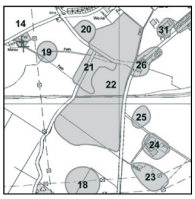
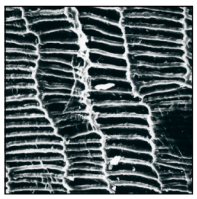
GRTH/01










LAND SOUTH OF GLOUCESTER ROAD, THORNBURY, SOUTH GLOUCESTERSHIRE

GEOPHYSICAL SURVEY

commissioned by Bovis Homes

January 2017

HEADLAND ARCHAEOLOGY

REGISTERED ORGANISATION CIfA

LAND SOUTH OF GLOUCESTER ROAD, THORNBURY, SOUTH GLOUCESTERSHIRE

GEOPHYSICAL SURVEY

commissioned by Bovis Homes

January 2017

project info

HA JOB NO.	GRTH/01
NGR	ST 6523 9118
PARISH	Thornbury
LOCAL AUTHORITY	South Gloucestershire
OASIS REF.	Headland5-272663

project team

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APPROVED BY	David Harrison – Project Manager

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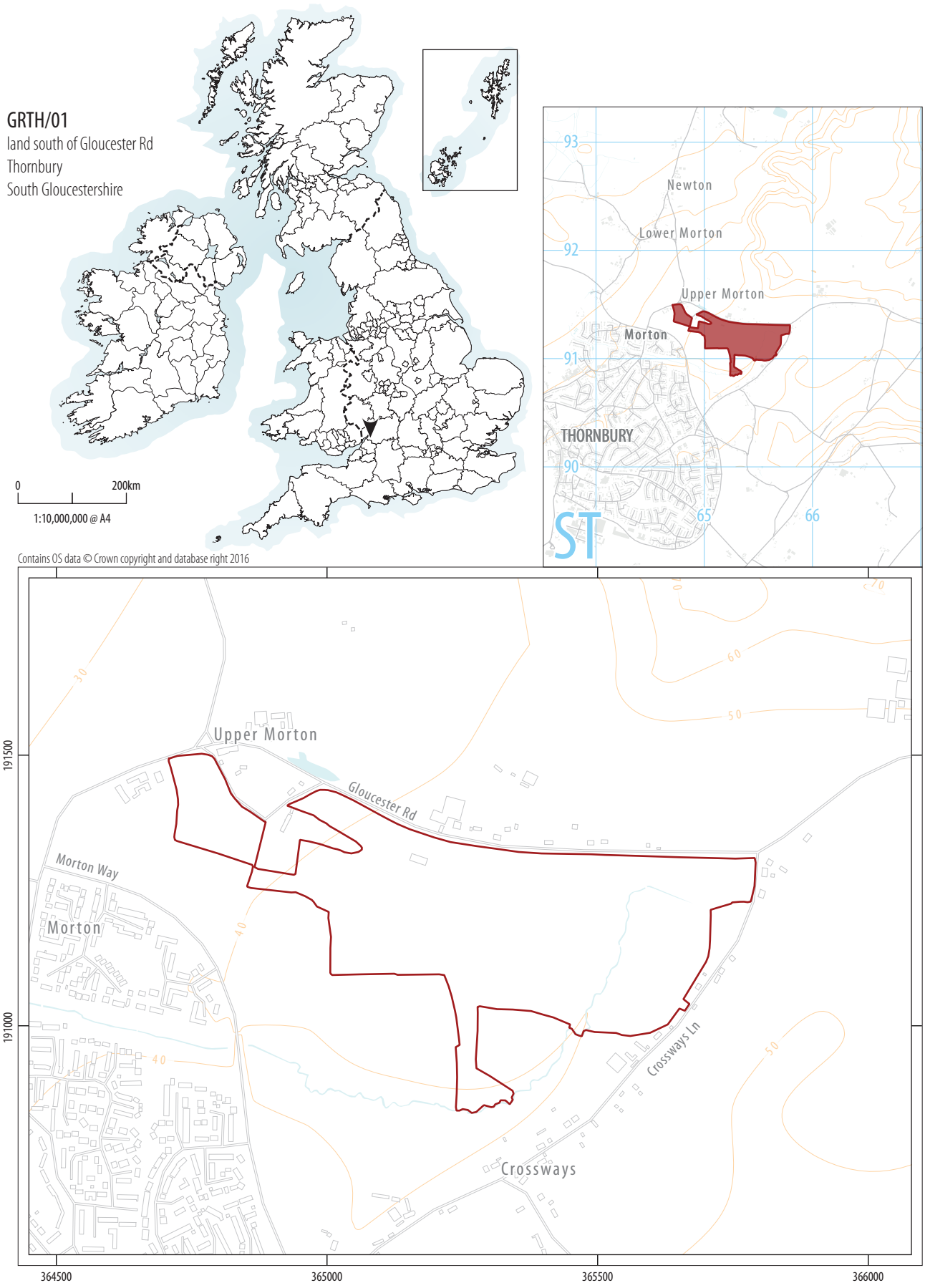
PROJECT SUMMARY

Headland Archaeology (UK) Ltd undertook a geophysical (magnetometer) survey, covering 26 hectares, on land south of Gloucester Road, Thornbury, to inform future archaeological strategy prior to the proposed development of the site. The survey has identified former field boundaries and ridge and furrow cultivation throughout the east of the site, confirming and enhancing the cropmark data and reflecting the former agricultural landscape as depicted on early Ordnance Survey mapping. These anomalies may be of local historical interest but are of no archaeological significance. Within the west of the site a cluster of linear anomalies have been identified within an elevated magnetic background. The anomalies are oblique to the existing and historical pattern of land division and an archaeological origin cannot be dismissed. Whilst no clear pattern is discernible, the anomalies may be due to soil-filled ditches, perhaps forming part of a system of enclosure and land division. A broad area of magnetic disturbance in the north-east is interpreted as being caused by modern infilling around a diverted watercourse. On the basis of the geophysical survey, the archaeological potential across the majority of the site as assessed as being very low with a low to moderate archaeological potential in the vicinity of the cluster of linear anomalies in the west.

CONTENTS

LIST OF ILLUSTRATIONS



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ILLUS 1 Site location

LAND SOUTH OF GLOUCESTER ROAD, THORNBURY, SOUTH GLOUCESTERSHIRE

GEOPHYSICAL SURVEY

1 INTRODUCTION

Headland Archaeology (UK) Ltd was commissioned by The Environmental Dimension Partnership (The Consultant) on behalf of Bovis Homes Ltd (The Client) to undertake a geophysical (magnetometer) survey of land north-east of Thornbury, South Gloucestershire, to inform future archaeological strategy in advance of a proposed development.

The work was undertaken in accordance with a Written Scheme of Investigation (Headland Archaeology 2016), submitted to The Consultant, and was undertaken in accordance with guidance contained within the National Planning Policy Framework (DCLG 2012). All work was undertaken in line with current best practice (English Heritage 2008; CIfA 2014).

The survey was carried out between October 24th and October 27th 2016 in order to provide information on the archaeological potential of the site.

1.1 SITE LOCATION, TOPOGRAPHY AND LAND USE

The proposed development area (PDA) is located on the north-eastern periphery of Thornbury, South Gloucestershire, centred at ST 6523 9118 (see Illus 1). It comprises of eight fields (F1–F8) within an irregularly-shaped parcel of land which is bound to the north by the B4061 Gloucester Road, to the east by Crossways Lane, to the west by Thornbury Fields – a new residential estate, and by enclosed pasture fields to the south. A minor watercourse, the Pickledmoor Lane Rhine, skirts the south of F7 and the western and northern edges of F5.

The topography undulates locally but generally the PDA lies on a low hill which rises to 48m above Ordnance Datum (AOD) at the centre of the site, sloping to 39m AOD at the Pickledmoor Lane Rhine and 35m AOD within the west of F1.

At the time of the survey the fields were under short pasture (see Illus 2–5).

1.2 GEOLOGY AND SOILS

The underlying bedrock mainly consists of Mercia mudstone with Raglan mudstone recorded within F5. No superficial deposits are recorded (NERC 2016).

The soils are classified in the Soilscape 7 association, characterised as freely draining slightly acid but base-rich soils (Cranfield University 2016).

