

199—211 HIGH STREET, CHEVELEY, CAMBRIDGESHIRE

Geophysical Survey

commissioned by Lightdoor Ltd

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HA JOB NO. CHEV/02 NGR TL 6854 6038 PARISH Cheveley LOCAL AUTHORITY Cambridgeshire **OASIS REF.** 211553 (1)

project info

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CONTENTS

1	INTRODUCTION	1
	1.1 SITE LOCATION, TOPOGRAPHY AND LAND-USE	1
	1.2 SOILS AND GEOLOGY	1
2	ARCHAEOLOGICAL BACKGROUND	1
	Prehistoric	3
	Romano-British	3
	Medieval	3
	Post-medieval and modern	3
3	AIMS, METHODOLOGY AND PRESENTATION	3
	Magnetometer survey	3
	Reporting	3
4	RESULTS AND DISCUSSION (ILLUS 3)	5
	Ferrous/modern anomalies	5
	Possible archaeological anomaly	5
5	CONCLUSIONS	5
6	BIBLIOGRAPHY	5

LIST OF ILLUSTRATIONS

ILLUS 1 Site location	VI
ILLUS 2 Grey scale plot of gradiometer data showing interpretation	2
ILLUS 3 XY plot of gradiometer data showing interpretation and possible archaeological anomaly	4



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Geophysical Survey

A geophysical (magnetometer) survey covering approximately 0.7 hectares was carried out at Cheveley in advance of the proposed development of the site for housing. Anomalies caused by ferrous debris and a fence have been located. Two responses may be worthy of further investigation. However, based solely on the results of the survey, the archaeological potential of the site is assessed as low.

1 INTRODUCTION

Headland Archaeology was commissioned by Lightdoor Ltd (the client), to undertake a geophysical (magnetometer) survey on a small parcel of land on the eastern outskirts of Cheveley, Cambridgeshire (see **Illus 1**), prior to the proposed development of the site for housing. The work was undertaken in line with current best practice (David et al 2008). Cheffins Planning and Development have prepared an application for 15 dwellings and associated services on land at Cheveley, Cambridgeshire (DA). Because of the potential impact of the development on archaeological remains, Cambridgeshire County Council's Historic Environment Team (HET) has recommended that a programme of archaeological investigation be undertaken. As a first stage of this the survey was carried out in May 2015 by Headland Archaeology (UK) Ltd in May 2015 in order to provide additional information on the archaeological potential of the site. Work was in accordance with a brief produced by Headland (2015).

1.1 SITE LOCATION, TOPOGRAPHY AND LAND-USE

The Proposed Development Area (PDA), centred at NGR 568543 260388, is bounded by Cheveley High Street to the west and fields to the east. A small road way runs down the east side of the plot. The PDA comprises a single paddock with a narrow stretch of land outside the east edge of this. The site covers an area of approximately 0.7 hectares, is flat and situated at approximately 100m above Ordnance Datum (aOD).

1.2 SOILS AND GEOLOGY

The underlying bedrock comprises Lewes Nodular Chalk Formation and Seaford Chalk Formation (undifferentiated). Superficial deposits are recorded as Lowestoft Formation – Diamicton which forms an extensive sheet of chalky till, together with outwash sands and gravels, silts and clays. The till is characterised by its chalk and flint content (BGS 2015).

2 ARCHAEOLOGICAL BACKGROUND

Archaeological evaluations in the local area have recorded sparse prehistoric and post-medieval activity, (ECB 2179 and 2407) while archaeological monitoring within Cheveley itself has revealed little or no trace of archaeological activity. No archaeological interventions have been recorded in the immediate proximity of the DA (HET brief: 2014), meaning that it is necessary to characterise the likely nature of archaeological activity in the surrounding area.

The DA is situated within a landscape which has been subject to constant change and adaption to new uses. In its most recent manifestation, the landscape around Cheveley has been put to pasture, which supports a number of stud farms and racing yards around Newmarket. Whyte (1840: 32) records that the first races at Newmarket happened in the reign of James I, with the King



ILLUS 2

Grey scale plot of gradiometer data showing interpretation

attending races in person by 1625, the round course was completed in 1660. Stud farms supporting the racing industry are likely to have become a lucrative investment by the 18th century, putting a premium value on pasture. Because the DA lies within a parcel of land occupied by one of these studs, there is a strong likelihood that it has therefore avoided mechanical ploughing, preserving more archaeological features which might be expected on plough truncated sites. There are currently no previously recorded heritage assets within the DA.

Prehistoric

Very little is known about the nature of prehistoric activity in the vicinity of the DA. There are a number of crop-marks to the north and west of Cheveley, which suggest a series of small enclosures and a possible henge monument (A Spedding 30/04/1984, CUCAP AP VS 31) (HER 09022). The construction of henge monuments within a kilometre of the DA suggests the possibility of peripheral activity within the DA itself. This might include flint scatters, hearths, isolated pits or concentrations of pit digging, all of which have a high potential for producing contextual information to the nearby crop-mark sites.

