



Community
Landscape
Archaeology
Survey
Project

Geophysics survey of two fields at Noborough Lodge Farm, Brockhall, Northants

OS 461570 263240

Stephen Young and Fred Kay

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OASIS report

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OASIS report

Reference

clasp1-330266

Project name	NRTN03_Noborough Farm Magnetometry Survey
Short description of the project	Magnetometry survey of area on West side of Watling Street, 1km South of Bannaventa
Project dates	Start: 02-04-2016 End: 27-04-2016
Previous/future work	No / Not known
Any associated project reference codes	clasp1-244911 - OASIS form ID
Type of project	Research project
Site status	None
Current Land use	Grassland Heathland 4 - Regularly improved
Monument type	SETTLEMENT Roman
Significant Finds	NONE None
Significant Finds	NONE None
Investigation type	"Geophysical Survey"
Prompt	Research
Solid geology	UPPER LIAS
Drift geology	GLACIAL SAND AND GRAVEL
Techniques	Magnetometry

Project location

Country	England
Site location	NORTHAMPTONSHIRE DAVENTRY NORTON Norborough Lodge Farm
Postcode	NN7 4LA
Study area	1.5 Hectares

Site coordinates SP 461570 263240 51.933076969897 -
1.328585266604 51 55 59 N 001 19 42
W Point

Height OD / Depth Min: 110m Max: 115m

Project creators

Name of Organisation CLASP

Project brief originator CLASP

Project design
originator Stephen Young (CLASP)

Project
director/manager Fred Kay (CLASP)

Project supervisor Stephen Young

Type of
sponsor/funding body Local Arch. Society/Amateur
Archaeologist

Name of
sponsor/funding body CLASP

Project archives

Physical Archive
Exists? No

Digital Archive
recipient NCC

Digital Archive ID NRTN04

Digital Contents "Survey"

Digital Media available "Geophysics","Survey"

Paper Archive recipient NCC

Paper Archive ID NRTN04

Paper Contents "Survey"

Paper Media available "Report"

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Entered on 6 October 2018

Abstract

CLASP conducted a geophysical (fluxgate gradiometer) survey of the eastern edges of two fields 1km South of the Romano-British Posting Station of Bannaventa. The fields are part of the immediate hinterland to the south of the site, lying to the west of, and adjacent to, Watling St, the present A5; (centred on OS 461570 263240). The work was undertaken in 2016 and the investigated area covered approximately 1.5 hectares. This area occupies a significant position in the local landscape potentially containing the most southerly archaeological geophysical anomalies associated with the archaeology of the settlement. The fieldwork was also part of a more extensive larger landscape survey intended to characterise and understand the overall layout of Bannaventa and the surrounding locality. A range of anomalies was located and these include some linear magnetic features and enclosure ditches together with medieval ridge and furrow.

INTRODUCTION

- 1.1 Since 2010 CLASP have been carrying out a large-scale geophysical survey of the area surrounding Bannaventa along Watling Street in the parishes of Norton and Whilton, Northamptonshire to increase knowledge of the impact of the Posting Station on the area (refs). Metal detecting has shown that Romano-British material existed South of the settlement adjacent to Watling Street This survey was undertaken to determine the character of any surveying anomalies and to ascertain how far to the South these features could be observed.
- 1.2 CLASP were given permission by the landowners, the Thomas family, to survey two fields on their farm on the West side of Watling Street approx. 1km South of Bannaventa. The fields were pasture at the time of the geophysical survey.
- 1.3 An area of approx. 0.7ha was surveyed in the most northerly of the two fields over a strip 60m wide, alongside the road. Some rectangular features symmetrically aligned with the road were revealed. An area of approx. 0.45ha was surveyed in the southern field. The only features found were ridge and furrow on two alignments. Clearly visible on the surface noted in aerial photographs.
- 1.4 The magnetometer survey was employed because potentially it offered the most effective and appropriate methodological approach for obtaining reasonable quality data from the existing circumstances and conditions. The survey methodology described in this report was based upon guidelines set out in the English Heritage document *Geophysical Survey in Archaeological Field Evaluation* (David et al 2008).