2 ARCHAEOLOGICAL BACKGROUND

The South Gloucestershire Historic Environment Record (HER) records a single heritage asset within the PDA, a flint scatter (ref 17860) which was recovered from the eastern half of the site (see Illus 7).

The National Mapping Programme (NMP) has identified evidence of ridge and furrow cultivation throughout the east of the PDA and a rectilinear bank within F2.

Trial trenching (Wessex Archaeology 2015) targeting geophysical anomalies in the fields off Morton Way, to the immediate south-west of the PDA, revealed post-medieval boundaries shown on historic mapping. Other anomalies were shown to be due to natural irregularities in the geology.

Analysis of historical Ordnance Survey (OS) mapping (Old-maps 2016) indicates that the layout and division of land within the PDA has undergone considerable change since the publication of the first edition OS map in 1881 including the removal of a number of field boundaries and orchards. Within the east of the PDA a small building with a well is shown on early OS maps, but removed by the publication of the 1954 map. The Pickledmoor Lane Rhine is shown on early maps taking a winding course northwards towards Gloucester Road (see Illus 7), but by the publication of the 1970 edition OS map the watercourse has was been diverted on a straighter easterly route.

ILLUS 2 Field 1, looking north-west **ILLUS 3** Field 7, looking south

3 AIMS, METHODOLOGY AND PRESENTATION

The main aim of the geophysical survey was to provide sufficient information to enable an assessment to be made of the impact of any proposed development on any sub-surface archaeological remains, if present.

The general archaeological objectives of the geophysical survey were:

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

3.1 MAGNETOMETER SURVEY

Magnetic survey methods rely on the ability of a variety of instruments to measure very small magnetic fields associated with buried archaeological remains. Features such as a ditch, pit or kiln can act like a small magnet, or series of magnets, that produce distortions (anomalies) in the earth's magnetic field. In mapping these slight variations, detailed plans of sites can be obtained as buried features often produce reasonably characteristic anomaly shapes and strengths (Gaffney and Gater 2003). Further information on soil magnetism and the interpretation of magnetic anomalies is provided in Appendix 1.

The survey was undertaken using four Bartington Grad601 sensors mounted at 1m intervals (1m traverse interval) onto a rigid carrying frame. The system is programmed to take readings at a frequency of 10Hz (allowing for a 10–15cm sample interval) on roaming traverses 4m apart. These readings are stored on an external weatherproof laptop and later downloaded for processing and interpretation. The system is linked to a Trimble R8s Real Time Kinetic (RTK) differential Global Positioning System (dGPS) outputting in NMEA mode to ensure a high positional accuracy for each data point.

MLGrad601 and MultiGrad601 (Geomar Software Inc.) software has been used to collect and export the data. Terrasurveyor V3.0.31.0 (DWConsulting) software has been used to process and present the data.

3.2 REPORTING

A general site location plan is shown in Illus 1 at a scale of 1:10,000. Illus 2–5 are site condition photographs. Illus 6 is a 1:4,000 scale survey location plan showing the GPS track data, contour data and the location and direction of the site condition photographs. Illus 7 shows the survey location overlying the 1892–1905 six inch OS map and also shows data from the South Gloucestershire HER and the NMP. Fully processed greyscale data and accompanying interpretative drawings, both at a scale of 1:4,000, are shown as Illus 8 and Illus 9 respectively.

Detailed data plots of the fully processed data (greyscale) and minimally processed data (XY trace plot) and interpretative illustrations of the two sectors into which the site is broken down, are presented at a scale of 1:2,500 in Illus 10 to Illus 15 inclusive.

Technical information on the equipment used, data processing and magnetic survey methodology is given in Appendix 1. Appendix 2 details the survey location information and Appendix 3 describes the composition and location of the site archive. Data processing details are presented in Appendix 4. A copy of the OASIS entry (Online Access to the Index of Archaeological Investigations) is reproduced in Appendix 5.

The survey methodology, report and any recommendations comply with the Written Scheme of Investigation (Headland Archaeology 2016) and guidelines outlined by Historic England (English Heritage 2008) and by the Chartered Institute for Archaeologists (CIfA 2014). All illustrations reproduced from Ordnance Survey mapping are with the permission of the controller of Her Majesty's Stationery Office (© Crown copyright).

The illustrations in this report have been produced following analysis of the data in 'raw' and processed formats and over a range of different display levels. All illustrations are presented to most suitably display and interpret the data from this site based on the experience and knowledge of management and reporting staff.

ILLUS 4 Field 4, looking east **ILLUS 5** Field 5, looking north-east

4 RESULTS AND DISCUSSION

Ground conditions were very good across the site and the data quality was correspondingly good throughout. It is therefore assessed that the results provide a reliable indication of the sub-surface conditions across the site.

A variable magnetic background has been identified across the PDA with two notable areas of increased variation in the east and west respectively. The reason for the elevated background across the south of F1 is not clear but it is thought likely to be geological in origin, perhaps being caused by reduced topsoil depth in the higher part of the field. Within the far east of the PDA the data is dominated by high magnitude magnetic disturbance which is caused by modern dumping/filling.

Against this variable background numerous anomalies have been identified. These are discussed below and cross-referenced to specific anomalies on the interpretative illustrations, where appropriate.

4.1 FERROUS AND MODERN ANOMALIES

Ferrous anomalies, characterised as individual 'spikes', are typically caused by ferrous (magnetic) material, either on the ground surface or in the plough-soil. Little importance is normally given to such anomalies, unless there is any supporting evidence for an archaeological interpretation, as modern ferrous debris or material is common on most sites, often being present as a consequence of manuring or tipping/infilling.

Magnetic disturbance around the field edges is mainly due the proximity of perimeter fencing and other ferrous material within or close to the field boundaries. However, along the northern edge of F3, and throughout much of the east of F4, broad areas of high magnitude magnetic disturbance (MS – see Illus 9 and Illus 12–15) is largely constrained by former field boundaries and by the former route of Pickledmoor Lane Rhine (see Illus 7) and is due to a spread of magnetically enhanced material used to backfill and level the area around the former stream channel.

At the southern extent of this spread, within the north of F5, a cluster of ferrous anomalies (B1 – see Illus 12–15) is identified. This cluster corresponds closely to a former building which is shown on early OS maps (see Illus 7) and is probably due to demolition material within the topsoil.

An isolated area of magnetic disturbance (BP – see Illus 12–15) within the south-east of F6 corresponds with the location of a former pond (see Illus 7). The disturbance is due to magnetically-enhanced material (e.g. brick, concrete etc) used to infill the pond.

4.2 AGRICULTURAL ANOMALIES

Eight former field boundaries (FB1–FB8 – see Illus 9) have been identified as faint low magnitude linear anomalies or alignments of ferrous 'spike' anomalies. FB1–FB4 correspond to boundaries which are depicted on the first edition OS map. FB5 and FB6, correspond to boundaries mapped by the NMP. FB7, aligned north-east/south-west in F2, corresponds closely to part of a bank mapped by the NMP. FB8 does not correspond to any boundaries shown on early OS maps but is aligned at right angles to FB7, parallel with the surrounding plough trends.

Series of slightly curving parallel trends have been identified on differencing alignments constrained by the former boundaries. These anomalies are characteristic of the medieval and post-medieval practice of ridge and furrow cultivation. The anomalies are caused by the magnetic contrast between the former ridges and the soil-filled furrows.

Within the south of F1 a linear band of anomalies, (FP – see Illus 7 and Illus 10–12), aligned north-east/south-west corresponds to the route of a public footpath and is probably due to variations in the composition of the topsoil, perhaps including rough metalling.

4.3 GEOLOGICAL ANOMALIES

Numerous discrete anomalies are visible throughout the magnetic dataset. These are interpreted as geological in origin and are due to minor variations in the depth and composition of the upper soil horizons. The anomalies increase in frequency within the south of F1 (GV1 see Illus 9–11), perhaps due to reduced topsoil depth in the highest part of the field. Elsewhere, faint sinuous anomalies within the centre of the PDA are thought to be due to topographical variation.

