

GEOPHYSICAL SURVEY REPORT

Land off Broughton Road, Bretch Hill, Banbury

Client

The Environmental Dimension Partnership Ltd

For

Lone Star Land Ltd

OASIS Ref.

sumogeop1-503352

Survey Report

05534

Date

December 2021



Survey Report 05534: Site Name Land off Broughton Road, Bretch Hill, Banbury

Survey dates	26 November 2021
Field co-ordinator	Simon Lobel BSc
Field Team	Darcy Hooper MSc Robert Ottolangui MSc
Report Date	14 December 2021
CAD Illustrations	Thomas Cockcroft MSc
Report Author	Thomas Cockcroft MSc Dr John Gater BSc DSc (Hon) MCIfA FSA
Project Manager	Simon Haddrell BEng AMBCS PCIfA
Report approved	Dr John Gater BSc DSc (Hon) MCIfA FSA

SUMO Geophysics Ltd

Vineyard House
Upper Hook Road
Upton upon Severn
Worcestershire
WR8 0SA

T: 01684 592266

T: 01274 835016

www.sumoservices.com
geophysics@sumoservices.com

TABLE OF CONTENTS

1	LIST OF FIGURES	1
2	SURVEY TECHNIQUE	1
3	SUMMARY OF RESULTS	2
4	INTRODUCTION	2
5	RESULTS	3
6	DATA APPRAISAL & CONFIDENCE ASSESSMENT	3
7	CONCLUSION	4
8	REFERENCES	4
9	ARCHIVE	4
Appendix A	Technical Information: Magnetometer Survey Methods, Processing and Presentation	
Appendix B	Technical Information: Magnetic Theory	
Appendix C	OASIS data sheet	

1. LIST OF FIGURES

Figure 01	NTS	Site Location
Figure 02	1:1600	Magnetometer Survey - Greyscale Plots -1 to 2nT
Figure 03	1:1600	Magnetometer Survey - Greyscale Plots -2 to 4nT
Figure 04	1:1600	Magnetometer Survey - Colour Plots
Figure 05	1:1600	Magnetometer Survey - Greyscale Plots / Interpretation
Figure 06	1:3200	Magnetometer Survey - Greyscale Plots / Interpretation / 1888 OS Mapping (EDP 2021) / 2009 Aerial Imagery
Figure 07	1:1600	Minimally Processed Data – Greyscale Plots
Figure 08	1:1600	XY Trace Plots (clipped at +/-25nT)

2. SURVEY TECHNIQUE & DATA PROCESSING

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.

Bartington Grad 601-2 Traverse Interval 1.0m Sample Interval 0.25m

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.
Step Correction (De-stagger)	When gradiometer data are collected in 'zig-zag' fashion, stepping errors can sometimes arise. These occur because of a slight difference in the speed of walking on the forward and reverse traverses. The result is a staggered effect in the data, which is particularly noticeable on linear anomalies. This process corrects these errors.

3 SUMMARY OF RESULTS

- 3.1 A magnetometer survey of approximately 3.3 ha of land at Land off Broughton Road has identified a concentration of responses of archaeological interest concentrated in Area 1. Three probable round houses and other possible structures visible in the data. There is also a concentration of strong responses indicative of rubbish / storage pits and possible burnt features. It is likely that the results indicate the presence of an Iron Age farmstead or small settlement. A number of uncertain responses have also been mapped in the south of Area 1 and although they may be associated with the archaeology, the responses could simply be agricultural in origin. Ridge and furrow cultivation patterns are present in most of the survey blocks, though Area 2 is magnetically disturbed throughout

4 INTRODUCTION

- 4.1 **SUMO Geophysics Ltd** were commissioned to undertake a geophysical survey of an area outlined for development. This survey forms part of an archaeological investigation being undertaken by **The Environmental Dimension Partnership Ltd (EDP)** on behalf of **Lone Star Land Ltd**.

4.2 Site details

NGR	SP 443745 239867 / OX16 0BG
Location	The site is located on the south-western outskirts of Banbury and occupies four fields. Broughton Road forms the southern boundary, housing and areas of agreed development lie to the east, and farmland exists to the west and north.
HER	Oxford County Council
OASIS Ref.	sumogeop1-503352
District	West Oxfordshire District Council
Parish	Ducklington
Topography	The site comprises a plateau in the north, at c. 155m above Ordnance Datum (aOD), with the remaining fields sloping downwards from the north to the south, with the low point at 135m aOD at the southern edge.
Current Land Use	Pasture
Geology (BGS 2021)	Solid: Chipping Norton Limestone, Horsehay Sand, Northampton Sand and Whitby Mudstone Formations Superficial: none recorded
Soils (CU 2021)	Soilscape 7: Slowly permeable seasonally wet loamy and clayey soils Soilscape 9: Lime-rich loamy and clayey soils with impeded drainage
Archaeology (EDP 2021)	A historic environment desk-based assessment has been carried out by EDP. This concluded that there are no non-designated heritage assets recorded within the site, as listed within the Oxfordshire HER. Given the pattern of prehistoric, Roman, and early medieval archaeology in the wider study area, and the comparatively small size of the site, there was considered to be a low potential to encounter remains from these periods. The site was most likely in agricultural use throughout the medieval to modern periods.
Survey Methods	Magnetometer survey (fluxgate gradiometer)
Study Area	c. 3.3 ha

4.3 Aims and Objectives

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

5 RESULTS

The survey has been divided into five survey areas (Areas 1-5) and specific anomalies have been given numerical labels [1] [2] which appear in the text below, as well as on the Interpretation Figure(s).

