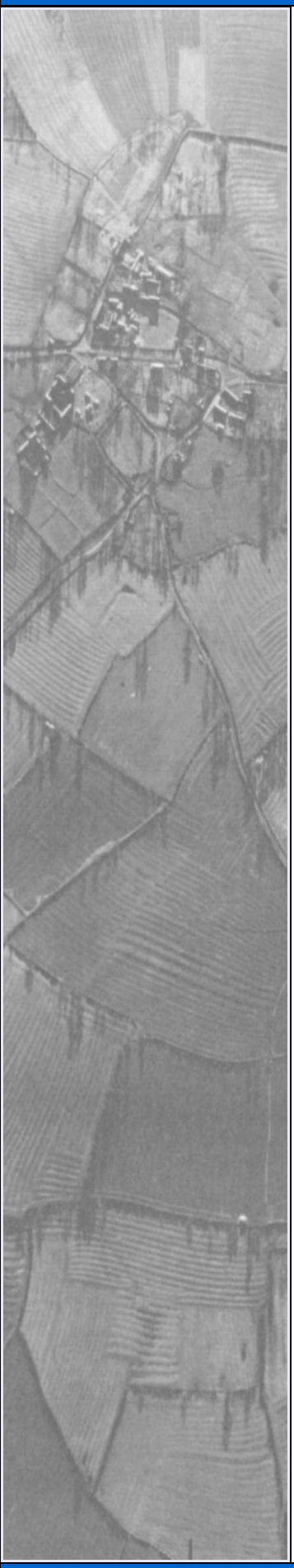

Court Barn Farm
West Bradley
Glastonbury
Somerset

MAGNETOMETER SURVEY REPORT

for

H B Green & Son

David Sabin and Kerry Donaldson

July 2014

Ref. no. 555

ARCHAEOLOGICAL SURVEYS LTD

Court Barn Farm
West Bradley, Glastonbury
Somerset

Magnetometer Survey Report

for

H B Green & Son

Fieldwork by David Sabin
Report by David Sabin BSc (Hons) MIFA and Kerry Donaldson BSc (Hons)

Survey date – 4th July 2014
Ordnance Survey Grid Reference – **ST 54600 37050**

Somerset HER number 32577

Archaeological Surveys Ltd
1 West Nolands, Nolands Road, Yatesbury, Calne, Wiltshire, SN11 8YD
Tel: 01249 814231 Fax: 0871 661 8804
Email: info@archaeological-surveys.co.uk
Web: www.archaeological-surveys.co.uk

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SUMMARY

A detailed magnetometer survey was carried out by Archaeological Surveys Ltd over land at Court Barn Farm, West Bradley, near Glastonbury in Somerset, prior to a development of a new dairy building and other associated infrastructure. The results revealed evidence for possible archaeological remains within the centre and the south eastern corner of the site. Positive linear, rectilinear and discrete anomalies indicate possible cut features, such as ditches and pits, with some associated magnetically variable responses, possibly indicating ground disturbance or structural remains.

1 INTRODUCTION

1.1 Survey background

1.1.1 Archaeological Surveys Ltd was commissioned by Michael Goff Agricultural Planning & Project Management, on behalf of H B Green & Son, to undertake a magnetometer survey of an area of land at Court Barn Farm, West Bradley near Glastonbury in Somerset. The site has been outlined for a proposed new dairy building with associated slurry store and attenuation pond in the northern part of the site and burial of underground cables to the south. The survey forms part of an archaeological assessment of the site. The survey has been issued with Somerset Historic Environment number 32577.

1.2 Survey objectives and techniques

1.2.1 The objective of the survey was to use magnetometry to locate geophysical anomalies that may be archaeological in origin so that they may be assessed prior to development of the site. The methodology is considered an efficient and effective approach to archaeological prospection.

1.2.2 The survey and report generally follow the recommendations set out by: English Heritage (2008) *Geophysical survey in archaeological field evaluation;* and Institute for Archaeologists (2002) *The use of Geophysical Techniques in Archaeological Evaluations*. The work has been carried out to the Institute for Archaeologists (2011) *Standard and Guidance for Archaeological Geophysical Survey.*

1.3 Site location, description and survey conditions

1.3.1 The site is located at Court Barn Farm, West Bradley approximately 4km south east of Glastonbury in Somerset. It is centred on Ordnance Survey National Grid Reference (OS NGR) ST 54600 37050, see Figures 01 and 02.

