Northamptonshire Archaeology

Archaeological Geophysical Survey at Forty Hall, Enfield, Greater London

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QUALITY CONTROL

	Print name	Signed	Date
Verified by	Stephen Parry		

OASIS REPORT FORM

PROJECT DETAILS		
Project name	Archaeological Geophysical Survey at Forty Hall, Enfield, Greater London, May 2013	
Short description	In May 2013, Northamptonshire Archaeology undertook a geophysical survey on grassland to the north-west of the car park at Forty Hall, Enfield, Greater London. The survey area was situated in parkland which may have had medieval or post-medieval brick and tile clamp kilns. The geophysical survey did not identify any clearly defined anomalies perhaps due to the prevalence of the underlying London Clays.	
Project type	Evaluation- geophysical survey	
Site status		
Previous work	Geophysical survey and trial trenching (Prentice 2010)	
Current Land use	Grassland	
Future work	Not known	
Monument type/ period	None	
Significant finds	None	
PROJECT LOCATION		
County	Greater London	
Site address	Forty Hall, Enfield	
Study area	1,440 square metres	
OS Easting & Northing	TQ 33710 98525	
Height OD		
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology	
Project brief originator		
Project Design originator		
Director/Supervisor	C Simmonds	
Project Manager	Stephen Parry	
Sponsor or funding body	Drury Macpherson Partnership/ London Borough of Enfield	
PROJECT DATE		
Start date		
End date		
ARCHIVES	**Location**	**Content**
Physical		None
Paper		1 grey archive box of site forms and records
Digital		pdf of report and dxf data
BIBLIOGRAPHY		
Title		
Serial title & volume	NA report 13/119	
Author(s)	Carol Simmonds	
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ARCHAEOLOGICAL GEOPHYSICAL SURVEY AT FORTY HALL, ENFIELD GREATER LONDON MAY 2013

Abstract

In May 2013, Northamptonshire Archaeology undertook a geophysical survey on grassland to the north-west of the car park at Forty Hall, Enfield, Greater London. The survey area was situated in parkland which may have had medieval or post-medieval brick and tile clamp kilns. The geophysical survey did not identify any clearly defined anomalies perhaps due to the prevalence of the underlying London Clays.

1 INTRODUCTION

Northamptonshire Archaeology was commissioned by Drury Macpherson Partnership acting on behalf of London Borough of Enfield to undertake a detailed magnetometer survey at Forty Hall, Enfield, North London (NGR TQ 33710 98525, Fig 1).

The works were undertaken to inform aspects of the detailed landscape design proposals by LDA Design and the suitability of a potential contractor's work area on land at Forty Hall. The geophysical survey forms a small part of the proposed landscaping works and archaeological works due to take place in 2013. A Written Scheme of Investigation (WSI) was produced by Northamptonshire Archaeology covers the full proposed programme of works (Walker 2012).

The survey area comprises a small area of ground, encompassing approximately 1,440 square metres, situated immediately to the north-west of the existing car park. It is proposed that this parcel of land will be the storage area for the silts extracted from the pond located within the Pleasure Grounds.

This report follows the production of a short interim statement produced after the completion of the geophysical survey in May 2013 (Simmonds 2013).

2 BACKGROUND

2.1 Topography and Geology

Forty Hall is situated to the north of Enfield, Greater London. It comprises the Hall and ancillary buildings set with in designed parkland. The eastern boundary is defined by Forty Hill and the modern suburbs of Enfield lie to the south. The survey area lies on a flat piece of grass land, situated to the north-west of the existing car park. Currently there are a number of trees within the survey area; the locations of the trees are marked on Figure 3.

Forty Hall stands slightly to the east of the highest point of Forty Hill which is a remnant of the upper terrace of the River Lea where the natural geology is London Clay with a capping of Boyne Hill Gravel (Gillam 1997). Subsoil is a light orange/brown sandy loam, distinct from thin topsoil which comprised dark grey/brown sandy loam.