Romano-British

Two Romano-British brooches have been reported to the Portable Antiquities Scheme and are recorded within Cheveley Parish. An enamelled disc brooch (BUC-30B0B3), and a copper alloy Hod Hill type 'bow' brooch dating to the early 1st century AD (BUC-316584). These objects may suggest a hitherto unknown Romanno British site within the parish, or may represent chance finds of isolated objects. Unfortunately, no spatial data more specific than the parish was available.

Medieval

The site lies adjacent to the historic core of Cheveley, the village contains a 13th century church of pebble rubble and flint construction (HER 10341) which was adapted inside and out during the medieval and Post-medieval periods.

Cheveley Castle lies to the north of the DA, beyond the northern edge of the current settlement. Protected by a curtain wall of rubble construction, which originally sat behind a moat twenty five metres wide and six metres deep, the castle represented a substantial investment by Sir John de Pultney, who owned the manor during the mid–14th century.

A moated site still survives as upstanding earthworks in the vicinity of the DA, situated around 700m to the south east, within the boundary of the Banstead Manor Stud. The site consists of a square moat with short, steep inner banks c. 1m high; a provisional medieval date has been attributed to this feature, although no archaeological investigations have been carried out to date.

A second moated site is listed on the historic environment record (HER 01190) at Saxon Hall, simply as a series of earthworks showing the north-east side of a moat directly north-east of Saxon Hall, Woodditton.

Post-medieval and modern

Enclosure and emparkment of land to the north of Cheveley is first recorded in 1517 by the Inclosure Commissioners, an event which may represent the extension of parkland belonging to Cheveley Castle. The Park, (HER 12335) includes the site of the former castle which, by the early 17th century, had been replaced by a brick-built manor house. Several finds spots from the Portable Antiquities scheme are recorded within Cheveley Parish, including a padlock (SF-E9C4E3) and several coins dating from the reigns of Phillip and Mary (1555) to the reign of James I.

3 AIMS, METHODOLOGY AND PRESENTATION

The main aim of the geophysical survey was to provide sufficient information to enable an assessment to be made of the impact of the proposed development on potential sub-surface archaeological remains and for further evaluation or mitigation proposals, if appropriate, to be targetted. To achieve this aim a magnetometer survey covering all available parts of the PDA was carried out.

The general archaeological objectives of the geophysical survey were:

- to provide information about the nature and possible interpretation of any magnetic anomalies identified;
- to therefore determine the presence/absence and extent of any buried archaeological features; and
- to prepare a report summarising the results of the survey.

Magnetometer survey

The site grid was laid out using a Trimble VRS differential Global Positioning System (Trimble 5800 model). Bartington Grad601 magnetic gradiometers were used during the survey, taking readings at 0.25m intervals on zig-zag traverses 1m apart within 20m by 20m grids, so that 3200 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.

Reporting

A general site location plan is shown in **Illus 1**. **Illus 2** and **Illus 3** show the grey scale and x-y trace plots of the data respectively.

The survey methodology, report and any recommendations comply with the Project Design (Headland 2015) and guidelines outlined by English Heritage (David et al 2008) and by the Chartered Institute for Archaeologists (ClfA 2013).

The illustrations 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 illustrations are presented to most suitably display and interpret the data from this site based on the experience and knowledge of Headland's staff.



ILLUS 3

XY plot of gradiometer data showing interpretation and possible archaeological anomaly

4 RESULTS AND DISCUSSION (ILLUS 3)

Ferrous/modern anomalies

Ferrous anomalies, as individual 'spikes', are typically caused by ferrous (magnetic) material, either on the ground surface or in the plough-soil. Little importance is normally given to such anomalies, unless there is any supporting evidence for an archaeological interpretation, as modern ferrous debris or material is common on most sites, often being present as a consequence of manuring or tipping/infilling. There is no obvious pattern or clustering to their distribution to suggest anything other than a random background scatter of ferrous debris in the plough-soil. One of these towards the centre of the site is likely to have been caused by a manhole cover for what is possibly a stopcock valve.

A band of magnetic disturbance along the eastern edge of the survey area is caused by a fence line bisecting the site at this point as well as perhaps the makeup of the trackway.

A single large 'spike' anomaly, A, is identified on the west edge of the site, with another B in the northeast corner. These are caused by larger iron objects on or near the boundary of the plot and are not of archaeological significance. A is probably due to cars parked behind a house, B an iron gate.

A third enhanced reading, whilst still of ferrous proportions C is more subdued than the other two. No pronounced negative response was associated with it (although this may be off the plot).

Possible archaeological anomaly

To the south of C a short linear response was visible in the data, D. This does not have a pronounced negative reading either, although the calcareous nature of the geology and drift could result in subdued responses for features that are located away from settlement foci.

5 CONCLUSIONS

Given the calcareous and therefore potential low magnetic nature of the underlying substrata it might be expected that any archaeological activity within the site would create strong enough responses for them to be clearly visible.

Within the data collected there is a scattering of ferrous responses that might be expected on any rural site, and particularly one used as a paddock. Two responses C and D in the northwest corner of the site might warrant further investigation with a trench.

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.

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