1.3.2 The geophysical survey covers approximately 2ha within two land parcels within which the new dairy building is proposed to extend. Area 1 is the

northern section of a pasture field, while Area 2 contains an orchard to the north east of Area 1. A new hedge is proposed to extend from east to west to the south of the new dairy building. Towards the north western corner of the site are the proposed locations of an attenuation pond and slurry store. Extending through the western, southern and eastern parts of the site are proposed trench locations for burial of electricity cables.

Plate 1: Area 1 looking south west

Plate 2: Area 2 looking east towards Court Barn

1.3.3 The ground conditions across the site were generally considered to be favourable for the collection of magnetometry data. However, Area 2 contained an orchard and some zones of rough vegetation that impeded survey in places. Weather conditions during the survey were fine.

1.4 Site history and archaeological potential

1.4.1 The Somerset Historic Environment Record (HER) indicates that the site lies just to the west of the 14th/15th century Court Barn (HER 25350) and within an area recorded to contain earthworks and possible house platforms indicative of a Deserted Medieval Village (DMV) (HER 24825). There is, therefore, a high potential for the survey to locate anomalies associated with the DMV.

1.4.2 The surface conditions within the site were not suitable for the observation of cultural material during the course of the survey. No significant earthwork features were noted within the site although a shallow dry ditch crosses Area 2 with an east – west orientation.

1.5 Geology and soils

1.5.1 The underlying geology from the Langport Member, Blue Lias Formation and Charmouth Mudstone Formation(BGS, 2014). Court Barn immediately to the east of the site appears to be constructed from Blue Lias limestone.

1.5.2 The overlying soil across the site is from the Denchworth association and is a pelo-stagnogley soil. It consists of a slowly permeable, seasonally waterlogged clayey soil (Soil Survey of England and Wales, 1983).

1.5.3 Magnetometry carried out over similar geology and soil has produced good results. The site is, therefore, considered suitable for magnetic survey.

2 METHODOLOGY

2.1 Technical synopsis

2.1.1 Magnetometry survey records localised magnetic fields that can be associated with features formed by human activity. Magnetic susceptibility and magnetic thermoremnance are factors associated with the formation of localised fields. Additional details are set out below and within Appendix A.

2.1.2 Iron minerals within the soil may become altered by burning and the break down of biological material; effectively the magnetic susceptibility of the soil is increased, and the iron minerals become magnetic in the presence of the Earth's magnetic field. Accumulations of magnetically enhanced soils within features, such as pits and ditches, may produce magnetic anomalies that can be mapped by magnetic prospection.

2.1.3 Magnetic thermoremnance can occur when ferrous minerals have been heated to high temperatures such as in a kiln, hearth, oven etc. On cooling, a permanent magnetisation may be acquired due to the presence of the Earth's magnetic field. Certain natural processes associated with the formation of some igneous and metamorphic rock may also result in magnetic thermoremnance.

2.1.4 The localised variations in magnetism are measured as sub-units of the Tesla, which is a SI unit of magnetic flux density. These sub-units are nano Teslas (nT), which are equivalent to 10^{-9} Tesla (T).

2.2 Equipment configuration, data collection and survey detail

2.2.1 The detailed magnetic survey was carried out using a SENSYS MAGNETO®MXPDA 5 channel cart-based system. The instrument has 5 fluxgate gradiometers spaced 0.5m apart with readings recorded at 20 Hz. The gradiometers have a range of recording data between 0.1nT and 10,000nT. They are linked to a Leica GS10 RTK GPS with data recorded by SENSYS MAGNETO®MXPDA software on a rugged PDA computer system.

2.2.2 Data are collected along a series of parallel survey transects wherever possible. The length of each transect is variable and relates to the size of the survey area and other factors including ground conditions. A visual display allows accurate placing of transects and helps maintain the correct separation between adjacent traverses.