2.2 Historical

Forty Hall was built for a London merchant, Nicholas Rainton c1629. His nephew, also Nicholas, expanded the estate northwards to include the remains of the Tudor and earlier Elsyng Palace which he demolished and added the stable block west of the house. The exterior of Forty Hall was remodelled c1708 and the present landscape setting largely developed during the eighteenth century out of a formal seventeenth century landscape, elements of which survive. The house changed little during the nineteenth century until significant alterations in 1897. The house and park were acquired by the Local Authority, now the London Borough of Enfield in 1951.

The house and stable courtyard gateway are Listed Grade I and the stable block and subsidiary buildings Grade II. The park is registered at Grade II and includes the site of Elsyng Palace and its medieval predecessor which is a Scheduled Ancient Monument.

2.3 Previous works

Forty Hall and the site of Elsyng Palace have been subject to considerable interest and archaeological scrutiny. Since 2003, the Enfield Archaeological Society has undertaken a program of geophysical survey and trial excavation at the site of Elsyng palace and within the grounds of Forty Hall. Some of the work was in response to the plantation of saplings and monitoring of the laying of gravel paths (EAS http://www.enfarchsoc.org/index.html).

Previous work by Northamptonshire Archaeology (Fig 2) included an archaeological survey and evaluation in the park which established that elements of designed landscaping within the Pleasure Grounds, known now only from documents, survive within the ground as buried features (Prentice 2010).

An area to the north of the Upper Lake has been identified for the creation of a temporary silt lagoon. This is adjacent to an area that was previously proposed as an extension to the car park. In this area a magnetometer survey was undertaken followed by test pits (Prentice 2010). This was intended to identify any kilns within the area but in the event no significant archaeological remains were found.

It is proposed to undertake a similar evaluation within the area proposed for the silt lagoon.

3 OBJECTIVES AND METHODOLOGY

3.1 Objectives

The principal objective of the archaeological survey was to quantify the extent, character, date, state of preservation and depth of burial of the archaeological resource and inform the detailed landscape design proposals by LDA design and the suitability of a potential contractor's work area.

There were two specific archaeological aims for the survey works:-

- To investigate whether any brick clamps had formerly stood in this location
- To inform the restoration and improvement of the historic landscape of Forty Hall Park

3.2 Methodology

The survey data was collected at regular intervals within contiguous 30m grid units. These grids had been set out manually by tape measure and optical square, and had been tied in by measurement to the edge of the adjacent car park.

The magnetometer was carried in a zig-zag pattern through each grid, along traverses spaced at 1m intervals. Readings of magnetic field strength, to a precision of 0.1nT, were automatically triggered at 0.25m intervals along each traverse.

The data was downloaded and processed using Geoplot 3.00u software. Processing was minimal, comprising only the use of the 'zero mean traverse' function to remove the effects of sensor drift. The processed data is presented here as a greyscale plot (scale -4nT ~ +4nT, white ~ black), which has been scaled, rotated and displayed against Ordnance Survey base mapping (Fig 3). An interpretive overlay has also been produced (Fig 4) along with a Raw data plot (Fig 5).

4 SURVEY RESULTS

Small ferrous anomalies are present in the data, appearing as small speckles in the data. These will mostly represent insignificant pieces of buried metal scrap.

There is a slightly increased level of magnetic noise towards the south-eastern boundary of the survey area. This could be indicative of disturbed or made ground from the construction of the car park.

None of the anomalies in the data are of any archaeological significance

5 DISCUSSION

The survey results demonstrate that no brick clamps or other substantial industrial remains lie within the area investigated. This conclusion can be drawn with a high degree of confidence because had such features been present, they would have produced very large and distinctive magnetic anomalies.

The results do not, however, amount to proof that the area is archaeologically sterile. Certain types of archaeological feature, such as post-built structures or inhumations, produce very small and weak magnetic anomalies which are frequently impossible to detect. Larger cut and filled features are sometimes also invisible to survey, especially on unfavourable substrates such as London Clay. Thus, whilst the presence of archaeological remains on the site seems unlikely, the possibility cannot be entirely excluded.

