

MARK25



MARKFIELD COMMERCIAL DEVELOPMENT, LEICESTERSHIRE

GEOPHYSICAL SURVEY REPORT

commissioned by Cotswold Archaeology
on behalf of Caddick Developments Ltd (Wetherby)

July 2025

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PROJECT INFO:

HA Project Code **MARK25** / HA Report No **2025-100** / NGR **SK 48191 11442** / Parish **Markfield: St Michael and All Angels and Copt Oak: St Peter** / Local Authority **Hinckley and Bosworth Borough Council** /
Fieldwork Date **16.06.25–19.06.25** / OASIS Ref. **headland1-535354**

PROJECT TEAM:

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Approved by **Christian Adams**

..... C.H. Adams

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PROJECT SUMMARY

Headland Archaeology (UK) Ltd was commissioned by Cotswold Archaeology (the Consultant) on behalf of Caddick Developments Ltd (Wetherby) (the Client) to undertake a geophysical (magnetometer) survey on land at Markfield, Leicestershire where a new commercial development is proposed. This geophysical survey report will be submitted in support of any future planning application for the development. The results may also inform future archaeological strategy, if required.

The survey has recorded anomalies indicative of medieval, post-medieval and modern agricultural activity (ridge and furrow ploughing and modern cultivation and boundary removal), modern and natural origin. Several anomalies of uncertain origin are also recorded the majority of which are considered most likely to be of natural origin. Nevertheless, an archaeological origin for any of these anomalies of uncertain origin cannot be discounted.

Despite the variable results of magnetometry survey over mudstone and igneous bedrock and superficial deposits, the detection of a range of anomalies suggests that there was probably sufficient magnetic contrast, for the detection of sub-surface archaeological features, if present, notwithstanding the limitations of magnetometer survey to identify the types, sizes and period of archaeological features. It is therefore assessed that the results of the survey provide a reasonable indication of the archaeological potential of the site, which on the basis solely of the results of the survey, is assessed as low.

CONTENTS

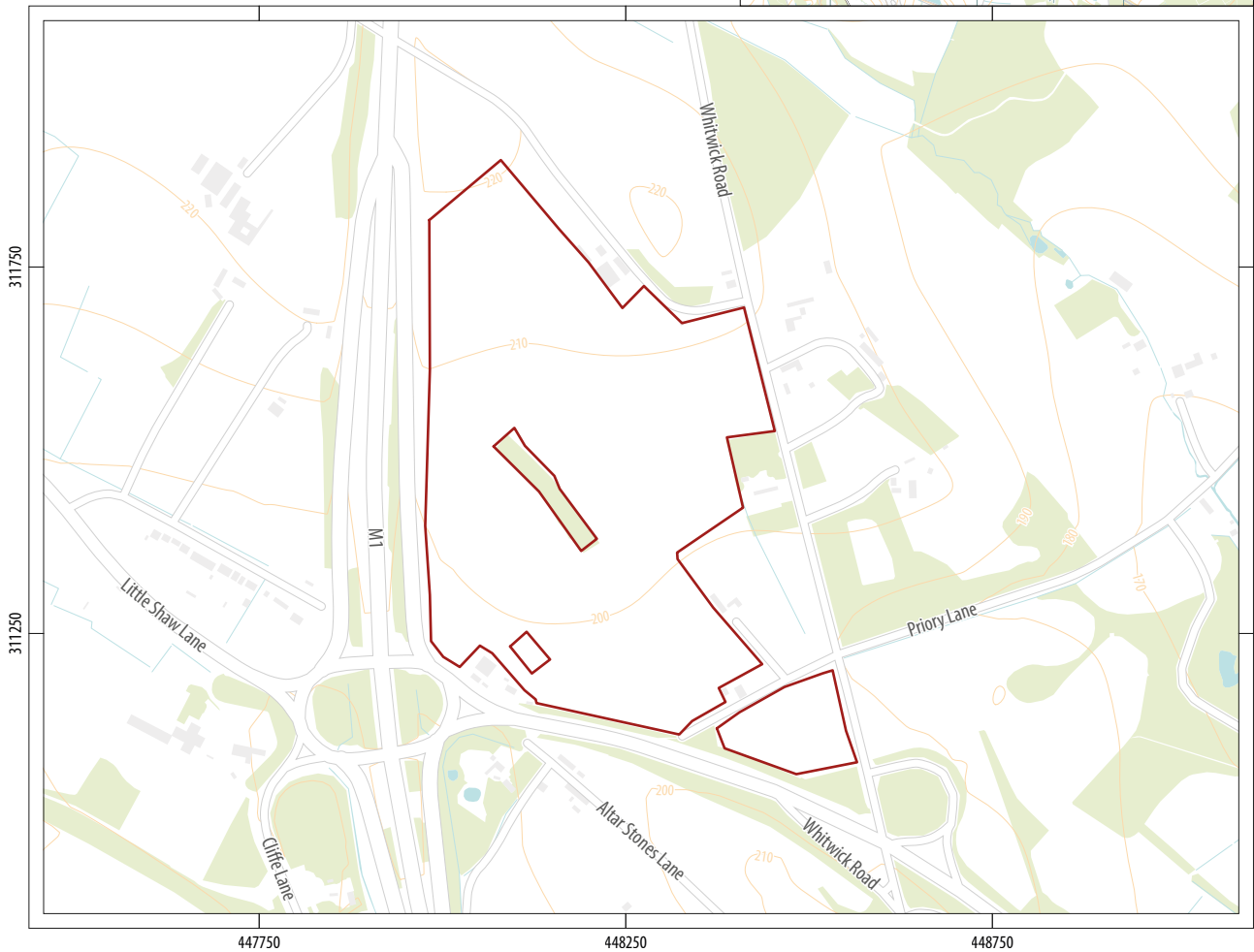
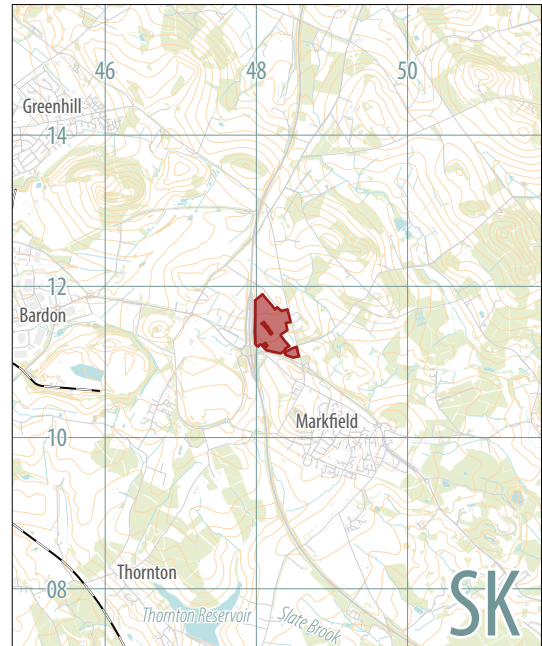
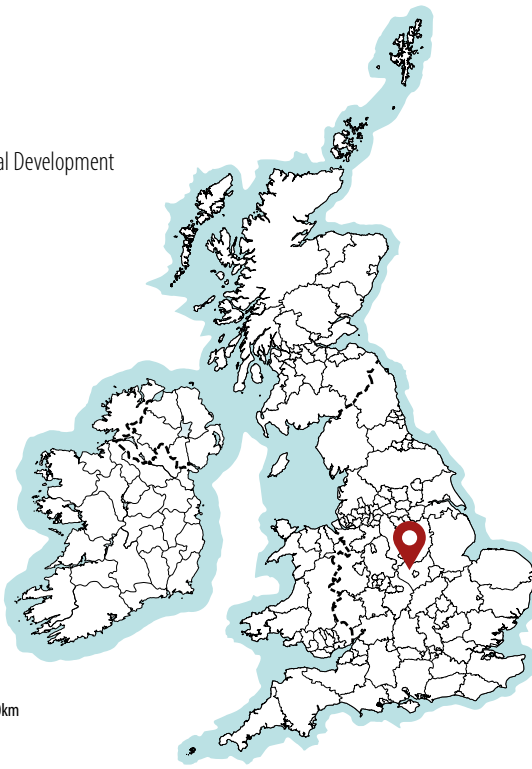
1	INTRODUCTION	1
1.1	SITE LOCATION, TOPOGRAPHY AND LAND-USE	1
1.2	GEOLOGY AND SOILS	1
2	ARCHAEOLOGICAL BACKGROUND	2
3	AIMS, METHODOLOGY & PRESENTATION	2
3.1	AIMS AND OBJECTIVES	2
3.2	METHODOLOGY	3
3.3	DATA PRESENTATION AND TECHNICAL DETAIL	3
4	RESULTS & DISCUSSION	4
4.1	SITE CONDITIONS	4
4.2	ANOMALIES OF FERROUS AND MODERN ORIGIN	5
4.3	ANOMALIES OF AGRICULTURAL ORIGIN	5
4.4	ANOMALIES OF GEOLOGICAL ORIGIN	5
4.5	ANOMALIES OF POSSIBLE OR PROBABLE ARCHAEOLOGICAL ORIGIN	5
4.6	ANOMALIES OF UNCERTAIN ORIGIN	5
5	CONCLUSION	6
6	REFERENCES	6
7	APPENDICES	25
APPENDIX 1	MAGNETOMETER SURVEY	25
APPENDIX 2	SURVEY LOCATION INFORMATION	26
APPENDIX 3	GEOPHYSICAL SURVEY ARCHIVE	26
APPENDIX 4	DATA PROCESSING	26
APPENDIX 5	OASIS DATA COLLECTION FORM: ENGLAND	27

