

Archaeological Geophysical Survey of Land to the South of Woodrow Road, Melksham, Wiltshire

> For RPS

On Behalf Of Robert Hitchins Ltd

Magnitude Surveys Ref: MSST759A HER Event Number: TBC OASIS Number: magnitud1-404875 October 2020



Unit 17, Commerce Court

**Challenge Way** 

Bradford

BD4 8NW

01274 926020

info@magnitudesurveys.co.uk

**Report By:** 

Krasimir Dyulgerski BA MRes

**Report Approved By:** 

Finnegan Pope-Carter BSc (Hons) MSc FGS

Issue Date:

05 October 2020

# Abstract

Magnitude Surveys was commissioned to assess the subsurface archaeological potential of a c. 6ha area of land to the South of Woodrow Road, Melksham, Wiltshire. A fluxgate gradiometer survey was successfully completed across the survey area. The survey has primarily detected anomalies relating to historic agricultural activity, characterised by ploughing trends, drainage features and a former field boundary. Possible archaeological activity has been identified in the form of linear ditches, which could indicate earlier agricultural activity. Further linear, curvilinear and discrete anomalies were identified within the survey area; these could relate to agricultural use of the landscape, however, their origin is not clear in the magnetic data, therefore these anomalies have been classified as 'undetermined'. An area of extraction that is recorded on the historic mapping has also been identified. Anomalies of modern origin such as buried services, pylons and magnetic disturbance from associated overhead cables have also been detected.

# Contents

Abs	Abstract2			
List	List of Figures4			
1.	Intro	oduct	ion5	
2.	Qua	lity A	ssurance5	
3.	Obje	ective	2s5	
4.	Geo	grapl	nic Background6	
5.	Arch	naeol	ogical Background6	
6.	Met	hodo	logy7	
6	.1.	Data	a Collection	
6	.2.	Data	a Processing7	
6	.3.	Data	a Visualisation and Interpretation8	
7.	Res	ults	9	
7	.1.	Qua	lification9	
7	7.2. Discussion9			
7	7.3. Interpretation10			
	7.3.1. General Statements			
	7.3.	2.	Magnetic Results - Specific Anomalies10	
8.	Conclusions			
9.	Archiving13			
10.	D. Copyright			
11.	1. References			
12.	2. Project Metadata			
13.	Document History			

List of Figures			
	Site Location	1:25,000 @ A4	
Figure 2:	Location of Survey Areas	1:10,000 @ A3	
Figure 3:	Total Field (Lower Sensor)	1:1,500 @ A3	
Figure 4:	Magnetic Gradient	1:1,500 @ A3	
Figure 5:	Magnetic Interpretation	1:1,500 @ A3	
Figure 6:	Magnetic Interpretation Over Historic Maps and Satellite Imagery	1:2,000 @ A3	
Figure 7:	XY Trace Plot	1:1,500 @ A3	

# 1. Introduction

- 1.1. Magnitude Surveys Ltd (MS) was commissioned by RPS on behalf of Robert Hitchins Ltd to undertake a geophysical survey on a c.6ha area of land to the South of Woodrow Road, Melksham, Wiltshire (ST915651).
- 1.2. The geophysical survey comprised quad-towed GNSS-positioned fluxgate gradiometer survey. Magnetic survey is the standard primary geophysical method for archaeological applications in the UK for its ability to detect a range of different features. The technique is particularly suited for detecting fired or magnetically enhanced features, such as ditches, pits, kilns, sunken earth houses, and industrial activity (David *et al.*, 2008).
- 1.3. The survey was conducted in line with the current best practice guidelines produced by Historic England (David et al., 2008), the Chartered Institute for Archaeologists (CIfA, 2014) and the European Archaeological Council (Schmidt et al., 2015).
- 1.4. It was conducted in line with a WSI produced by MS (Garst, 2020).
- 1.5. The survey commenced on 21/09/2020 and took two days to complete.

# 2. Quality Assurance

- 2.1. Magnitude Surveys is a Registered Organisation of the Chartered Institute for Archaeologists (CIfA), the chartered UK body for archaeologists, and a corporate member of ISAP (International Society of Archaeological Prospection).
- 2.2. The directors of MS are involved in the cutting edge of research and the development of guidance/policy. Specifically, Dr. Chrys Harris has a PhD in archaeological geophysics from the University of Bradford, is a Member of ClfA and is the Vice-Chair of the International Society for Archaeological Prospection (ISAP); Finnegan Pope-Carter has an MSc in archaeological geophysics and is a Fellow of the London Geological Society, as well as a member of GeoSIG (ClfA Geophysics Special Interest Group); Dr. Kayt Armstrong has a PhD in archaeological geophysics from Bournemouth University, is a Member of ClfA, the Editor of ISAP News, and is the UK Management Committee representative for the COST Action SAGA; Dr. Paul Johnson has a PhD in archaeology from the University of Southampton, has been a member of the ISAP Management Committee since 2015, and is currently the nominated representative for the EAA Archaeological Prospection Community to the board of the European Archaeological Association.
- 2.3. All MS managers have relevant degree qualifications to archaeology or geophysics. All MS field and office staff have relevant archaeology or geophysics degrees and/or field experience.