4.4 ARCHAEOLOGICAL AND POSSIBLE ARCHAEOLOGICAL ANOMALIES

A cluster of fragmentary linear and rectilinear anomalies have been identified within the south of F1. None of these anomalies align with the historic or extant pattern of land division, although D1 and D2 (possibly soil-filled ditches) are on the same north-east/south-west orientation as a footpath recorded on early OS mapping (see Illus 7). A third possible ditch (D3 – see Illus 10–12) is identified appended to the southern side of D1 and a fourth, D4, close to the southern boundary of the field. Several shorter, fragmented anomalies within the cluster are also possibly due to soil-filled features, perhaps being archaeological in origin. However, no clear archaeological pattern is discernible and the anomalies may be due to soil-filled fissures in the mudstone bedrock.

Fragmentary curvilinear anomalies (D5 and D6 – see Illus 10–12), within the west of F2, are also possibly due to soil-filled ditches. These anomalies also do not match the alignment of any former boundaries shown on historic OS maps and therefore an archaeological origin, such as a boundary ditch, should be considered. However, it is worth noting that F2 was under orchards until the mid-20th century and these anomalies could be agricultural in origin.

5 CONCLUSION

The geophysical survey has successfully evaluated the PDA, confirming and enhancing the cropmark data. The eastern part of the site is characterised by parallel linear anomalies typical of the medieval and post-medieval practice of ridge and furrow cultivation and reflecting the former agricultural landscape as shown on early OS maps. These anomalies are not thought to be of any more than local historical interest.

Two localised areas within the west of the site are ascribed a possible archaeological since they cannot be confidently interpreted as either modern, agricultural or geological in origin. The westernmost area is characterised by a cluster of fragmentary linear and rectilinear anomalies forming no coherent pattern. It is possible that the anomalies are due to archaeological ditches, perhaps forming part of a system of land division. However, the anomalies appear within a particularly variable magnetic background, likely to be due, at least in part, to reduced topsoil depth in this elevated part of the field. A geological origin, the anomalies perhaps being caused by soil-filled fissures in the mudstone bedrock, is plausible. Further east, two isolated curvilinear anomalies of uncertain origin may be due to soil-filled ditches.

No anomalies of archaeological potential have been identified in the vicinity of a flint scatter (ref. 17860) which is recorded in the South Gloucestershire HER.

On the basis of the geophysical survey, the archaeological potential across the central and eastern parts of the site is assessed as very low. In the west the potential is considered to be generally low but moderate in the vicinity of the identified linear anomalies.

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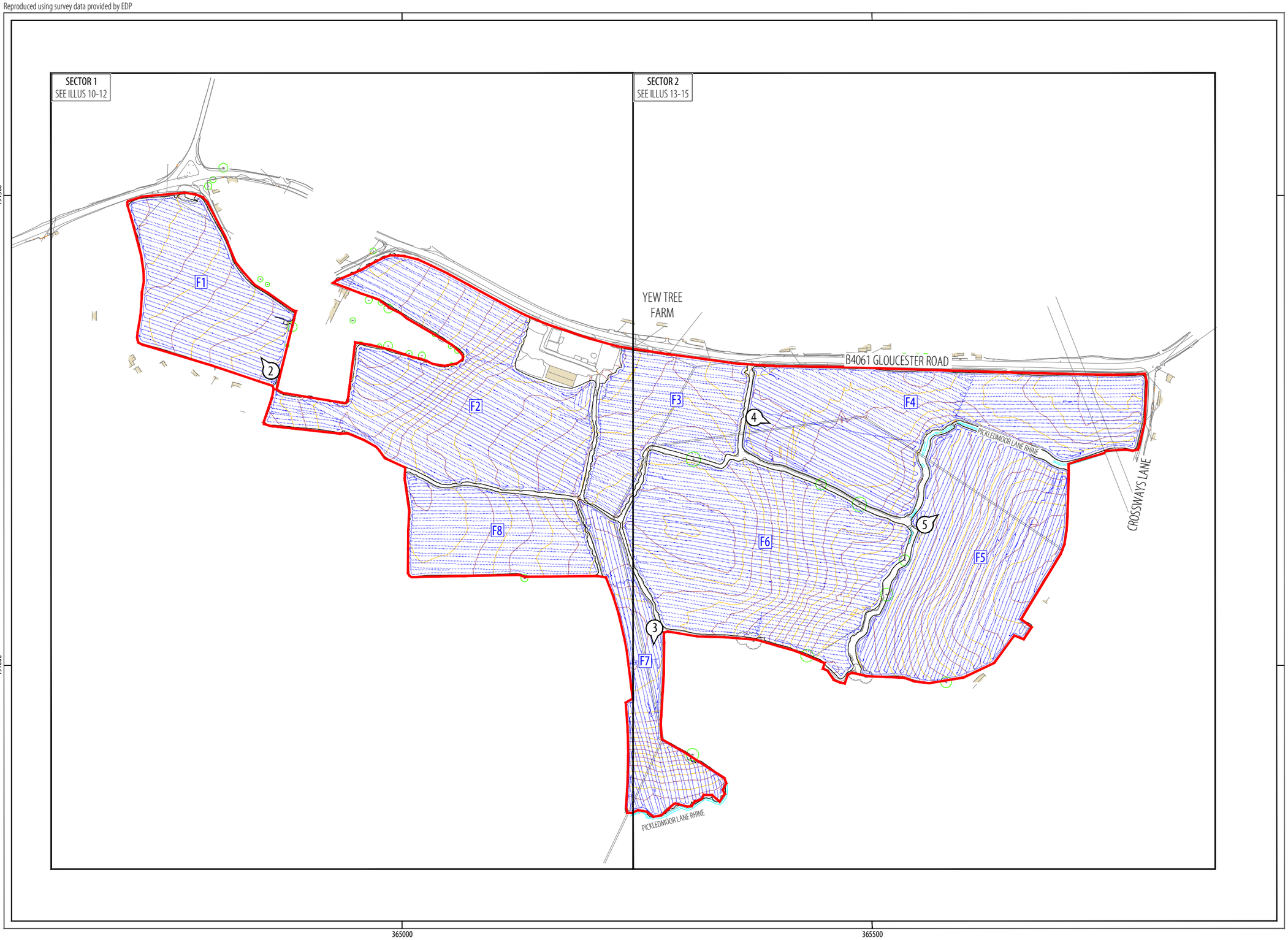
Reproduced using survey data provided by EDP



proposed development area
GPS track data
location and direction of ILLUS 2-5

N
0 100m
scale 1:4,000 @ A3

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Land south of Gloucester Road
Thornbury
South Gloucestershire

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ILLUS 6 Survey location showing contours and GPS track data