2.0 Site Location and description

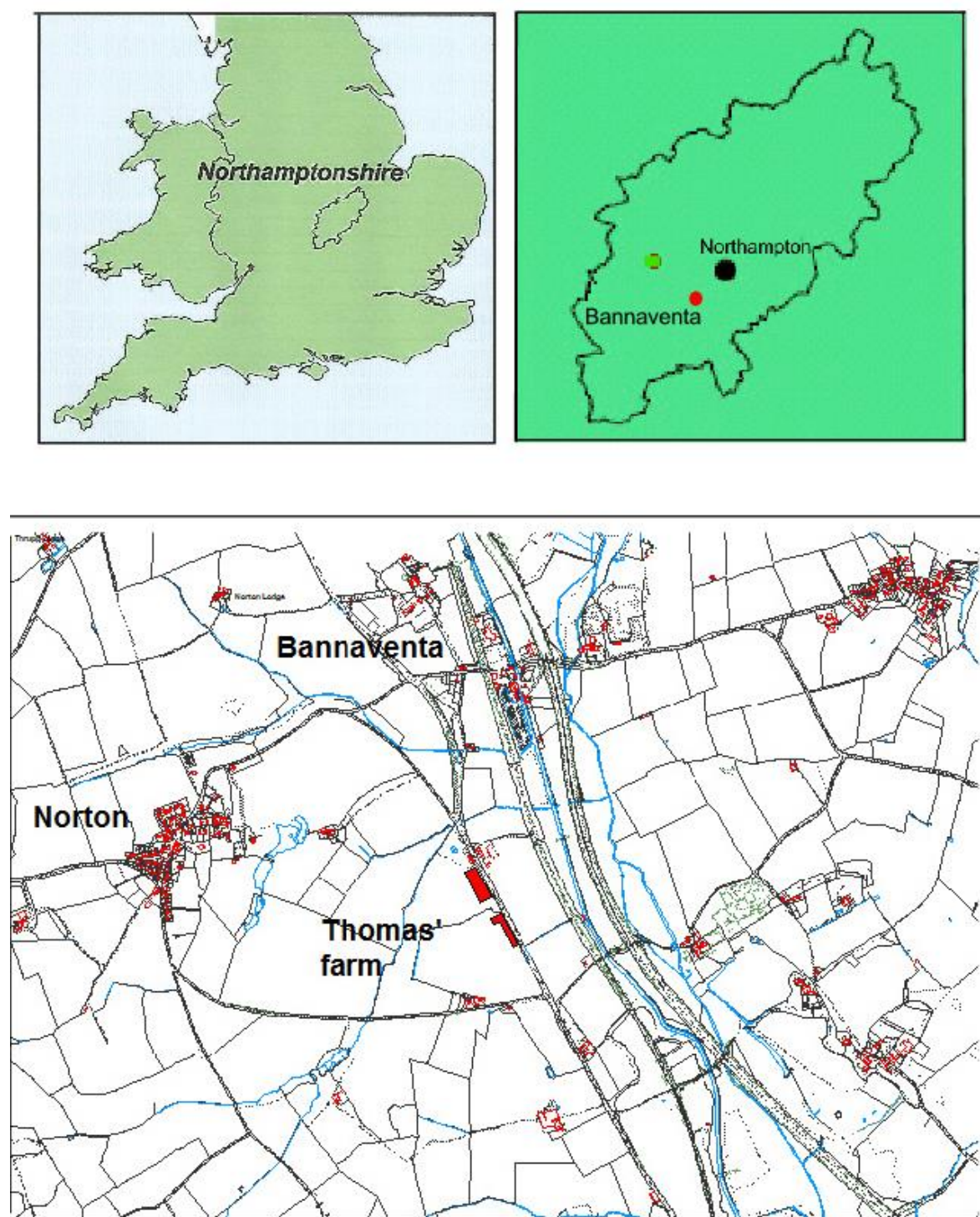


Fig 1 Site location

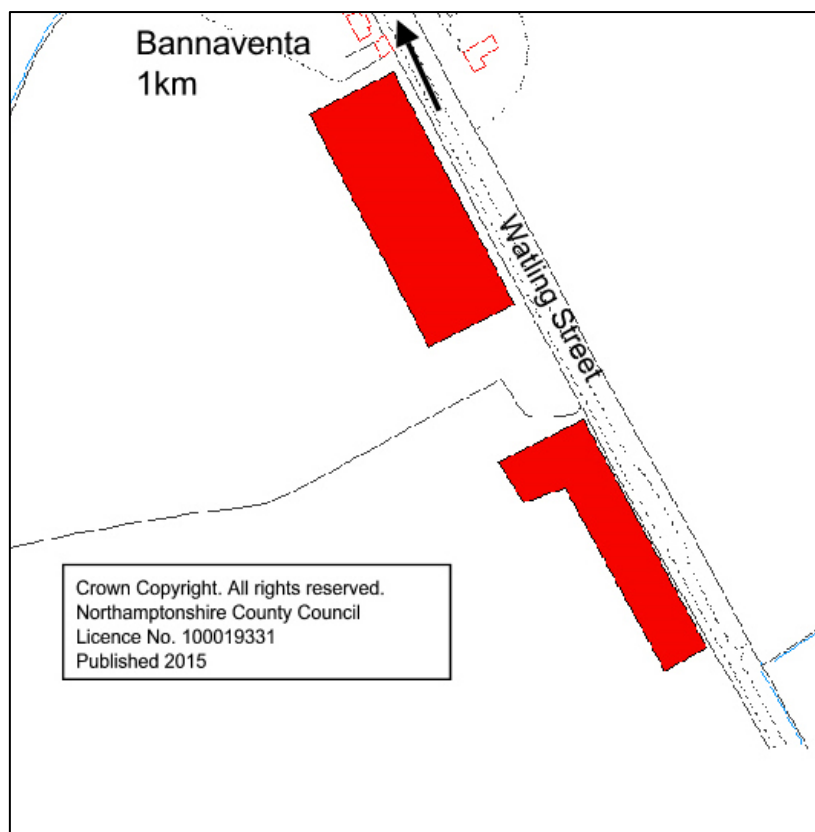


Fig 2. Survey Areas

- 2.1 Situated on undulating ground the site lies on the West side of the A5 (Watling St) 1km South of the Roman settlement of Bannaventa. The two fields cover approx. 16 hectares but only a narrow strip next to Watling St was surveyed. Results suggest that these archaeological features are associated with the alignment of the Roman Road and suggest an absence of features more than 30m from the road
- 2.2 The survey area is situated at approx. 115m OD sloping up towards the West The drift geology of the site consists of glacial sands and gravel deposits. (*British Geological Survey sheet 185*, published in 1980).

3.0 Archaeological and historical background

- 3.1 The Roman posting station of Bannaventa is situated approx. 1km North of the site. Overall the late 3rd/ 4th century AD walled area of the station covered about 5 ha. Bannaventa itself is an integral part of a larger strategic scheme comprising of a systematic placed series of sites situated at regular intervals along Watling Street between London and Wroxeter. The Itinerary of Antoninus noting that

Bannaventa was situated approximately twelve Roman miles between the neighbouring posting stations located at Lactodorum (Towcester) to the south and Tripontem (Cave's Inn) to the north.

In the wider landscape Bannaventa's strategic importance is reflected in its location on the main arterial road from the south-east to the north-west of the province whilst locally it occupies a key position on the watershed of the River Nene. The settlement acted as a market centre and focal point with 'semi-urban' attributes for the densely inhabited surrounding area of rural settlement.

