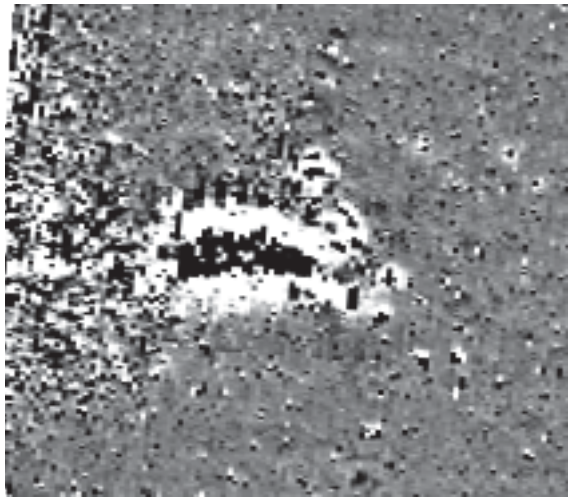
Northamptonshire Archaeology

Archaeological geophysical survey of land to the north of Rectory Farm, Hounslow, London November 2013



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Report 13/233

Site code: REF13

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QUALITY CONTOL

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Checked by	Pat Chapman	*PC*	19/11/2013
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OASIS REPORT FORM

PROJECT DETAILS	**Oasis No. 164607**	
Project title	Archaeological geophysical survey on land north of Rectory Farm, Hounslow, London, November 2013	
Short description	Northamptonshire Archaeology was commissioned by Arup to conduct an archaeological geophysical survey on 43ha of land at Cranford, in the London Borough of Hounslow. The survey did not identify any features of definite archaeological significance, although there were a few linear and curvilinear trends for which an archaeological interpretation could not be ruled out. Modern features, including pipelines, a former trackway and a possible brick structure, were also detected.	
Project type	Geophysical survey	
Previous work	Watching brief (Howell 2004)	
Current land use	Rough grazing	
Future work	Unknown	
Monument type and period	None	
Significant finds	None	
PROJECT LOCATION		
County	Greater London	
Site address	Rectory Farm, Hounslow	
Easting Northing	TQ 112 769	
Area (sq m/ha)	43ha	
Height aOD	*c* 24m AOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator		
Project Design originator	Northamptonshire Archaeology	
Director/Supervisor	Paul Clements (NA)	
Project Managers	Mark Holmes (NA), Jim Keyte (Arup)	
Sponsor or funding body	Formal Investments	
PROJECT DATE		
Start date	4/11/2013	
End date	21/11/2013	
ARCHIVES	**Location (Accession no.)**	**Contents**
Physical	N/A	
Paper	REF13	Site records (1 archive box)
Digital	REF13	Client report PDF. Survey data
BIBLIOGRAPHY		
Title	Archaeological geophysical survey on land north of Rectory Farm, Hounslow, London, November 2013	
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ARCHAEOLOGICAL GEOPHYSICAL SURVEY ON LAND NORTH OF RECTORY FARM, HOUNSLOW, LONDON

NOVEMBER 2013

Abstract

Northamptonshire Archaeology was commissioned by Arup to conduct an archaeological geophysical survey on 43ha of land at Cranford, in the London Borough of Hounslow. The survey did not identify any features of definite archaeological significance, although there were a few linear and curvilinear trends for which an archaeological interpretation could not be ruled out. Modern features, including pipelines, a former trackway and a possible brick structure, were also detected.

1 INTRODUCTION

Northamptonshire Archaeology (NA) was commissioned by Arup, on behalf of Formal Investments, to conduct a geophysical survey on approximately 43ha land to the north of Rectory Farm, Hounslow, London (NGR TQ 112 769; Fig 1). The purpose of the survey was to contribute to an assessment of the archaeological impacts of a proposed gravel extraction scheme. A written scheme of investigation for the project (NA 2013) was submitted to Sandy Kidd of the Greater London Archaeology Advisory Service. Fieldwork was undertaken from 4 to 13 November 2013, and comprised a detailed magnetometer survey covering all suitable parts of the site.