LIST OF ILLUSTRATIONS

ILLUS 1 SITE LOCATION	VIII
ILLUS 2 F3, LOOKING SOUTH-WEST	2
ILLUS 3 F10, LOOKING NORTH-EAST	3
ILLUS 4 F15, UNSUITABLE FOR SURVEY LOOKING SOUTH-EAST	4
ILLUS 5 SURVEY LOCATION SHOWING PHOTOGRAPH LOCATIONS (1:5,000)	7
ILLUS 6 OVERALL GREYSCALE PLOT OF PROCESSED MAGNETOMETER DATA (1:5,000)	9
ILLUS 7 OVERALL INTERPRETATION OF MAGNETOMETER DATA (1:5,000)	11
ILLUS 8 PROCESSED GREYSCALE MAGNETOMETER DATA; SECTOR 1 (1:2,500)	13
ILLUS 9 XY TRACE PLOT OF MINIMALLY PROCESSED MAGNETOMETER DATA; SECTOR 1 (1:2,500)	15
ILLUS 10 INTERPRETATION OF MAGNETOMETER DATA; SECTOR 1 (1:2,500)	17
ILLUS 11 PROCESSED GREYSCALE MAGNETOMETER DATA; SECTOR 2 (1:2,500)	19
ILLUS 12 XY TRACE PLOT OF MINIMALLY PROCESSED MAGNETOMETER DATA; SECTOR 2 (1:2,500)	21
ILLUS 13 INTERPRETATION OF MAGNETOMETER DATA; SECTOR 2 (1:2,500)	23

Markfield Commercial Development
Leicestershire

0 200km
1:12,500,000 @ A4



0 200m
1:10,000 @ A4

geophysical survey area

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GEOPHYSICAL SURVEY REPORT

1 INTRODUCTION

Headland Archaeology (UK) Ltd was commissioned by Cotswold Archaeology (the Consultant) on behalf of Caddick Developments Ltd (the Client), to undertake a geophysical (magnetometer) survey on land at Markfield, Leicestershire where a new commercial development is proposed (Illus 1). This geophysical survey report will be submitted in support of any future planning application for the development of the site. The results may also inform the future archaeological strategy, if required.

The scheme of work was undertaken in accordance with the requirements of the National Planning Policy Framework (Ministry of Housing, Communities & Local Government, MHCLG 2024) and with the Written Scheme of Investigation for Geophysical Survey (WSI), approved by Will Kelly at Leicestershire County Council (Headland Archaeology 2025).

The WSI was produced to the standards laid down in the European Archaeological Council's guideline publication, EAC Guidelines for the Use of Geophysics in Archaeology (Europae Archaeologia Consilium 2016) and the Chartered Institute for Archaeologists' (CIfA) Standard and Guidance for Archaeological Geophysical Survey (CIfA 2020). The survey was carried out in line with the same best practice guidelines.

The survey was carried out between June 16th and June 19th, 2025.

1.1 SITE LOCATION, TOPOGRAPHY AND LAND-USE

The geophysical survey area (GSA – site) is located 600m north-west of Markfield, Leicestershire at NGR SK 48191 11442 and is approximately

27 hectares in area. It comprises 15 adjoining arable and pasture fields (F1 to F15 - Illus 2 and Illus 3): F15 was unsuitable for survey (Illus 4). The site is bounded to the south and west by the A50 and M1 respectively, in the north-east by Whitwick Road, and elsewhere by further agricultural land.

Topographically, the site gradually slopes down from the north-west corner at 220m Above Ordnance Datum (AOD), to the southeastern corner at 192m AOD.

1.2 GEOLOGY AND SOILS

The solid bedrock geology comprises mudstone of the Gunthorpe Member, a sedimentary bedrock formed between 247.1 and 237 million years ago during the Triassic period apart from in F5 where an outcrop of volcanoclastic-siltstone of the Bradgate Formation is recorded within the south-west of the site. This is described as igneous bedrock formed between 635 and 541 million years ago during the Ediacaran period.

Most of the site is overlain by Oadby Member diamicton, a sedimentary superficial deposit formed between 480 and 423 thousand years ago during the Quaternary period. In F8 there are overlying deposits of clay, silt, sand and gravel (head). These deposits formed between 2.588 million years ago and the present during the Quaternary period (NERC 2025).

The soils are slowly permeable seasonally wet acid loams and clays classified in the Soilscape 17 association (Cranfield University 2025).



ILLUS 2 F3, looking south-west

2 ARCHAEOLOGICAL BACKGROUND

The archaeological background below is summarised from a recent Heritage Assessment (Cotswold Archaeology 2024) and search of the Heritage Gateway Historic Environment Record (HER).

No designated heritage assets have been identified within the survey area. Non-designated heritage assets recorded within the site are limited to evidence of medieval ridge and furrow cultivation (MLE28870) and a probable post-medieval field boundary recorded by the National Forest Project (MLE28873).

Approximately 180m east of the site, cropmarks recorded on air photographs provide evidence of a potential enclosure and a linear feature of possible Iron Age origin (MLE28867).