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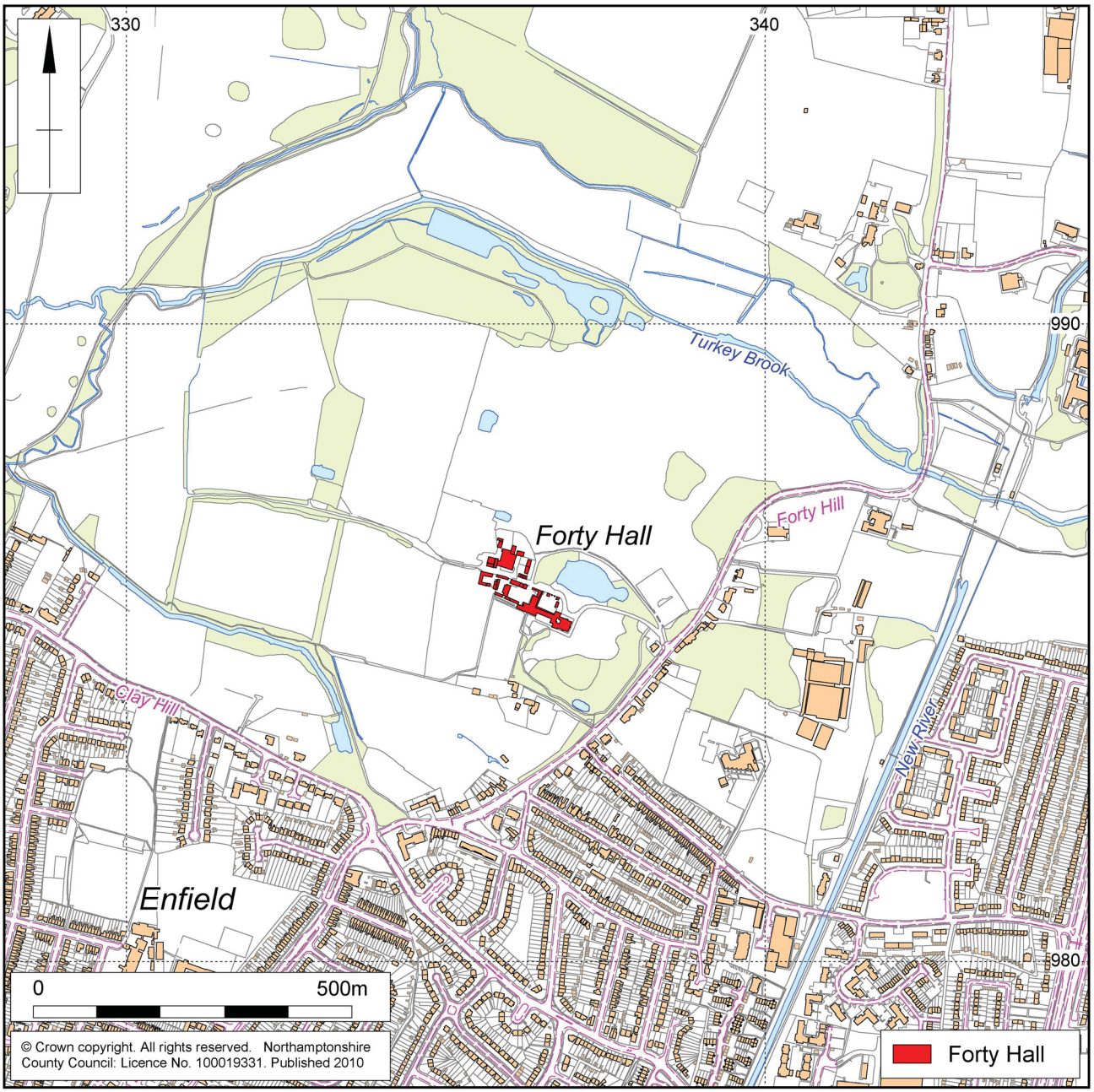
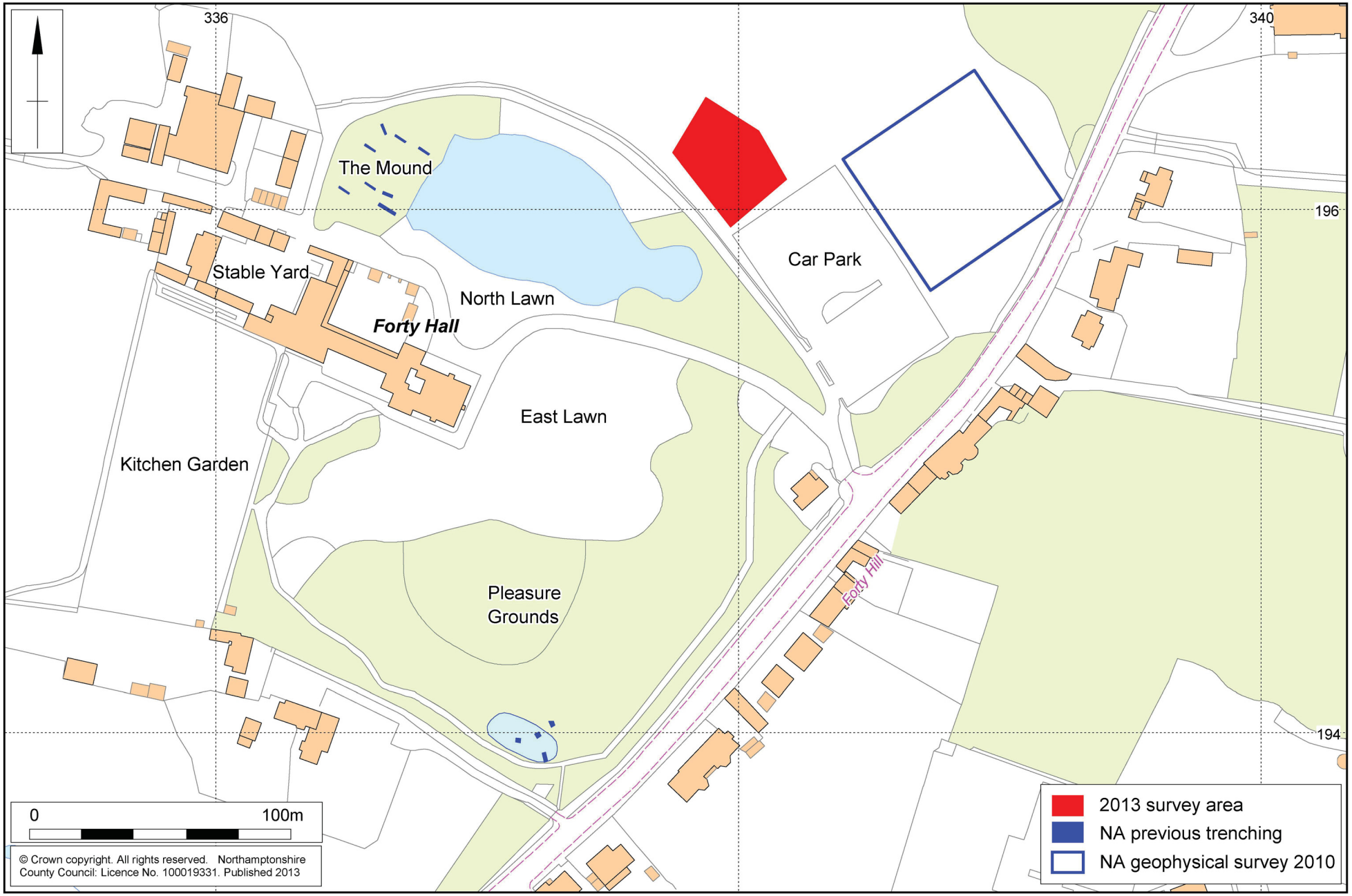