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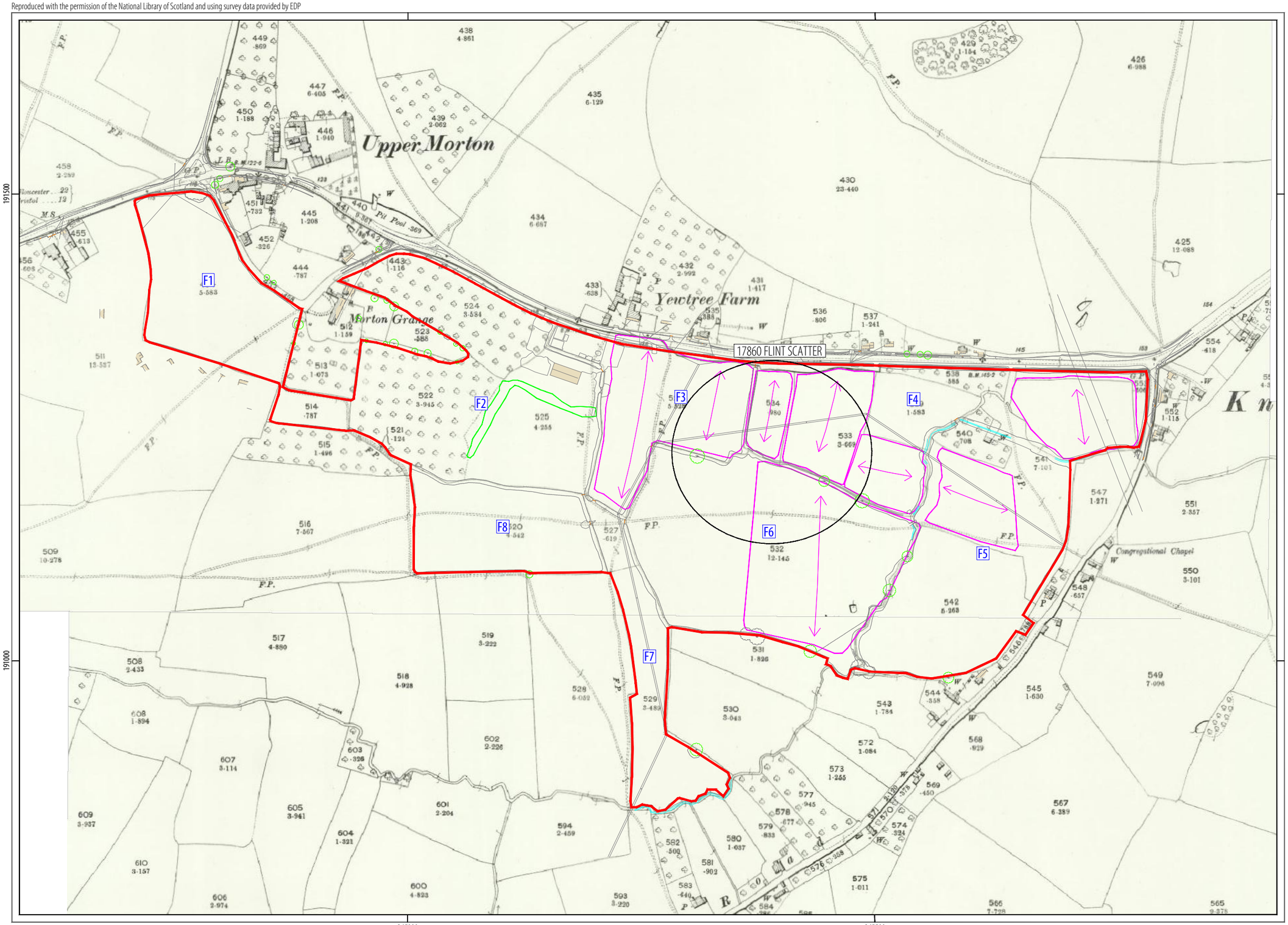

proposed development area
South Gloucestershire HER data
NMP data - ridge and furrow
NMP data - bank

N

0 100m

scale 1:4,000 @ A3

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ILLUS 7 Survey location overlying 1892-1905 six inch OS and showing South Gloucestershire HER and NMP data

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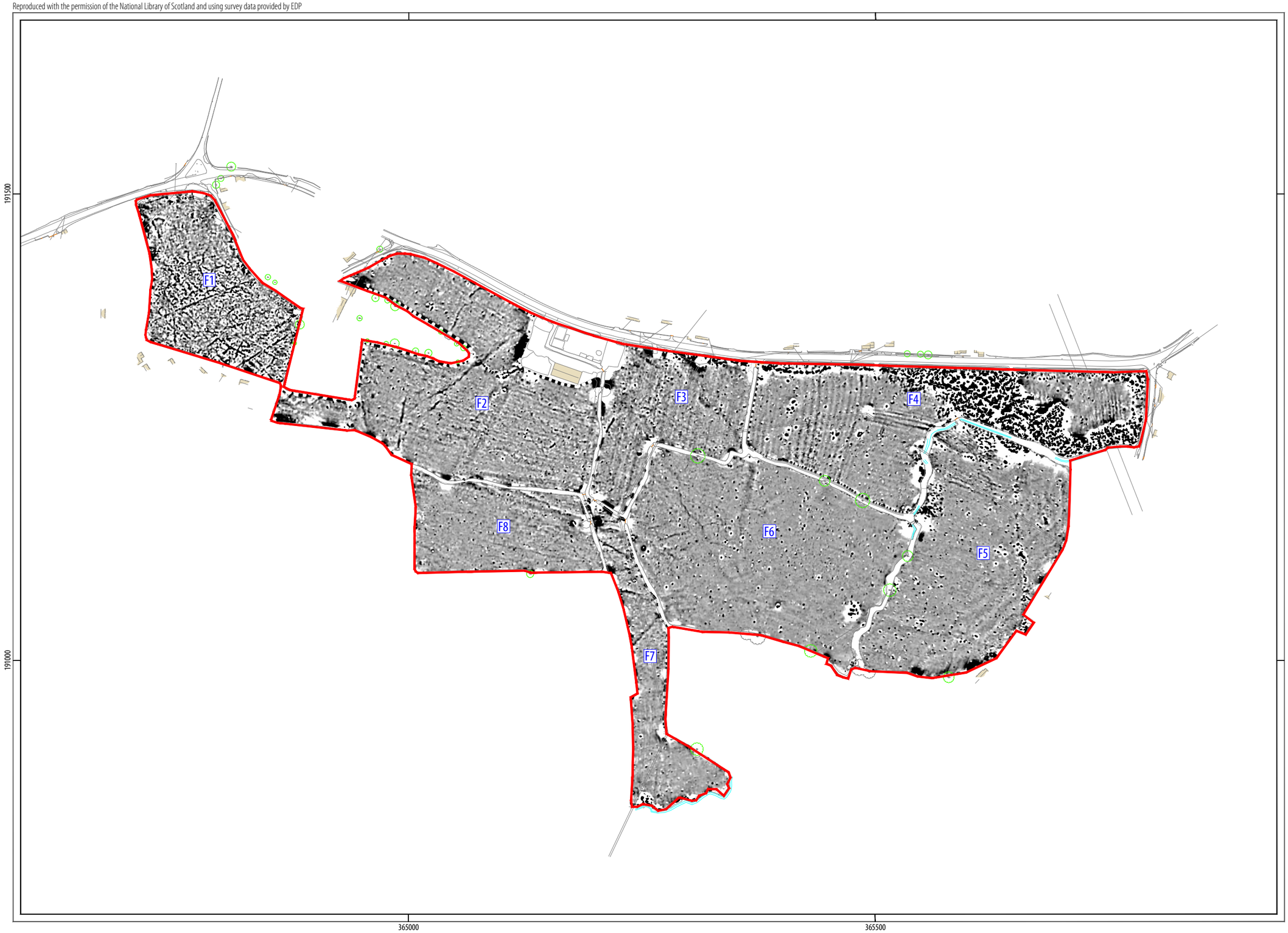