2 BACKGROUND

2.1 Location and geology

The survey area comprises a single, L-shaped block of land located to the north-west of central Hounslow and to the east of Cranford, in the western suburbs of London. It is bounded to the south by the A4 Bath Road, to the west by the A312 Parkway, to the north by Cranford Lane and to the east by modern housing. At the time of the survey the majority of the land was being used as rough grazing for horses, although an area to the north was under approximately 1m of recently tipped spoil and an area to the south, around Rectory Farm, was covered with demolition rubble.

The survey area stands at approximately 24m AOD and has a subdued topography, with only a slight slope down towards the south. Its geology comprises late Quaternary brickearth deposits of the Langley Silt Formation, underlain by river terrace gravels and London Clay (BGS 2013).

2.2 Historical and archaeological background

Archaeological work has been undertaken on the survey area once before, in 2004, when a watching brief was maintained on the insertion of a new sewer from Rectory Farm to Cranford Bridge (Howell 2004). During this project a group of shallow, undated gullies and a natural ice wedge were identified *c* 100m east of the junction of the A4 and the A312 (Fig 1).

A number of sites of prehistoric to Roman date have been identified in the broad vicinity of the survey area. A cluster of late Bronze Age or Early Iron Age pits and gullies were found *c* 400m to its north-west, when the Rectory Farm to Cranford Bridge sewer was laid across Avenue Park (Howell 2004). A ring ditch of similar date has been excavated *c* 800m to the west of the area, to the rear of 1-6, Park Lane (MLO

100508). More extensive multi-period sites have been found further to the west, at Cranford Lane (Anon 1995, 341), and *c* 1km to the north, on the site of the Western International Market (Boyer 2007). The former site included a rare example of a Neolithic building, as well as Bronze Age and Roman remains, whilst the latter site had remains of prehistoric, Roman and early Saxon date.

The northern end of the survey area lies close to Cranford, a small village of presumed late Saxon origin which is now now engulfed in the suburbs of West London. However, it appears that the survey area itself has never been developed. Rocque's Map of 1746 shows it as empty and unenclosed, and it is similarly depicted on the early 19th-century edition of the Ordnance Survey. Later editions of the Ordnance Survey, from the 1880s onwards, show it divided into two large fields, with Rectory Farm standing to the south on the opposite side of Bath Road. The present buildings of Rectory Farm, standing to north of the road, are first shown on the 1964 edition of the 1:2500 map.

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 30m grid was established across the area to be surveyed. It was set out with a tape measure and optical square and tied in to the Ordnance Survey National Grid by measurement to field boundaries and other 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) and with the written scheme of investigation for the project (NA 2013).

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. Grey-tone plots of the data were produced at a scale of +/- 4nT black/white, and have been scaled, rotated and re-sampled (georectified) for display against the Ordnance Survey base mapping (Figs 2 and 4). An interpretative overlay is shown in Figures 3 and 5.

4 SURVEY RESULTS

The survey has not identified anything of certain archaeological significance, but there are a few weak magnetic anomalies for which an archaeological interpretation cannot be fully excluded. Some of these occur in a group towards the northern end of the survey area and the remainder are widely dispersed across its eastern half.

The northern group of anomalies consists of two small horseshoe-shaped features and two linear ones, one with a short perpendicular spur branching southwards (Fig 3). It is conceivable that these may represent sections of boundary or enclosure ditch. The anomalies in the eastern part of the field comprise a discrete, irregularly-shaped positive anomaly, three weak linear anomalies and two very indistinct annular

anomalies, the larger of which is *c* 10m in diameter (Fig 5). None of these is very convincing, but there is a low possibility that they could represent a pit, linear ditches and ring ditches.

A set of broad, weakly defined, negative linear anomalies cross the central part of the survey area on parallel, east to west headings. Whilst their wide spacing is suggestive of ridge and furrow, they do not exhibit the gentle S-curves which are typical of medieval furrows, and it is possible that they relate to a more modern phase of cultivation.

