geophysical Survey on land at High Flyers Farm, Ely, Cambridgeshire	
Short description	Northamptonshire Archaeology was commissioned to carry out magnetometer survey on approximately 41ha of land to the south of High Flyer's Farm, Ely, Cambridgeshire. The survey revealed two substantial concentrations of archaeological remains. In the south-west of the survey area there was a complex of rectilinear enclosures, covering an area of c 3.7ha, which appeared to represent a continuation of the Iron Age and Romano-British settlement excavated immediately to the south at Prickwillow Road.	
Project type	Geophysical survey	
Site status		
Previous work	Fieldwalking (Fenland Survey, Hall 1996)	
Current Land use	Arable	
Future work	Unknown	
Monument type/ period	Iron Age and Romano-British settlement and enclosures.	
Significant finds	Possible Iron Age and Romano-British settlement	
PROJECT LOCATION		
County	Cambridgeshire	
Site address	Highflyer Farm, Ely	
Study area	c 41ha	
OS Easting & Northing	TL 555 819	
Height OD	5 – 20 m AOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	Northamptonshire Archaeology/CgMs Consulting	
Project Design originator	NA	
Director/Supervisor	Ian Fisher	
Project Manager	Adrian Butler	
Sponsor or funding body	CgMs Consulting	
PROJECT DATE		
Start date	3 August 2010	
End date		
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BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	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 at High Flyers Farm, Ely, Cambridgeshire	
Serial title & volume	Northamptonshire Archaeology Reports 10/217	
Author(s)	John Walford	
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**ARCHAEOLOGICAL GEOPHYSICAL SURVEY ON LAND  
AT HIGH FLYERS FARM, ELY, CAMBRIDGESHIRE  
AUGUST 2010**

**ABSTRACT**

*Northamptonshire Archaeology was commissioned to carry out magnetometer survey on approximately 41ha of land to the south of High Flyer's Farm, Ely, Cambridgeshire. The survey revealed two substantial concentrations of archaeological remains. In the south-west of the survey area there was a complex of rectilinear enclosures, covering an area of c 3.7ha, which appeared to represent a continuation of the Iron Age and Romano-British settlement excavated immediately to the south at Prickwillow Road.*

**1 INTRODUCTION**

Northamptonshire Archaeology (NA) was commissioned by CgMs Consulting to carry out archaeological geophysical prospection on approximately 41ha of land at High Flyers Farm, Ely, Cambridgeshire (centred on NGR TL 555 819 ; Fig 1). Magnetic gradiometer survey was undertaken following a Method Statement issued by NA (NA 2010) and aimed to inform strategic development decisions for the site (CgMs 2010). The geophysical survey was carried out in stages, following the harvest of four separate crops, between 2nd August and 29th October 2010.

**2 TOPOGRAPHY AND GEOLOGY**

The survey area lies to the north of Ely, close to the eastern edge of the fen island on which the town stands. It occupies an east-facing slope, which falls from a maximum height of c 20m AOD to a minimum of c 5m AOD. Immediately to the east is a broad expanse of level ground formerly occupied by peat fen.

The Isle of Ely is largely composed of Jurassic clays, with a capping of Cretaceous Lower Greensand on the higher ground. These deposits are overlain in places by a superficial deposit of boulder clay (BGS 2010).

### **3 ARCHAEOLOGICAL BACKGROUND**

A fieldwalking study of the current survey area, undertaken as part of the Fenland Project, did not recover any finds of particular note (Hall 1996, 30). But other evidence, including archaeological excavations and various chance discoveries, demonstrates that the survey area and its immediate environs do have considerable archaeological potential.

Neolithic occupation of the area is suggested by a number of flint scatters and individual finds, although no substantial remains have been discovered thus far (Dawson 2010, 12-13). Bronze Age finds have also been reported from the vicinity, and a mound associated with a Beaker burial occurred just outside the south-western corner of the survey area (Hall 1996, 35).

Iron Age and Romano-British burials and settlement remains have been found immediately adjacent to the survey area, on the Prickwillow Road site (Atkins & Mudd 2003, Fig 1), and other sites of this broad period are known within the wider landscape (Dawson 2010, 14). An early Anglo-Saxon cemetery was encountered to the south west of the survey area in the 1950s, during housing development at High Barns (Dawson 2010, 14).

There is no evidence for later Saxon or Medieval settlement within the survey area, although ridge and furrow and associated agricultural features may occur (Dawson 2010, 14-15).

### **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).

Each survey area was manually divided into 30m grid squares by means of a tape measure and optical square. These grids were tied into the National grid by measurements taken with a Leica System 1200 dGPS.

