Land off Sandpits Road, Middle Tysoe
Warwickshire

Report on Archaeological Geophysical Survey
2014

A.D.H. Bartlett

Surveyed by:

Bartlett-Clark Consultancy
25 Estate Yard, Cuckoo Lane,
North Leigh,
Oxfordshire OX29 6PW
01865 200864

for:

Henry Jervis and Partners Ltd

Land off Sandpits Road, Middle Tysoe, Warwickshire

Report on Archaeological Geophysical Survey, 2014

Introduction

This geophysical survey has been undertaken as part of an archaeological evaluation of land off Sandpits Road, Middle Tysoe, Warwickshire. The survey was commissioned from Bartlett Clark Consultancy, Specialists in Archaeogeophysics of Oxford, by Henry Jarvis and Partners Ltd. Fieldwork for the survey was done on 24 February 2014.

The purpose of the survey was to test for any detectable evidence of archaeological features or remains within the site of a proposed housing development.

The Site

The site is described in a Design and Access Statement for the proposed development as currently open grassland in the centre of the village bordered by trees, hedges and private houses. It is approximately 1 acre (0.4 ha) in size, and located at NGR SP338441.

The underlying bedrock is Early Jurassic Charmouth Mudstone, and the site is free of drift deposits. Soils on similar bedrock usually provide highly favourable conditions for the magnetic detection of archaeological features.

We have not been told of any previously identified archaeological sites or findings within the proposed development area, and the survey will therefore serve as a prospecting exercise to test for the presence of any previously unrecorded archaeological features.

Survey Procedure

The method used for the survey was magnetometer surveying. 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 a grey scale plot at 1:1000 scale (illustration 1), and as a graphical (x-y trace) plot at 1:625 in illustration 2. These alternative presentations allow the detected magnetic anomalies to be examined in plan and profile respectively.

The graphical survey plot shows the magnetometer readings after minimal pre-processing based on adjustment for irregularities in line spacing caused by variations in the instrument zero setting. Additional 2D low pass filtering has been applied to the grey scale plot to adjust background noise levels.

An interpretation of the findings is shown superimposed on illustration 2 (which permits the interpreted outlines to be compared with the underlying data), and is reproduced separately to provide a summary of the findings (illustration 3). Colour coding has been used in the interpretation to distinguish different effects

Features of potential archaeological origin are outlined in red. Recent disturbances are in a blue/purple, and minor background anomalies in light brown. Probable cultivation effects are shown in green.

Survey location

The survey grid was set out and tied to the OS grid using a differential GPS system (with VRS correction to give c. 10cm accuracy). The survey should therefore be accurately located in relation to the national grid lines shown on the plan, and OS co-ordinates of map locations can be read from the AutoCAD version of the plans which can be supplied with this report. The background mapping (reproduced in illustrations 1 and 3) has been approximately scaled and located (in the absence of grid lines) by comparison with other maps, and should be regarded as illustrative only.

Results

The survey plots show a strong discontinuity in response between the north western and south eastern halves of the site. The south eastern part of the survey is entirely dominated by strong magnetic anomalies (indicated by blue/purple outlines in the interpretation) of a kind commonly seen where ground has been raised or infilled with modern debris. We are told that concrete, steel and brick from nearby demolished buildings was buried here when adjacent houses were built, and this would entirely explain the magnetic disturbances.

No such disturbances are visible towards the north west of the survey, where the survey plots confirm that an intact ground surface survives. A number of distinct magnetic anomalies can be recognised, although it is doubtful that any of them are of particular archaeological importance.

The main finding is a series of three parallel linear features (outlined in green) of a kind which usually indicate the presence of former ridge and furrow cultivation. Weaker magnetic anomalies (in light brown) could either be minor background variations, or could perhaps indicate traces of ridges between the silted furrows. Two features can be identified which do not entirely conform to the cultivation pattern, and are outlined in red at A and B (as labelled in illustration 3).

The anomaly at A includes a short transverse ditch-like feature which runs across the cultivation pattern, together with a linear disturbance which merges with the recent disturbances to the south. It could perhaps be a ditch or trench partly filled with modern debris. B is a linear feature slightly offset from the cultivation pattern, but it is not clearly distinguishable from other background variations, and is near to the recent disturbances.

Conclusions

Interpretable data was obtained from the north western part of the site, where clearly defined linear features which are likely to indicate traces of ridge and furrow cultivation were detected. There are also minor and fragmentary ditch-like features at A and B. These are close to the disturbed ground to the south, and do not appear to represent intact or extended ditches or enclosures.

The original ground surface in the south eastern half of the site has been obscured by modern dumping.