proposed development area

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2.0

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scale 1:4,000 @ A3

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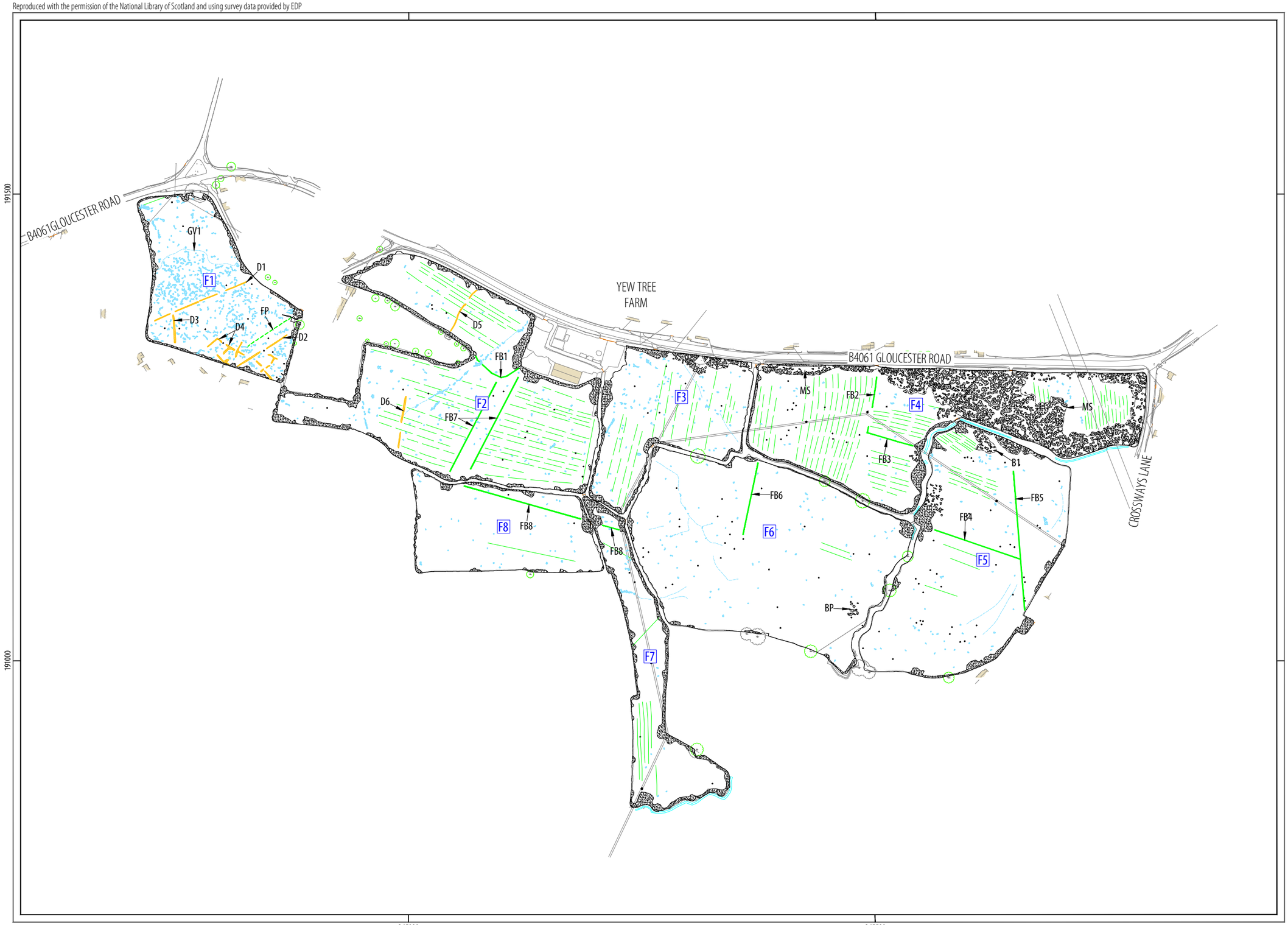
ILLUS 8 Overall processed greyscale magnetometer data



TYPE OF ANOMALY	INTERPRETATION
dipolar isolated	ferrous material
magnetic disturbance	ferrous material
linear trend	ridge and furrow
linear trend	agricultural
linear	former field boundary
linear	geology?
magnetic enhancement	geology?
magnetic enhancement	archaeology?

ABBREVIATIONS

B building	**FP** foot path
BP back-filled pond	**GV** geological variation
D ditch	**MS** magnetic spread
FB former boundary	

N

0 100m

scale 1:4,000 @ A3

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ILLUS 9 Overall interpretation of magnetometer data

nT
-1.0 2.0

N
0 50m
scale 1:2,500 @ A3

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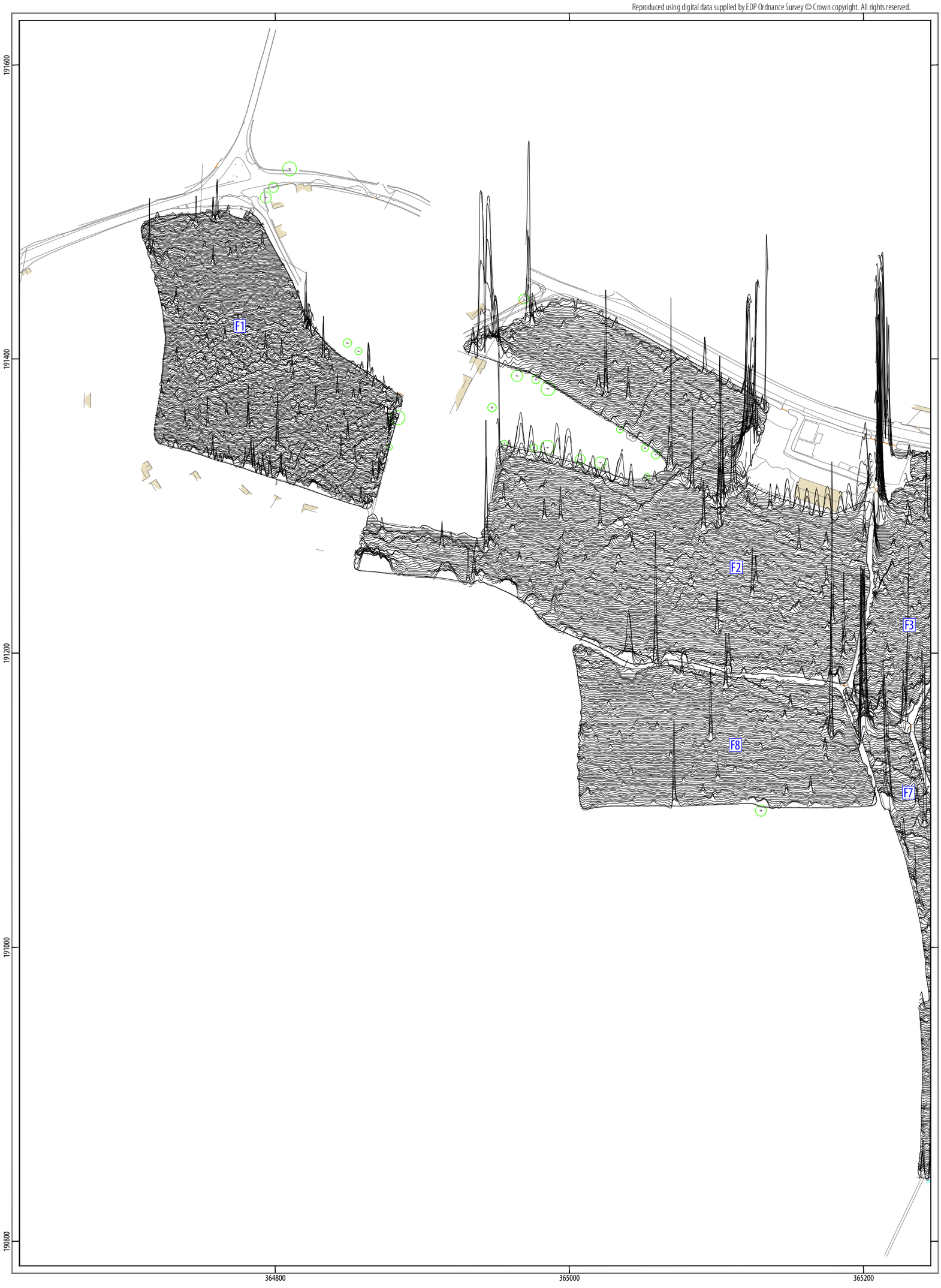
ILLUS 10 Processed greyscale magnetometer survey; Sector 1