2.3 Data processing and presentation

2.3.1 Magnetic data collected by the MAGNETO®MXPDA cart-based system are initially prepared using SENSYS MAGNETO®DLMGPS software. Georeferenced data are then exported in ASCII format for compensation (destriping), interpolation and clipping using TerraSurveyor. Greyscale images are also produced using TerraSurveyor.

2.3.2 Appendix C contains specific information concerning the survey and data attributes and is derived directly from TerraSurveyor; this should be used in conjunction with information provided by Figure 02.

2.3.3 Only minimal processing is carried out in order to enhance the results of the survey for display. Raw data are always analysed, as processing can modify anomalies. The following schedule sets out the data and image processing used in this survey for the SENSYS MAGNETO data:

- clipping of processed data at between -15nT and +20 nT to enhance low magnitude anomalies,
- zero median traverse is applied in order to balance readings along each traverse,
- a high pass filter is applied to smooth data and remove slight variations along survey tracks.

2.3.4 An abstraction and interpretation is offered for all geophysical anomalies located by the survey. A brief summary of each anomaly, with an appropriate reference number, is set out in list form within the results (Section 3) to allow a rapid and objective assessment of features within each survey area.

2.3.5 Reference should be made to Appendix B for further information on the specific processes carried out on the data. Appendix C metadata includes details on the processing sequence used for each survey area.

2.3.6 The main form of data display prepared for this report is the 'processed' greyscale plot followed by an abstraction and interpretation plot. Anomalies are abstracted using colour coded points, lines and polygons. All plots are scaled to landscape A3 for paper printing.

2.3.7 Data captured with the SENSYS MAGNETO cart-based system are resampled to a resolution of effectively 0.5m between tracks and 0.15m along each survey track. A TIFF file (OSGB36) is produced by TerraSurveyor software along with an associated world file (.TFW) that allows automatic georeferencing when using GIS or CAD software.

2.3.8 The raster images are combined with base mapping using ProgeCAD Professional 2014 and AutoCAD LT 2007, creating DWG file formats. All images are externally referenced to the CAD drawing in order to maintain good graphical quality. Quality can be compromised by rotation of graphics in order to allow the data to be orientated with respect to grid north; this is considered acceptable as the survey results are effectively georeferenced allowing relocation of features using GPS, resection method, etc.

2.3.9 A digital archive is produced with this report, see Appendix D below. The main archive is held at the offices of Archaeological Surveys Ltd.

3 RESULTS

3.1 General assessment of survey results

3.1.1 The detailed magnetic survey was carried out over a total of two survey areas covering approximately 2ha.

3.1.2 Magnetic anomalies located can be generally classified as positive and magnetically variable responses of archaeological potential, positive and negative anomalies of an uncertain origin, linear anomalies of an agricultural origin, areas of magnetic debris and disturbance and strong discrete dipolar anomalies relating to ferrous objects.

3.2 Statement of data quality

3.2.1 Data are considered representative of the magnetic anomalies present within the site. Magnetic disturbance was encountered in the vicinity of extant farm buildings adjacent to both survey areas although it appears unlikely that it has obscured weak features of archaeological potential. Data collection was impeded across some very small parts of Area 2 due to the presence of fruit trees.

3.3 Data interpretation

3.3.1 The list of sub-headings below attempts to define a number of separate categories that reflect the range and type of features located during the survey. A basic explanation of the characteristics of the magnetic anomalies is set out for each category in order to justify interpretation, a basic key is indicated to allow cross referencing to the abstraction and interpretation plot. CAD layer names are included to aid reference to associated digital files (.dwg/.dxf). Sub-headings are then used to group anomalies with similar characteristics for each survey area.

