

GEOPHYSICAL SURVEY REPORT

Land at Denham's Corner, Horton Heath, Hampshire

Client

BSA Heritage Ltd

For

SSL

Survey Report

20078

OASIS Ref. No.

Sumogeop1-529514

Date

09 December 2024



Survey Report 20078: Land at Denham's Corner, Horton Heath, Hampshire

Survey dates	25-26 November 2024
Field co-ordinator	Robert Knight BA MA
Field Team	Darcy Hooper MSc
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CAD Illustrations	Rebecca Fradgley BSc (Hons) ACIfA
Report Author	Rebecca Fradgley BSc (Hons) ACIfA
Project Manager	Rebeca Fradgley BSc (Hons) ACIfA
Report approved	Dr John Gater BSc DSc(Hon) MCIfA FSA

SUMO GeoSurveys
Suite1
Deer Park Business Centre
Woollas Hill
Eckington
Persnore
Worcestershire
WR10 3DN
T: 01684 592266
www.sumoservices.com
geophysics@sumoservices.com

SUMO GeoSurveys is a trading name of SUMO Geophysics Ltd.

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3 SURVEY TECHNIQUE

- 3.1 Detailed magnetic survey (magnetometry) was chosen as the most efficient and effective method of locating the type of archaeological anomalies which might be expected at this site. All survey techniques followed the guidance set out by ClfA (2020) and the European Archaeology Council (EAC) (2016).

Bartington Cart System Traverse Interval 1.0m Sample Interval 0.125m

The only processes performed on data are the following unless specifically stated otherwise:

Zero Mean Traverse	This process sets the background mean of each traverse within each grid to zero. The operation removes instrument striping effects and edge discontinuities over the whole of the data set.
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4 EXECUTIVE SUMMARY OF RESULTS

- 4.1 A detailed magnetometer survey was conducted over approximately 7.2 hectares at Horton Heath, Hampshire and it has not identified any anomalies of definite archaeological interest. A number of weak linear trends and discrete anomalies are of uncertain origin but are thought most likely to have a natural explanation. Former field boundaries, both corroborated and conjectural, have been detected, along with modern ploughing effects, areas of natural variation and an underground pipe.

5 INTRODUCTION

- 5.1 **SUMO GeoSurveys** was commissioned to undertake a geophysical survey of an area outlined for residential development. This survey forms part of an archaeological investigation being undertaken by **BSA Heritage Ltd** on behalf of **SSL**.

5.2 Site Details

NGR / Postcode	SU 49851640 / SO32 2BW
Location	The site is located approximately 0.5km south of Horton Heath, and 4km south-east of Eastleigh, Hampshire. Snakemoor Lane forms the southern boundary of the site, with Scorey's Copse to the north and further woodland to the west.
HER	Hampshire HER
OASIS Ref. No.	Sumogeop1-529514
District	Eastleigh
Parish	Botley
Topography	Slightly sloping downwards from the centre to the east.
Land Use	Arable
Geology (BGS 2024)	Bedrock: Wittering Formation - sand, silt and clay. Superficial: None recorded.
Soils (CU 2024)	Soilscape 18: slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils
Survey Methods	Magnetometer survey (fluxgate gradiometer)
Study Area	c. 8.75 ha - approximately 1.5 hectares could not be surveyed due to waterlogged and heavily rutted ground.

5.3 **Archaeological Background** (BSA 2024)

- 5.3.1 No features of archaeological significance survive within the site and there is limited evidence for human activity nearby until the post-medieval period. It is likely the land was only settled in more recent centuries, with a long history as heathland and woodland. Although the wider area is known to have seen prehistoric activity, the site has low archaeological potential. Any sub-surface remains are likely to have been truncated by cultivation in recent centuries, whilst parts of the north and south-east of the site are known to have been wooded, which would also have disturbed any remains through root action. Although some prehistoric finds have been made more widely, extensive trial trenching west of the site in an area with likely a similar history proved an absence of any significant remains.

5.4 **Aims and Objectives**

- 5.4.1 To locate and characterise any anomalies of possible archaeological interest within the study area.