# 3. Objectives

3.1. The objective of this geophysical survey was to assess the subsurface archaeological potential of the survey area.

# 4. Geographic Background

4.1. The survey area was located c.1.5km northeast of Melksham (Figure 1). Gradiometer survey was undertaken across two fields, one under arable and one under grassland. The survey area was bounded by Woodrow Road to the north, housing to the west and further fields to the east and south (Figure 2).

4.2.	Survey	considerations:
------	--------	-----------------

Survey Area	Ground Conditions	Further Notes
1	The field consisted of flat grassland.	The area was bounded to the north, east and west by hedgerows. The field continued to the south beyond the survey area. Two telegraph poles with associated overhead cables were located in the field which crossed the area roughly northeast to southwest. Further overhead powerlines crossed the southern corner of the field northwest to southeast, continuing from Area 2.
2	The field consisted of flat arable stubble.	The area was bounded to the north and east by hedgerows and housing to the west. The field continued to the south beyond the survey area. A large pylon was located in the centre of the field, with associated overhead powerlines which crossed the area northwest to southeast. A telegraph pole was also located in the southern end of the field with associated overhead cables aligned roughly northeast to southwest, continuing from Area 1.

- 4.3. The underlying geology comprises mudstone of the Oxford clay formation. No superficial deposits have been recorded (British Geological Survey, 2020).
- 4.4. The soils consist of slowly permeable, seasonally wet, slightly acid but base-rich, loamy and clayey soils (Soilscapes, 2020).

# 5. Archaeological Background

- 5.1. The following is a summary of an archaeological desk-based assessment produced and provided by RPS (RPS., 2020).
- 5.2. Prehistoric activity is recorded c. 75m west of the survey area found through previous geophysical survey and confirmed by remains uncovered during subsequent excavation.
- 5.3. Romano-British activity relating to late-1<sup>st</sup> century AD settlement activity is recorded c. 75m west of the survey area as well as substantial deposits and fragments of pottery c. 500m and c.
  800m respectively to the northeast of the survey area.
- 5.4. The survey area likely formed part of the agricultural hinterland of the surrounding Medieval settlements with the village of Melksham c 1.6km north-east which is recorded in the Domesday

Survey of 1086AD as Melchesham, the settlement of Woodrow c. 75m and the former Royal Forest of Melksham on the western periphery.

5.5. Post-Medieval activity has been identified in the form of ridge and furrow cultivation identified from aerial photographs and LiDAR assessment as part of the National Archaeological Identification Survey (NAIS).

# 6. Methodology

6.1. Magnetometer surveys are generally the most cost effective and suitable geophysical technique for the detection of archaeology in England. Therefore, a magnetometer survey should be the preferred geophysical technique unless its use is precluded by any specific survey objectives or the site environment. For this site, no factors precluded the recommendation of a standard magnetometer survey. Geophysical survey therefore comprised the magnetic method as described in the following section.

#### 6.2.Data Collection

- 6.2.1. Geophysical prospection comprised the magnetic method as described in the following table.
- 6.2.2. Table of survey strategies:

Method	Instrument	Traverse Interval	Sample Interval
Magnetic	Bartington Instruments Grad-13 Digital Three-Axis Gradiometer	1m	200Hz reprojected to 0.125m

- 6.2.3. The magnetic data were collected using MS' bespoke quad-towed cart GNSS-positioned system.
  - 6.2.3.1. MS' cart system was comprised of Bartington Instruments Grad 13 Digital Three-Axis Gradiometers. Positional referencing was through a multi-channel, multi-constellation GNSS Smart Antenna RTK GPS outputting in NMEA mode to ensure high positional accuracy of collected measurements. The RTK GPS is accurate to 0.008m + 1ppm in the horizontal and 0.015m + 1ppm in the vertical.
  - 6.2.3.2. Magnetic and GPS data were stored on an SD card within MS' bespoke datalogger. The datalogger was continuously synced, via an in-field Wi-Fi unit, to servers within MS' offices. This allowed for data collection, processing and visualisation to be monitored in real-time as fieldwork was ongoing.
  - 6.2.3.3. A navigation system was integrated with the RTK GPS, which was used to guide the surveyor. Data were collected by traversing the survey area along the longest possible lines, ensuring efficient collection and processing.

#### 6.3.Data Processing

6.3.1. Magnetic data were processed in bespoke in-house software produced by MS. Processing steps conform to Historic England's standards for "raw or minimally processed data" (see sect 4.2 in David et al., 2008: 11). <u>Sensor Calibration</u> – The sensors were calibrated using a bespoke in-house algorithm, which conforms to Olsen et al. (2003).

<u>Zero Median Traverse</u> – The median of each sensor traverse is calculated within a specified range and subtracted from the collected data. This removes striping effects caused by small variations in sensor electronics.