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 grid.

All fieldwork methods complied with the guidelines issued by English Heritage and by the Institute for Archaeologists (EH 2008; Gaffney, Gater and Ovendon 2002). Work also complied with a Method Statement produced by NA (NA 2010).

The survey data was processed using Geoplot 3.00u 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 scales appropriate to the dataset (+/- 4nT black/white). Given the area of the survey, stacked-trace plots have not been included on practical grounds. The grey-tone plots have been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Figs 2, 3 & 5). Interpretative overlays have been produced and are shown in Figures 4 and 6.

## **5 SURVEY RESULTS**

### **Field 1 (Figs 3-4)**

The linear anomaly running north-east to south-west across the west of the field indicates the location of a former field boundary. A linear anomaly orientated north-west to south-east in the eastern half of the field is also the remnant of a field boundary. At the south-eastern end of this boundary there are a number of ferrous anomalies which may represent the infilling of an old pond. There is another collection of ferrous anomalies in the south-east of the field. The concentration of dipolar anomalies in the south-eastern corner of the field indicates an area of ceramic debris.

### **Field 2 (Figs 5-6)**

A dense concentration of archaeological anomalies was located in the south-west of this field. These indicate a large and organised complex of rectilinear ditched enclosures which are likely to represent a settlement site of Iron Age to Romano-British date.

In the extreme south-western corner there is a complex of intersecting linear anomalies which appear to define a palimpsest of sub-rectangular enclosures. To the north of these are a number of disjointed anomalies which cannot be interpreted in detail. Continuing north again is a curvilinear anomaly which forms an arc approximately 34m across and is best interpreted as representing another enclosure ditch. To the north of, and slightly overlapping the circular feature, sub-square enclosures form a square almost 1ha in

area. It is not beyond the bounds of possibility that these enclosures surrounded a Roman villa or other similar building, now lost beneath the adjacent modern housing. A limb of the sub-rectangular enclosures extends to the south-east, whereas a group of more curvilinear enclosures were identified on the north side.

A pair of linear positive anomalies was located aligned south-west to north-east from the enclosure complex across the remainder of Field 2. These may indicate the side ditches of a trackway, likely to continue to the north.

A linear anomaly bisects the field from east to west, indicating the location of a former field boundary. Several ferrous anomalies are associated with this, indicating the presence of buried scrap iron along its line. Other anomalies branch off to the north and south, indicating other removed boundaries.

Towards the centre of the field is a single large ferrous anomaly with a surrounding zone of magnetic noise. This broadly coincides with a damp hollow on the site of a former pond, the noisy data possibly indicating brick hardcore deposited to firm-up the ground.

Two areas of intense magnetic disturbance occur in this field. One, which lies along the southern boundary, comprises halos from adjacent buildings and other modern features. The other occurs on the western edge of the field and was caused by a large water tower.

### **Field 3 (Figs 5-6)**

The data from this field contains a single linear anomaly, which probably indicates a ditch, and one large discrete dipolar anomaly. The latter has a peak height of 59nT and a very subdued negative halo. It is of indeterminate origin and could represent either a large and deeply buried ferrous object or an intensely burnt archaeological feature such as a kiln or oven.

Nothing else of archaeological significance was detected. A large area of magnetic disturbance at the southern end of the field was caused by the adjacent water tower, and narrow band of magnetic noise along the western boundary was caused by a wire fence.



## 6 CONCLUSION

These survey results demonstrate that the high ground in the west of the proposed development area contains an abundance of archaeological remains. In the west of Field 3 is a large and organised complex of ditched enclosures, covering an area of approximately 3.7ha.

The south-western enclosure complex is evidently a continuation of the long-lived Iron Age and Romano-British settlement which was excavated immediately to the south in 1999-2000 (Atkins & Mudd 2003). These excavations showed that a single sub-circular enclosure of Iron Age date was replaced by a more extensive complex of rectilinear enclosures during Roman times. The newly discovered remains seem to follow a similar pattern, with rectilinear enclosures of probable Romano-British date predominating.

Nothing of obvious archaeological significance was detected in the central or eastern parts of the site, where the ground slopes down towards the fen edge.