Two positive linear anomalies, both aligned from east to west, occur in the northern part of the survey area. They coincide with the edges of cultivation blocks which can be seen on a 1945 aerial photograph (Google Earth), and presumably represent the remains of small gullies or boundary ditches. The northern of the two defines one edge of a band of weak magnetic 'noise'. It is probable that this represents a scatter of magnetic debris (possibly scrap metal, cinder or slag) introduced onto the field during manuring.

A well-defined band of magnetic noise extends southwards across the survey area, marking the line of a former field boundary and trackway leading to Rectory Farm. A short spur of magnetic disturbance projects to its east, terminating in a large, elongated positive anomaly with a wide negative halo. The significance of this latter anomaly is uncertain. Its intensity is generally in the range 30 – 100nT, which is typical of ceramic material (brick, tile, etc) or burnt soil, but it has some more intense elements diagnostic of ferrous debris. It is possible that it represents a former pond or quarry pit infilled with rubble, or else a set of brick footings from a demolished structure. Whatever its true nature, its obvious association with the former trackway suggests it is unlikely to date from earlier than 19th or 20th-century.

A pair of very intense linear anomalies with pronounced negative halos follow curving routes around the western edge of the survey area. A third, less distinct anomaly runs between them on a parallel course. These represent at least two, and probably three modern pipelines, including the sewer that was the subject of the 2004 watching brief (Howell 2004). Two less pronounced pipeline anomalies have also been detected, one running alongside the former track to the north of Rectory Farm, and the other entering the northern edge of the area close to easting line 112. The pattern of magnetic halos along the eastern field of the survey area suggests that another pipe may lie immediately outside the survey area, under the adjacent footpath.

To the east of Rectory Farm, alongside Bath Road, there is an area of intense magnetic noise. This occurs on the former site of a temporary works compound, visible on recent aerial photographs of the area (Google Earth coverage dated August 2004), and represents an area of disturbed ground containing a significant amount of ferrous scrap. The northern and eastern edges of this compound can be partially discerned from chains of small dipolar anomalies which perhaps represent residual traces of its fencing. Other patches of magnetic disturbance are widespread across the survey area, and very probably represent other concentrations of modern scrap and/or hardcore.

Individual dipolar anomalies are present across the whole of the survey area. Most of them will relate to insignificant pieces of ferrous debris (horseshoes, plough-share tips, etc) in the topsoil, but the larger ones highlighted on the interpretation plot indicate the presence of more substantial buried objects.

Some very weak and narrow negative linear anomalies have been detected, especially in the eastern half of the survey area. They tend to occur in pairs, or in coherently

aligned swarms. It is thought that they represent some of the wheel ruts which are widespread across the survey area.

At the south-eastern corner of the survey area there is a broad but weak positive linear anomaly. It is probably of geological origin, and may represent a feature such as a channel or a lens of mineralised sediment within the brickearth that underlies the site. The similar but less distinct positive anomalies to its north and west are also thought to be geological.

5 CONCLUSION

The results of this work do not conclusively demonstrate the presence of archaeological remains within the survey area. There are some tenuous anomalies which may represent a pit and a few sections of ditch or gully, but none are distinct enough to be interpreted with confidence. The only features which have been unequivocally detected are modern, and include several pipes, a former trackway and a possible brick structure.

Whilst the results appear to be broadly negative, it is possible that they are giving a misleading impression of the survey area's archaeological potential. Brickearth geology can produce mixed results, and some more ephemeral types of feature, such as postholes and cremation burials, can be difficult targets even under good conditions. In this case, the failure to detect the shallow gullies already known from the 2004 watching brief (Howell 2004), gives particular reason to be cautious in evaluating the significance of the survey results.