<u>Projection to a Regular Grid</u> – Data collected using RTK GPS positioning requires a uniform grid projection to visualise data. Data are rotated to best fit an orthogonal grid projection and are resampled onto the grid using an inverse distance-weighting algorithm.

<u>Interpolation to Square Pixels</u> – Data are interpolated using a bicubic algorithm to increase the pixel density between sensor traverses. This produces images with square pixels for ease of visualisation.

#### 6.4. Data Visualisation and Interpretation

- 6.4.1. This report presents the gradient of the sensors' total field data as greyscale images, as well as the total field data from the lower sensors. The gradient of the sensors minimises external interferences and reduces the blown-out responses from ferrous and other high contrast material. However, the contrast of weak or ephemeral anomalies can be reduced through the process of calculating the gradient. Consequently, some features can be clearer in the respective gradient or total field datasets. Multiple greyscale images of the gradient and total field at different plotting ranges have been used for data interpretation. Greyscale images should be viewed alongside the XY trace plot (Figure 7). XY trace plots visualise the magnitude and form of the geophysical response, aiding in anomaly interpretation.
- 6.4.2. Geophysical results have been interpreted using greyscale images and XY traces in a layered environment, overlaid against open street maps, satellite imagery, historic maps, LiDAR data, and soil and geology maps. Google Earth (2020) was consulted as well, to compare the results with recent land usages.
- 6.4.3. Geodetic position of results All vector and raster data have been projected into OSGB36 (ESPG27700) and can be provided upon request in ESRI Shapefile (.SHP) and Geotiff (.TIF) respectively.

# 7. Results

#### 7.1.Qualification

7.1.1. Geophysical results are not a map of the ground and are instead a direct measurement of subsurface properties. Detecting and mapping features requires that said features have properties that can be measured by the chosen technique(s) and that these properties have sufficient contrast with the background to be identifiable. The interpretation of any identified anomalies is inherently subjective. While the scrutiny of the results is undertaken by qualified, experienced individuals and rigorously checked for quality and consistency, it is often not possible to classify all anomaly sources. Where possible an anomaly source will be identified along with the certainty of the interpretation. The only way to improve the interpretation of results is through a process of comparing excavated results with the geophysical reports. MS actively seek feedback on their reports as well as reports of further work in order to constantly improve our knowledge and service.

#### 7.2.Discussion

- 7.2.1. The geophysical results are presented in consideration with satellite imagery and historic maps (Figure 6).
- 7.2.2. The fluxgate gradiometer survey has responded well to the environment of the survey area. The survey has primarily detected anomalies relating to agricultural activity, characterised by ploughing trends, field drains and a former field boundary. Modern interference consists of magnetic 'haloes' along the extant field boundaries, a buried service, and pylons within both survey areas. The effects of overhead cables have also been recorded crossing the western field. These may have obscured weaker anomalies in these areas. An area of extraction that co-locates with a feature depicted on historic mapping has been identified to the south of the survey area (see Figure 6).
- 7.2.3. Possible archaeological activity has been identified across the southern and western parts of the survey area in the form of several linear anomalies. A definitive interpretation of these anomalies is difficult to ascertain due to their weak magnetic signal, however due to the presence of archaeological features to the west of the survey area, an archaeological origin appears to be possible (see Section 5.3).
- 7.2.4. Agricultural activity has been identified across the survey in the form of ploughing trends and field drainage systems. A former field boundary has also been identified which co-locates with a boundary depicted on the 1973 OS map.
- 7.2.5. Linear, curvilinear and discrete anomalies of undetermined origins have been identified across the survey area. These has been classed as such as they their magnetic signal and alignment differs from the identified possible archaeological and agricultural anomalies. The anomalies also appear to be heavily truncated by ploughing activity. However, due to the presence of previously discussed anomalies (see Section 7.2.3), an archaeological origin cannot be ruled out.

#### 7.3.Interpretation

#### 7.3.1. General Statements

- 7.3.1.1. Geophysical anomalies will be discussed broadly as classification types across the survey area. Only anomalies that are distinctive or unusual will be discussed individually.
- 7.3.1.2. **Ferrous (Spike)** Discrete ferrous-like, dipolar anomalies are likely to be the result of isolated modern metallic debris on or near the ground surface.
- 7.3.1.3. **Ferrous/Debris (Spread)** A ferrous/debris spread refers to a concentrated deposition of discrete, dipolar ferrous anomalies and other highly magnetic material.
- 7.3.1.4. Magnetic Disturbance The strong anomalies produced by extant metallic structures along the edges of the field have been classified as 'Magnetic Disturbance'. These magnetic 'haloes' will obscure the response of any weaker underlying features, should they be present, often over a greater footprint than the structure they are being caused by.
- 7.3.1.5. Undetermined Anomalies are classified as Undetermined when the anomaly origin is ambiguous through the geophysical results and there is no supporting or correlative evidence to warrant a more certain classification. These anomalies are likely to be the result of geological, pedological or agricultural processes, although an archaeological origin cannot be entirely ruled out. Undetermined anomalies are generally not ferrous in nature.

