

TWMW13



## LAND AT MARTLEY, WORCESTERSHIRE

*Fluxgate Gradiometer Survey*

*for URS on behalf of Taylor Wimpey*

*April 2013*



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HA Job no.: TMMW13

HAS no.: 980

NGR: SO 75155, 59891

Parish: Martley

Local authority: Worcestershire County Council

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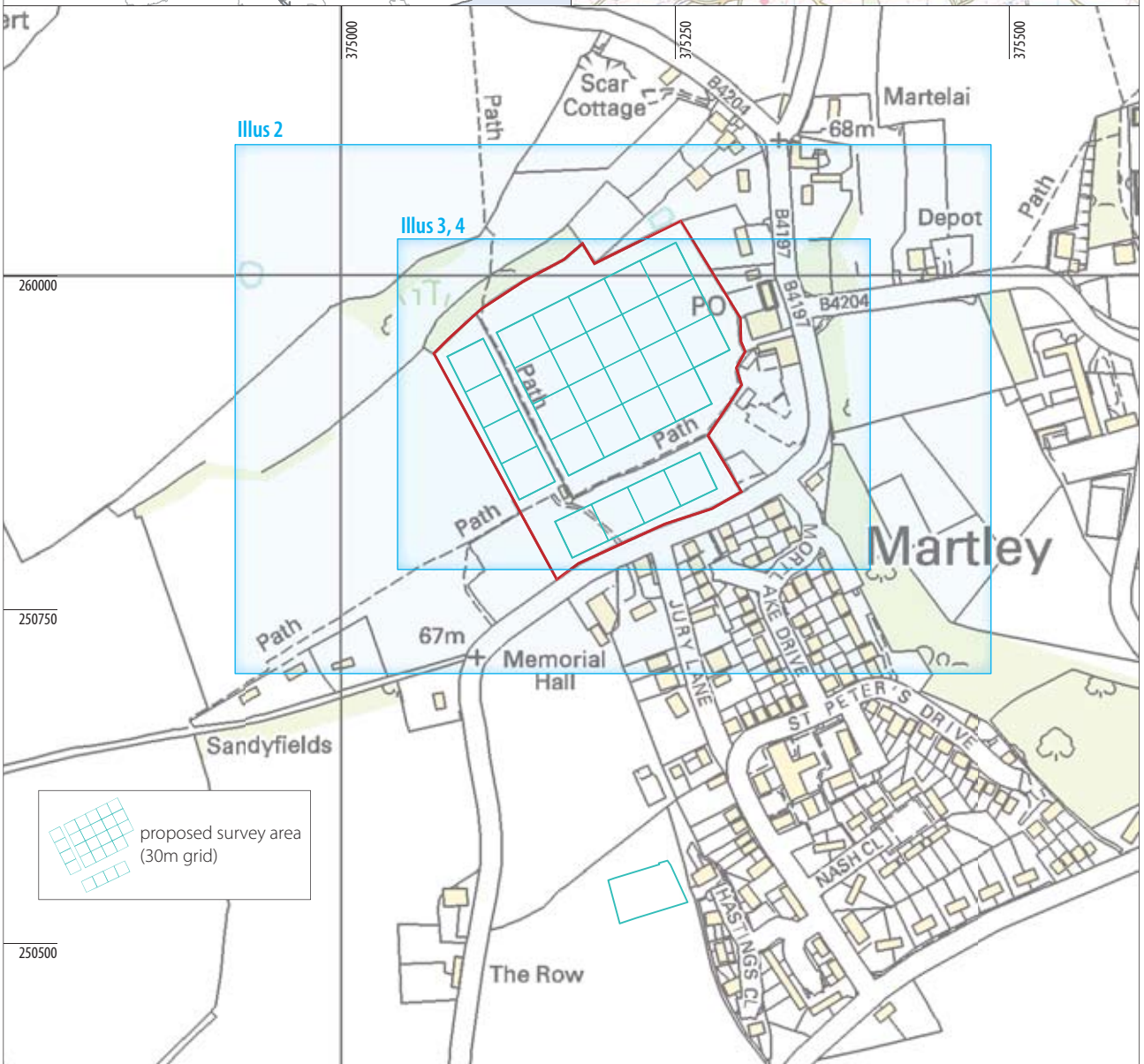
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Martley  
Worcestershire



 proposed survey area  
(30m grid)