100.0nT/cm

N

0 50m

scale 1:2,500 @ A3

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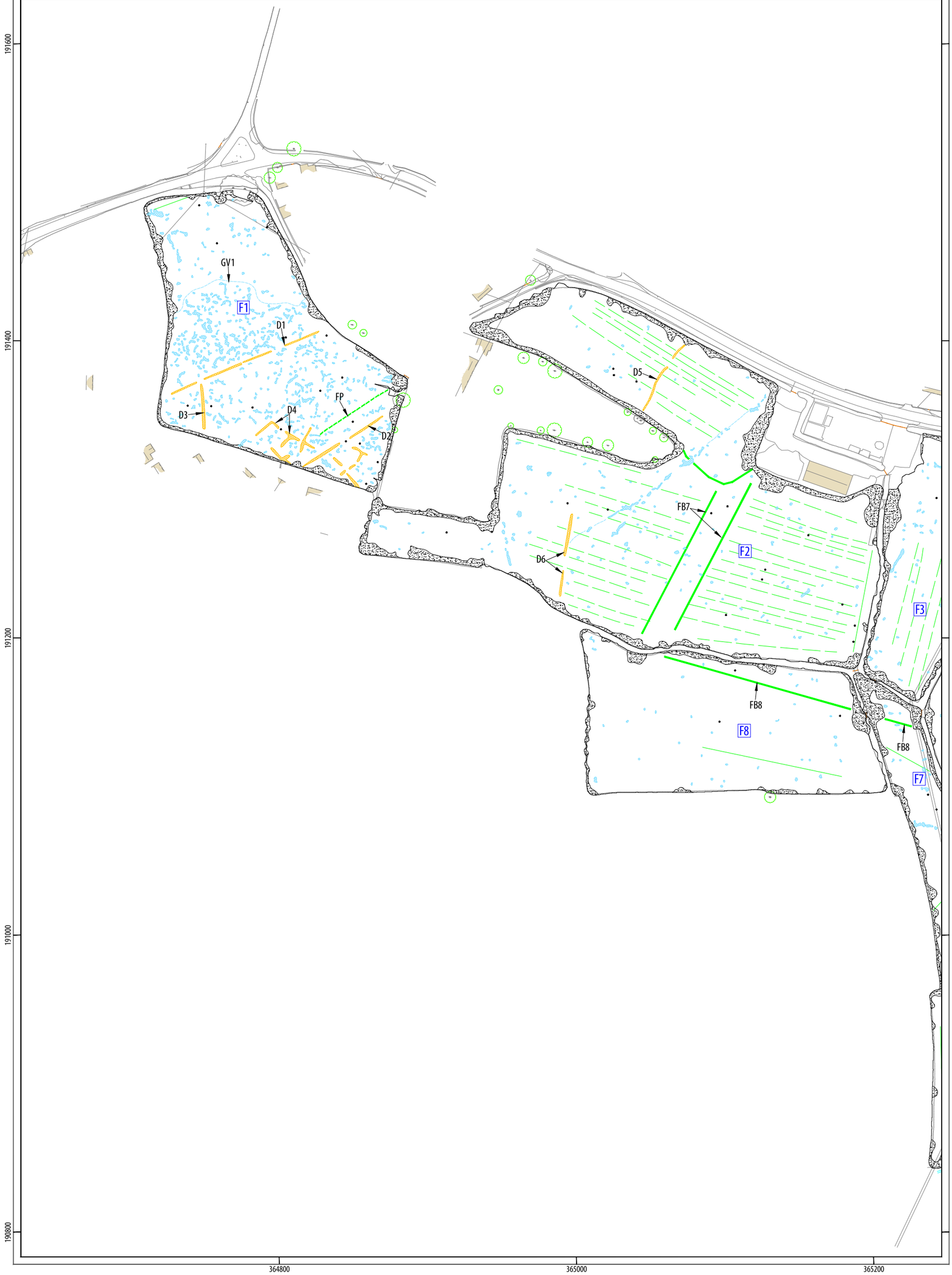
ILLUS 11 XY trace plot of minimally processed magnetometer survey; Sector 1



TYPE OF ANOMALY	INTERPRETATION
dipolar isolated	ferrous material
magnetic disturbance	ferrous material
linear trend	ridge and furrow
linear trend	agricultural
linear	former field boundary
linear	track / footpath

TYPE OF ANOMALY	INTERPRETATION
linear	geology?
magnetic enhancement	geology?
magnetic enhancement	archaeology?

ABBREVIATIONS

D	ditch	**FP**	foot path
FB	former boundary	**GV**	geological variation

N

0 50m

scale 1:2,500 @ A3

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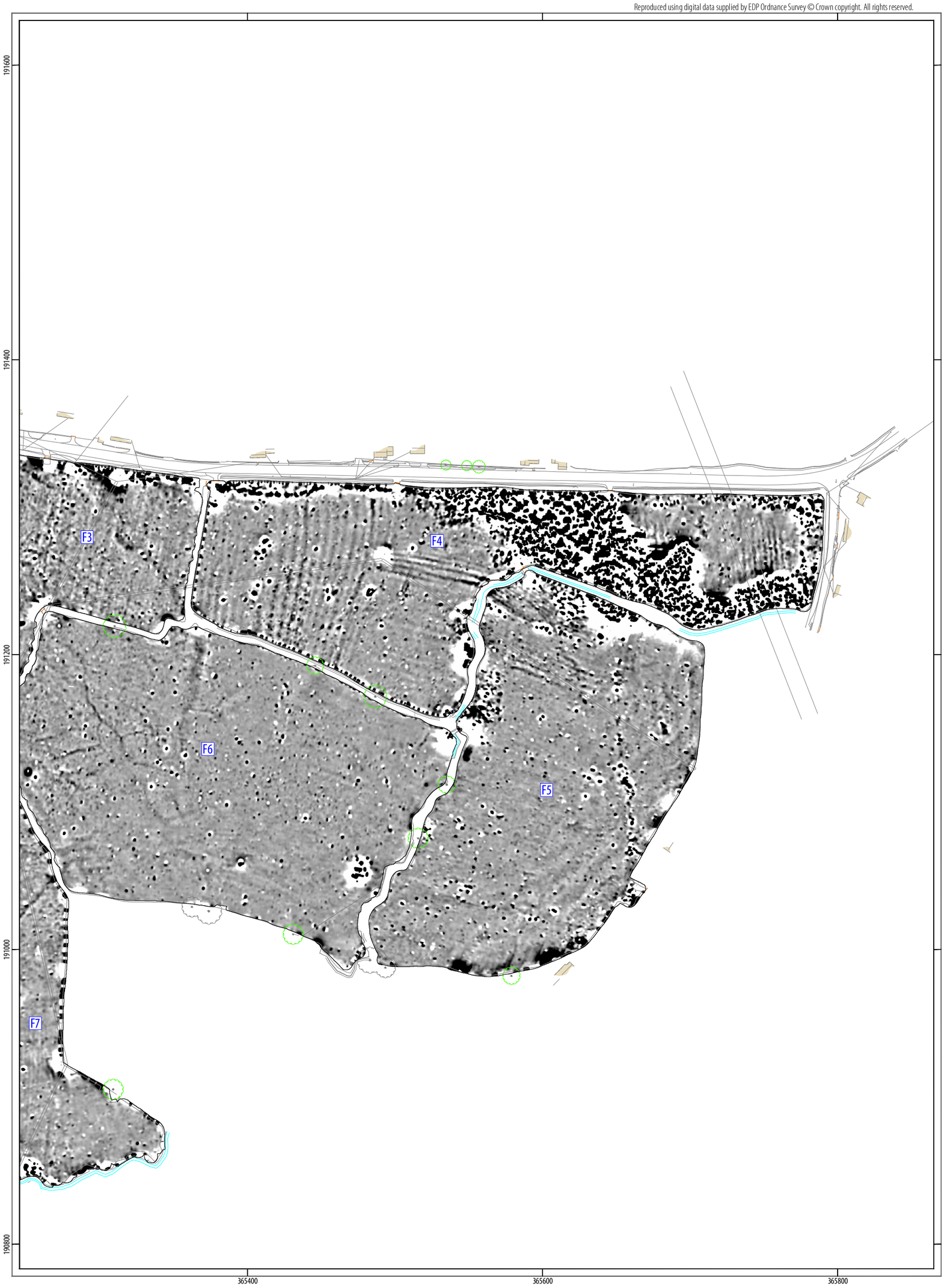
ILLUS 12 Interpretation of magnetometer survey; Sector 1