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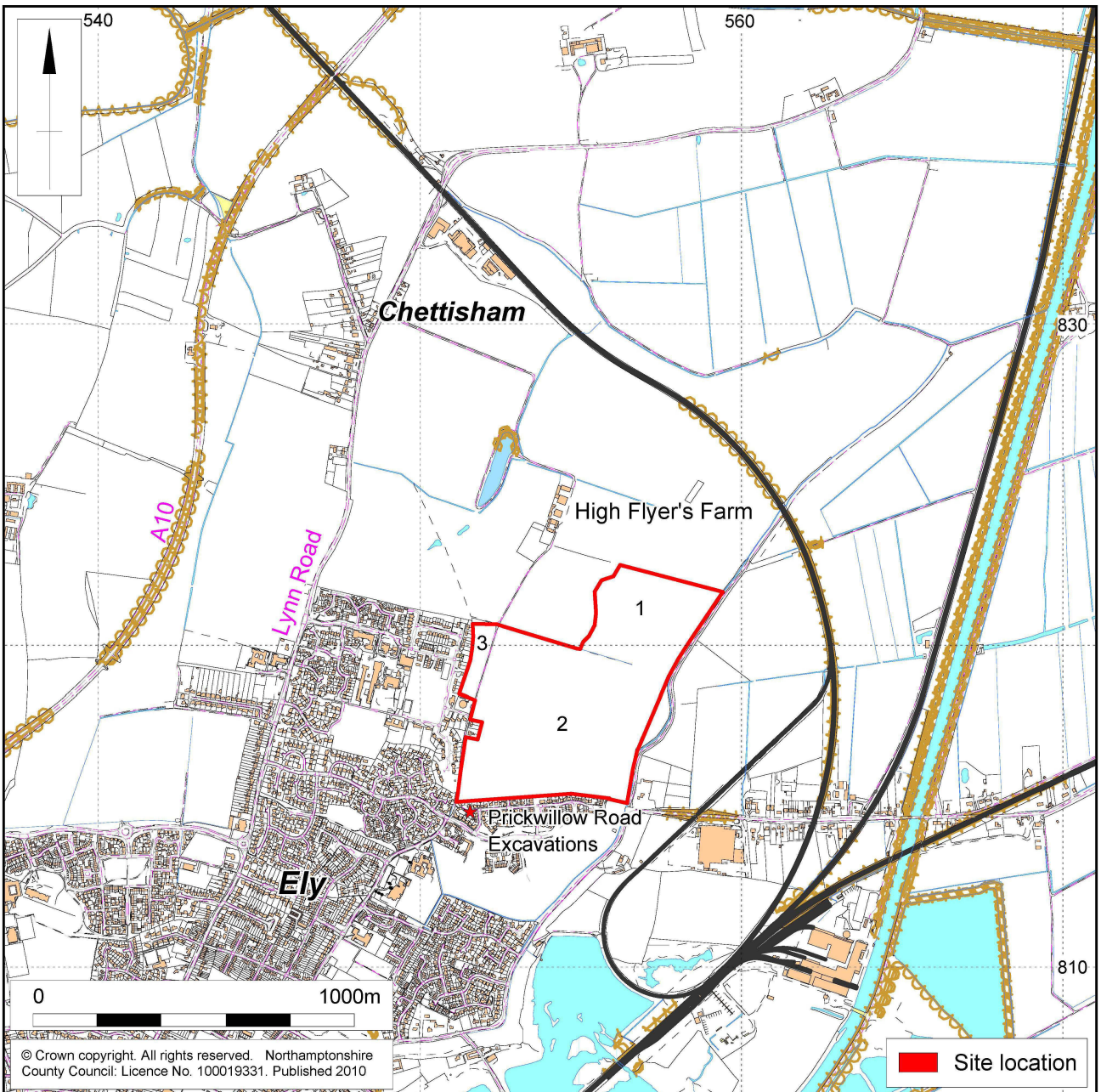
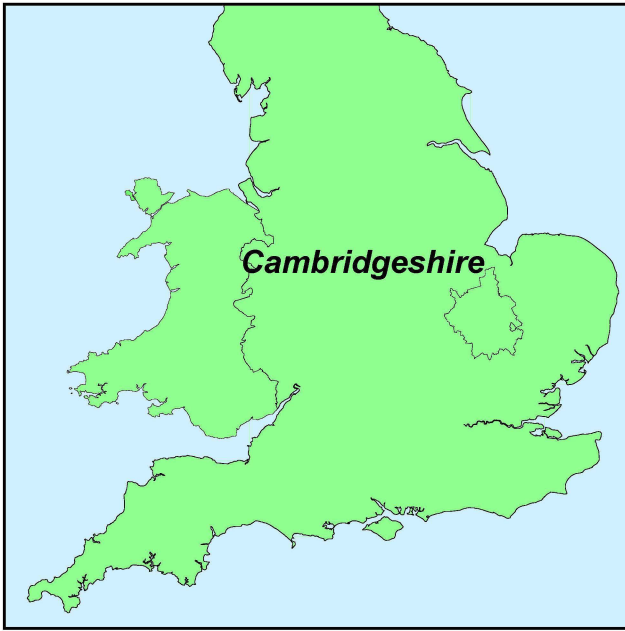