- 3.2 Various archaeological discoveries were made during the early twentieth century proving the existence of a significant settlement in the wider area. In 1970 air photographs revealed the outline of the part of the posting station to the west of the modern A5. These photographs, allied to the rescue excavations undertaken on the site to the East of Watling Street adjacent⁵ to Whilton Lodge, between 1970-72, in the field subject to the CLASP geophysical survey, revealed the existence of a roadside station of irregular quadrilateral shape with rounded corners, bounded by ditches, with gates in the north and south of the defences to allow the passage of Watling Street through the town (RCHME, 1981, 151-2).
- 3.3 It is likely that the Posting Station became a local market centre, owing its prosperity to its location on Watling Street, one of the region's arterial roads, and to access to the relative wealth of its agricultural hinterland. Further fieldwork has demonstrated that the sites origins lie in the pre-conquest period with major development commencing in the late 1st to early 2nd century, defensive additions in the 3rd and 4th and with occupation continuing into the early 5th century AD.¹
- 3.4 Excavation has demonstrated that buildings were constructed during the mid-second and third centuries, the majority being timber, of rectangular sill beam construction, although the remains of stone buildings are also recorded. Originally a defensive ditch and rampart circuit enclosing about 10 ha was constructed during the second or early third century, which was replaced by a double ditch and walled inner compound of the Posting Station in the later third or fourth century AD covering 5 ha. Bannaventa was occupied up to the end of

¹ Young & Kay forthcoming

the early 5TH century AD but it is not known to have survived in any recognizable form into the later Saxon period (SMR 895).²

There is also evidence of burial sites South of Bannaventa adjacent to Watling St between the Posting station and the fields here subjected to geophysical survey.

4.0 Field Methodology

- 4.1 The aim of the geophysical survey using a magnetometer was to establish accurately the presence of archaeological remains and the extent and character of any geophysical anomalies within the survey area.
- 4.2 The gradiometer is a non-intrusive scientific inspecting instrument used to determine the presence or absence of some types of subsurface archaeological features (e.g. ditches, trackways, field systems, enclosures and building foundations). By scanning the soil surface geophysics can identify areas of varying magnetic susceptibility, the data from which can be interpreted in a variety of graphical formats and identifying images that share morphological affinities with diagnostic archaeological remains (Clark 1990). In this case magnetic survey was employed because it offered the best chance of locating the wider extent and structural detail of the surviving archaeology.
- 4.3 The area gradiometer survey was conducted using a Bartington gradiometer type 601, dual flux gate, with the 601 data logger set to make four readings per metre (sample interval of 0.25m). The zigzag traversed method of survey was used with 1m wide traverses on a north/south- line across the field in a series of 30 x 30m survey grids. The sensitivity of the machine was set to detect and record variation in the order of 0.1 nanoTesla.
- 4.4 The data was processed using Snuffler Version 1.3 and filtered to reduce geomagnetic striping (ZMT) and operator error due to ground irregularities etc. The gradiometer data is displayed as greyscale maps in figs. 3 & 5 and an interpretation of the possible archaeological anomalies is shown in figs. 4 & 6.