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100013329

scale 1:5,000 @ A4



0 250m

### Illus 1

Site location

# LAND AT MARTLEY, WORCESTERSHIRE

## Fluxgate Gradiometer Survey

*A fluxgate gradiometer survey was undertaken over a proposed site for a housing development in Martley to provide information relating to any likely impacts that the scheme might have relating to heritage assets within the site.*

*The area of survey covered three separate fields. The larger and more northernmost of these (Field 1), along with the westernmost field (Field 2) did not reveal any responses of archaeological interest. However, at the east end of the southernmost field (Field 3) an isolated anomaly was identified which exhibited properties commonly associated with pit-type features.*

### 1. INTRODUCTION

This report describes a geophysical survey undertaken across three fields in Martley where Taylor Wimpey proposes to construct a new housing scheme.

Data was collected in March 2013.

### 2. OBJECTIVES OF THE SURVEY

The general aim of the geophysical survey was to provide further information required by the local planning authority's archaeological advisors in support of a proposed planning application to build houses on the land.

The objectives of the work were to identify the extent and character of any archaeological remains capable of producing a magnetic response, these can include features such as ditches, large pits, kilns and ovens.

### 3. ARCHAEOLOGICAL BACKGROUND

It can be demonstrated that the village of Martley dates back to the earliest part of the medieval period on the basis of the architecture of its church and references in the Domesday Book of 1086. St Peters (WSM 03369) has a nave and chancel of Norman origin due to its flat buttresses and more definitively its north and south doors which Pevsner (1997) dates to around 1150 AD.

The southernmost of the three plots of land was reputedly a former garden of the workhouse (local resident's account).

### 4. GEOLOGY AND TOPOGRAPHY

The site is underlain by Bromsgrove Sandstone Formation a sandstone, sedimentary bedrock. There are no drift deposits recorded within the area of the proposals.

The land occupies an area of relatively level ground at the foot of a rise to its north towards Kingswood Common.

### 5. SURVEY PROCEDURE

The procedure used for the investigation was a recorded magnetometer survey carried out across the shaded areas indicated on *Illus 1*.

#### 5.1 Magnetometer survey

A survey grid was set out and tied to the OS grid using a GPS system with Omnistar correction to provide 0.1m or greater accuracy. The plans are therefore geo-referenced, and OS co-ordinates of map locations can be read from the AutoCAD version of the plans.

The magnetometer readings were collected along transects 1m apart using Bartington 1m fluxgate gradiometers, and are plotted at 25cm intervals along each transect. The results of the survey are presented as grey scale plots (*Illus 2*), and as graphical (x-y trace) plots in *Illus 3* (all at 1:1,000 scale). Inclusion of both types of presentation allows the detected magnetic anomalies to be examined in plan and profile respectively.

The graphical (x-y) plots represent minimally pre-processed magnetometer readings, as recommended for initial presentation



of survey data in the 2008 English Heritage geophysical guidelines document (English Heritage 2008). Adjustments are made for irregularities in line spacing caused by variations in the instrument zero setting (as is required for legibility in gradiometer data), but no further filtering or other process which could affect the anomaly profiles or influence the interpretation of the data has been applied. A weak additional 2D low pass filter has been applied to the grey scale plot to reduce background noise levels.

An interpretation of the findings is shown in *Illus 4*. Colour coding has been used in the interpretation to distinguish different interpretations and anomaly types.

## 6. RESULTS

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Results within the data fall into four categories. There are sporadic ferrous-type spikes that are reasonably evenly distributed across the site with a slight bias towards the current backs of houses. There is a scatter of fainter isolated responses which may be caused by bits of brick and tile. At the west end of Field 3 an area of disturbed readings forms a linear group of responses, whilst in the east end of the same field there is a response that could be archaeological in nature.

This latter anomaly is characterised by a broad response across an area measuring about 2m x 2m in dimension (*Illus 3; A*). The nature of the response is similar to that caused by an earth filled pit. However, no further comment can be made regarding its nature or date.

2 Other more recent responses observed at B and C (*Illus 3*) are more likely to be recent in origin possibly relating to a track and backfilled gully adjacent to it.