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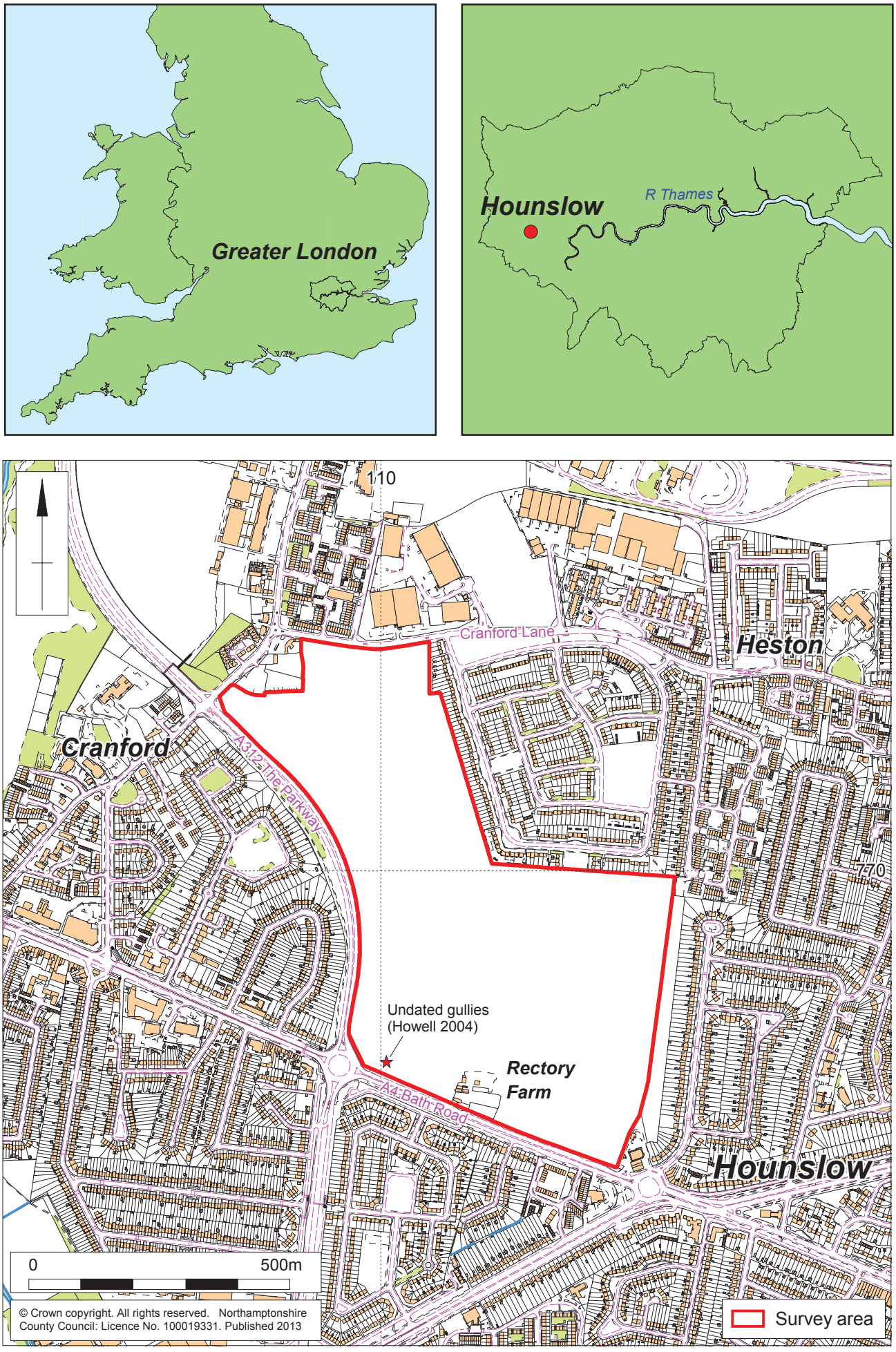