Evidence for Iron Age settlement approximately 700m north-west of the site, Neolithic to Bronze Age worked flint and scatters approximately 800m and 970m from the site, and a single Bronze Age findspot have been identified in the wider landscape.

Also, within the wider landscape is evidence of Roman settlement activity at the Iron Age settlement 700m from the site.

A possible former Roman Road has been recorded 945m to the west of the site.

A possible medieval trackway (MLE28858), medieval ridge and furrow earthworks (MLE28859), and a possible post-medieval field

boundary (MLE28860) have been recorded approximately 500m east of the site by the National Forest Project.

3 AIMS, METHODOLOGY & PRESENTATION

3.1 AIMS AND OBJECTIVES

The principal objectives of the geophysical survey were to gather information to establish the presence/absence, character, and extent of any archaeological remains within the GSA and thereby support any forthcoming planning application and inform any further investigation strategies.

The aims of the survey were:

- › to provide information about the nature and possible interpretation of any magnetic anomalies identified;
- › to therefore determine the likely presence/absence and extent of any buried archaeological features, or other geophysical anomalies, and provide an interpretation; and
- › to produce a comprehensive site archive and report.



ILLUS 3 F10, looking north-east

3.2 METHODOLOGY

Magnetic survey methods rely on the ability of a variety of instruments to measure very small magnetic fields associated with buried archaeological remains. A feature 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 & Gater 2003). Further information on soil magnetism and the interpretation of magnetic anomalies is provided in Appendix 1.

Magnetometry is the most widely used geophysical survey technique in archaeology as it can quickly evaluate large areas and, under favourable conditions, identify a wide range of archaeological features including infilled cut features such as large pits, gullies and ditches, hearths, areas of burning, kilns and brick structures. It is therefore good at locating settlements of all periods, prehistoric field systems and enclosures, and areas of industrial or modern activity, amongst others. It is less successful in identifying smaller features such as post-holes and small pits (except when using a non-standard sampling interval), unenclosed (prehistoric) settlement sites and graves or burial grounds. However, magnetometry is by far the single most useful technique and was assessed as the best non-intrusive evaluation methodology for this site.

The survey was undertaken using four Bartington Grad601 sensors mounted at 1m intervals onto a rigid carrying frame. The system was programmed to take readings at a frequency of 10Hz on

roaming traverses (swaths) 1m apart. These readings were stored on an external weatherproof laptop and later downloaded for processing and interpretation. The system was linked to a Leica GS18 Real Time Kinetic (RTK) Global Navigation Satellite System (GNSS) outputting in NMEA mode to ensure a high positional accuracy for each data point.

MLGrad601 and MultiGrad601 (Geomar Software Inc.) software was used to collect and export the data. Anomaly GeoSurvey v1.12.3 (Lichenstone Geoscience) and QGIS v.3.34.6 software was used to process and present the data respectively.

3.3 DATA PRESENTATION AND TECHNICAL DETAIL

A general site location plan is shown in Illus 1 at a scale of 1:10,000. Illus 2 to Illus 4 inclusive are site condition photographs. Illus 5 shows the location and direction of the site condition photographs at a scale of 1:5,000. Illus 6 and Illus 7 present overviews of the processed greyscale data and interpretation of the data, also at 1:5,000. Illus 8 to Illus 13 inclusive show the fully processed (greyscale) data, minimally processed (XY trace plot) data and interpretative plans, by Sector, at a scale of 1:2,500.

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



ILLUS 4 F15, unsuitable for survey looking south-east

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 2025), and guidelines outlined by Europae Archaeologia Consilium (EAC 2016) and by the Chartered Institute for Archaeologists (CIfA 2020).

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The illustrations in this report have been produced following analysis of the data in 'raw' (minimally processed) and processed formats and over a range of different display levels. All illustrations are presented to display and interpret the data to best effect. The interpretations are based on the experience and knowledge of Headland Archaeology management and reporting staff.

4 RESULTS & DISCUSSION

4.1 SITE CONDITIONS

Magnetometer survey is generally recommended over any sedimentary geology, but results can be variable over mudstone

and igneous bedrock geologies particularly in the presence of any superficial deposits as are present here (English Heritage 2008; Table 4).

The magnetic background is highly variable which broadly corresponds with the mapped extent of the igneous bedrock.

Against this heterogeneous magnetic background, anomalies of agricultural, modern, and geological origin have been recorded.

Despite the potentially poor results of magnetometry survey over mudstone and igneous bedrock geologies, the detection of a range of anomalies suggests that there was probably sufficient magnetic contrast, for the detection of sub-surface archaeological features, if present. This is notwithstanding the limitations of magnetometer survey to identify the types, sizes and period of archaeological features as described in Section 3.2. It is therefore considered that the results of the survey provide a reasonable indication of the archaeological potential of the site.

Surface conditions were generally very good (Illus 2 and Illus 3) and consequently data quality was also good with only minimal post-processing required. A single field, F15, was unsuitable for survey due to tall marsh grass (Illus 4).

The anomalies recorded by the survey are discussed below according to their interpreted origin.

4.2 ANOMALIES OF FERROUS AND MODERN ORIGIN

Ferrous anomalies, characterised as individual 'spikes', are typically caused by ferrous (magnetic) material, either on the ground surface or in the topsoil. Little importance is normally given to such anomalies, unless there is any supporting evidence for an archaeological interpretation, as modern ferrous debris is common on most sites, often being introduced into the topsoil during manuring or tipping/infilling. There is no obvious clustering of the 'spike' responses, so these anomalies are likely to be indicative of a random distribution of modern ferrous debris in the topsoil.

Areas of magnetic disturbance are widespread across the southern half of the site. A large cluster of magnetic disturbance across F5 may relate to tipping or waste from the construction of the M1 (Illus 7) although alternatively the responses might also be caused by the igneous bedrock which is recorded in F5. Further pockets of magnetic enhancement located adjacent to field boundaries are also likely to record areas of modern ferrous debris from tipping or infilling pertaining to agricultural activity (Illus 13). Magnetic disturbance caused by buildings and current boundaries is particularly prominent in F9, F11 and to a lesser extent F5 (Illus 13). Small patches of magnetic disturbance along the field boundaries are likely due to ferrous debris in the boundaries. A modern trackway recorded in the data as high-magnitude dipolar responses crosses F11 (Illus 13). Magnetic disturbance is also recorded surrounding a telegraph pole in F7 (Illus 10). A small area of magnetic disturbance in F3 corresponds with a former pond shown on historic maps (Illus 10 – FP1).

4.3 ANOMALIES OF AGRICULTURAL ORIGIN

Anomalies of agricultural origin have been identified across the site, indicative of modern cultivation and field drains (Illus 7). Traces of medieval ridge and furrow cultivation have also been identified by the survey as characterised by vague parallel linear trend anomalies confined to the southern half of the site as previously recorded on the HER (MLE28870).

Several former field boundaries, visible on historic maps, previously subdivided the current field system (Illus 7). Some of these former field boundaries (FB1 to FB5) have been recorded in the data as weakly enhanced linear anomalies and linear collections of discrete low-magnitude dipolar anomalies. FB4 corresponds with the suspected post-medieval boundary identified in the HER (MLE28873). One other possible former boundary, not recorded on historic maps, has been recorded (FB?6).

4.4 ANOMALIES OF GEOLOGICAL ORIGIN

Most of the anomalies identified on this site are of natural (geological) origin. Broad low magnitude and vague sinuous responses of natural origin have been recorded in F1 and F2 (Illus 10). In F1 these responses are also accompanied by amorphous discrete anomalies. These responses are likely to be due to variation within the mapped superficial deposits.