5.1 **Probable / Possible Archaeology**

5.1.1 Three ring anomalies [1], [2] and [3] have approximate diameters of 13 to 15 metres, with entrance breaks on the east or south-east, and appear to have internal pits. At [4] there is a large annular anomaly measuring approximately 15 metres E-W and 24 metres N-S, with a strong, large anomaly in the south-east. A reversed C-shaped response [5] measures 25 metres N-S and has a maximum width in the order of 8 metres. Both are indicative of ditches or gullies. In and around the above responses [1] to [5] is a number of possible pits, scoops and accumulations of deposits. Taken as a whole, the most likely explanation for the range of responses is that they indicate three round houses with associated structures and enclosures. The results could be Iron Age or Romano British in date based on results observed at other sites. It is possible that some of the pits might indicate structures without ditches or gullies.

5.2 **Uncertain**

5.2.1 There are a number of uncertain responses in Areas 1 and 2 which could be of archaeological interest, but they are not as well defined as those in 5.1.1 and they extend beyond the limits of the survey which also hinders an interpretation. However, they could also be agricultural or modern hence the uncertain interpretation.

5.3 **Agricultural – Ridge and Furrow**

5.3.1 Parallel widely spaced trends are indicative of former ridge and furrow cultivation patterns; they are visible in all the fields except for Area 2.

5.4 **Magnetic Disturbance / Services / Ferrous**

5.4.1 The whole of Area 2 is affected by modern magnetic disturbance. Two small ferrous pipes are visible in Area 3 and 4. 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

6 DATA APPRAISAL & CONFIDENCE ASSESSMENT

6.1 Historic England guidelines (EH 2008) Table 4 states that the typical magnetic response on the local soils / geology is variable. The results from this survey indicate the presence of a variety of magnetic anomalies indicative of archaeological remains concentrated at the northern end of the site.. As a consequence, the technique is deemed to have worked effectively; however, ridge and furrow ploughing has clearly damaged or masked some of the features. Additionally, some of the responses could be agricultural or archaeological.

7 CONCLUSION

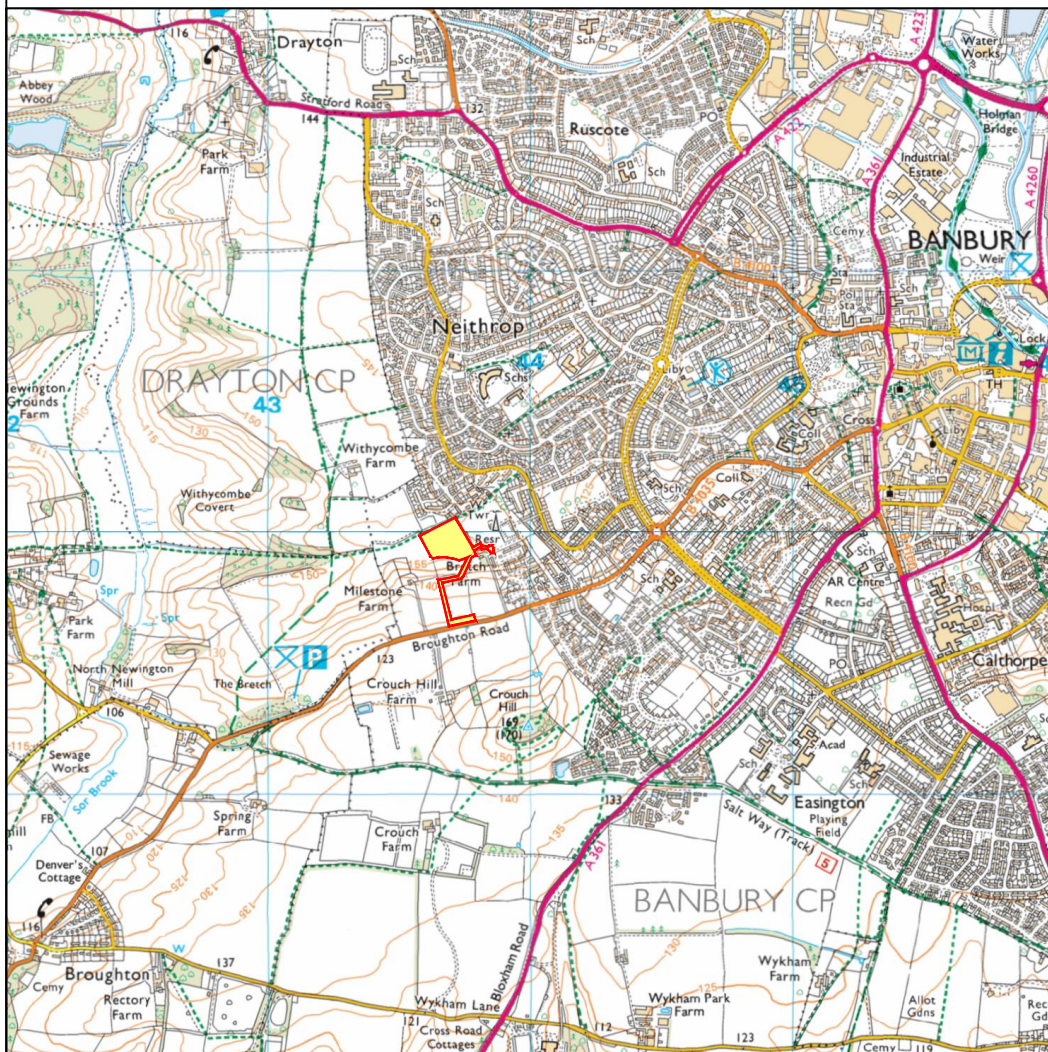
- 7.1 The survey at Bretch Hill, Banbury, has identified a concentration of features of archaeological interest in Area 1. These comprise three probable round houses and associated structures, possibly associated enclosures.. These can be inferred because of the strongly enhanced magnetic deposits present on the site; the accumulation of rubbish and waste products, plus burnt material, will result in such enhancements. Similar results have been found on Iron Age / Romano-British small settlements / farmsteads. Elsewhere, ridge and furrow cultivation is visible in all the fields except for Area 2 which has modern magnetic disturbance. Two service pipes have also been mapped in the survey.