nT
-1.0 2.0

N
0 50m
scale 1:2,500 @ A3

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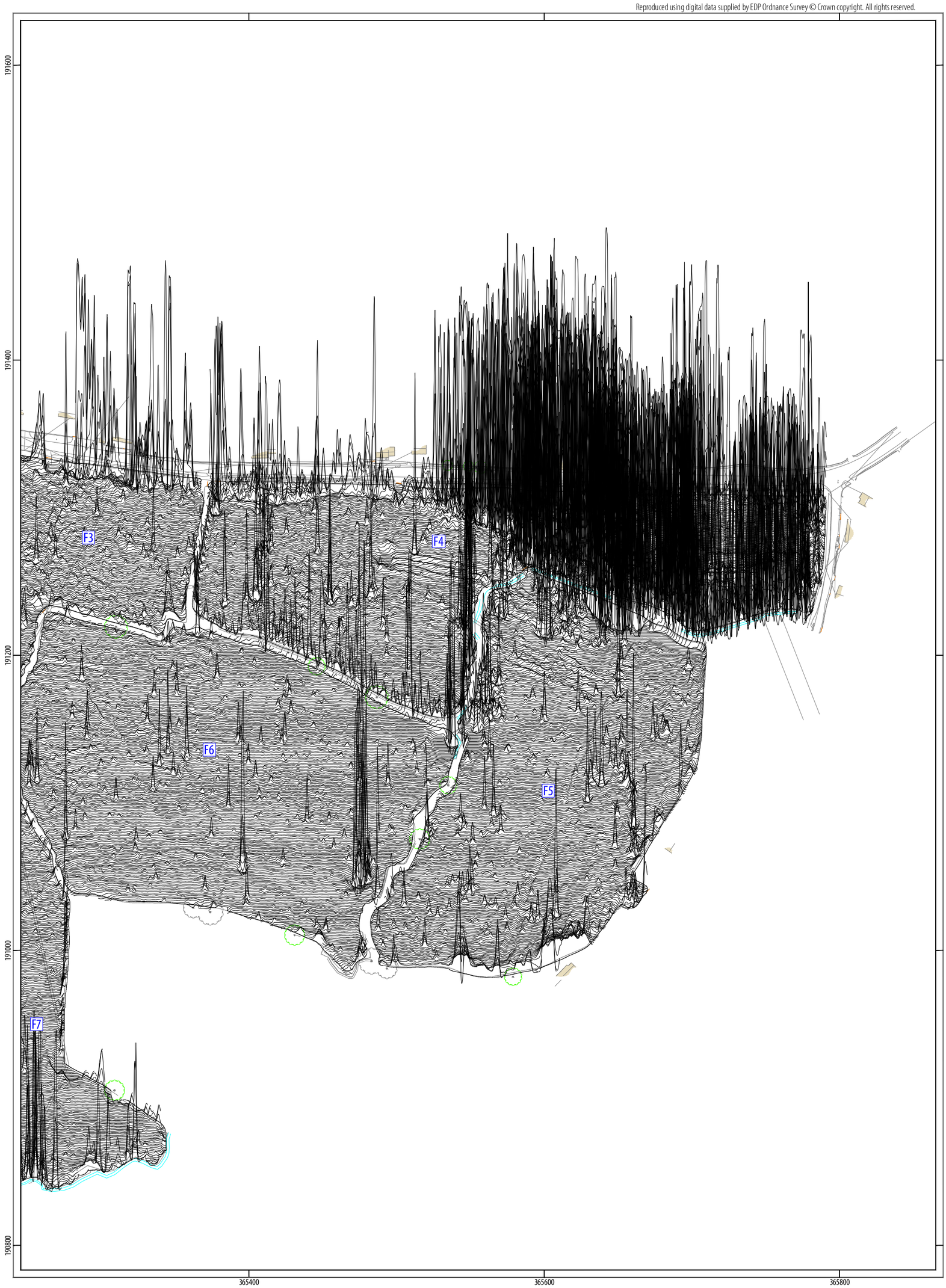
ILLUS 13 Processed greyscale magnetometer survey; Sector 2



100.0nT/cm

N

0 50m

scale 1:2,500 @ A3

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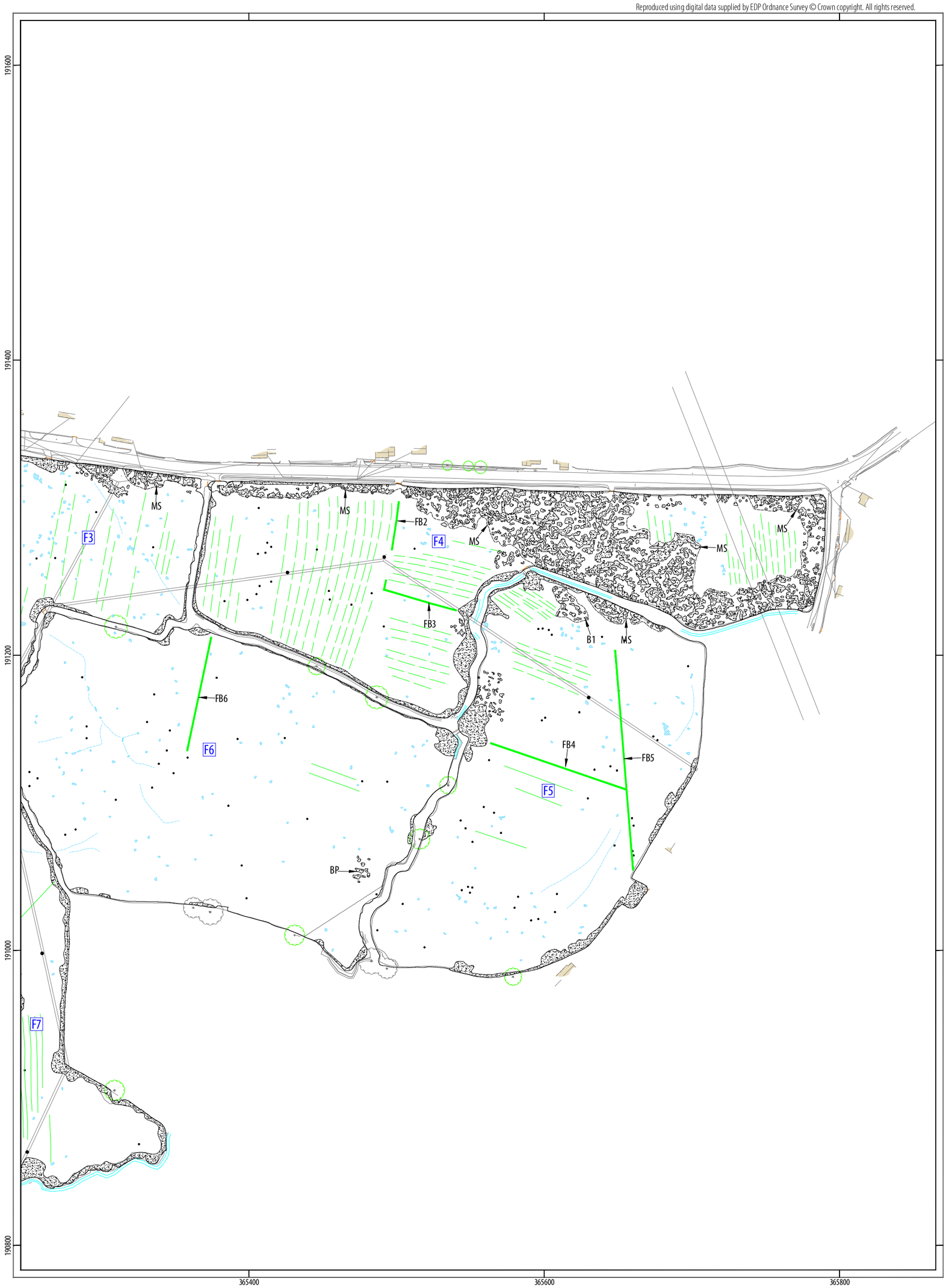
ILLUS 14 XY trace plot of minimally processed magnetometer survey; Sector 2



TYPE OF ANOMALY	INTERPRETATION
dipolar isolated	ferrous material
magnetic disturbance	ferrous material
linear trend	ridge and furrow
linear trend	agricultural
linear	former field boundary
linear	geology?

TYPE OF ANOMALY	INTERPRETATION
magnetic enhancement	geology?
magnetic enhancement	archaeology?

ABBREVIATIONS

B building
BP back-filled pond
FB former boundary
MS magnetic spread

N

0 50m

scale 1:2,500 @ A3

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ILLUS 15 Interpretation of magnetometer survey; Sector 2

7 APPENDICES

APPENDIX 1 MAGNETOMETER SURVEY

Magnetic susceptibility and soil magnetism

Iron makes up about 6% of the earth's crust and is mostly present in soils and rocks as minerals such as maghaemite and haematite. These minerals have a weak, measurable magnetic property termed magnetic susceptibility. Human activities can redistribute these minerals and change (enhance) others into more magnetic forms so that by measuring the magnetic susceptibility of the topsoil, areas where human occupation or settlement has occurred can be identified by virtue of the attendant increase (enhancement) in magnetic susceptibility. If the enhanced material subsequently comes to fill features, such as ditches or pits, localised isolated and linear magnetic anomalies can result whose presence can be detected by a magnetometer (fluxgate gradiometer).