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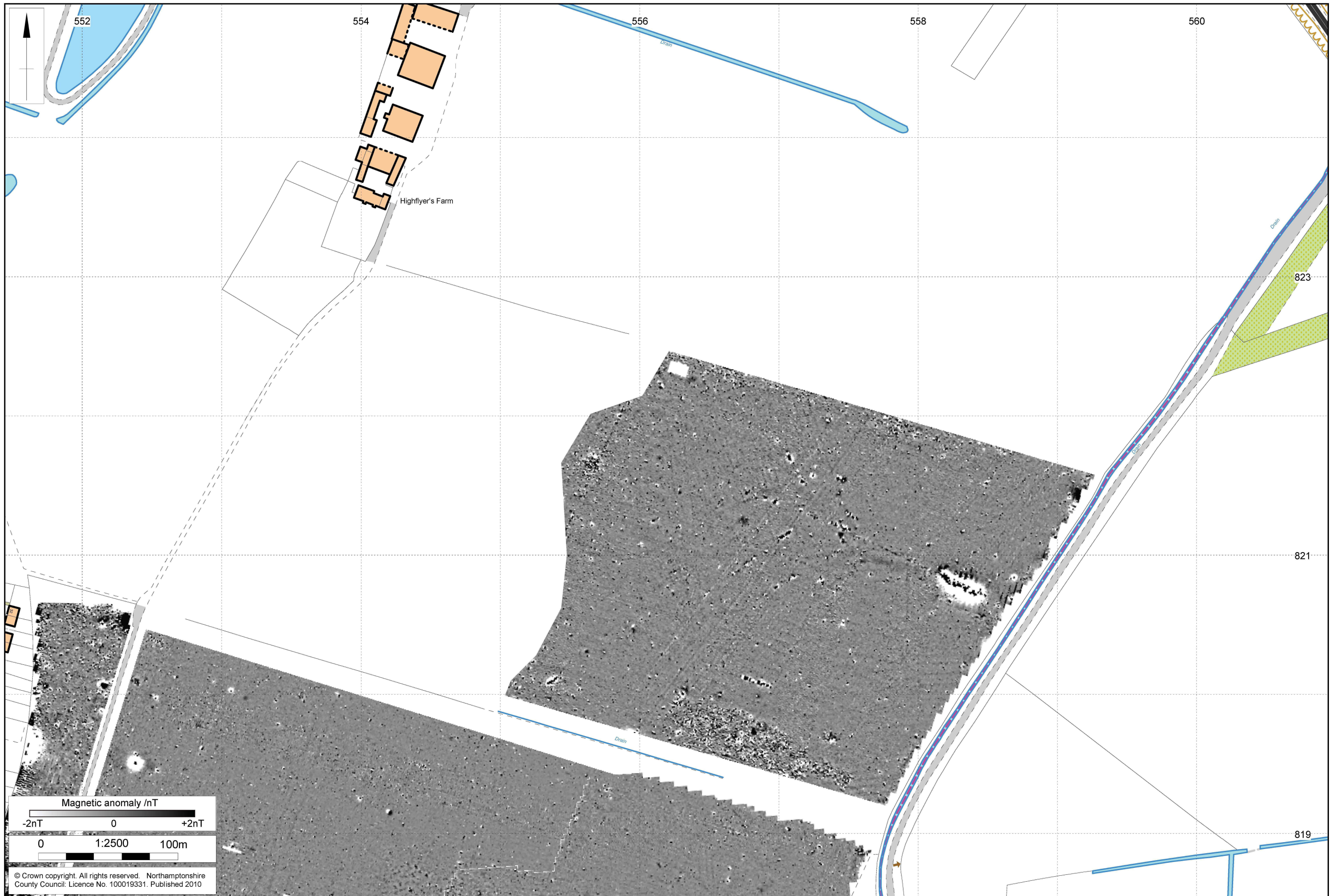
Scale 1:20,000