REFERENCES




- 8
- BGS 2020 British Geological Survey, Geology of Britain viewer [accessed 03/12/2021] *website:* (<http://www.bgs.ac.uk/opengeoscience/home.html?Accordion1=1#maps>)
- ClfA 2014 *Standard and Guidance for Archaeological Geophysical Survey*. Amended 2016. ClfA Guidance note. Chartered Institute for Archaeologists, Reading
http://www.archaeologists.net/sites/default/files/ClfAS%26GGeophysics_2.pdf
- CU 2020 The Soils Guide. Available: www.landis.org.uk. Cranfield University, UK. [accessed 03/12/2021] *website:* <http://mapapps2.bgs.ac.uk/ukso/home.html>
- EAC 2016 *EAC Guidelines for the Use of Geophysics in Archaeology*, European Archaeological Council, Guidelines 2.
- EDP 2021 *Land off Balmoral Avenue, Bretch Hill, Banbury, Archaeological and Heritage Assessment, October 2021, Report Referenceedp7133_r001a, unpublished.*
- EH 2008 *Geophysical Survey in Archaeological Field Evaluation*. English Heritage, Swindon
<https://content.historicengland.org.uk/images-books/publications/geophysical-survey-in-archaeological-field-evaluation/geophysics-guidelines.pdf/>
(now withdrawn).

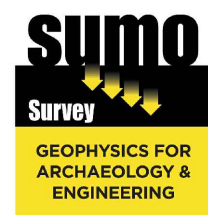
9 ARCHIVE

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

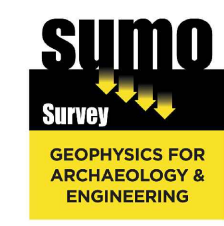
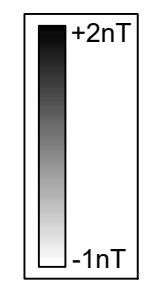
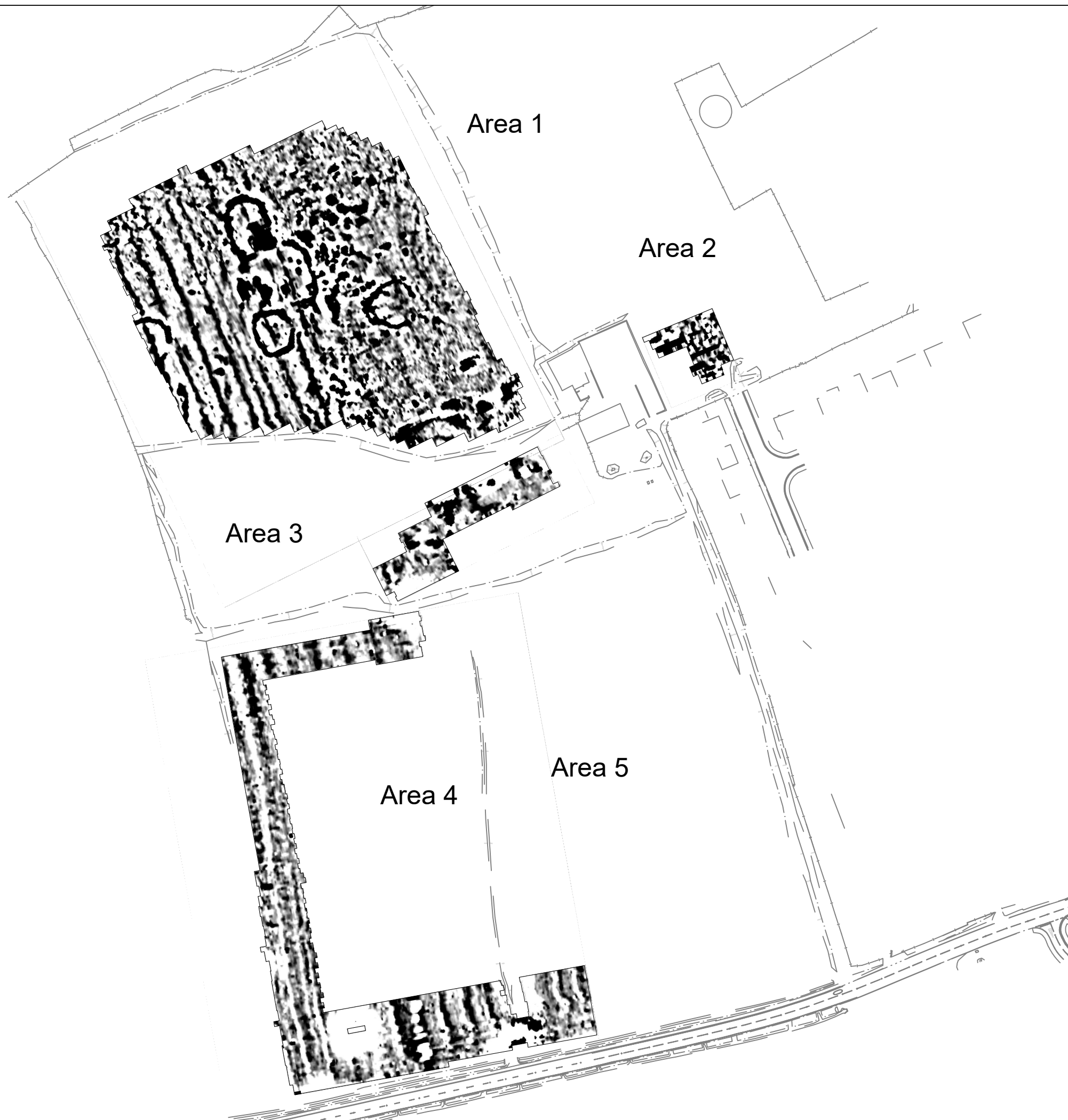