A large spread of discrete and vague sinuous trend anomalies of natural origin has been recorded across much of F3 and F7 but also extends into F10, F12 and F14 (Illus 7). These clusters of anomalies of widely varying magnitude are probably due to variation within the heterogenous superficial deposits of diamicton (lenses of sand and gravel, clay and silt).

Other weak sinuous and low-magnitude discrete responses recorded across the site are also interpreted as geological.

A band of strong low magnitude amorphous anomalies in a roughly north-west to south-east alignment in F5, F8, F10 and F12 correlates with the mapped location and response characteristic of igneous bedrock (Illus 13).

4.5 ANOMALIES OF POSSIBLE OR PROBABLE ARCHAEOLOGICAL ORIGIN

No anomalies of possible or probable archaeological origin have been recorded by the survey.

4.6 ANOMALIES OF UNCERTAIN ORIGIN

Several anomalies have been interpreted as being of uncertain origin on the basis that they cannot be confidently classified in any of the other four categories.

Five faint, low magnitude curvilinear anomalies, U1 to U4 and U7 (Illus 7) have been recorded. The response from U1 and U2 are accompanied by low-magnitude discrete anomalies (Illus 10).

The interpretation of a discontinuous, low magnitude concentric anomaly (U6 – Illus 13) is complicated by the density of the surrounding discrete natural responses. The morphology of these responses suggests an anthropogenic origin is possible, but the shape and magnitude of the responses are hard to discern from the surrounding natural responses. A natural origin for these responses is considered most likely.

Two low magnitude ditch-like curvilinear anomalies appear to form a sub-rectangular shape (U5) in F10 (Illus 13). The shape and magnitude of this anomaly is more convincingly anthropogenic in origin. However, the interpretation of this anomaly is complicated by the adjacent magnetic enhancement and amorphous natural responses.

5 CONCLUSION

The survey has recorded anomalies indicative of medieval, post-medieval and modern agricultural activity (cultivation and boundary removal), modern and natural origin. Several anomalies of uncertain origin have also been recorded the majority of which are considered most likely to be of natural origin. Nevertheless, an archaeological origin for any of these anomalies of uncertain origin cannot be discounted.

Despite the variable results of magnetometry survey over mudstone and igneous bedrock, the detection of a range of anomalies suggests that there was likely sufficient magnetic contrast for the detection of sub-surface archaeological features, if present. This is notwithstanding the limitations of magnetometer survey to identify the types, sizes and period of archaeological features. It is therefore assessed that the results of the survey provide a reasonable indication of the archaeological potential of the site which on the basis solely of the results of the survey is assessed as low.

6 REFERENCES

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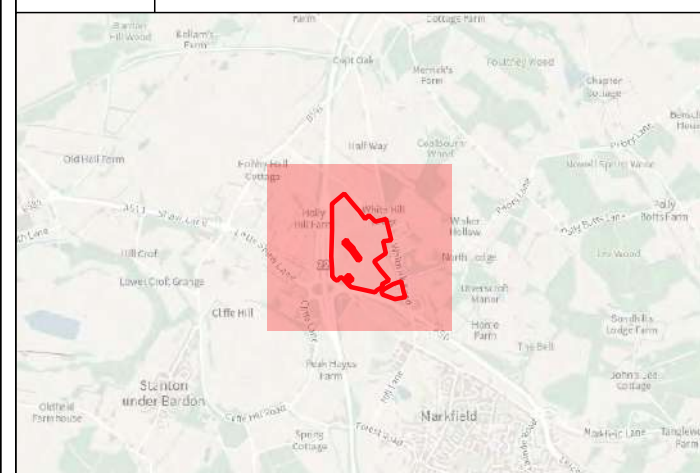
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311500

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Key

- Geophysical Survey Area
- Survey Extent
- Unsuitable Survey Area
- Location and Direction for Illus 2 to 4

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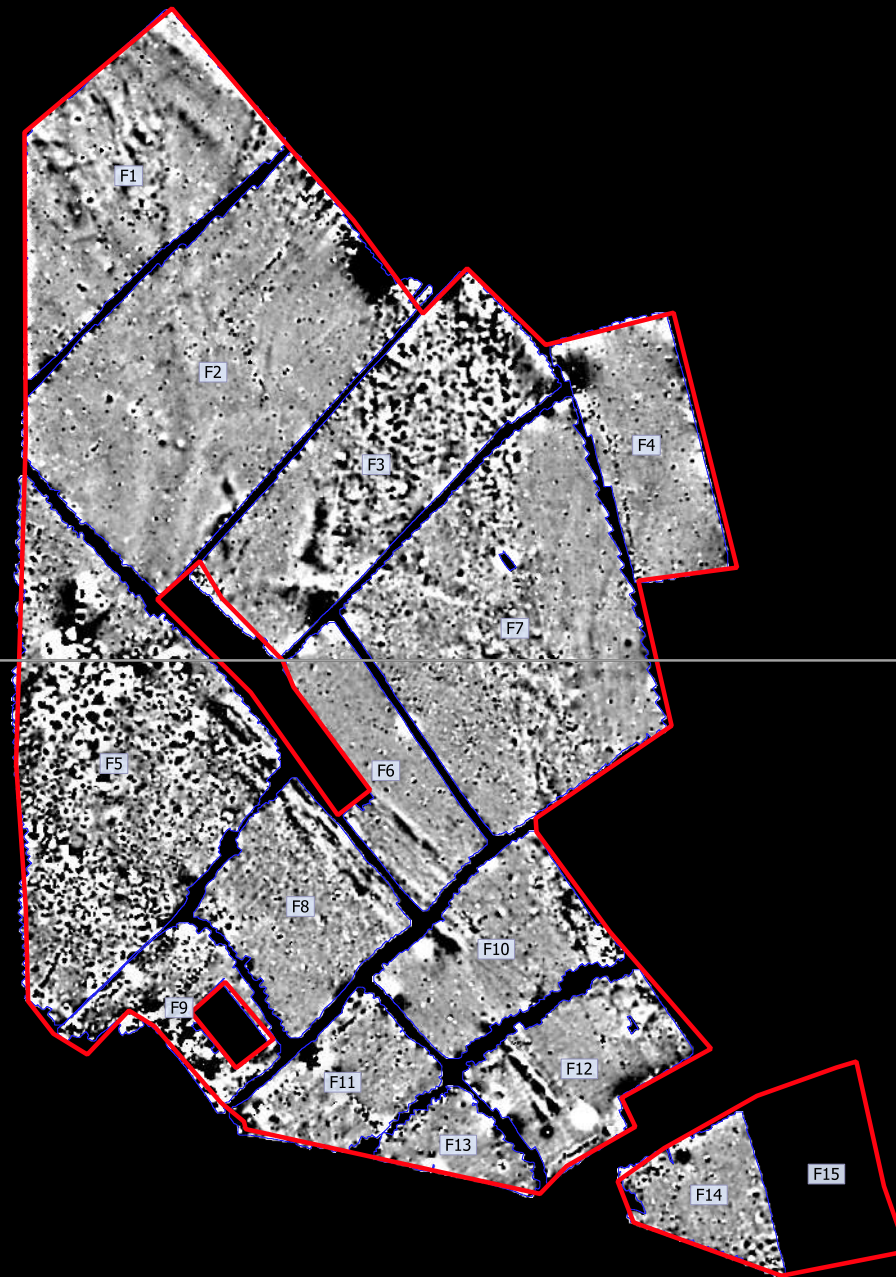
Illus 05 - Survey location and photograph locations