#### 7.3.2. Magnetic Results - Specific Anomalies

- 7.3.2.1. Possible Archaeology A number of low magnitude linear anomalies [1a & 2a] have been identified across the survey area (Figure 5). These anomalies have a distinct magnetic signal and do not share an alignment with any modern, agricultural or historic features recorded within the survey area. The exact interpretation of these anomalies is difficult to ascertain due to their morphology and weak magnetic signal. However, due to the presence of archaeological features to the west of the survey area (see Section 5.2), they have been considered to be of a possible archaeological origin and interpreted as relating to potential earlier field systems.
- 7.3.2.2. Agricultural (Strong and Weak) A linear anomaly [1c] running in a southwest/north-east direction and bisecting Area 1 has been detected. This anomaly, which has a stronger magnetic signal than the nearby identified drainage features and ploughing trends, corresponds to a former field boundary recorded in the 1973 historic OS map.
- 7.3.2.3. Agricultural (Trend) A series of parallel linear anomalies running in a north-west/south-east direction have been identified. These anomalies have been interpreted as modern agricultural trends as they correspond with the direction of ploughing visible on the satellite imagery (Figure 6). In Area 1, the survey has detected noticeably tightly-spaced linear anomalies running in a south-

west/north-east direction. These anomalies which are more pronounced in the northern part of Area 1, to the north of the former field boundary [1c], have been interpreted as historic ploughing trends.

- 7.3.2.4. Ferrous/Debris (Spread) A band of negative anomalies, most visible on the total field (Figure 3), running from the eastern corner of Area 1 to the southwest corner of Area 2 has been identified. This effect is caused by the overhead power cables crossing the survey area.
- 7.3.2.5. Extraction/Quarry In the southern corner of Area 2, the survey has detected a high magnitude, amorphous anomaly [2b] measuring c.20m in diameter. This anomaly corresponds to a former extraction pit recorded on 2<sup>nd</sup> edition historic OS mapping (Figure 6).
- 7.3.2.6. Drainage Features Across Area 1, the survey has detected a series of strong, positive linear anomalies running on a southwest-northeast alignment. In the northern area the anomalies are intersected by tightly spaced ploughing trends (see Section 7.3.2.3). These anomalies, which have an average spacing of 10m, terminate at a positive linear, parallel to the eastern boundary of the survey area. Due to their consistent magnetic signal and equal distribution across Area 1, at an angle to the slight slope of the area, these anomalies have been interpreted as drainage features.
- 7.3.2.7. Undetermined Linear, curvilinear and discrete anomalies [1b] have been identified in both areas. These anomalies have been classified as undetermined as their magnetic signal and alignment does not appear to match any of the previously identified agricultural anomalies. Due to their apparent truncation by the field drains and the dense concentration of ploughing trends, a more precise interpretation cannot be attained. However, due to the presence of archaeological features in the immediate vicinity of the site (see Sections 5.3 & 5.4) an archaeological origin cannot be ruled out.

# 8. Conclusions

- 8.1. A fluxgate gradiometer survey has successfully been undertaken across the survey area. The geophysical survey has detected a range of different types of anomalies of archaeological, agricultural and undetermined origins, as well as an area of historic extraction. Modern interference has been recorded as magnetic 'haloes' from the field boundaries and a buried service, and as magnetic interference caused by overhead power cables and their associated pylons which were located within the survey area.
- 8.2. Anomalies of possible archaeological origin have been identified across the survey area. These anomalies do not appear to align with any recorded features and the presence of archaeological features to the west of the survey area makes an archaeological interpretation plausible. The anomalies may indicate the presence of an earlier field system within the survey area.
- 8.3. Several discrete, linear and curvilinear anomalies have been considered to be of undetermined origin. As seen with the possible archaeological anomalies, these anomalies do not appear to share an alignment with previously identified features. However, they have been interpreted with less confidence due to the apparent truncation from ploughing activity.
- 8.4. Agricultural activity has been identified across the survey area in the form of historic ploughing trends, a former field boundary depicted on historic mapping, as well as more recent ploughing activity and drainage features.

# 9. Archiving

- 9.1. MS maintains an in-house digital archive, which is based on Schmidt and Ernenwein (2013). This stores the collected measurements, minimally processed data, georeferenced and ungeoreferenced images, XY traces and a copy of the final report.
- 9.2. MS contributes reports to the ADS Grey Literature Library upon permission from the client, subject to the any dictated time embargoes.

# 10. Copyright

10.1. Copyright and the intellectual property pertaining to all reports, figures, and datasets produced by Magnitude Services Ltd. is retained by MS. The client is given full licence to use such material for their own purposes. Permission must be sought by any third party wishing to use or reproduce any IP owned by MS.

### 11. References

British Geological Survey, 2020. Geology of Britain. [Melksham, Wiltshire] http://mapapps.bgs.ac.uk/geologyofbritain/home.html/]. [Accessed 30/09/2020].

Chartered Institute for Archaeologists, 2014. Standards and guidance for archaeological geophysical survey. CIfA.

David, A., Linford, N., Linford, P. and Martin, L., 2008. Geophysical survey in archaeological field evaluation: research and professional services guidelines (2<sup>nd</sup> edition). Historic England.