Reproduced from Ordnance Survey's 1:25 000 map of 1998 with the permission of the controller of Her Majesty's Stationery Office. Crown Copyright reserved. Licence No: 100018665

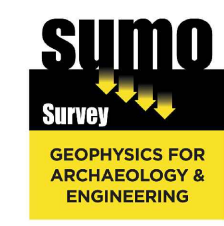
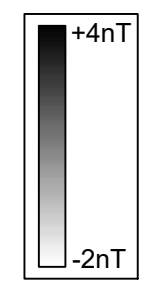
	Survey Areas	
	Unsurveyable	



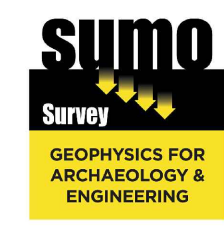
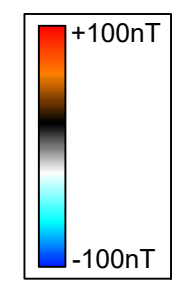
Title: Site Location	
Client: The Environmental Dimension Partnership Ltd	
Project: 05534 - Land off Broughton Road, Bretch Hill, Banbury	
Scale: NOT TO SCALE	Fig No: 01



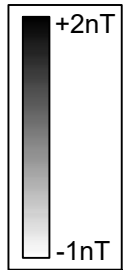
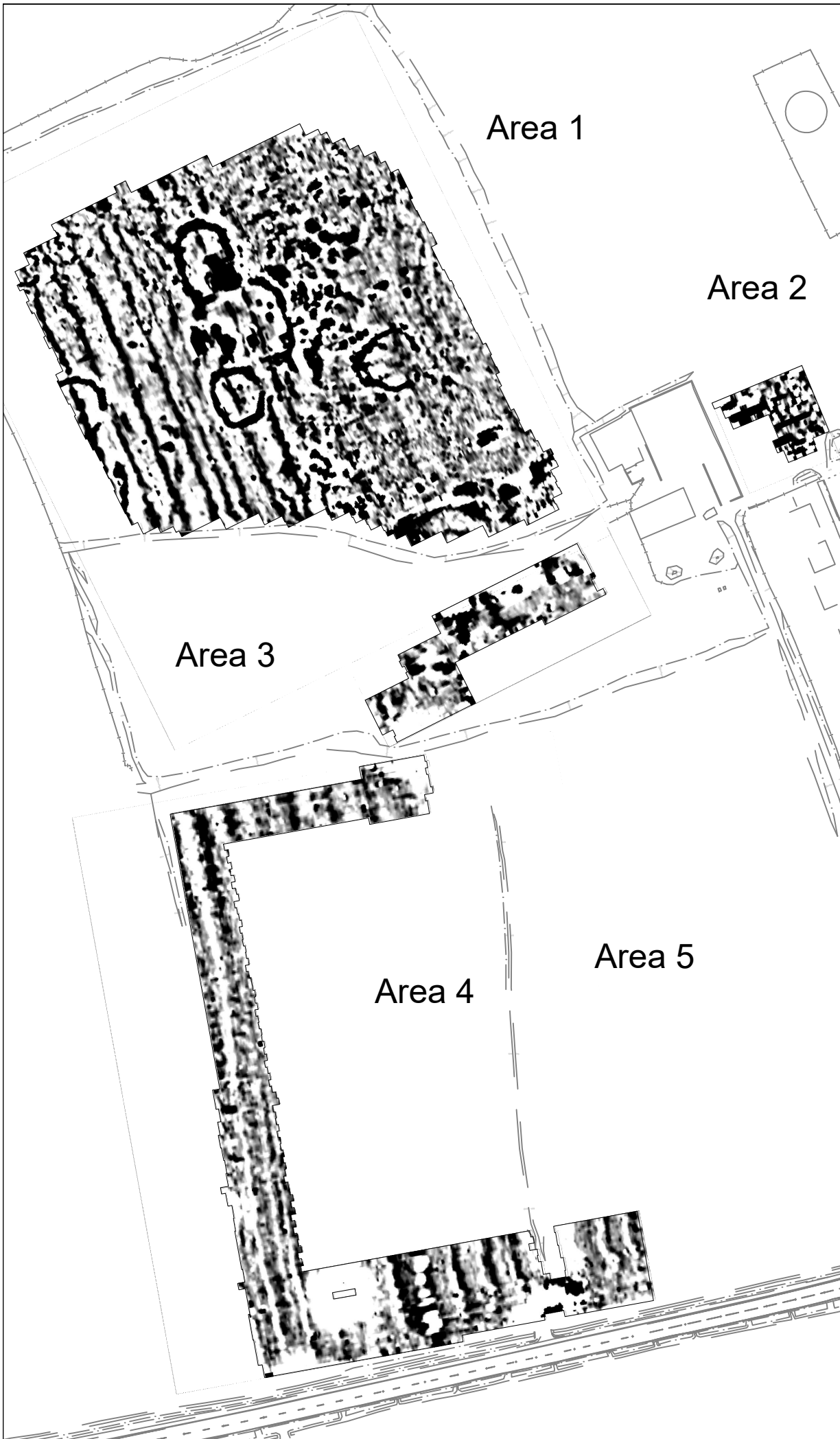
Title: Magnetometer Survey - Greyscale Plots	
Client: The Environmental Dimension Partnership Ltd	
Project: 05534 - Land off Broughton Road, Bretch Hill, Banbury	
Scale: 0 metres 80 1:1600 @ A3	Fig No: 02



Title:	Magnetometer Survey - Greyscale Plots	
Client:	The Environmental Dimension Partnership Ltd	
Project:	05534 - Land off Broughton Road, Bretch Hill, Banbury	
Scale:	 0 metres 80 1:1600 @ A3	Fig No: 03