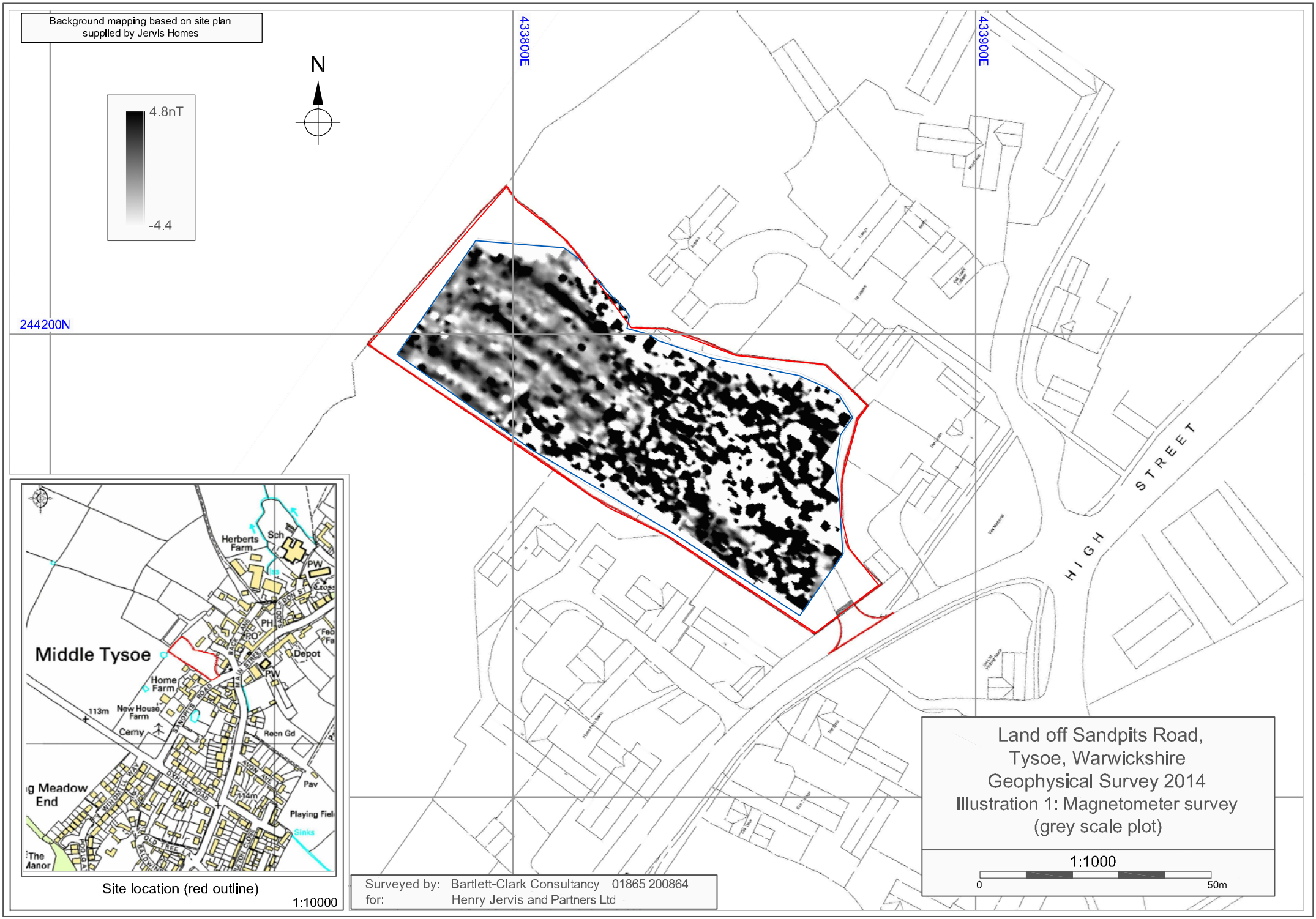
Report by:

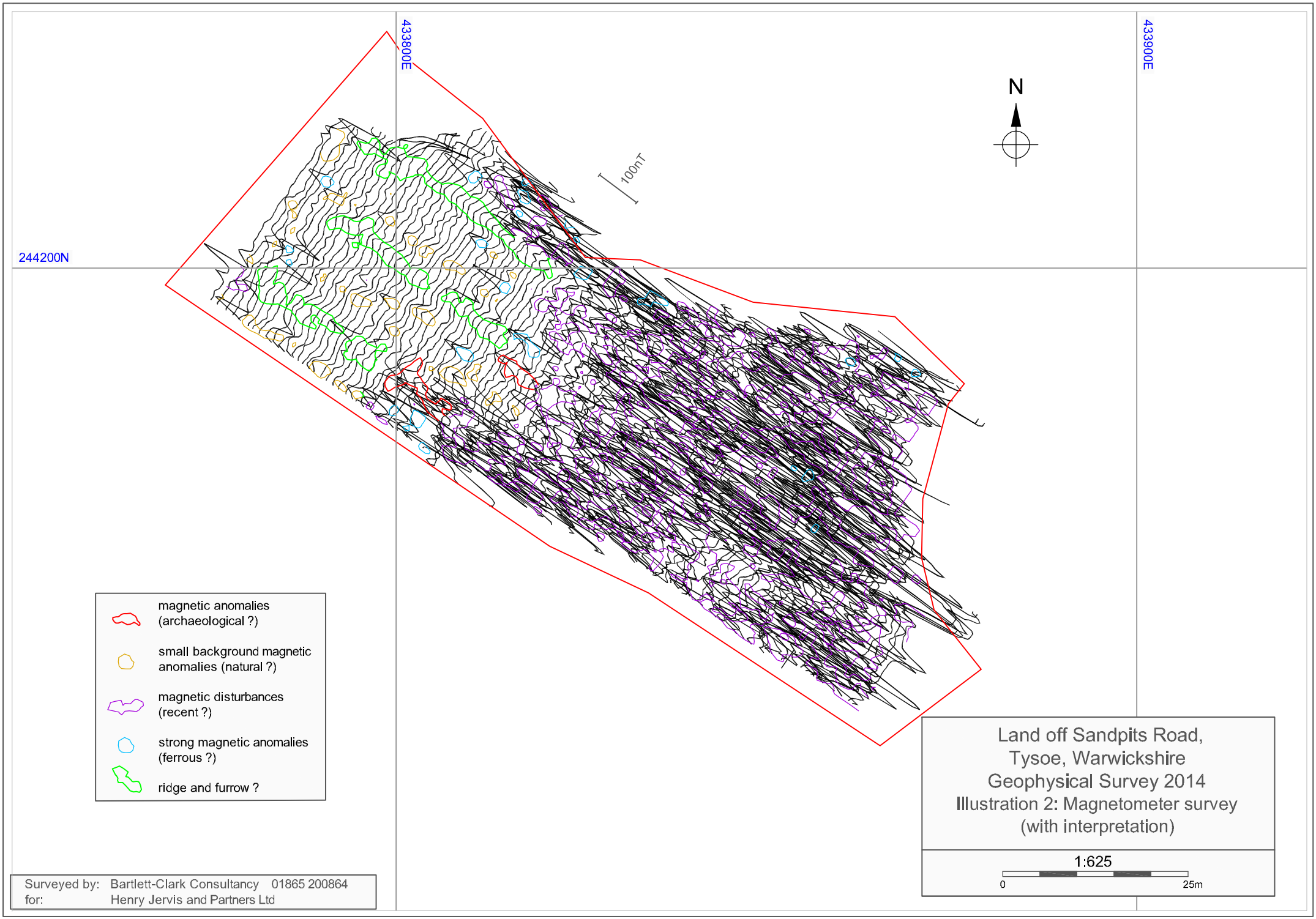
A. Bartlett BSc MPhil

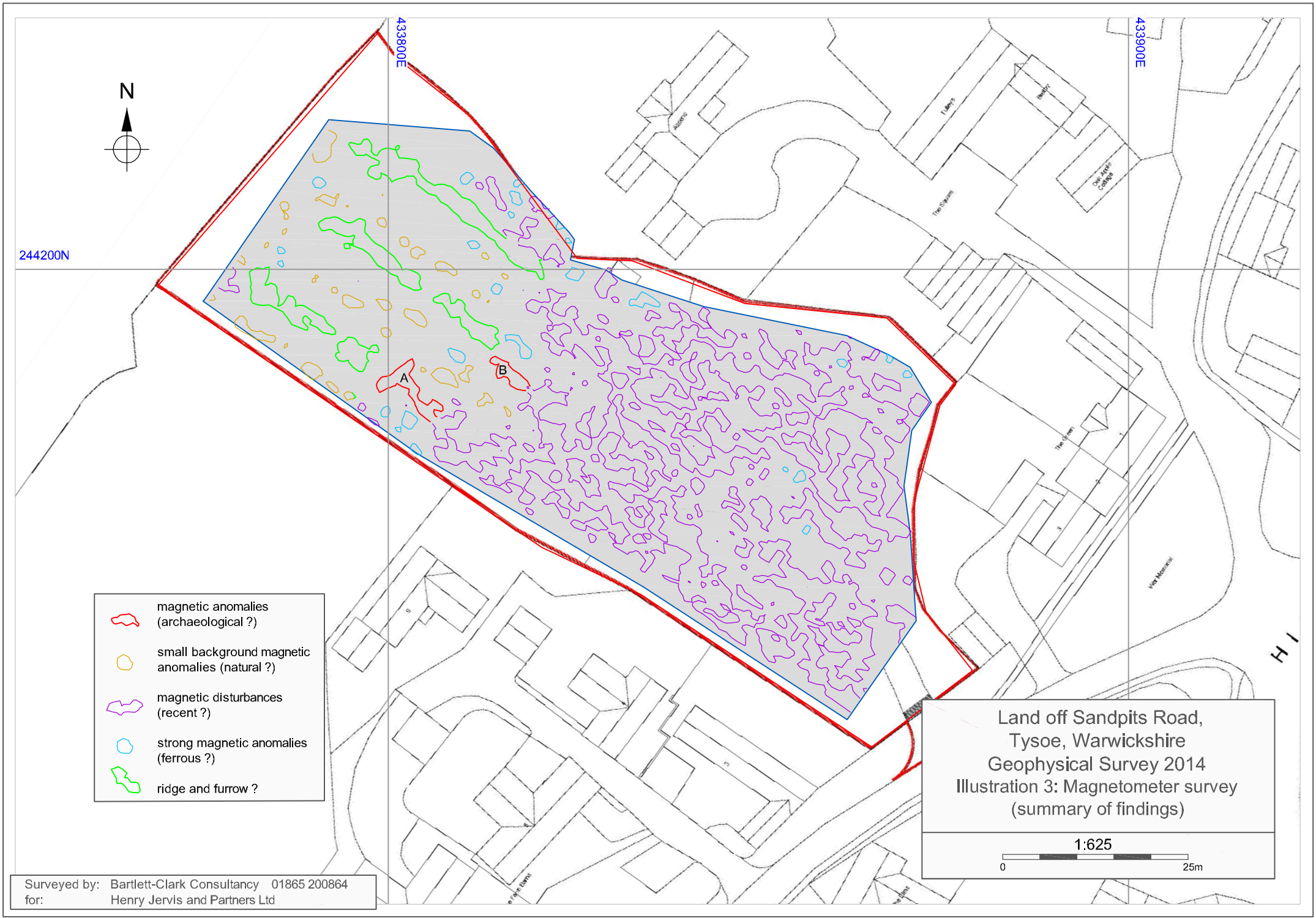
Bartlett - Clark Consultancy
Specialists in Archaeogeophysics
25 Estate Yard
Cuckoo Lane
North Leigh
Oxfordshire
OX29 6PW

01865 200864 13 March 2014

The fieldwork for this project was done by C. Oatley and P. Heykoop.


Background mapping based on site plan supplied by Jervis Homes
N
4.8nT
-4.4
433800E
433900E
244200N
HIGH STREET
Middle Tysoe
Herberts Farm
Sch
PW
Cross
PH
PO
Depot
Home Farm
New House Farm
113m
Cemy
Recn Gd
Pav
Playing Fiel
Sinks
114m
g Meadow End
The Manor
Site location (red outline)
1:10000
Surveyed by: Bartlett-Clark Consultancy 01865 200864
for: Henry Jervis and Partners Ltd
Land off Sandpits Road,
Tysoe, Warwickshire
Geophysical Survey 2014
Illustration 1: Magnetometer survey
(grey scale plot)
1:1000
0
50m


433800E
433900E
244200N
N
100nT
magnetic anomalies (archaeological ?)
small background magnetic anomalies (natural ?)
magnetic disturbances (recent ?)
strong magnetic anomalies (ferrous ?)
ridge and furrow ?
Land off Sandpits Road,
Tysoe, Warwickshire
Geophysical Survey 2014
Illustration 2: Magnetometer survey
(with interpretation)
1:625
0
25m
Surveyed by: Bartlett-Clark Consultancy 01865 200864
for: Henry Jervis and Partners Ltd


N
433800E
433900E
244200N
A
B
magnetic anomalies (archaeological ?)
small background magnetic anomalies (natural ?)
magnetic disturbances (recent ?)
strong magnetic anomalies (ferrous ?)
ridge and furrow ?
Land off Sandpits Road,
Tysoe, Warwickshire
Geophysical Survey 2014
Illustration 3: Magnetometer survey
(summary of findings)
1:625
0
25m
Surveyed by: Bartlett-Clark Consultancy 01865 200864
for: Henry Jervis and Partners Ltd