Google Earth, 2020. Google Earth Pro V 7.1.7.2606.

Olsen, N., Toffner-Clausen, L., Sabaka, T.J., Brauer, P., Merayo, J.M.G., Jorgensen, J.L., Leger, J.M., Nielsen, O.V., Primdahl, F., and Risbo, T., 2003. Calibration of the Orsted vector magnetometer. *Earth Planets Space* 55: 11-18.

Schmidt, A. and Ernenwein, E., 2013. Guide to good practice: geophysical data in archaeology. 2nd ed., Oxbow Books, Oxford.

Schmidt, A., Linford, P., Linford, N., David, A., Gaffney, C., Sarris, A. and Fassbinder, J., 2015. Guidelines for the use of geophysics in archaeology: questions to ask and points to consider. EAC Guidelines 2. European Archaeological Council: Belgium.

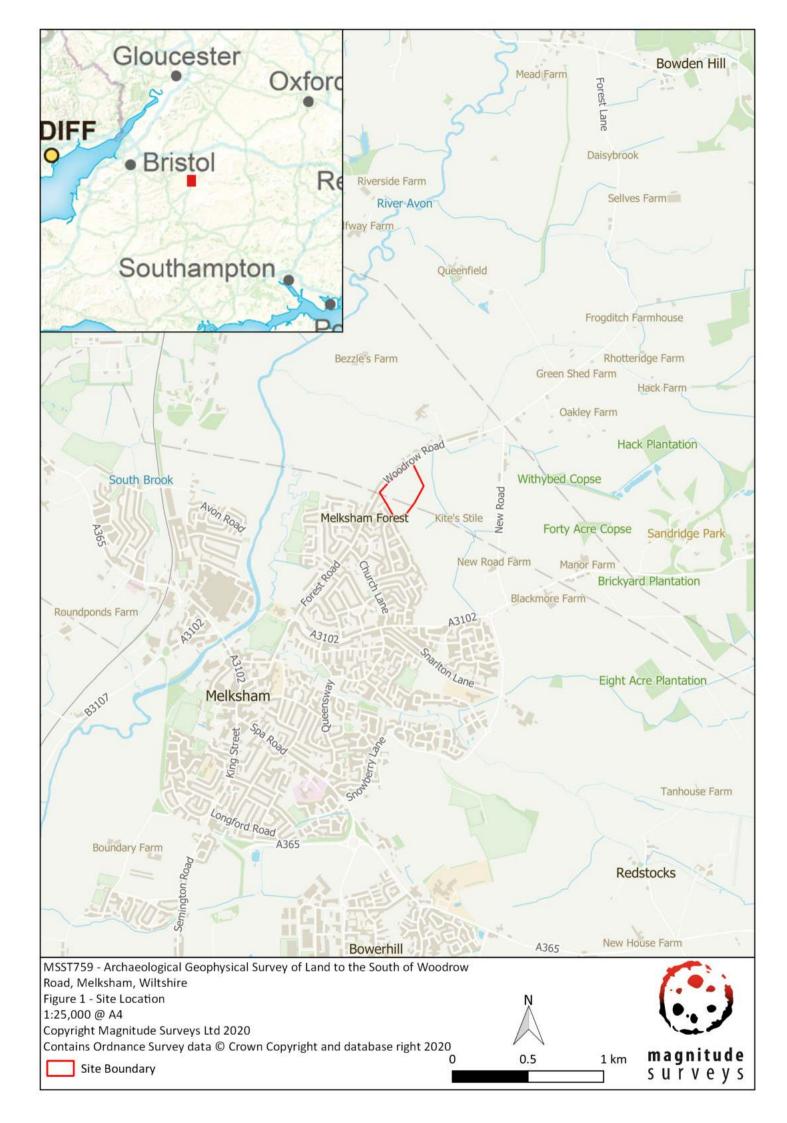
Soilscapes, 2020. [Melksham, Wiltshire]. Cranfield University, National Soil Resources Institute [http://landis.org.uk]. [Accessed 30/09/2020].