² Reference excavation reports Jeremy Taylor

5.0 Field data analysis and interpretation of results

5.1 North Field

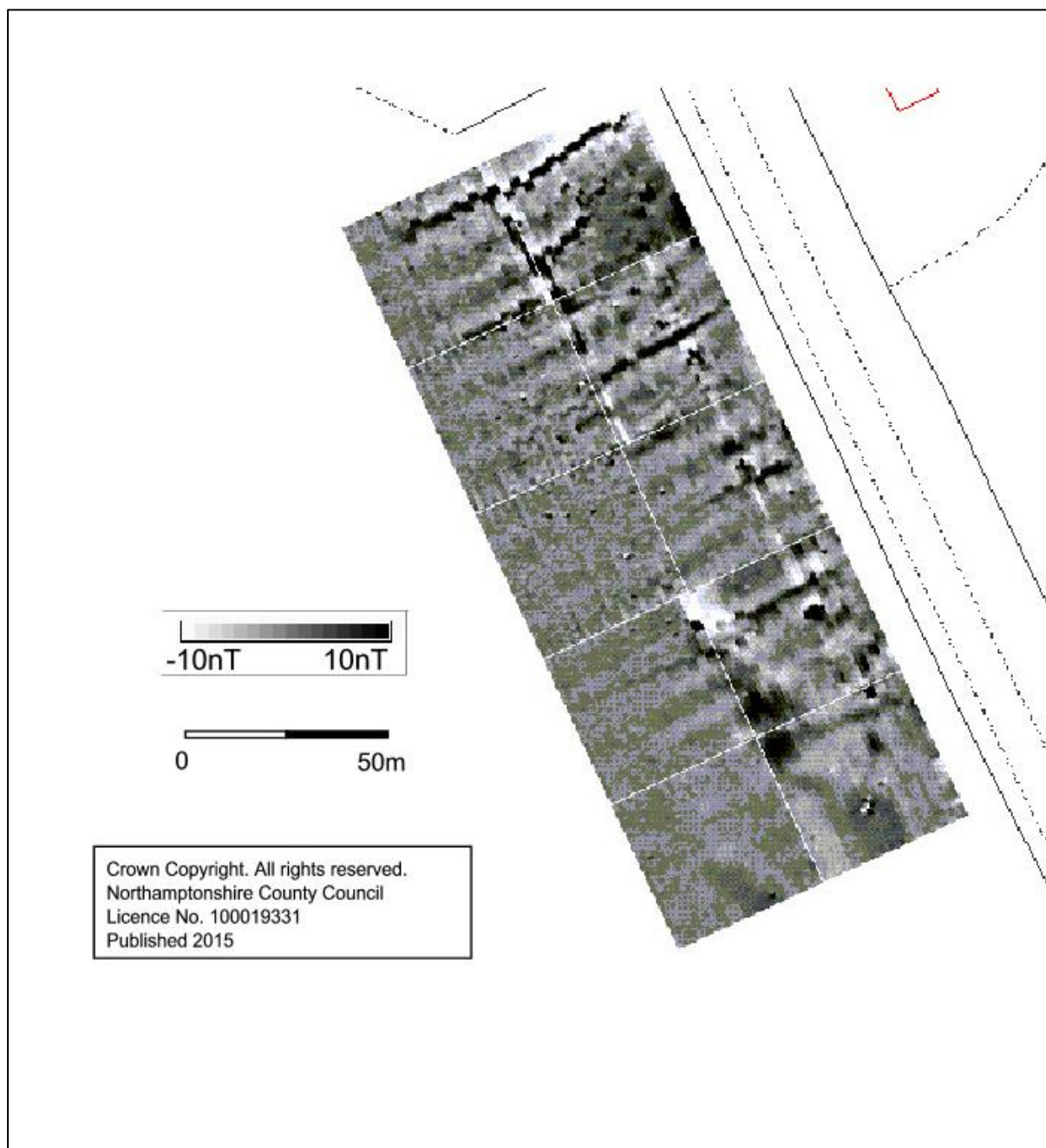


Fig 3 North Field Greyscale Map of Magnetometry

The geophysical survey of the northerly of the two fields revealed a series of linear features associated on their eastern side with the alignment of the Roman Watling Street. These anomalies are aligned north-east to south

west and appear to be field boundaries or ditches dividing individual plots. The features are overlain by medieval ridge and furrow which occupies a similar alignment.