Report sub-heading CAD layer names and plot colour	**Description and origin of anomalies**
Anomalies with archaeological potential AS-ABST MAG POS LINEAR ARCHAEOLOGY AS-ABST MAG POS DISCRETE ARCHAEOLOGY AS-ABST MAG POS ARCHAEOLOGY AS-ABST MAG DISTURBED ARCHAEOLOGY	Anomalies have the characteristics (mainly morphological) of a range of archaeological features such as pits, ring ditches, enclosures, etc..
Anomalies with an uncertain origin AS-ABST MAG POS LINEAR UNCERTAIN AS-ABST MAG NEG LINEAR UNCERTAIN AS-ABST MAG POS DISCRETE UNCERTAIN AS-ABST MAG POS UNCERTAIN AS-ABST MAG NEG UNCERTAIN	The category applies to a range of anomalies where there is not enough evidence to confidently suggest an origin. Anomalies in this category may well be related to archaeologically significant features, but equally relatively modern features, geological/pedological features and agricultural features should be considered. Positive anomalies are indicative of magnetically enhanced soils that may form the fill of 'cut' features or may be produced by accumulation within layers or 'earthwork' features; soils subject to burning may also produce positive anomalies. Negative anomalies are produced by material of comparatively low magnetic susceptibility such as stone and subsoil.
Anomalies with an agricultural origin AS-ABST MAG AGRICULTURAL AS-ABST MAG RIDGE AND FURROW	The anomalies are often linear and form a series of parallel responses or are parallel to extant land boundaries. Where the response is broad, former ridge and furrow is likely; narrow response is often related to modern ploughing.
Anomalies associated with magnetic debris AS-ABST MAG DEBRIS AS-ABST MAG STRONG DIPOLAR	Magnetic debris often appears as areas containing many small dipolar anomalies that may range from weak to very strong in magnitude. It often occurs where there has been dumping or ground make-up and is related to magnetically thermoremnant materials such as brick or tile or other small fragments of ferrous material. This type of response is occasionally associated with kilns, furnace structures, or hearths and may therefore be archaeologically significant. It is also possible that the response may be caused by natural material such as certain gravels and fragments of igneous or metamorphic rock. Strong discrete dipolar anomalies are responses to ferrous objects within the topsoil.

Anomalies with a modern origin AS-ABST MAG DISTURBANCE AS-ABST MAG SERVICE	The magnetic response is often strong and dipolar indicative of ferrous material and may be associated with extant above surface features such as wire fencing, cables, pylons etc.. Often a significant area around such features has a strong magnetic flux which may create magnetic disturbance; such disturbance can effectively obscure low magnitude anomalies if they are present. Fluxgate sensors may respond erratically and with hysteresis adjacent to strong magnetic sources.

Table 1: List and description of interpretation categories

3.4 List of anomalies - Area 1

Area centred on OS NGR 354575 137045, see Figures 03 & 04.

Anomalies of archaeological potential

(1) – Positive linear anomalies form three sides of a rectilinear feature, with dimensions of 12m by at least 19m, and located in the centre of the survey area. A number of discrete, pit-like anomalies and a widespread zone of magnetically variable responses appear to be associated with them.

(2) – Zones of magnetically variable responses are located to the north, east and south east and within the confines of anomaly (1). This type of response may indicate ground disturbance or former building debris and an archaeological origin should be considered.

(3) – A group of positive linear, rectilinear and discrete anomalies are located close to the south eastern corner of the survey area. These anomalies appear to relate to a small enclosure or structure associated with linear and discrete cut features close by.

Anomalies with an uncertain origin

(4) – Broad linear negative anomalies oriented north to south are located in the southern part of the survey area. It is possible that these are associated with former ridge and furrow, headlands or land division.

(5) – The survey area contains a number of discrete positive responses, sometimes located in clusters, but often widespread and singular. These appear to relate to pit-like features, and although an anthropogenic origin is possible, a natural origin cannot be ruled out.

(6) – The survey area contains a small number of positive linear and possible curvilinear responses. They are often short or fragmented, and while some may be associated with former agricultural practices, others may relate to cut features.

(7) – A negative linear anomaly is located in the northern part of the survey area. It appears to cross the ridge and furrow (8) and while this type of response can

indicate a pipe or cable, it does not appear to extend completely across the site.

Anomalies with an agricultural origin

(8) – A series of parallel linear anomalies are located in the northern part of the survey area and are likely to relate to former ridge and furrow.

(9) – A number of negative linear anomalies extend across the survey area with a east north east to west south west orientation. It is possible that these anomalies relate to agricultural activity, possibly ridge and furrow or mole drains.