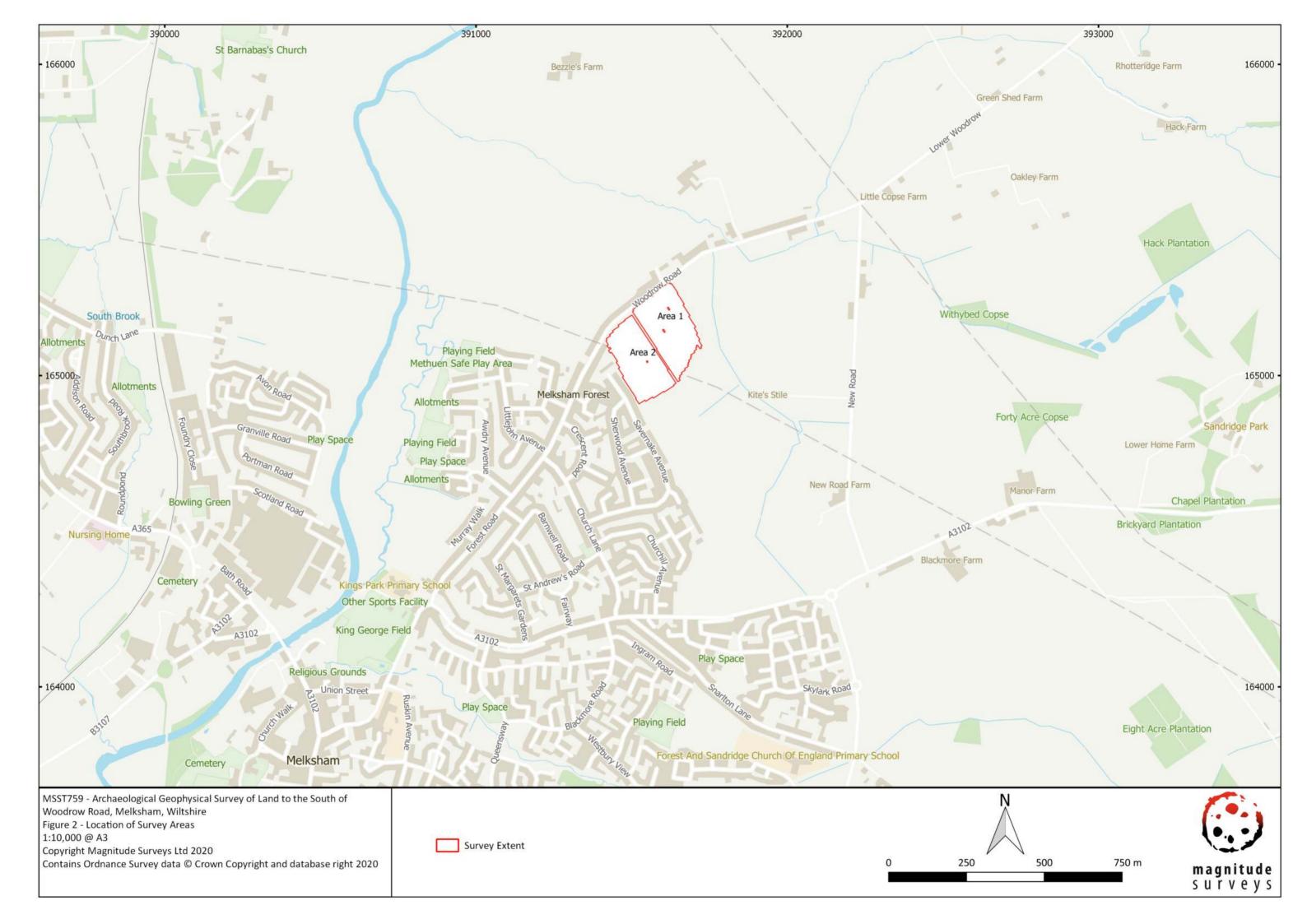
12. ITOJECT Metadata		
MS Job Code	MSST759A	
Project Name	Land to the South of Woodrow Road, Melksham, Wiltshire	
Client	RPS	
Grid Reference	ST915651	
Survey Techniques	Magnetometry	
Survey Size (ha)	6ha (Magnetometry)	
Survey Dates	2020-09-21 to 2020-09-22	
Project Lead	Lauren Beck BA	
Project Officer	Lauren Beck BA	
HER Event No	ТВС	
OASIS No	magnitud1-404875	
S42 Licence No	N/A	
Report Version	1.0	