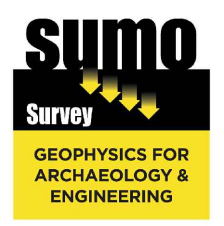


Title: Magnetometer Survey - Colour Plots	
Client: The Environmental Dimension Partnership Ltd	
Project: 05534 - Land off Broughton Road, Bretch Hill, Banbury	
Scale: 0 metres 80 1:1600 @ A3	Fig No: 04



KEY

	Probable archaeology (discrete anomaly / trend)
	Possible archaeology (discrete anomaly / trend)
	Uncertain Origin (discrete anomaly / trend)
	Agriculture (ridge and furrow)
	Magnetic disturbance
	Service
	Ferrous



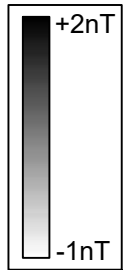
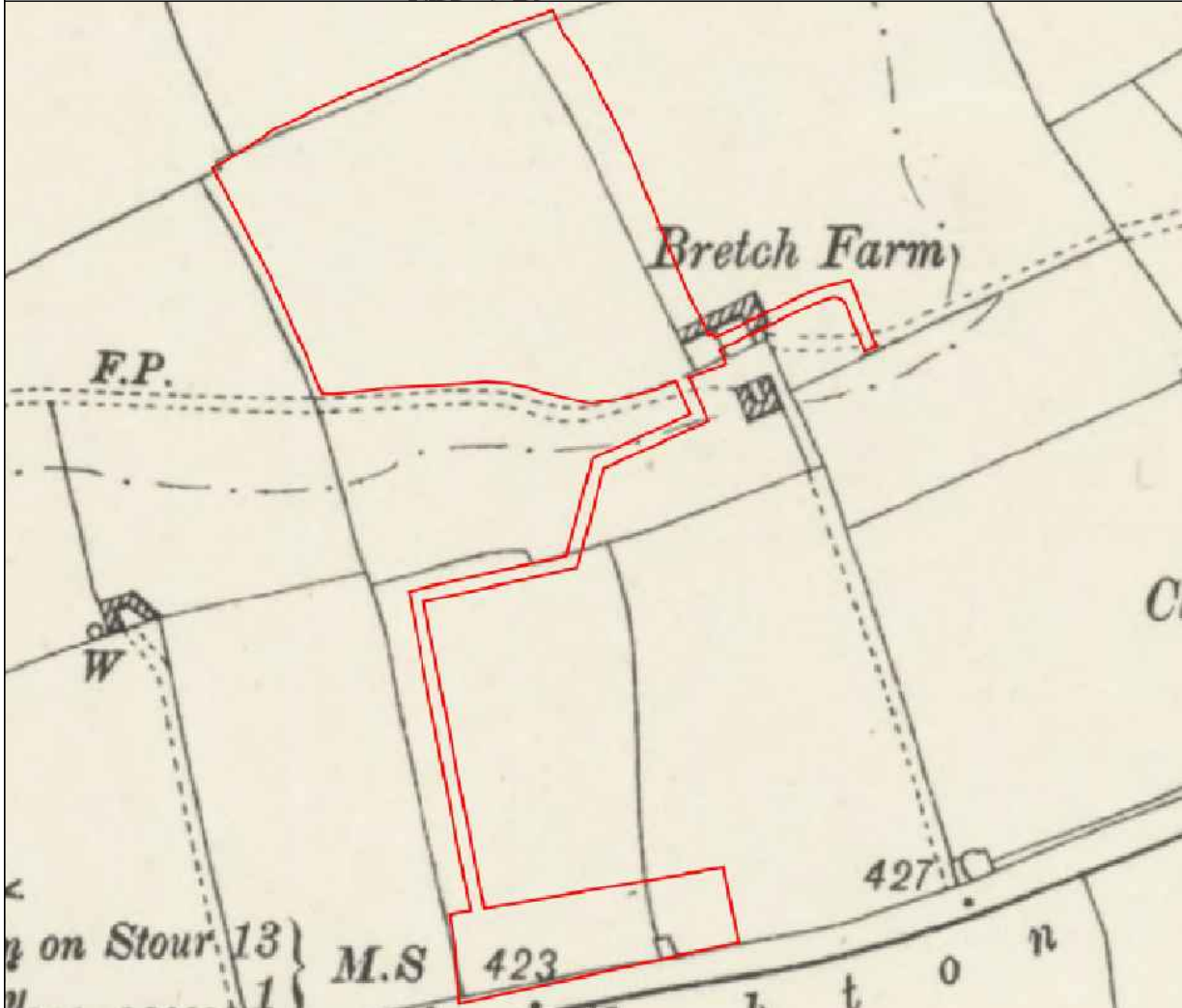
Title: Magnetometer Survey - Greyscale Plots / Interpretation

Client: The Environmental Dimension Partnership Ltd

Project: 05534 - Land off Broughton Road, Bretch Hill, Banbury

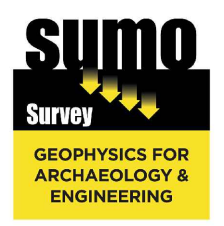
Scale: 0 metres 80
1:1600 @ A3

Fig No: 05



KEY

	Probable archaeology (discrete anomaly / trend)
	Possible archaeology (discrete anomaly / trend)
	Uncertain Origin (discrete anomaly / trend)
	Agriculture (ridge and furrow)
	Magnetic disturbance
	Service
	Ferrous



Title: Magnetometer Survey - Grayscale Plots / Interpretation / 1888 OS Mapping (EDP 2021) / 2009 Aerial Imagery