Anomalies associated with magnetic debris

(10) – A patch of highly magnetic debris is evident in the centre of the survey area, to the south of anomaly (1). This is a response to ferrous and other magnetically thermoremnant material that has been used to infill a pond that was recorded on Ordnance Survey mapping from 1886 and infilled in the later 20th century.

(11) – A linear zone of strongly magnetic debris is located east of anomaly (10) and appears to relate to a linear extension of the field boundary to the north, although none is mapped on any Ordnance Survey mapping. It is a response to ferrous and other magnetically thermoremnant material that may have been used to infill a linear depression within the field.

(12) – The survey area contains widespread and numerous strong, discrete, dipolar anomalies which are a response to ferrous and other magnetically thermoremnant objects, such as brick/tile which are located within the topsoil.

Anomalies with a modern origin

(13) – Magnetic disturbance is a response to steel buildings and ferrous fencing material.

3.5 List of anomalies - Area 2

Area centred on OS NGR 354648 137088 see Figures 03 & 04.

Anomalies with an uncertain origin

(14) – The survey area contains a small number of weakly positive linear or possible curvilinear anomalies. It is not possible to determine if they relate to cut features.

(15) – Widespread and numerous discrete positive responses have been located throughout the survey area. It is likely that many are associated with tree removal.

Anomalies associated with magnetic debris

(16) – Patches of magnetic debris are likely to relate to dumped magnetically thermoremnant material.

(17) – Strong, discrete, dipolar anomalies are a response to ferrous and other magnetically thermoremnant objects within the topsoil.

Anomalies with a modern origin

(18) – Magnetic disturbance is a response to ferrous material used in nearby fencing and farm structures.

4 CONCLUSION

4.1.1 The detailed magnetometer survey located two areas that may contain potential archaeological features. One lies in the centre of the site where positive rectilinear anomalies and magnetically variable responses may indicate cut features and possible ground disturbance associated with archaeological features.

4.1.2 Towards the south eastern corner of the site are a second group of positive linear, rectilinear and discrete anomalies that also appear to relate to cut features and an association with former structures should be considered. Slight earthworks, formerly recorded from aerial photographs within the field, have indicated that the site may contain remnants of a Deserted Medieval Village and an association is possible.

4.1.3 The site also contains a number of linear anomalies that relate to former agricultural practices including ridge and furrow cultivation. Magnetic debris indicates a recently infilled pond in the centre of the site, with another linear zone to the east possibly indicating an infilled field boundary ditch.

5 REFERENCES

British Geological Survey, 2014. *Geology of Britain viewer, 1:50 000 scale [online]* available from http://mapapps.bgs.ac.uk/geologyofbritain/home.html [accessed 11/7/2014].

English Heritage, 2008. *Geophysical survey in archaeological field evaluation. Research and Professional Service Guideline No.1.* 2nd ed. Swindon: English Heritage.

Institute for Archaeologists, 2002. *The use of Geophysical Techniques in Archaeological Evaluations*. IfA Paper No. 6. IfA, University of Reading.

Institute for Archaeologists, 2011. *Standard and Guidance for archaeological geophysical survey*. IfA, University of Reading.

Soil Survey of England and Wales, 1983. *Soils of England and Wales, Sheet 5 South West England.*

Appendix A – basic principles of magnetic survey

Iron minerals are always present to some degree within the topsoil and enhancement associated with human activity is related to increases in the level of magnetic susceptibility and thermoremnant material.

Magnetic susceptibility is an induced magnetism within a material when it is in the presence of a magnetic field. This can be thought of as effectively permanent due to the presence of the Earth's magnetic field.

Thermoremnant magnetism occurs when ferrous material is heated beyond a specific temperature known as the Curie Point. Demagnetisation occurs at this temperature with re-magnetisation by the Earth's magnetic field upon cooling.

Enhancement of magnetic susceptibility can occur in areas subject to burning and complex fermentation processes on biological material; these are frequently associated with human settlement. Thermoremnant features include ovens, hearths, and kilns. In addition thermoremnant material such as tile and brick may also be associated with human activity and settlement.