Scale 1:10,000

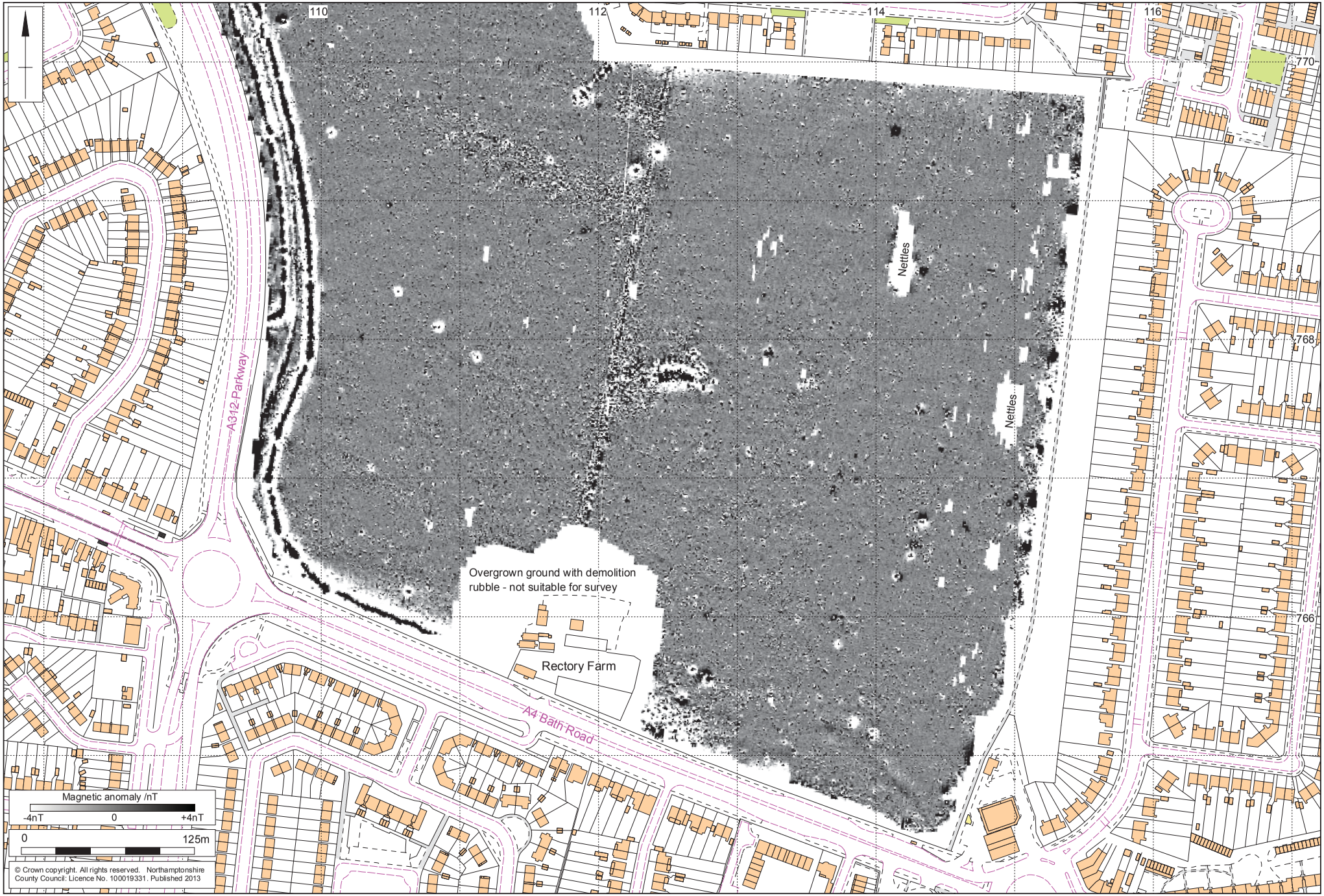
Site location Fig 1

Scale 1:2500

Magnetometer survey results (North) Fig 2

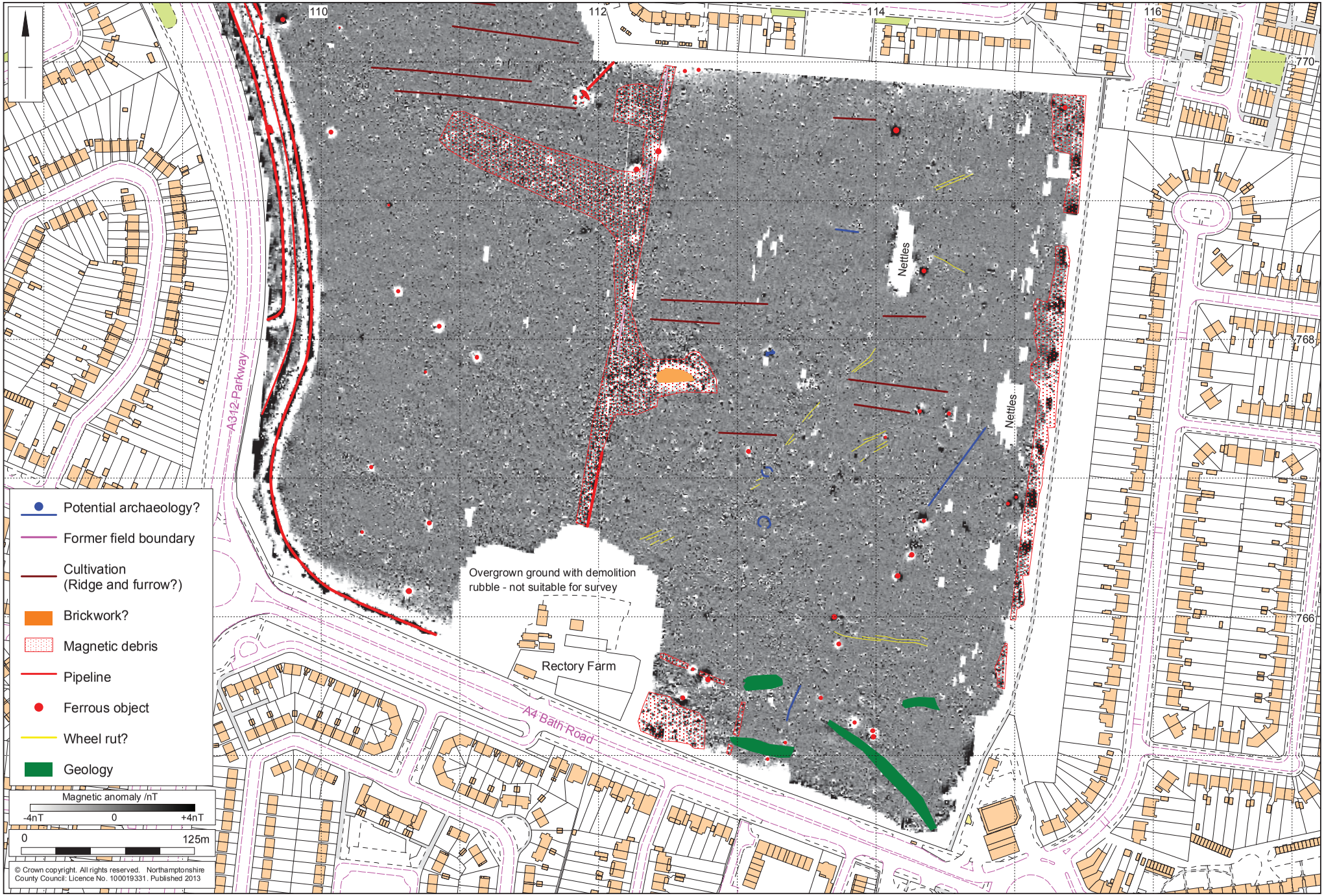
Scale 1:2500

Magnetometer survey interpretation (North) Fig 3



Scale 1:2500

Magnetometer survey results (South) Fig 4



Scale 1:2500

Magnetometer survey interpretation (South) Fig 5

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