Client: The Environmental Dimension Partnership Ltd

Project: 05534 - Land off Broughton Road, Bretch Hill, Banbury

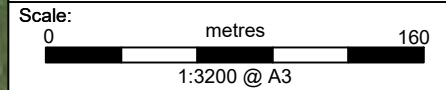
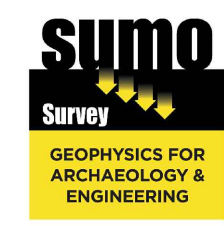
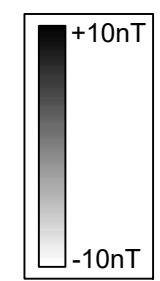
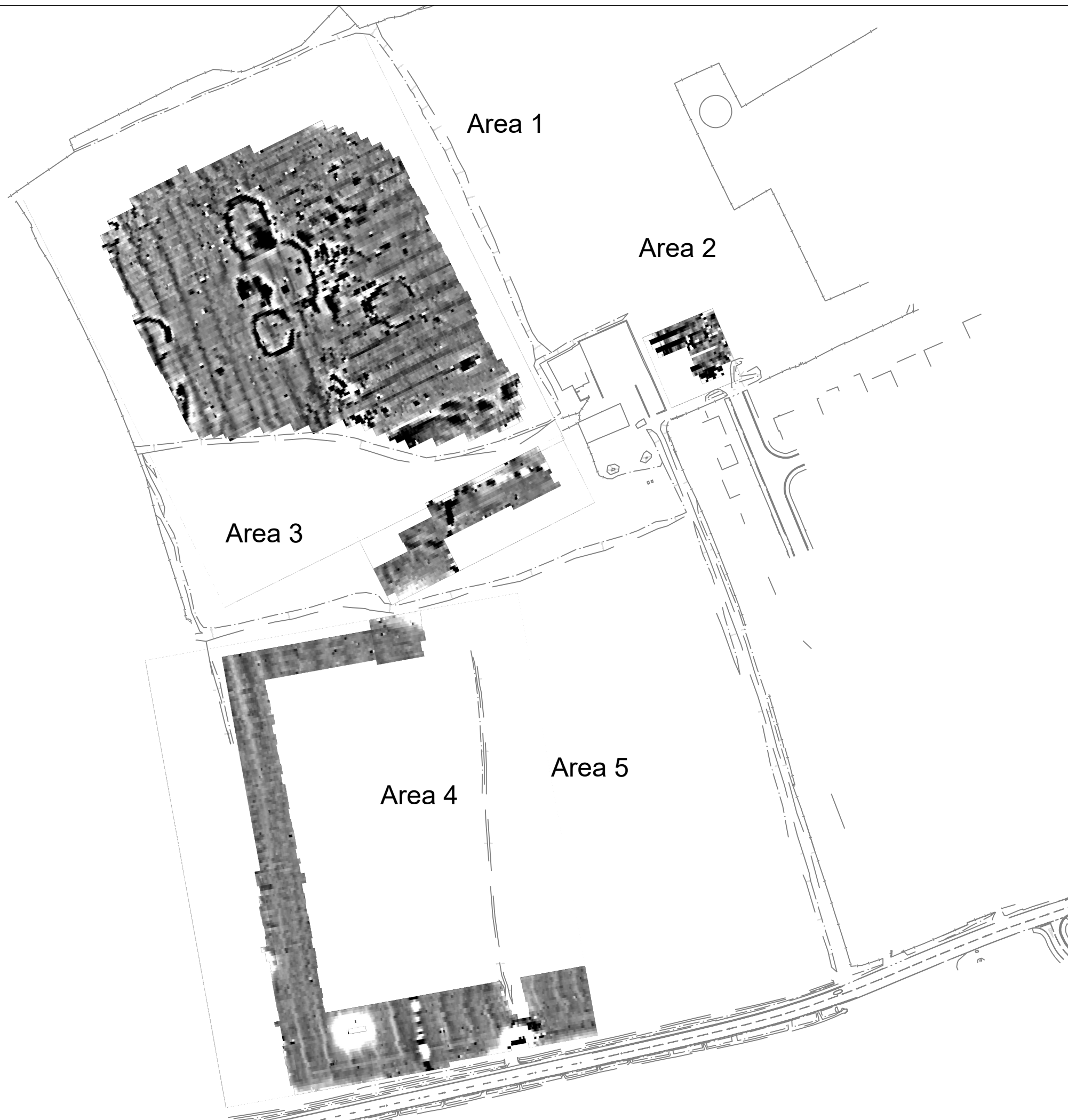
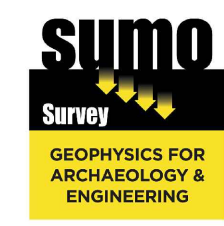


Fig No: 06



Title: Minimally Processed Data - Greyscale Plots	
Client: The Environmental Dimension Partnership Ltd	
Project: 05534 - Land off Broughton Road, Bretch Hill, Banbury	
Scale: 0 metres 80 1:1600 @ A3	Fig No: 07



Title:
XY Trace Plots (clipped at +/-25nT)

Client:
The Environmental Dimension Partnership Ltd

Project:
05534 - Land off Broughton Road, Bretch Hill,
Banbury

Scale:
0 metres 80
1:1600 @ A3

Fig No:
08

Standards & Guidance

This report and all fieldwork have been conducted in accordance with the latest guidance documents issued by Historic England (EH 2008) (then English Heritage), the Chartered Institute for Archaeologists (CIfA 2014) and the European Archaeological Council (EAC 2016).

Grid Positioning

For hand held gradiometers the location of the survey grids has been plotted together with the referencing information. Grids were set out using a Trimble R8 Real Time Kinematic (RTK) VRS Now GNSS GPS system.