Silting and deliberate infilling of ditches and pits with magnetically enhanced soil can create an area of enhancement compared with surrounding soils and subsoils into which the feature is cut. Mapping enhanced areas will produce linear and discrete anomalies allowing an assessment and characterisation of hidden subsurface features.

It should be noted that areas of negative enhancement can be produced from material having lower magnetic properties compared to the topsoil. This is common for many sedimentary bedrocks and subsoils which were often used in the construction of banks and walls etc. Mapping these 'negative' anomalies may also reveal archaeological features.

Magnetic survey or magnetometry can be carried out using a fluxgate gradiometer and may be referred to as gradiometry. The SENSYS gradiometer is a passive instrument consisting of two fluxgate sensors mounted vertically 65cm apart. The instrument is carried about 10-20cm above the ground surface and the upper sensor measures the Earth's magnetic field as does the lower sensor but this is influenced to a greater degree by any localised buried field. The difference between the two sensors will relate to the strength the magnetic field created by the buried feature. If no enhanced feature is present the field measured by both sensors will be similar and the difference close to zero.

There are a number of factors that may affect the magnetic survey and these include soil type, local geology and previous human activity. Situations arise where magnetic disturbance associated with modern services, metal fencing, dumped waste material etc., obscures low magnitude fields associated with archaeological features.

Appendix B – data processing notes

Clipping

Minimum and maximum values are set and replace data outside of the range with those values. Extreme values are removed improving colour or greyscale contrast associated with data values that may be archaeologically significant. It has been found that clipping data to ranges between ±15nT and ±10nT often improves the appearance of features associated with archaeology. Different ranges are applied to data in order to determine the most suitable for anomaly abstraction and display.

Zero Median/Mean Traverse

The median (or mean) of each traverse is calculated ignoring data outside a threshold value, the median (or mean) is then subtracted from the traverse. The process is used to equalise slight differences between the set-up and stability of gradiometer sensors and can remove striping. The process can remove archaeological features that run along a traverse so data analysis is also carried out prior its application.

High Pass Filtering

A mathematical process used to remove low frequency anomalies relating to survey tracks and modern agricultural features.

Appendix C – survey and data information

Area 1

COMPOSITE
Filename: J555-mag-Area1-proc.xcp
Description: Imported as Composite from: J555-mag-Area1.asc
Instrument Type: Sensys DLMGPS
Units: nT
UTM Zone: 30U
Survey corner coordinates (X/Y):
Northwest corner: 354515.80099076, 137144.114090601 m
Southeast corner: 354645.28099076, 136956.434090601 m
Direction of 1st Traverse: 90 deg
Collection Method: Parallel
Sensors: 1
Dummy Value: 32702

Source GPS Points: 516400

Dimensions
Composite Size (readings): 1079 x 1564
Survey Size (meters): 129 m x 188 m
Grid Size: 129 m x 188 m
X Interval: 0.12 m
Y Interval: 0.12 m

Stats
Max: 20.00
Min: -15.00
Std Dev: 5.07
Mean: 0.08
Median: 0.02
Composite Area: 2.4301 ha
Surveyed Area: 1.5576 ha

Processes: 2
1 Base Layer
2 Clip from -15.00 to 20.00 nT

GPS based Proce4
1 Base Layer.
2 Unit Conversion Layer (Lat/Long to OSGB36).
3 High pass Uniform (median) filter: Window dia: 300
4 Clip from -20.00 to 20.00 nT

Area 2

COMPOSITE
Filename: J555-mag-Area2-proc.xcp
Description: Imported as Composite from: J555-mag-Area2.asc
Instrument Type: Sensys DLMGPS
Units: nT
UTM Zone: 30U
Survey corner coordinates (X/Y):
Northwest corner: 354624.223439016, 137120.439342778 m
Southeast corner: 354678.763439016, 137054.379342778 m
Direction of 1st Traverse: 90 deg
Collection Method: Parallel
Sensors: 1
Dummy Value: 32702

Source GPS Points: 87000

Dimensions
Composite Size (readings): 606 x 734
Survey Size (meters): 54.5 m x 66.1 m
Grid Size: 54.5 m x 66.1 m
X Interval: 0.09 m
Y Interval: 0.09 m

