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**Land west of Ashfield Court Road
Pateley Bridge
North Yorkshire**

Geophysical Survey

Report no. 2480

July 2013

Client MAP Archaeological Practice Ltd



**Land west of Ashfield Court Road
Pateley Bridge
North Yorkshire**

Geophysical Survey

Summary

A geophysical (magnetometer) survey, covering approximately 2.8 hectares, was carried out to the west of Ashfield Court Road, Pateley Bridge in advance of the proposed development of the site. Anomalies due to geological variation, agricultural and modern activity have been identified. No anomalies of archaeological potential have been located. On the basis of the survey the archaeological potential of the site is considered to be low.



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Report Information

Client	MAP Archaeological Practice Ltd
Address	The Croft, East Street, Swinton, Malton, YO17 6SH
Report Type	Geophysical survey
Location	Land west of Ashfield Court Road, Pateley Bridge
County	North Yorkshire
Grid Reference	SE 152 657
Period(s) of activity	Modem
Report Number	2480
Project Number	4083
Site Code	PBH13
OASIS ID	archaeol11-154314
Plannmg Apphcation No	Pre-application
Museum Accession No	n/a
Date of fieldwork	June 2013
Date of report	June 2013
Project Management	Sam Harrison BSc MSc AIfA
Fieldwork	James Lawton BSc MSc PIfA Kieron Kinnenmont BSc PG Dip
Report	James Lawton
Illustrations	James Lawton
Photography	James Lawton

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1 Introduction

Archaeological Services WYAS was commissioned by MAP Archaeological Practice to undertake a geophysical (magnetometer) survey in Pateley Bridge, North Yorkshire (see Fig 1), in advance of the submission of a planning application for a proposed development of the site. The scheme of work was undertaken in accordance with the guidance contained in the National Planning Policy Framework 2012 (NPPF) and was carried out on June 25th 2013.

Site location, topography and land-use

The proposed development area (PDA) is centred at SE 152 657, to the west of the River Nidd and immediately west of Pateley Bridge, and comprised two separate areas (see Fig 2). Area 1 comprised a rectangular parcel of rough pasture bounded by woodland (see Plate 1), with Nidderdale High School and Community College and sports facilities to the north and west. Area 2 was an irregularly shaped pasture field (see Plate 2 and Plate 3) which sloped down from south-west to north-east towards the residential properties on Ashfield Court Road which border the site to the north-east.

Geology and soils

The underlying bedrock geology comprises Millstone Grit Group – Sandstone and Millstone Grit – Mudstone, Siltstone and Sandstone (British Geological Survey 2013). The soils are classified in the Rivington 2 association being described as well drained, coarse loams (Soil Survey of England and Wales 1983).

2 Archaeological background

No information on the archaeological background to the site has been provided but it is understood that there are no known heritage assets within the proposed development area.

3 Aims, Methodology and Presentation

The general aim of the geophysical survey was to establish and clarify the nature of the archaeological resource within the PDA.

Specifically the survey sought to provide information about the nature and possible interpretation of any anomalies identified during the survey and thereby determine the presence or absence and likely extent of any buried archaeological remains.

The information from the geophysical survey will enable further evaluation and/or mitigation measures, if required, to be designed in advance of the proposed development.

In order to achieve these aims a detailed (recorded) magnetometer survey was carried out over the whole of the PDA, a combined area of approximately 2.8 hectares.

Magnetometer survey

Bartington Grad601 magnetic gradiometers were used during the survey taking readings at 0.25m intervals on zig-zag traverses 1m apart within 30m by 30m grids so that 3600 readings were recorded in each grid. These readings were stored in the memory of the instrument and later downloaded to computer for processing and interpretation. Geoplot 3 (Geoscan Research) software was used to process and present the data. Further details are given in Appendix 1.

Reporting

A general site location plan, incorporating the 1:50000 Ordnance Survey map is shown in Figure 1. A large scale (1:2000) site location plan showing the greyscale magnetometer data is shown in Figure 2. The data are presented in greyscale, XY trace plot and interpretation formats in Figures 3, 4 and 5 at a scale of 1:1250.

Further technical information on the equipment used, data processing and survey methodologies are given in Appendix 1 and Appendix 2. Appendix 3 describes the composition and location of the site archive.

The geophysical survey methodology, report and any recommendations comply with guidelines outlined by English Heritage (David *et al* 2008) and by the Institute for Archaeologists (IfA 2010). All figures reproduced from Ordnance Survey mapping are with the permission of the controller of Her Majesty's Stationery Office (© Crown copyright).

The figures in this report have been produced following analysis of the data in 'raw' and processed formats and over a range of different display levels. All figures are presented to most suitably display and interpret the data from this site based on the experience and knowledge of Archaeological Services staff.

4 Results and Discussion

The anomalies identified during this survey are divided into three categories according to the type of activity which is considered most likely to cause them. No anomalies have been identified which are considered likely to have been caused by archaeological activity.

Ferrous anomalies – modern activity

Isolated dipolar ('iron spike') anomalies have been identified throughout the PDA. These anomalies are typically caused by ferrous (magnetic) debris, either on the ground surface or in the topsoil horizon, which causes rapid variations in the magnetic readings giving a characteristic 'spiky' XY trace. Unless there is supporting evidence for an archaeological interpretation little importance is normally attributed to such anomalies, as modern ferrous

objects are common on rural sites, often being present as a consequence of manuring or tipping/infilling

There is no obvious clustering to these anomalies in either area that might suggest some potential significance and they are therefore interpreted as being due to random ferrous debris. Two adjacent large spikes to the northern end of Area 2 locate drain covers and are on the line of a drain (see Fig 5)

Extensive zones of magnetic disturbance are present around the periphery of both areas. This is caused by the proximity of buildings and gardens, field entrances and ferrous material in and adjacent to the site boundaries. Area 1 is sub-divided by a barbed wire fence and gate (see Plate 1), the boundary is shown on the map base (see Fig 5)

Linear trend anomalies - agricultural activity

A number of linear trend anomalies, aligned south-west/north-east in Area 2, have been located in Area 2. These anomalies are on the same alignment as two drains which are shown on the Ordnance Survey base map (see Fig 5) and are either caused by field drains or by ploughing on the same alignment as the drains.

Discrete areas of enhanced magnetic response – geological/modern activity

Numerous discrete anomalies, characterised as localised areas of magnetic enhancement, have been identified across both survey areas. These anomalies are interpreted as being due to variation in the upper soil horizons, possibly exacerbated by ground disturbance associated with the installation of field drains (see above)

5 Conclusions

It is always difficult to confidently interpret the data from small survey areas and in Area 1 the presence of a tree screening zone and the level of magnetic disturbance around the edge of area has compounded this problem. In Area 2 the anomalies are also mostly due to the effects of modern activity and/or geological variation but linear trends indicative of drains or ploughing have also been noted. No anomalies of archaeological potential have been identified anywhere within the PDA. Consequently, on the basis of the geophysical survey, the site is assessed as having a low archaeological potential.

Disclaimer

The results and subsequent interpretation of data from geophysical surveys should not be treated as an absolute representation of the underlying archaeological and non-archaeological remains. Confirmation of the presence or absence of archaeological remains can only be achieved by direct investigation of sub-surface deposits.