6 RESULTS

6.1 ***Probable / Possible Archaeology***

- 6.1.1 No magnetic responses have been recorded that could be interpreted as being of definite archaeological interest.

6.2 ***Uncertain***

- 6.2.1 A number of weak linear trends and small discrete anomalies have been detected in the data and they have been assigned to the category of *Uncertain* as they generally lack the defined morphology of anomalies that would usually be interpreted as being of archaeological interest. Given the paucity of recorded remains within the vicinity of the site, an archaeological explanation is thought unlikely, and they are most likely to be a result of geological variations and / or agricultural activity.

6.3 ***Former Field Boundary – Corroborated / Conjectural***

- 6.3.1 A couple of weak linear trends are mapped in the data, with one aligned north-east to south-west and the other approximately north-south. They correspond with former field divisions, marked on the topographic mapping and are also visible on aerial imagery of the site (Fig. 05).
- 6.3.2 Further linear anomalies sharing the same alignment as those in 6.3.1 are mapped in the results and are thought to reflect additional former field boundaries, but they are not visible on available historic maps or aerial imagery, hence their conjectural interpretation.

6.4 ***Agricultural – Ploughing***

- 6.4.1 Magnetically weak, parallel linear anomalies have been detected across the site, predominantly on an east-west alignment, and they are indicative of modern ploughing effects.

6.5 ***Natural / Geological / Pedological***

- 6.5.1 A few small amorphous areas of enhanced magnetic response are visible in the data, and they are likely to have a natural origin, i.e. reflecting localised variations in the underlying geology.

6.6 ***Service***

- 6.6.1 A strong bipolar linear anomaly runs north-east to south-west across the eastern part of the survey area. It is typical of a response associated with an underground service, such as a pipe.

6.7 ***Ferrous***

- 6.7.1 Ferrous responses close to boundaries are due to adjacent fences and gates. Smaller-scale ferrous anomalies ("iron spikes") are present throughout the data and are characteristic of small pieces of ferrous debris (or brick / tile) in the topsoil; they are commonly assigned a modern origin. Only the most prominent of these are highlighted on the interpretation diagram.

7 DATA APPRAISAL & CONFIDENCE ASSESSMENT

- 7.1 Historic England Table 4 (EH 2008) states that the typical magnetic response on the local soils / geology is variable. The results from this survey indicate the presence of linear trends and discrete anomalies of uncertain origin, as well as former field boundaries. Consequently, there is no *a priori* reason why significant archaeological features would not have been detected, should they be present.