Stats
Max: 20.00
Min: -15.00
Std Dev: 8.59
Mean: 0.41
Median: -0.05
Composite Area: 0.36029 ha
Surveyed Area: 0.22455 ha

PROGRAM

Processes: 2
1 Base Layer
2 Clip from -15.00 to 20.00 nT

GPS based Proce4
1 Base Layer.
2 Unit Conversion Layer (Lat/Long to OSGB36).
3 High pass Uniform (median) filter: Window dia: 300
4 Clip from -20.00 to 20.00 n

Appendix D – digital archive

Archaeological Surveys Ltd hold the primary digital archive at their offices in Wiltshire (see inside cover for address). Data are backed-up onto an on-site data storage drive and at the earliest opportunity data are copied to CD ROM for storage on-site and off-site.

Surveys are reported on in hardcopy (recycled paper) using A4 for text and A3 for plots (all plots are scaled for A3). A digital copy of the report in PDF format will be provided to the Somerset Historic Environment Service together with a printed copy of the report. This will also be uploaded to Oasis upon permission of the client.

This report has been prepared using the following software on a Windows XP platform:

- TerraSurveyor version 3.0.23.0 (geophysical data analysis),
- SENSYS MAGNETO®ARCH version 1.00-04(geophysical data analysis),
- ProgeCAD Professional 2014 (report graphics),
- AutoCAD LT 2007 (report figures),
- OpenOffice.org 3.0.1 Writer (document text),
- PDF Creator version 0.9 (PDF archive).

Digital data produced by the survey and report include the following files:

- TerraSurveyor grid and composite files for all geophysical data,
- CSV files for raw and processed composites,
- geophysical composite file graphics as Bitmap images,
- AutoCAD DWG files in 2000 and 2007 versions,
- report text as OpenOffice.org ODT file,
- report text as Word 2000 doc file,
- report text as rich text format (RTF),
- report text as PDF,
- PDFs of all figures.