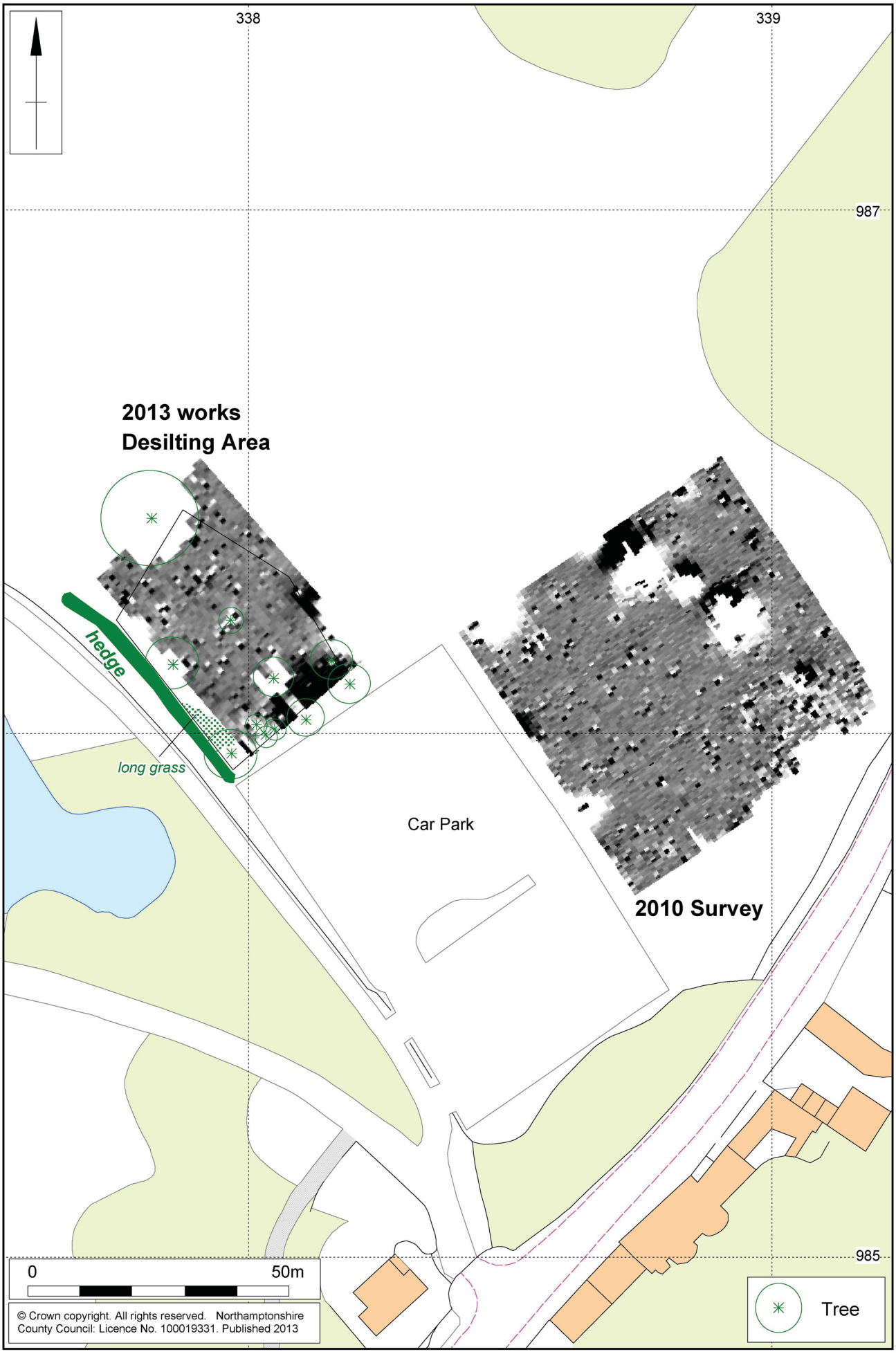
Scale 1:10,000

Site location Fig 1

Scale 1:2,000 (A4)