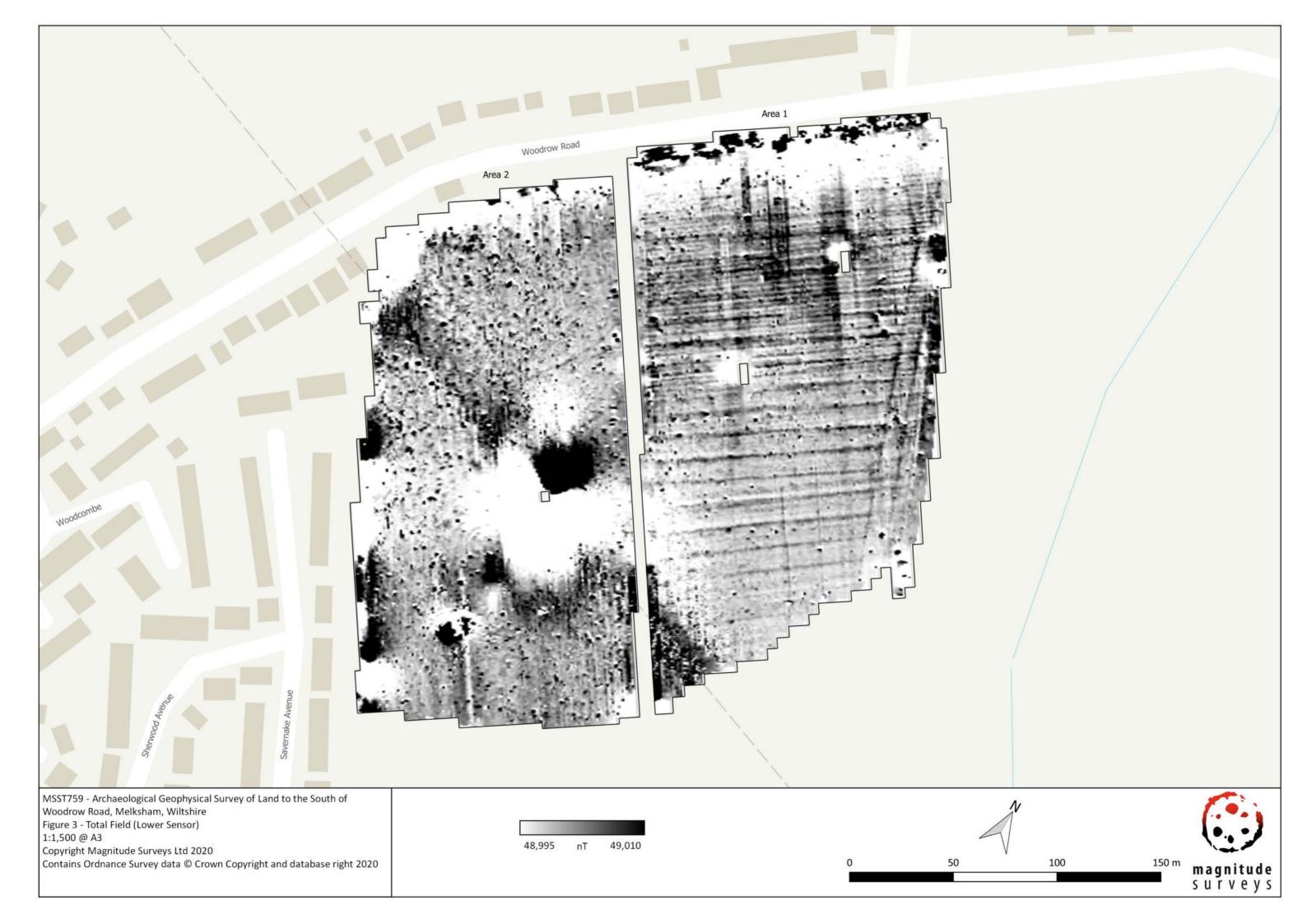
# 12. Project Metadata

# 13. Document History

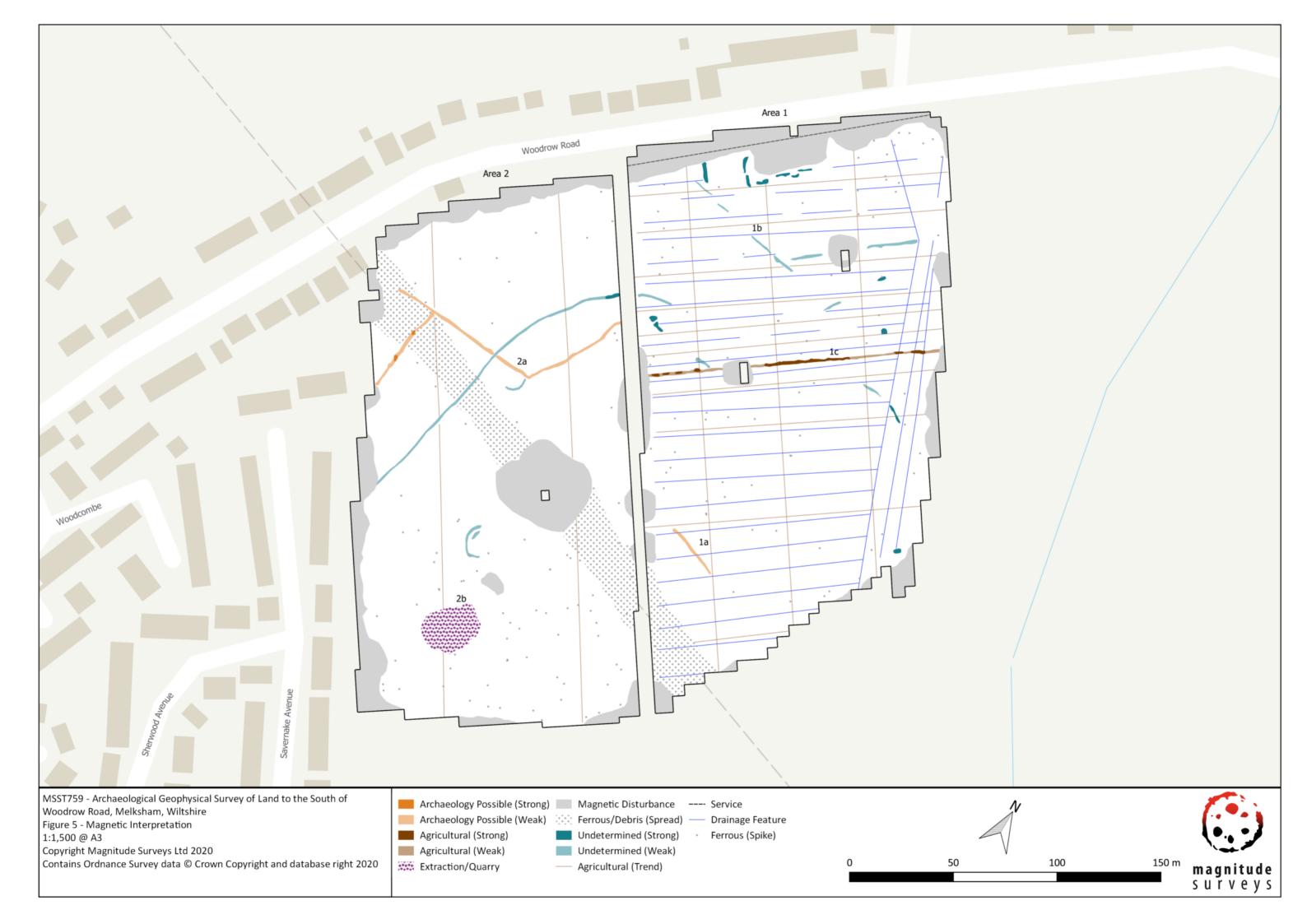
Version	Comments	Author	Checked By	Date
0.1	Initial draft for Project Lead to Review	KD	LB	02 October 2020
0.2	Corrections from Project Lead. Draft for Director Approval	KD	FPC	02 October 2020
0.3	Corrections from Director. Draft sent to Client	KD	FPC	02 October 2020
1.0	Issued as Final	LB	FPC	05 October 2020