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Archaeological Surveys Ltd

Geophysical Survey
Court Barn Farm
West Bradley
Somerset

Map of survey area

Survey location

Site centred on OS NGR
ST 54600 37050

SCALE 1:25 000

0m 500m 1000m

SCALE TRUE AT A3

FIG 01

Archaeological Surveys Ltd

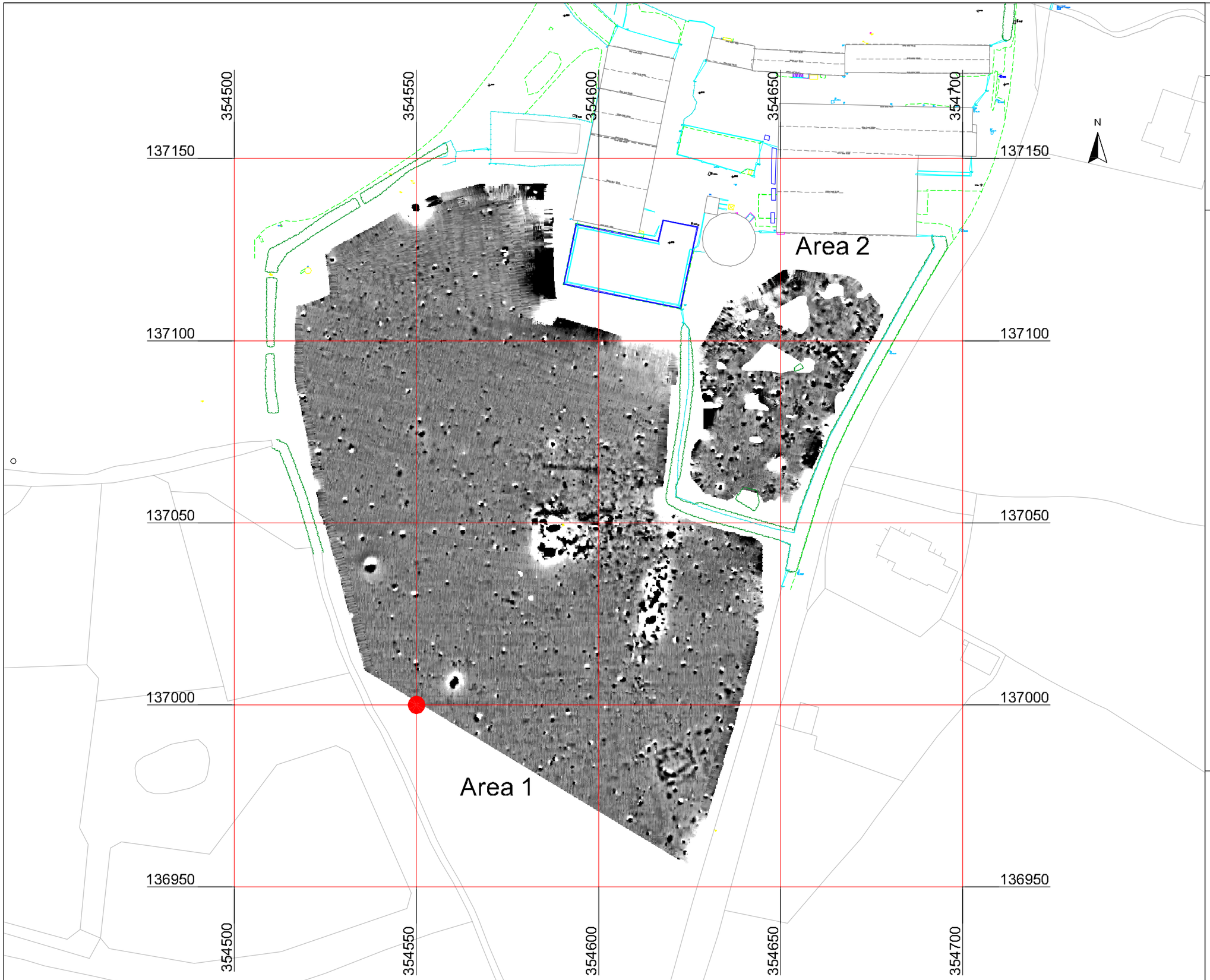
Geophysical Survey
Court Barn Farm
West Bradley
Somerset

Referencing information

Referencing grid to OSGB36 datum at 50m intervals

Data collected at 20Hz and georeferenced to ETRS89 zone 30 with conversion to OSGB36 using OSTN02

● 354550 137000



SCALE 1:1000

0m 10 20 30 40 50m

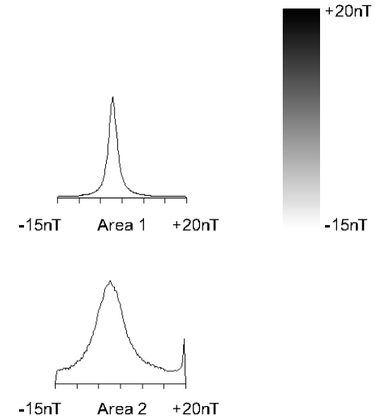
SCALE TRUE AT A3

FIG 02

Archaeological Surveys Ltd

Geophysical Survey
Court Barn Farm
West Bradley
Somerset

Greyscale plot of processed magnetometer data



N

Area 2

Area 1

SCALE 1:1000

0m 10 20 30 40 50m

SCALE TRUE AT A0

FIG 03

Archaeological Surveys Ltd

Geophysical Survey
Court Barn Farm
West Bradley
Somerset

Abstraction and interpretation of magnetometer anomalies

- Positive linear anomaly - cut feature of archaeological potential
- Positive linear anomaly - possible ditch-like feature
- Linear anomaly - agricultural origin
- Linear anomaly - ridge and furrow
- Negative linear anomaly - material of low magnetic susceptibility (clay/stone)
- Discrete positive response - cut feature of archaeological potential
- Discrete positive response - possible pit-like feature
- Variable magnetic response of archaeological potential
- Positive anomaly - magnetically enhanced material
- Negative anomaly - material of low magnetic susceptibility (subsoil/stone)
- Magnetic debris - spread of magnetically thermoremnant/ferrous material
- Magnetic disturbance from ferrous material
- Strong dipolar anomaly - ferrous object

N

Area 1

Area 2

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

SCALE 1:1000

0m 10 20 30 40 50m

SCALE TRUE AT A3

FIG 04