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Sector 1
See Illus 08 - 10

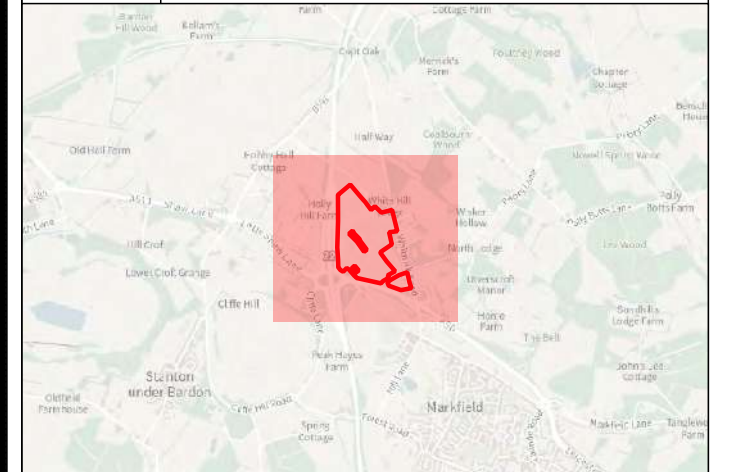


Sector 2
See Illus 11 - 13

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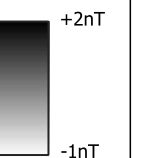
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- Survey Extent
- Area for Illus 08 to 13

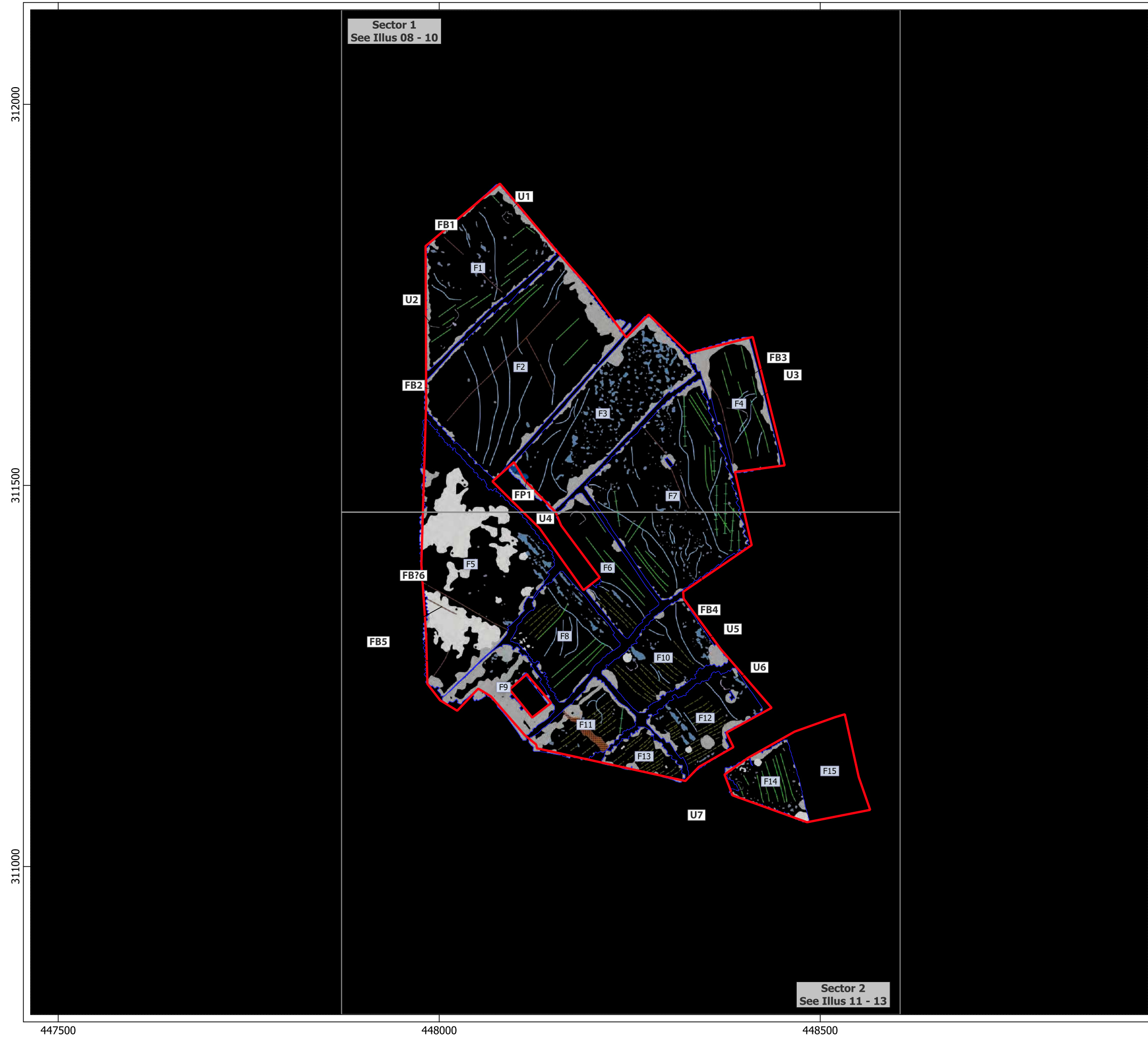


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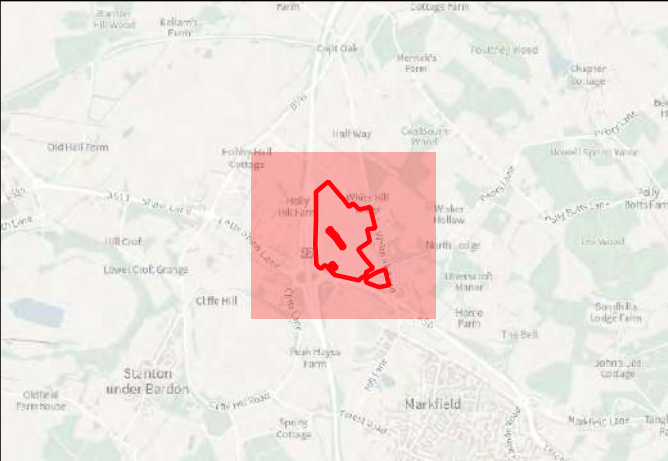
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Illus 06 - Overall greyscale plot of processed magnetometer data





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Key

- Geophysical Survey Area
- Survey Extent
- Area for Illus 08 to 13
- Ferrous Objects
- Agriculture
- Field Boundary
- Field Drain
- Natural
- Ridge and Furrow
- Magnetic Disturbance (Above Ground)
- Magnetic Disturbance (Below Ground)
- Natural
- Uncertain
- Former Pond
- Trackway