8 CONCLUSION

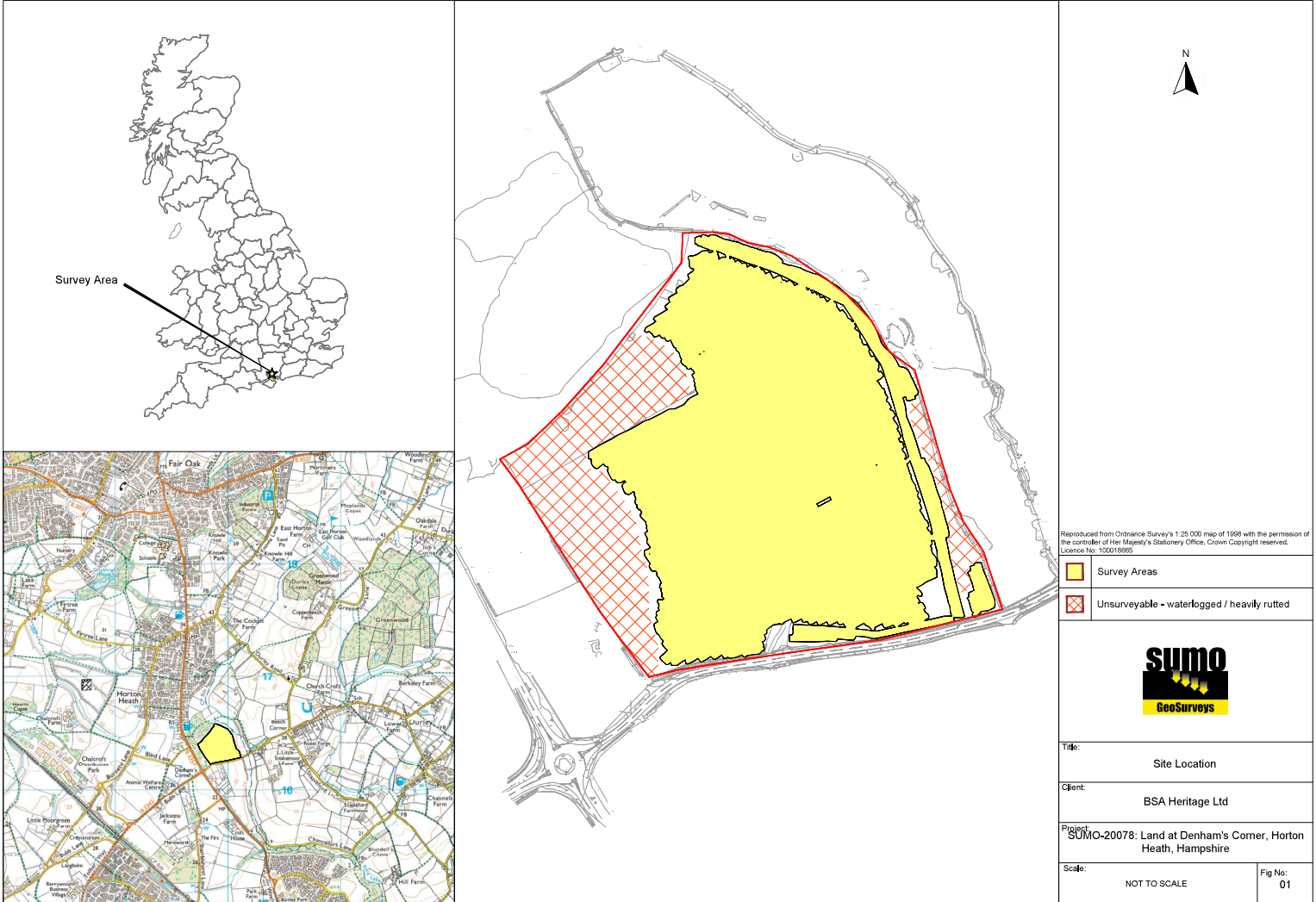
- 8.1 The magnetometer survey at Horton Heath has not identified any anomalies of definite archaeological interest. A number of weak linear trends and small discrete responses have an uncertain origin. They are thought most likely to reflect localised variations in the underlying geology or be agricultural effects, rather than having an archaeological explanation, given the lack of archaeological features within the vicinity of the site. Two former field boundaries can be corroborated with divisions visible on aerial imagery, whilst two additional boundaries have a conjectural interpretation. Modern ploughing effects, areas of natural variation and an underground pipe have also been mapped.

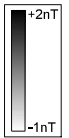
9 REFERENCES

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- EH 2008 *Geophysical Survey in Archaeological Field Evaluation*. English Heritage, Swindon (now withdrawn, but used for evaluating suitability of soil types)

10 ARCHIVE

- 10.1 The minimally processed data, data images, XY traces and a copy of this report are stored in **SUMO GeoSurveys'** digital archive, on an internal RAID configured NAS drive in the Midlands Office. These data are also backed up to the Cloud for off-site storage.
- 10.2 The Grey Literature will be archived with OASIS and the Hampshire HER within a period of 12 months.





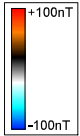
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Client: BSA Heritage Ltd