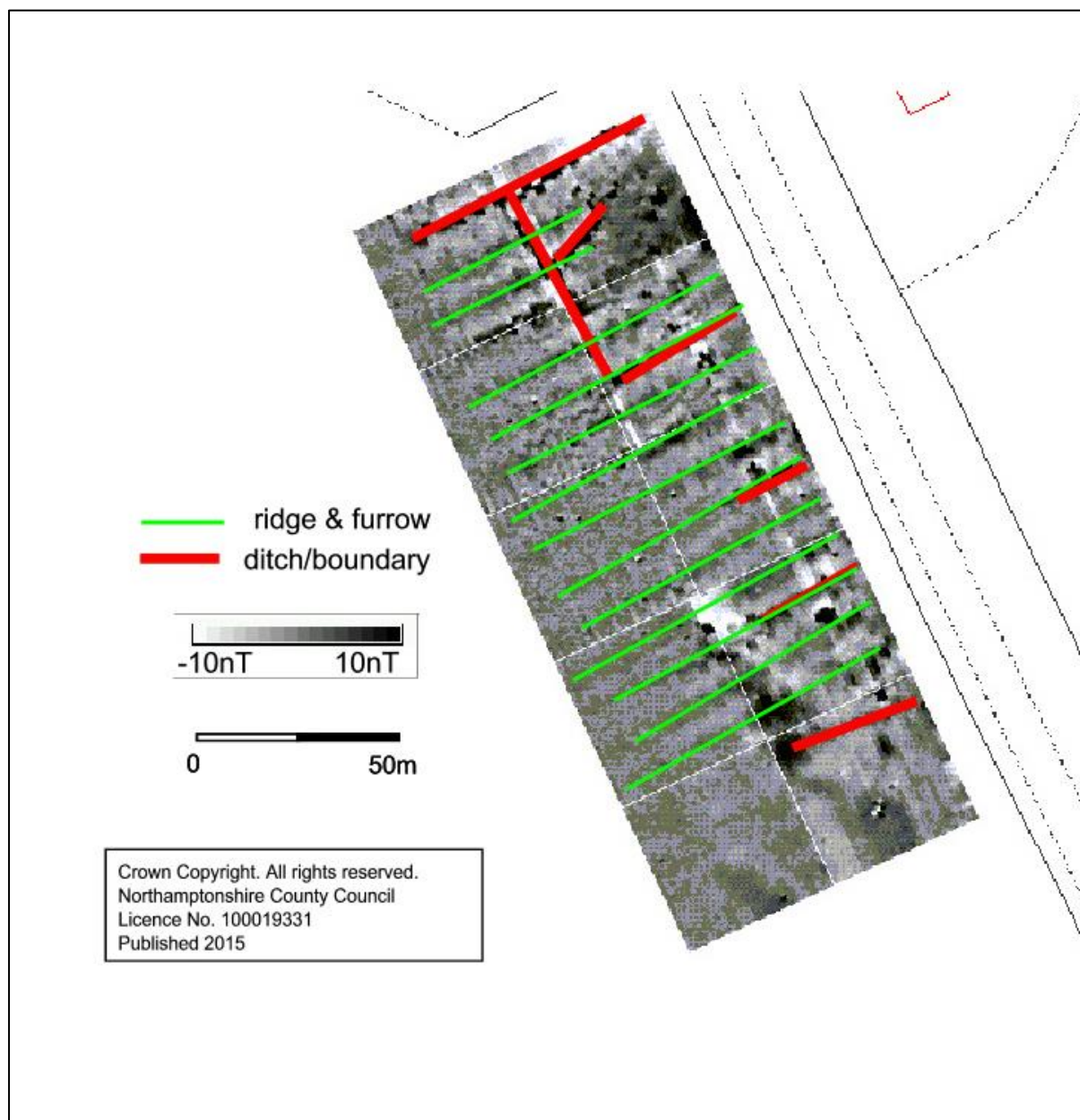


Fig. 4 North field interpretation of geophysics

5.2 South Field

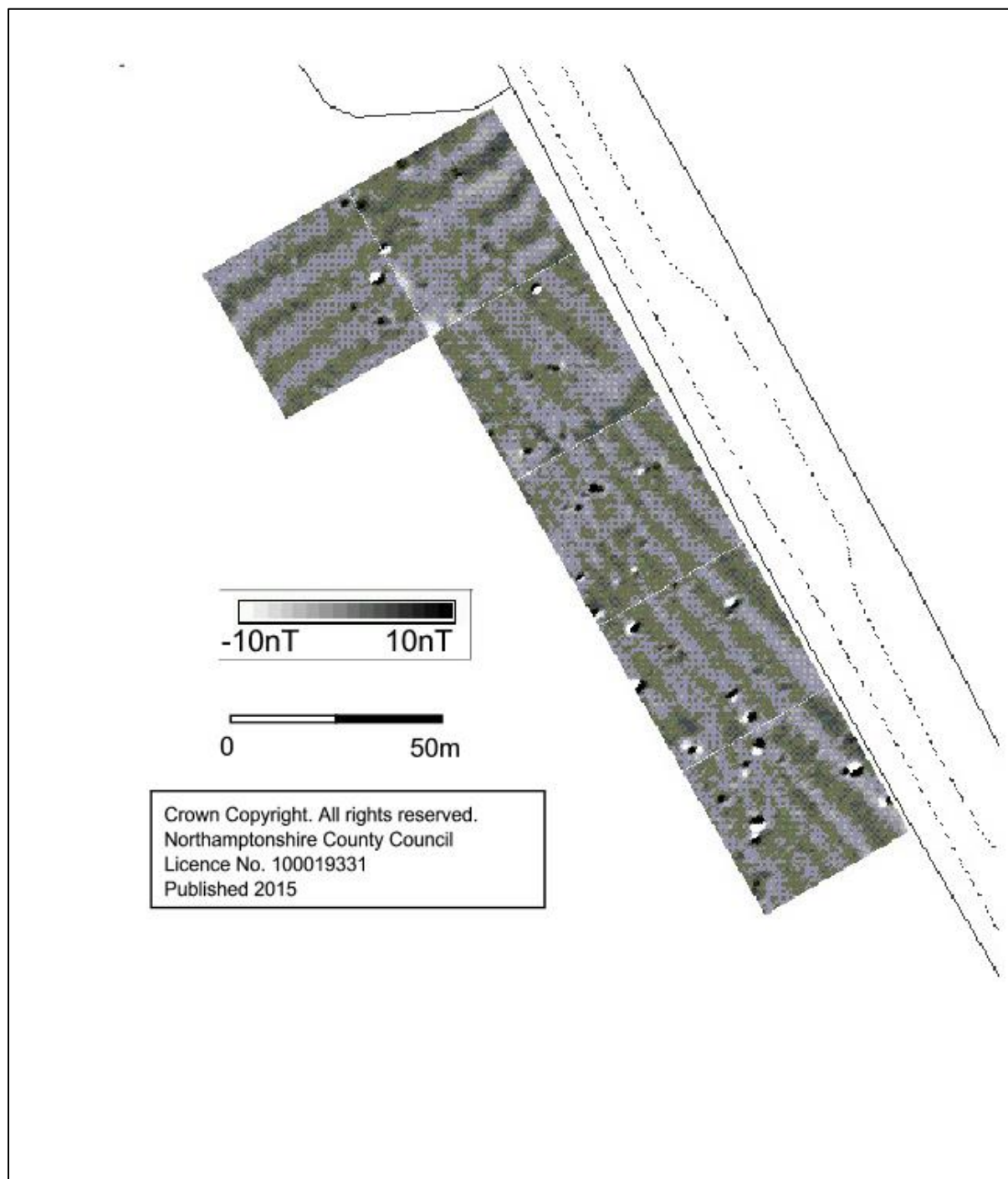


Fig 5 South Field Greyscale Map of Magnetometry

The geophysical survey of the more southerly field revealed no definite archaeological anomalies within the field surveyed adjacent to the

alignment of Watling Street apart from the existence of extensive medieval ridge and furrow laid out along two axis.



Fig. 6 South field interpretation of geophysics

6.0 Conclusions

The geophysical survey of the eastern extremities of both fields has most importantly enabled us to define the southern boundary of the immediate hinterland of the agricultural landscape associated with the Roman Posting Station of Bannaventa to the west of Watling Street. It has enabled us to demonstrate that there is no evidence of features further than SP461595263472, 1.06km South of the Southern gate of the Late 3RD/4TH century AD settlement. Analysis of the anomalies implies a series of field or property boundaries facing onto the Roman Watling Street. These features may well have been paddocks for stock or possibly part of the inland field system utilised for feeding the inhabitants of the Posting Station. There was extensive ridge and furrow across the survey which is visible on the ground.

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Acknowledgements

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