Abbreviation	
FB	Field Boundary
FB?	Field Boundary?
FP	Former Pond
U	Uncertain

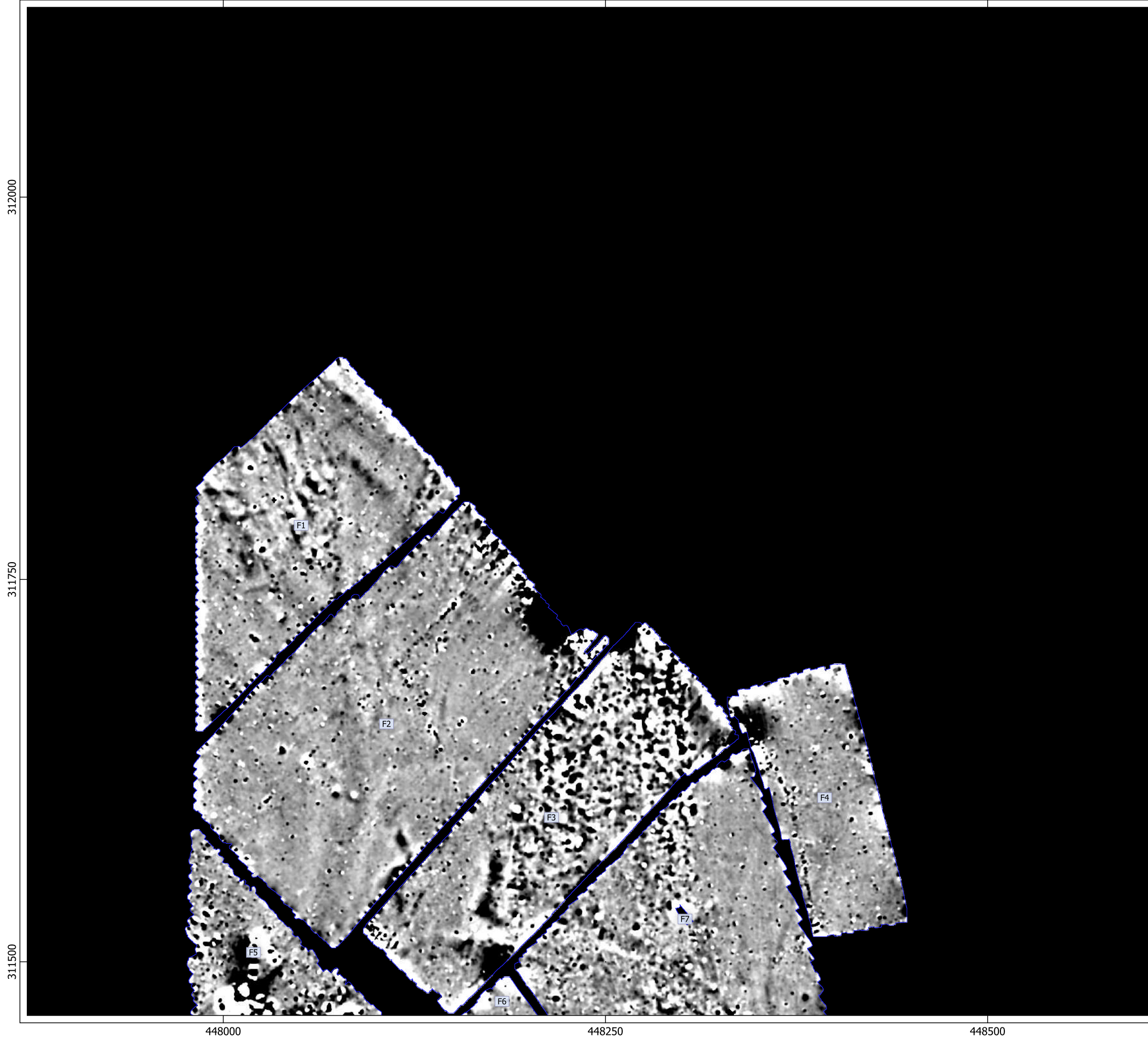
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Illus 07 - Overall interpretation of magnetometer data



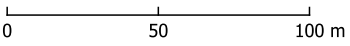


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Key

 Survey Extent



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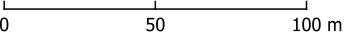




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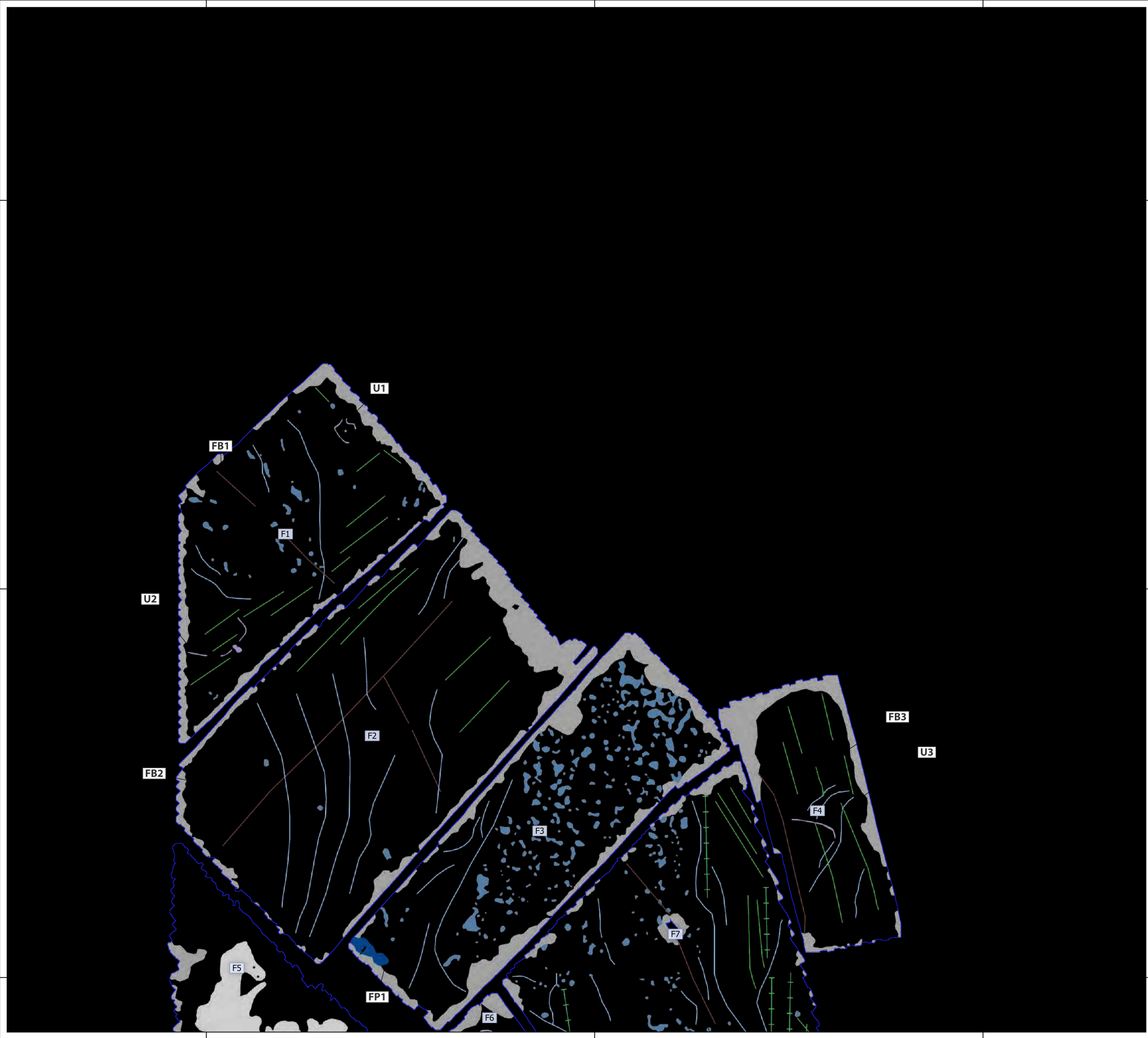