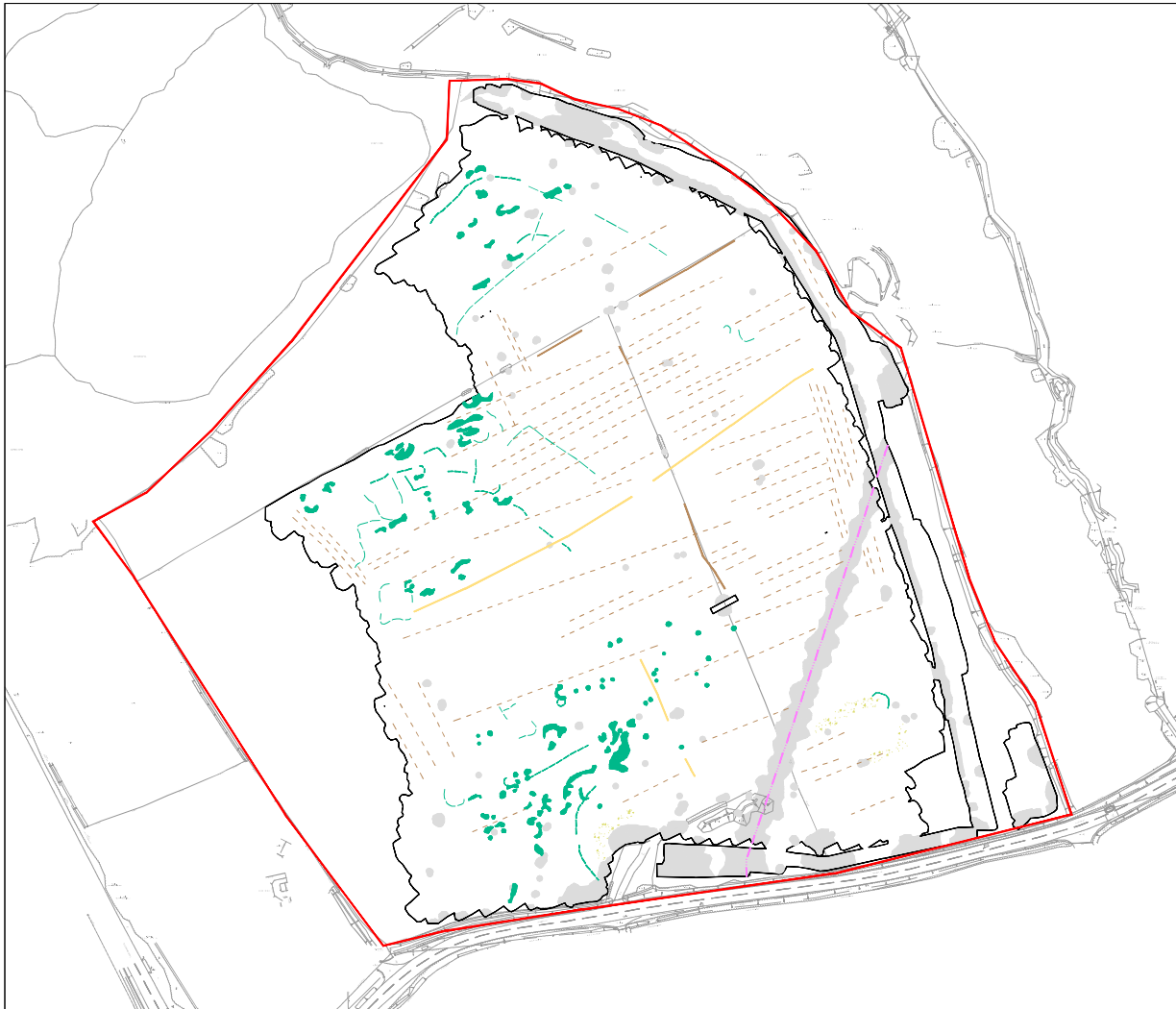
Project: SUMO-20078: Land at Denham's Corner, Horton Heath, Hampshire

Scale: 0 metres 75
1:1500 @ A3

Fig No: 02



Title: Magnetometer Survey - Colour Plots	
Client: BSA Heritage Ltd	
Project: SUMO-20078: Land at Denham's Corner, Horton Heath, Hampshire	
Scale: 0 metres 75 1:1500 @ A3	Fig No: 03



KEY

	Uncertain Origin (discrete anomaly / trend)
	Former field boundary (corroborated)
	Former field boundary (conjectural)
	Agriculture (plough)
	Natural (e.g. geological / pedological)
	Service
	Ferrous



Title: Magnetometer Survey - Interpretation

Client: BSA Heritage Ltd

Project: SUMO-20078: Land at Denham's Corner, Horton Heath, Hampshire

Scale: 0 metres 75
1:1500 @ A3

Fig No: 04