The area of former garden contains notably enhanced susceptibility levels in comparison to the rest of the site. However, over all the mean values are higher than might be expected on sandstone and could reflect tipping on the land from the medieval period onwards to enhance its agricultural potential.

## 7. REFERENCES

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English Heritage 2008 *Geophysical Survey in Archaeological Field Evaluation* (Section 4.8) p10.

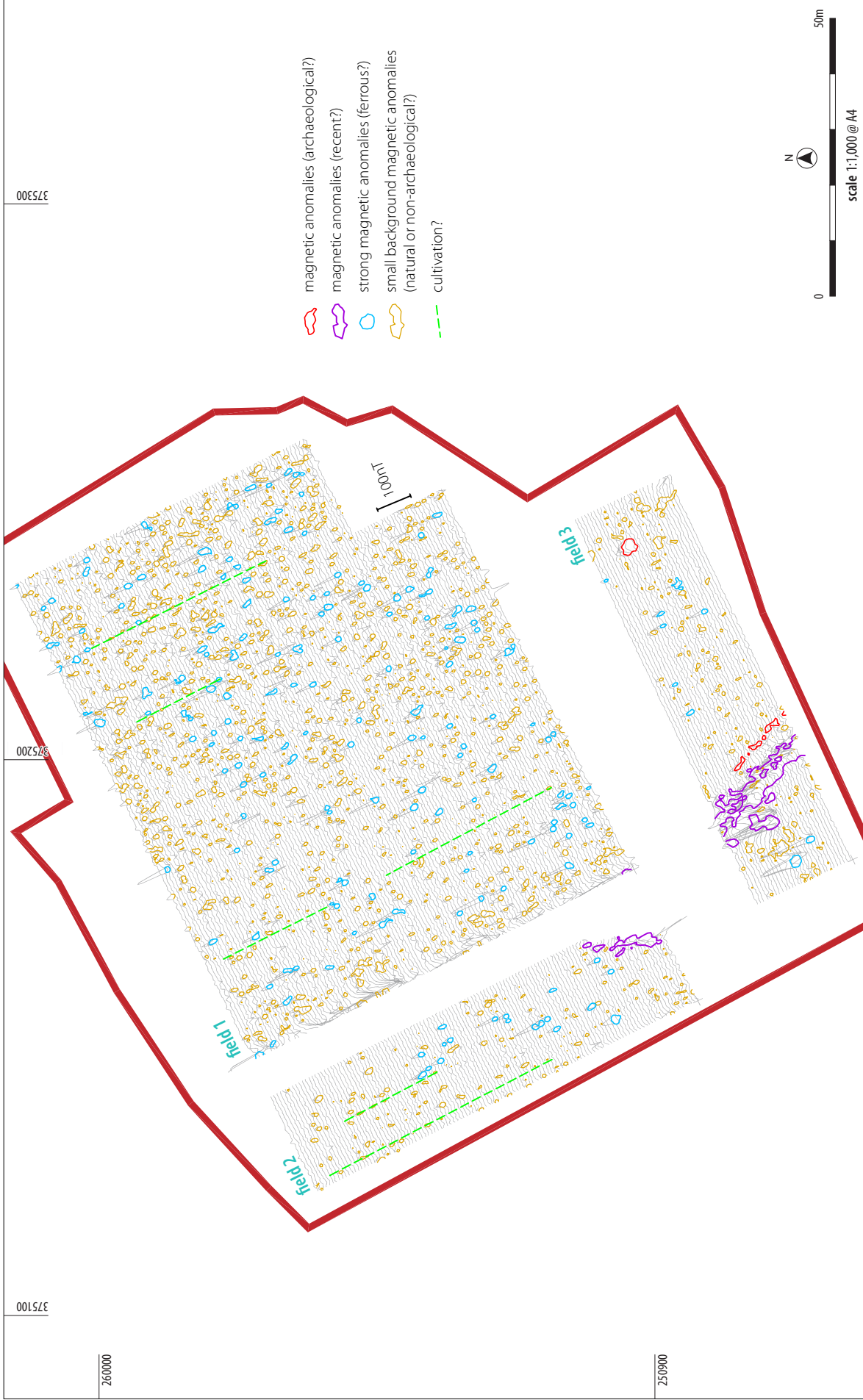
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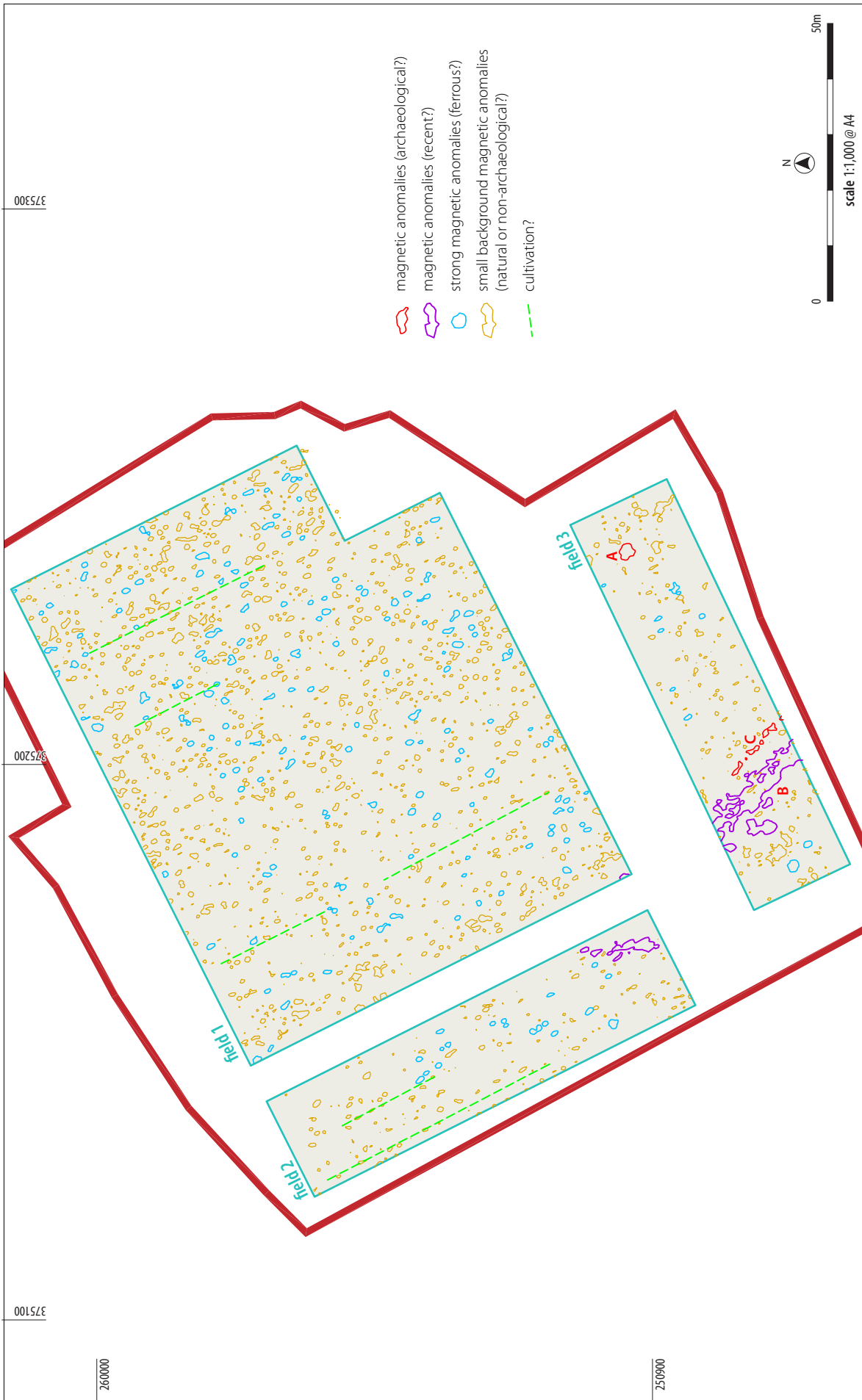


Illus 2  
Magnetometer survey (grey scale plot)



**Illus 3**  
Magnetometer survey (with interpretation)





**Illus 4**  
Magnetometer survey (summary of findings)







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