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Illus - 09 XY trace plot of minimally processed magnetometer data; Sector 1



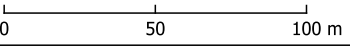




Key

-  Survey Extent
-  Ferrous Objects
-  Agriculture
-  Field Boundary
-  Field Drain
-  Natural
-  Magnetic Disturbance (Above Ground)
-  Magnetic Disturbance (Below Ground)
-  Natural
-  Uncertain
-  Former Pond

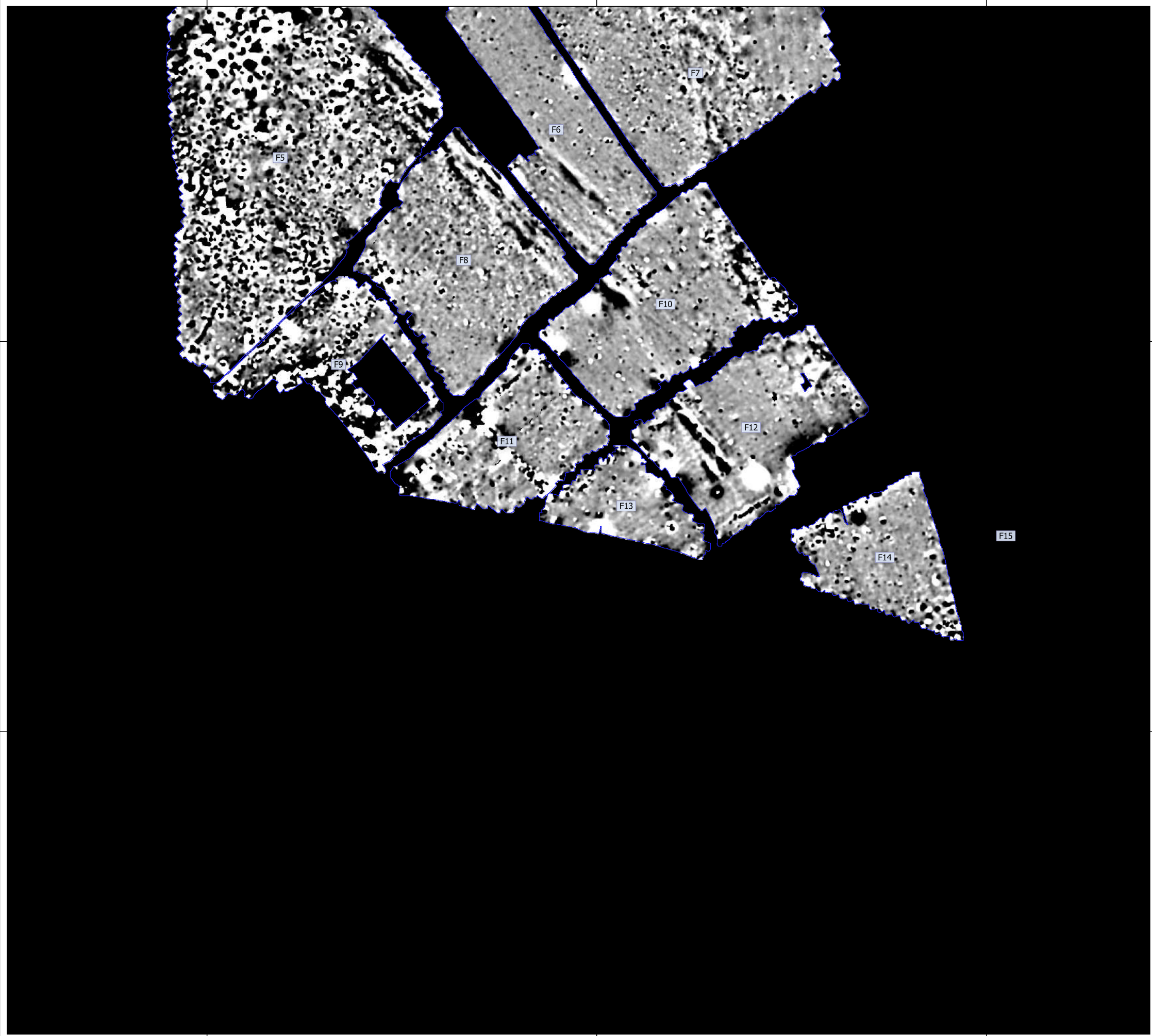
Abbreviation	
FB	Field Boundary
FP	Former Pond
U	Uncertain



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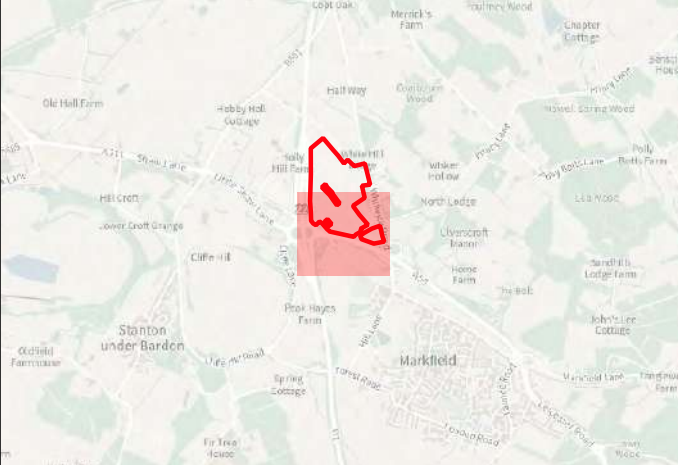
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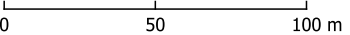


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Version:	v1.0
Date:	02/07/2025
Scale:	1:2,500 @ A3

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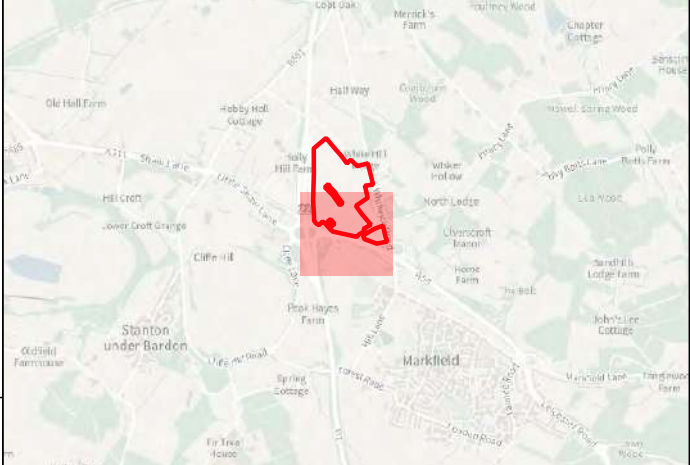
448500