In general, it is the contrast between the magnetic susceptibility of deposits filling cut features, such as ditches or pits, and the magnetic susceptibility of topsoils, subsoils and rocks into which these features have been cut, which causes the most recognisable responses. This is primarily because there is a tendency for magnetic ferrous compounds to become concentrated in the topsoil, thereby making it more magnetic than the subsoil or the bedrock. Linear features cut into the subsoil or geology, such as ditches, that have been silted up or have been backfilled with topsoil will therefore usually produce a positive magnetic response relative to the background soil levels. Discrete feature, such as pits, can also be detected.

The magnetic susceptibility of a soil can also be enhanced by the application of heat. This effect can lead to the detection of features such as hearths, kilns or areas of burning.

Types of magnetic anomaly

In the majority of instances anomalies are termed 'positive'. This means that they have a positive magnetic value relative to the magnetic background on any given site. However some features can manifest themselves as 'negative' anomalies that, conversely, means that the response is negative relative to the mean magnetic background.

Where it is not possible to give a probable cause of an observed anomaly a '?' is appended.

It should be noted that anomalies interpreted as modern in origin might be caused by features that are present in the topsoil or upper layers of the subsoil. Removal of soil to an archaeological or natural layer can therefore remove the feature causing the anomaly.

The types of response mentioned above can be divided into five main categories that are used in the graphical interpretation of the magnetic data:

Isolated dipolar anomalies (iron spikes) These responses are typically caused by ferrous material either on the surface or in the topsoil. They cause a rapid variation in the magnetic response giving a characteristic 'spiky' trace. Although ferrous archaeological artefacts could produce this type of response, unless there is supporting evidence for an archaeological interpretation, little emphasis is normally given to such anomalies, as modern ferrous objects are common on rural sites, often being present as a consequence of manuring.

Areas of magnetic disturbance These responses can have several causes often being associated with burnt material, such as slag waste or brick rubble or other strongly magnetised/fired material. Ferrous structures such as pylons, mesh or barbed wire fencing and buried pipes can also cause the same disturbed response. A modern origin is usually assumed unless there is other supporting information.

Linear trend This is usually a weak or broad linear anomaly of unknown cause or date. These anomalies are often caused by agricultural activity, either ploughing or land drains being a common cause.

Areas of magnetic enhancement/positive isolated anomalies Areas of enhanced response are characterised by a general increase in the magnetic background over a localised area whilst discrete anomalies are manifest by an increased response (sometimes only visible on an XY trace plot) on two or three successive traverses. In neither instance is there the intense dipolar response characteristic exhibited by an area of magnetic disturbance or of an 'iron spike' anomaly (see above). These anomalies can be caused by infilled discrete archaeological features such as pits or post-holes or by kilns. They can also be caused by pedological variations or by natural infilled features on certain geologies. Ferrous material in the subsoil can also give a similar response. It can often therefore be very difficult to establish an anthropogenic origin without intrusive investigation or other supporting information.

Linear and curvilinear anomalies Such anomalies have a variety of origins. They may be caused by agricultural practice (recent ploughing trends, earlier ridge and furrow regimes or land drains), natural geomorphological features such as palaeochannels or by infilled archaeological ditches.

APPENDIX 2 SURVEY LOCATION INFORMATION

An initial survey base station was established using a Trimble VRS differential Global Positioning System (dGPS). The magnetometer data was georeferenced using a Trimble RTK differential Global Positioning System (Trimble R8s model).

Temporary sight markers were laid out using a Trimble VRS differential Global Positioning System (Trimble R8s model) to guide the operator and ensure full coverage. The accuracy of this dGPS equipment is better than 0.01m.

The survey data were then super-imposed onto a base map provided by the client to produce the displayed block locations. However, it should be noted that Ordnance Survey positional accuracy for digital map data has an error of 0.5m for urban and floodplain areas, 1.0m for rural areas and 2.5m for mountain and moorland areas. This potential error must be considered if coordinates are measured off hard copies of the mapping rather than using the digital coordinates.

Headland Archaeology cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party.

APPENDIX 3 GEOPHYSICAL SURVEY ARCHIVE

The geophysical archive comprises:

› an archive disk containing the raw data in XYZ format, a raster image of each greyscale plot with associate world file, and a PDF of the report

The project will be archived in-house in accordance with recent good practice guidelines (http://guides.archaeologydataservice.ac.uk/g2gp/Geophysics_3). The data will be stored in an indexed archive and migrated to new formats when necessary.

APPENDIX 4 DATA PROCESSING

The gradiometer data has been presented in this report in processed greyscale and minimally processed XY trace plot format.

Data collected using RTK GPS-based methods cannot be produced without minimal processing of the data. The minimally processed data has been interpolated to project the data onto a regular grid and destriped to correct for slight variations in instrument calibration drift and any other artificial data.

A high pass filter has been applied to the greyscale plots to remove low frequency anomalies (relating to survey tracks and modern agricultural features) in order to maximise the clarity and interpretability of the archaeological anomalies.

Data is also clipped to remove extreme values and to improve data contrast.

APPENDIX 5 OASIS DATA COLLECTION FORM: ENGLAND

OASIS ID: headland5-272663

PROJECT DETAILS	
Project name	Land south of Gloucester Road, Thornbury, South Gloucestershire
Short description of the project	Headland Archaeology (UK) Ltd undertook a geophysical (magnetometer) survey, covering 26 hectares, on land south of Gloucester Road, Thornbury, to inform future archaeological strategy prior to the proposed development of the site. The survey has identified former field boundaries and ridge and furrow cultivation throughout the east of the site, confirming and enhancing the cropmark data and reflecting the former agricultural landscape as depicted on early Ordnance Survey mapping. These anomalies may be of local historical interest but are of no archaeological significance. Within the west of the site a cluster of linear anomalies have been identified within an elevated magnetic background. The anomalies are oblique to the existing and historical pattern of land division and an archaeological origin cannot be dismissed. Whilst no clear pattern is discernible, the anomalies may be due to soil-filled ditches, perhaps forming part of a system of enclosure and land division. A broad area of magnetic disturbance in the north-east is interpreted as being caused by modern infilling around a diverted watercourse. On the basis of the geophysical survey, the archaeological potential across the majority of the site as assessed as being very low with a low to moderate archaeological potential in the vicinity of the cluster of linear anomalies in the west.
Project dates	Start: 24-10-2016 End: 27-10-2016
Previous/future work	Not known / Yes
Any associated project reference codes	GRTH-01 - Sitecode
Type of project	Field evaluation
Site status	None
Current Land use	Grassland Heathland 5 - Character undetermined
Monument type	N/A None
Monument type	N/A None
Significant Finds	N/A None
Significant Finds	N/A None
Methods & techniques	"Geophysical Survey"
Development type	Not recorded
Prompt	National Planning Policy Framework - NPPF
Position in the planning process	Not known / Not recorded
Solid geology (other)	Mercia Mudstone; Raglan Mudstone
Drift geology (other)	None
Techniques	Magnetometry

PROJECT LOCATION	
Country	England
Site location	SOUTH GLOUCESTERSHIRE SOUTH GLOUCESTERSHIRE THORNBURY Land south of Gloucester Road
Postcode	BS35 1LH
Study area	26 Hectares
Site coordinates	ST 6523 9118 51.617899693267 -2.502263269722 51 37 04 N 002 30 08 W Point

PROJECT CREATORS	
Name of Organisation	Headland Archaeology
Project brief originator	The Environmental Dimension Partnership

Project design originator	Headland Archaeology
Project director/manager	Harrison, D
Project supervisor	Turner, J
Type of sponsor/funding body	Developer

PROJECT ARCHIVES

Physical Archive Exists?	No
Digital Archive Exists?	No
Digital Media available	"Geophysics"
Paper Archive Exists?	No
Paper Media available	"Report"

PROJECT BIBLIOGRAPHY 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Land south of Gloucester Road, Thornbury, South Gloucestershire; Geophysical Survey
Author(s)/Editor(s)	Harrison, D.
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