Areas of previous archaeological investiagtion Fig x

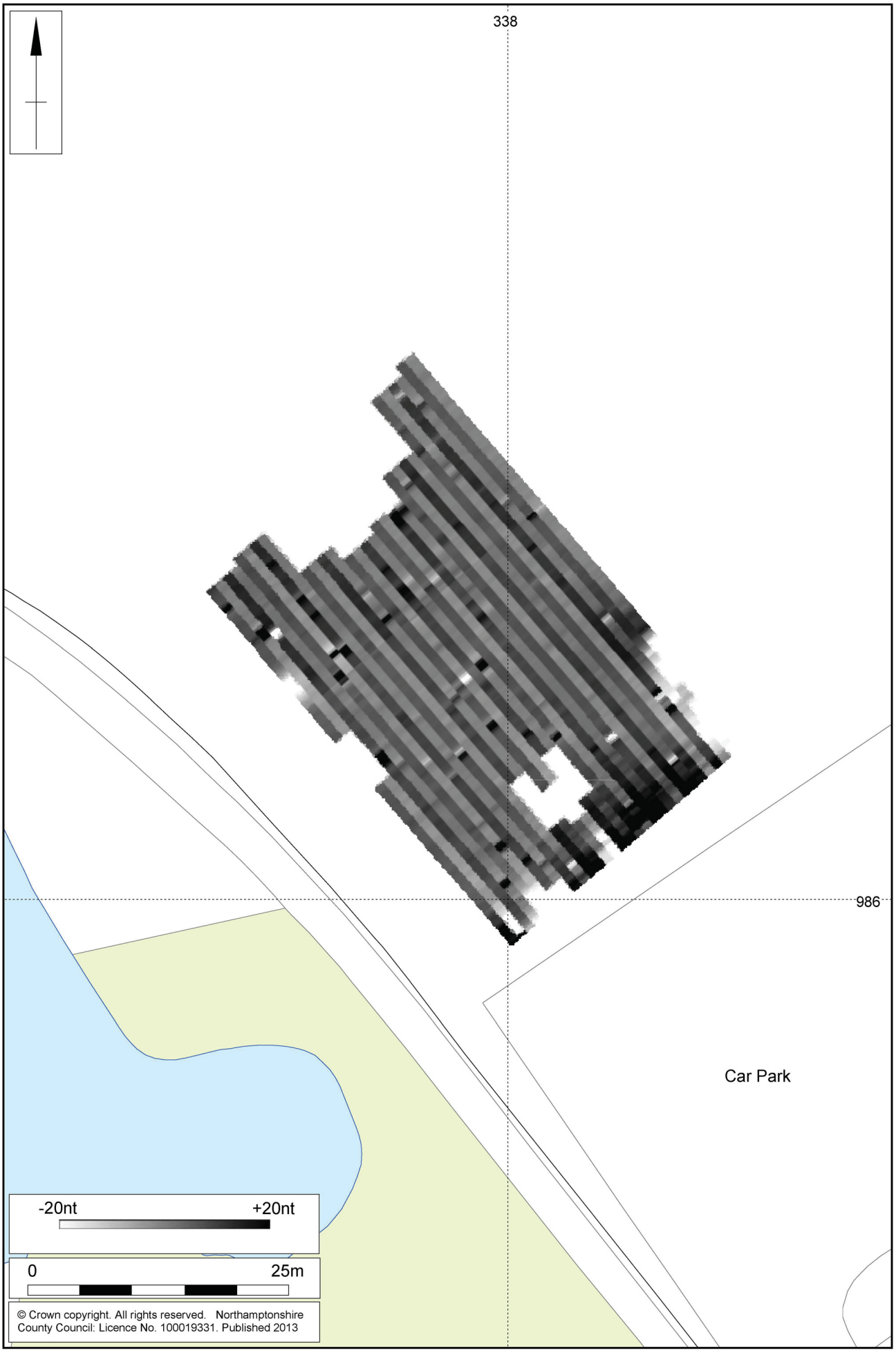


Scale 1:1,000 (A4)

Magnetomter Survey Results Fig 3

Scale 1:500 (A4)

Magnetometer survey & Interpretation Fig 4



Scale 1:500 (A4)

Geophysical survey: Raw Data plot Fig 5

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