Illus - 11 Processed greyscale magnetometer data; Sector 2

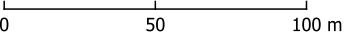




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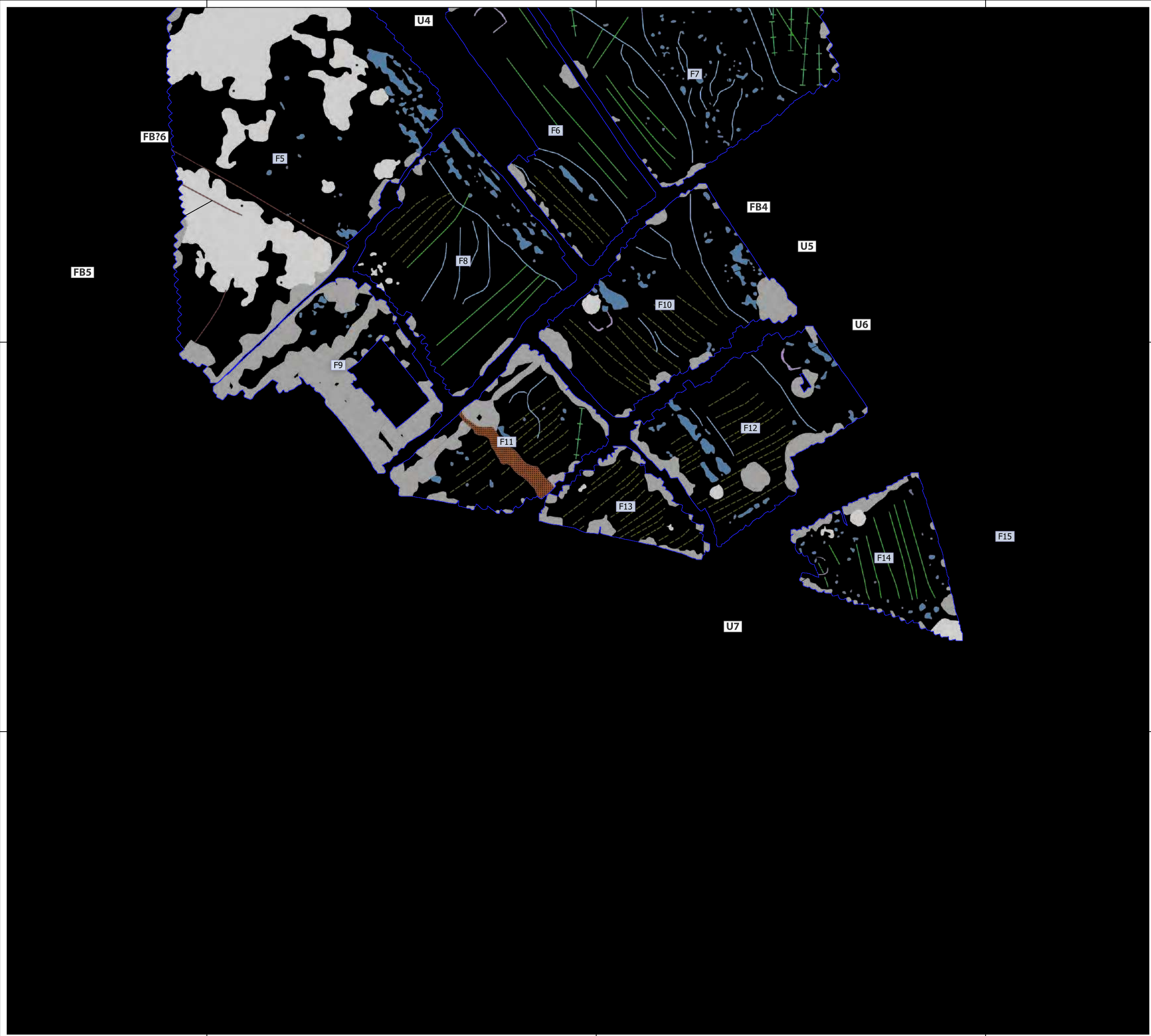
Key
 Survey Extent
 XY Trace (25nT/cm)



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Key

- Survey Extent
- Ferrous Objects
- Agriculture
- Field Boundary
- Field Drain
- Natural
- Ridge and Furrow
- Magnetic Disturbance (Above Ground)
- Magnetic Disturbance (Below Ground)
- Natural
- Uncertain
- Trackway

Abbreviation	
FB	Field Boundary
FB?	Field Boundary?
U	Uncertain

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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 the topsoil, subsoil, and rock, 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 most 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 introduced into the topsoil during 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 and buried pipes can also cause the same disturbed response. A modern origin is usually assumed unless there is other supporting information.

Lightning-induced remnant magnetisation (LIRM) LIRM anomalies are thought to be caused in the near surface soil horizons by the flow of an electrical current associated with lightning strikes. These observed anomalies have a strong bipolar signal which decreases with distance from the spike point and often appear as linear or radial in shape.

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

The magnetometer data was collected and is geo-located based on survey grade Real Time Kinetic (RTK) differential Global Positioning System (dGPS) used on both hand-carried and towed systems. The accuracy of this dGPS equipment is better than 0.01m. The GPS systems output in NMEA mode in real time, with a visual guide of survey tracks and any survey area boundaries displayed on a tablet device in view of the survey operator to ensure full coverage. Any survey area boundaries are uploaded as a string of co-ordinates or shapefile to the tablet prior to the commencement of survey.

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 de-striped to correct for slight variations in instrument calibration drift, heading errors and any other artificial data.

The XY data has been clipped to remove extreme values and to improve the interpretability of the data.

APPENDIX 5 OASIS DATA COLLECTION FORM: ENGLAND

OASIS ID (UID): headland1-535354

Project Name:	Geophysical Survey at Markfield Commercial Development, Leicestershire
Activity type:	Geophysical Survey, Magnetometry Survey
Sitecode(s):	MARK25
Project Identifier(s):	[no data]
Planning Id:	[no data]
Reason for Investigation:	Planning: Pre application
Organisation Responsible for work:	Headland Archaeology (UK) Ltd
Project Dates:	16-Jun-2025 – 19-Jun-2025
HER:	Leicestershire HER
HER Identifiers:	[no data]
Project Methodology:	The survey was undertaken using four Bartington Grad601 sensors mounted at 1m intervals onto a rigid carrying frame. The system was programmed to take readings at a frequency of 10Hz on roaming traverses (swaths) 1m apart. These readings were stored on an external weatherproof laptop and later downloaded for processing and interpretation. The system was linked to a Leica GS18 Real Time Kinetic (RTK) Global Navigation Satellite System (GNSS) outputting in NMEA mode to ensure a high positional accuracy for each data point. MLGrad601 and MultiGrad601 (Geomar Software Inc.) software was used to collect and export the data. Anomaly GeoSurvey v1.12.3 (Lichenstone Geoscience) and QGIS v.3.34.6 software was used to process and present the data respectively.
Project Results:	The survey has recorded anomalies indicative of medieval, post-medieval and modern agricultural activity (ridge and furrow ploughing and modern cultivation and boundary removal), modern and natural origin. Several anomalies of uncertain origin are also recorded the majority of which are considered most likely to be of natural origin. Nevertheless, an archaeological origin for any of these anomalies cannot be discounted. Despite the variable results of magnetometry survey over mudstone and igneous bedrock and superficial deposits, the detection of a range of anomalies suggests that there was probably sufficient magnetic contrast, for the detection of sub-surface archaeological features, if present, notwithstanding the limitations of magnetometer survey to identify the types, sizes and period of archaeological features. It is therefore assessed that the results of the survey provide a reasonable indication of the archaeological potential of the site, which on the basis solely of the results of the survey, is assessed as low.



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