An RTK GPS (Real-time Kinematic Global Positioning System) can locate a point on the ground to a far greater accuracy than a standard GPS unit. A standard GPS suffers from errors created by satellite orbit errors, clock errors and atmospheric interference, resulting in an accuracy of 5m-10m. An RTK system uses a single base station receiver and a number of mobile units. The base station re-broadcasts the phase of the carrier it measured, and the mobile units compare their own phase measurements with those they received from the base station. This results in an accuracy of around 0.01m.

Technique	Instrument	Traverse Interval	Sample Interval
Magnetometer	Bartington Grad 601-2	1m	0.25m

Instrumentation: **Bartington Grad 601-2**

Bartington instruments operate in a gradiometer configuration which comprises fluxgate sensors mounted vertically, set 1.0m apart. The fluxgate gradiometer suppresses any diurnal or regional effects. The instruments are carried, or cart mounted, with the bottom sensor approximately 0.1-0.3m from the ground surface. At each survey station, the difference in the magnetic field between the two fluxgates is measured in nanoTesla (nT). The sensitivity of the instrument can be adjusted; for most archaeological surveys the most sensitive range (0.1nT) is used. Generally, features up to 1m deep may be detected by this method, though strongly magnetic objects may be visible at greater depths. The Bartington instrument can collect two lines of data per traverse with gradiometer units mounted laterally with a separation of 1.0m. The readings are logged consecutively into the data logger which in turn is daily down-loaded into a portable computer whilst on site. At the end of each site survey, data is transferred to the office for processing and presentation.

Data Processing

Zero Mean	This process sets the background mean of each traverse within each grid to zero.
Traverse	The operation removes striping effects and edge discontinuities over the whole of the data set.
Step Correction (De-stagger)	When gradiometer data are collected in 'zig-zag' fashion, stepping errors can sometimes arise. These occur because of a slight difference in the speed of walking on the forward and reverse traverses. The result is a staggered effect in the data, which is particularly noticeable on linear anomalies. This process corrects these errors.

Display

Greyscale/ Colourscale Plot	This format divides a given range of readings into a set number of classes. Each class is represented by a specific shade of grey, the intensity increasing with value. All values above the given range are allocated the same shade (maximum intensity); similarly, all values below the given range are represented by the minimum intensity shade. Similar plots can be produced in colour, either using a wide range of colours or by selecting two or three colours to represent positive and negative values. The assigned range (plotting levels) can be adjusted to emphasise different anomalies in the data-set.
--------------------------------	---

Presentation of results and interpretation

The presentation of the results includes a 'minimally processed data' and a 'processed data' greyscale plot. Magnetic anomalies are identified, interpreted and plotted onto the 'Interpretation' drawings.

When interpreting the results, several factors are taken into consideration, including the nature of archaeological features being investigated and the local conditions at the site (geology, pedology, topography etc.). Anomalies are categorised by their potential origin. Where responses can be related to other existing evidence, the anomalies will be given specific categories, such as: Abbey Wall or Roman Road. Where the interpretation is based largely on the geophysical data, levels of confidence are implied, for example: Probable, or Possible Archaeology. The former is used for a confident interpretation, based on anomaly definition and/or other corroborative data such as cropmarks. Poor anomaly definition, a lack of clear patterns to the responses and an absence of other supporting data reduces confidence, hence the classification Possible.

Interpretation Categories

In certain circumstances (usually when there is corroborative evidence from desk-based or excavation data) very specific interpretations can be assigned to magnetic anomalies (for example, *Roman Road, Wall, etc.*) and where appropriate, such interpretations will be applied. The list below outlines the generic categories commonly used in the interpretation of the results.

<i>Archaeology / Probable Archaeology</i>	This term is used when the form, nature and pattern of the responses are clearly or very probably archaeological and /or if corroborative evidence is available. These anomalies, whilst considered anthropogenic, could be of any age.
<i>Possible Archaeology</i>	These anomalies exhibit either weak signal strength and / or poor definition, or form incomplete archaeological patterns, thereby reducing the level of confidence in the interpretation. Although the archaeological interpretation is favoured, they may be the result of variable soil depth, plough damage or even aliasing as a result of data collection orientation.
<i>Industrial / Burnt-Fired</i>	Strong magnetic anomalies that, due to their shape and form or the context in which they are found, suggest the presence of kilns, ovens, corn dryers, metal-working areas or hearths. It should be noted that in many instances modern ferrous material can produce similar magnetic anomalies.
<i>Former Field Boundary (probable & possible)</i>	Anomalies that correspond to former boundaries indicated on historic mapping, or which are clearly a continuation of existing land divisions. Possible denotes less confidence where the anomaly may not be shown on historic mapping but nevertheless the anomaly displays all the characteristics of a field boundary.
<i>Ridge & Furrow</i>	Parallel linear anomalies whose broad spacing suggests ridge and furrow cultivation. In some cases, the response may be the result of more recent agricultural activity.
<i>Agriculture (ploughing)</i>	Parallel linear anomalies or trends with a narrower spacing, sometimes aligned with existing boundaries, indicating more recent cultivation regimes.
<i>Land Drain</i>	Weakly magnetic linear anomalies, quite often appearing in series forming parallel and herringbone patterns. Smaller drains may lead and empty into larger diameter pipes, which in turn usually lead to local streams and ponds. These are indicative of clay fired land drains.
<i>Natural</i>	These responses form clear patterns in geographical zones where natural variations are known to produce significant magnetic distortions.
<i>Magnetic Disturbance</i>	Broad zones of strong dipolar anomalies, commonly found in places where modern ferrous or fired materials (e.g. brick rubble) are present.
<i>Service</i>	Magnetically strong anomalies, usually forming linear features are indicative of ferrous pipes/cables. Sometimes other materials (e.g. pvc) or the fill of the trench can cause weaker magnetic responses which can be identified from their uniform linearity.
<i>Ferrous</i>	This type of response is associated with ferrous material and may result from small items in the topsoil, larger buried objects such as pipes, or above ground features such as fence lines or pylons. Ferrous responses are usually regarded as modern. Individual burnt stones, fired bricks or igneous rocks can produce responses similar to ferrous material.
<i>Uncertain Origin</i>	Anomalies which stand out from the background magnetic variation, yet whose form and lack of patterning gives little clue as to their origin. Often the characteristics and distribution of the responses straddle the categories of <i>Possible Archaeology / Natural</i> or (in the case of linear responses) <i>Possible Archaeology / Agriculture</i> ; occasionally they are simply of an unusual form.