Site Location Fig 1



1:5000

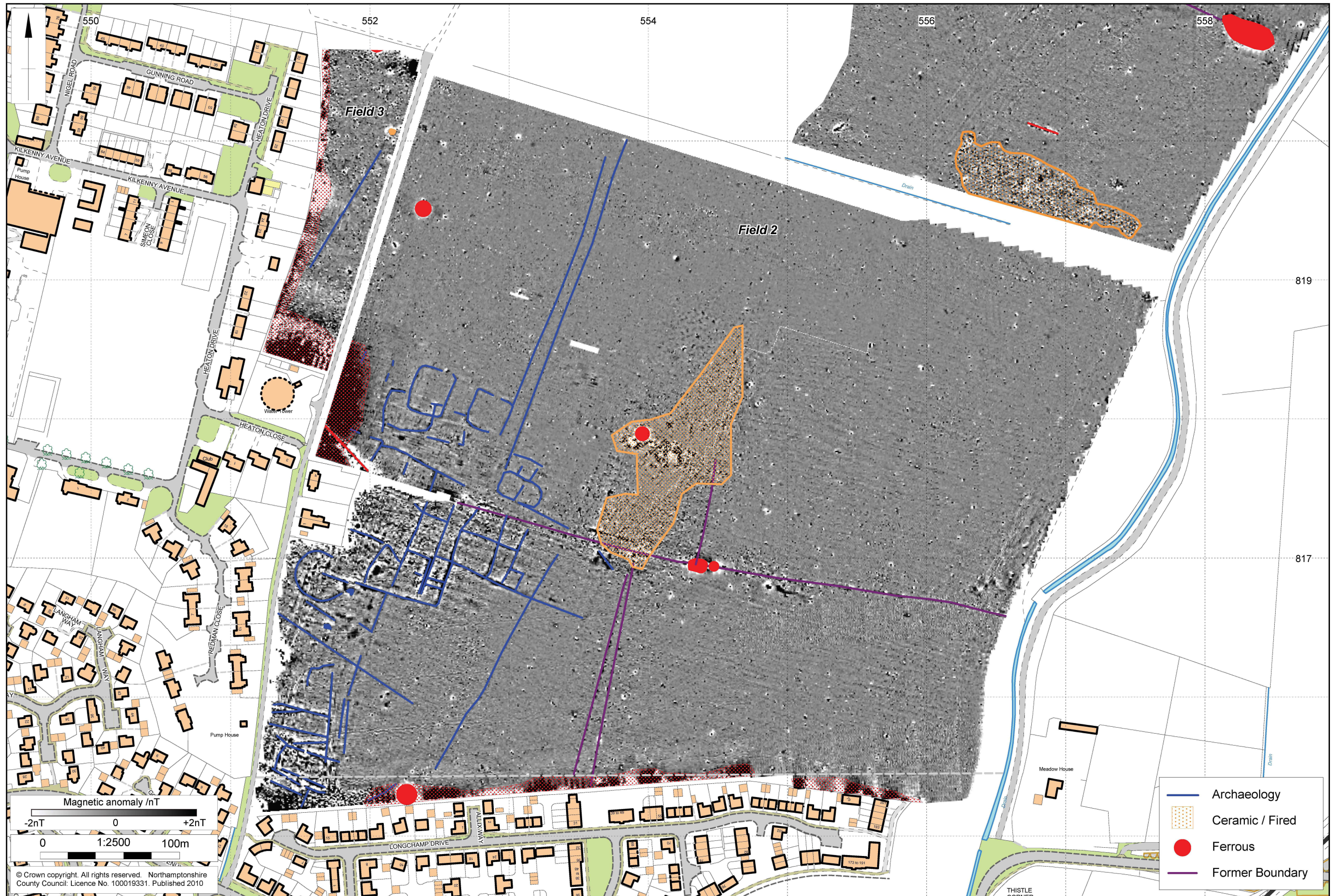
Overview of magnetometer survey results Fig 2







Magnetic anomaly /nT  
 -2nT 0 +2nT  
 1:2500 100m  
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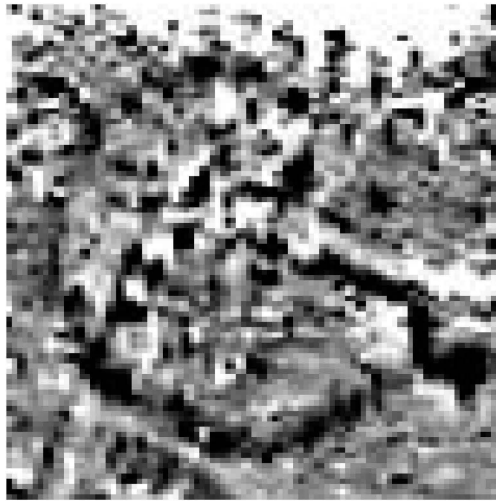
1:2500

Magnetometer survey interpretation, Fields 2-3 Fig 6



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