# **OASIS DATA COLLECTION FORM: England**

List of Projects | Manage Projects | Search Projects | New project | Change your details | HER coverage | Change country | Log out

#### **Printable version**

#### OASIS ID: magnitud1-404875

#### **Project details**

Project name	Land to the South of Woodrow Road, Melksham, Wiltshire
Short description of the project	Magnitude Surveys was commissioned to assess the subsurface archaeological potential of a c. 6ha area of land to the South of Woodrow Road, Melksham, Wiltshire. A fluxgate gradiometer survey was successfully completed across the survey area. The survey has primarily detected anomalies relating to historic agricultural activity, characterised by ploughing trends, drainage features and a former field boundary. Possible archaeological activity has been identified in the form of linear ditches, which could indicate earlier agricultural activity. Further linear, curvilinear and discrete anomalies were identified within the survey area; these could relate to agricultural use of the landscape, however, their origin is not clear in the magnetic data, therefore these anomalies have been classified as 'undetermined'. An area of extraction that is recorded on the historic mapping has also been identified. Anomalies of modern origin such as buried services, pylons and magnetic disturbance from associated overhead cables have also been detected.
Project dates	Start: 21-09-2020 End: 05-10-2020
Previous/future work	Not known / Not known
Any associated project reference codes	MSST759 - Contracting Unit No.
Type of project	Field evaluation
Current Land use	Cultivated Land 4 - Character Undetermined
Monument type	FIELD BOUNDARY Uncertain
Monument type	DITCH Uncertain
Significant Finds	NONE None
Methods & techniques	"'Geophysical Survey'"
Development type	Not recorded
Prompt	Unknown
Position in the planning process	Not known / Not recorded
Solid geology	OXFORD CLAY AND KELLAWAYS BEDS
Drift geology	Unknown
Techniques	Magnetometry

#### **Project location**

Country	England
Site location	WILTSHIRE WEST WILTSHIRE MELKSHAM Land to the South of Woodrow Road,

	Melksham, Wiltshire
Postcode	GL51 0TH
Study area	6 Hectares
Site coordinates	ST 915 651 51.384385855498 -2.122158847369 51 23 03 N 002 07 19 W Point

#### **Project creators**

Name of Organisation	Magnitude Surveys Ltd
Project brief originator	RPS
Project design originator	Magnitude Surveys Ltd
Project director/manager	Finnegan Pope-Carter
Project supervisor	Sophie Peel
Type of sponsor/funding body	Developer

#### **Project archives**

Physical Archive Exists?	No
Digital Archive recipient	Wiltshire HER
Digital Archive ID	MSST759
Digital Contents	"Survey"
Digital Media available	"GIS", "Geophysics", "Survey"
Paper Archive Exists?	No

#### Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Archaeological Geophysical Survey of Land to the South of Woodrow Road, Melksham, Wiltshire
Author(s)/Editor(s)	Dyulgerski, K.
Other bibliographic details	1.0
Date	2020
lssuer or publisher	Magnitude Surveys
Place of issue or publication	Bradford
Description	Digital Report in PDF format
Entered by	Lauren Beck (info@magnitudesurveys.co.uk)
Entered on	12 October 2020



Please e-mail Historic England for OASIS help and advice © ADS 1996-2012 Created by Jo Gilham and Jen Mitcham, email Last modified Wednesday 9 May 2012 Cite only: http://www.oasis.ac.uk/form/print.cfm for this page

Cookies Privacy Policy