Where appropriate some anomalies will be further classified according to their form (positive or negative) and relative strength and coherence (trend: weak and poorly defined).

Appendix B - Technical Information: Magnetic Theory

Detailed magnetic survey can be used to effectively define areas of past human activity by mapping spatial variation and contrast in the magnetic properties of soil, subsoil and bedrock. Although the changes in the magnetic field resulting from differing features in the soil are usually weak, changes as small as 0.1 nanoTeslas (nT) in an overall field strength of 48,000 (nT), can be accurately detected.

Weakly magnetic iron minerals are always present within the soil and areas of enhancement relate to increases in *magnetic susceptibility* and permanently magnetised *thermoremanent* material.

Magnetic susceptibility relates to the induced magnetism of a material when in the presence of a magnetic field. This magnetism can be considered as effectively permanent as it exists within the Earth's magnetic field. Magnetic susceptibility can become enhanced due to burning and complex biological or fermentation processes.

Thermoremanence is a permanent magnetism acquired by iron minerals that, after heating to a specific temperature known as the Curie Point, are effectively demagnetised followed by re-magnetisation by the Earth's magnetic field on cooling. Thermoremanent archaeological features can include hearths and kilns; material such as brick and tile may be magnetised through the same process.

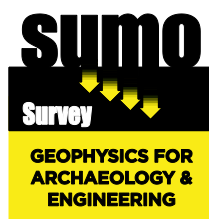
Silting and deliberate infilling of ditches and pits with magnetically enhanced soil creates a relative contrast against the much lower levels of magnetism within the subsoil into which the feature is cut. Systematic mapping of magnetic anomalies will produce linear and discrete areas of enhancement allowing assessment and characterisation of subsurface features. Material such as subsoil and non-magnetic bedrock used to create former earthworks and walls may be mapped as areas of lower enhancement compared to surrounding soils.

Magnetic survey is carried out using a fluxgate gradiometer which is a passive instrument consisting of two sensors mounted vertically 1m apart. The instrument is carried about 30cm above the ground surface and the top sensor measures the Earth's magnetic field whilst the lower sensor measures the same field but is also more affected by any localised buried feature. The difference between the two sensors will relate to the strength of a magnetic field created by this feature, if no field is present the difference will be close to zero as the magnetic field measured by both sensors will be the same.

Factors affecting the magnetic survey may include soil type, local geology, previous human activity and disturbance from modern services.

Summary for sumogeop1-503352

OASIS ID (UID)	sumogeop1-503352
Project Name	Geophysical Survey at Land off Broughton Road, Bretch Hill, Banbury
Activity type	Geophysical Survey, MAGNETOMETRY SURVEY
Project Identifier(s)	05534
Planning Id	
Reason For Investigation	Planning requirement
Organisation Responsible for work	SUMO Geophysics Ltd.
Project Dates	26-Nov-2021 - 26-Nov-2021
Location	Land off Broughton Road, Bretch Hill, Banbury NGR : SP 43724 39853 LL : 52.0553401638314, -1.36373529349761 12 Fig : 443724,239853
Administrative Areas	Country : England County : Oxfordshire District : Cherwell Parish : Banbury
Project Methodology	A temporary grid system will be established over the site and marked out using canes. The location of the grid will be set out using an RTK GPS system theoretically accurate to some 0.01m and referenced to OS co-ordinates. Hand Held: Data will be collected using a Bartington Grad 601-2. The instrument consists of two paired sensors (see below) and readings are logged at 0.25m centres along traverses 1.0m apart across 30m grids. The collection of data at 0.25m centres provides an appropriate methodology balancing cost and time with resolution as per Historic England guidelines. Two sensors mounted 1m horizontally apart and very accurately aligned to nullify the effects of the earth's magnetic field. Readings relate to the difference in localised magnetic anomalies compared with the general magnetic background.
Project Results	The survey at Bretch Hill, Banbury, has identified a complex of features of archaeological interest in Area 1. These comprise three probable round houses and associated structures, likely to include workshops, sheds and barns plus yards and small paddocks. These can be inferred because of the strongly enhanced magnetic deposits present on the site; the accumulation of rubbish and waste products, plus burnt material, will result in such enhancements. Similar results have been found on Iron Age / Romano-British small settlements / farmsteads. Elsewhere, ridge and furrow cultivation is visible in all the fields except for Area 2 which has modern magnetic disturbance. Two service pipes have also been mapped in the survey.
Keywords	Ring Ditch - UNCERTAIN - FISH Thesaurus of Monument Types Pit - UNCERTAIN - FISH Thesaurus of Monument Types Oval Enclosure - UNCERTAIN - FISH Thesaurus of Monument Types Ditch - UNCERTAIN - FISH Thesaurus of Monument Types Ridge And Furrow - MEDIEVAL - FISH Thesaurus of Monument Types Pipeline - 20TH CENTURY - FISH Thesaurus of Monument Types
HER	Oxfordshire HER - unRev - STANDARD
HER Identifiers	
Archives	



- Archaeological
- Geophysical
- Laser Scanning
- Measured Building
- Topographic
- Utility Mapping

SUMO Services Ltd, incorporated under the laws of England and Wales,
Company Registration No.4275993.
Registered Office Unit 8 Hayward Business Centre, New Lane, Havant, Hampshire, PO9 2NL