Green Hill Solar Farm
EN010170

Environmental Statement
Appendix 12.4: Archaeological Geophysical Survey Reports
Revision A
(Part 7 of 10)

Prepared by: Lanpro

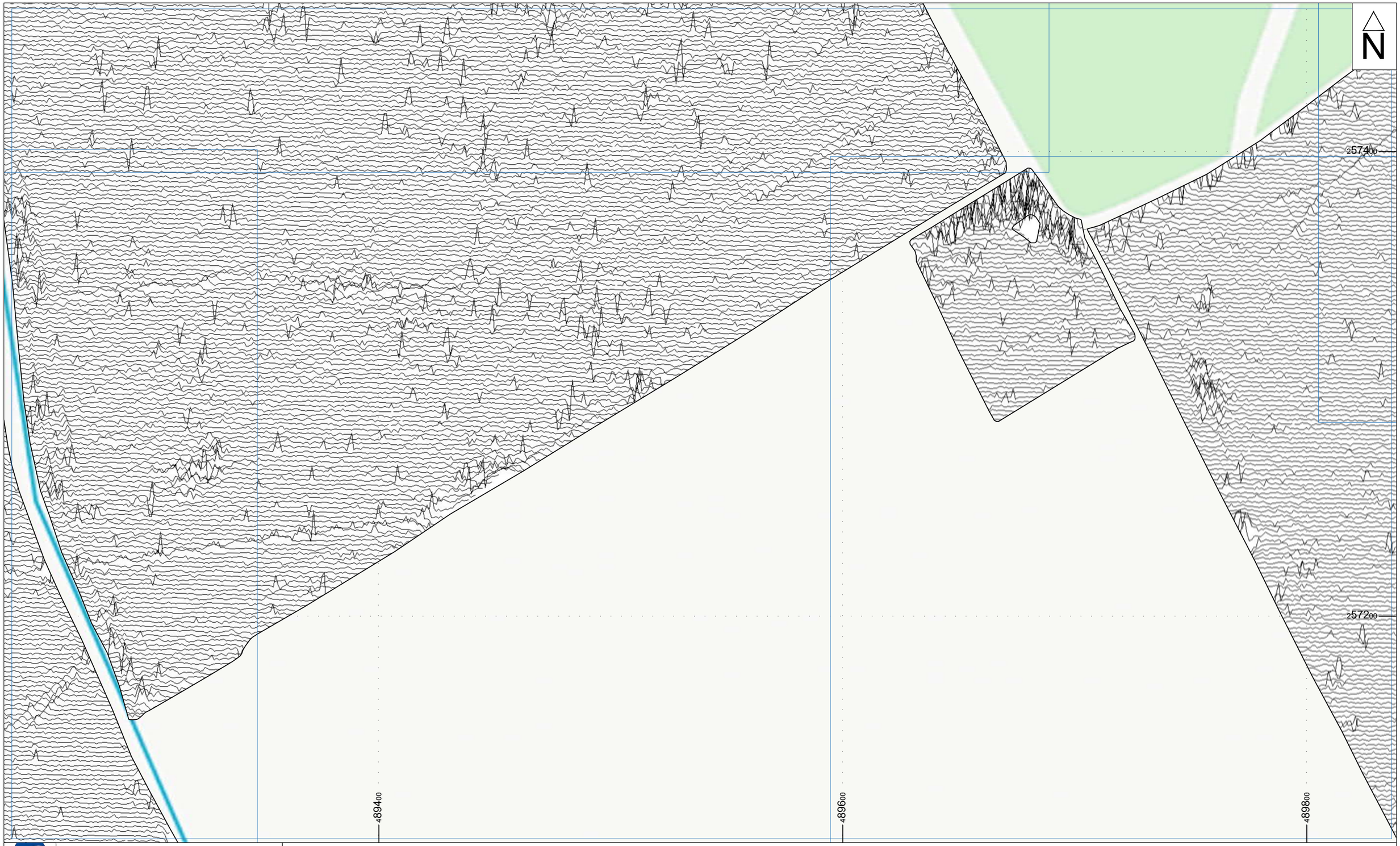
Date: November 2025

Document Reference: EX1/GH6.3.12.4_A

APFP Regulation 5(2)(a)

Schedule of Changes

Revision	Section Reference	Description of Changes	Reason for Revision
A	[cover]	Updated document reference to Revision A	Updated survey results (see Parts 8-10 of 10).



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Tel: 0113 535 3007 Email: archaeology@wyjs.org.uk www.aswyas.com

Project ID: XK77_EXG23 Area F

XY trace plot of minimally processed magnetometer data; Sector 23

Fig. 72

Title

SECTOR BOUNDARY

15.0 nT/cm

0 50m

1:1500 @ A3

N

U10

2574$_{00}$

2572$_{00}$

4894$_{00}$

4896$_{00}$

4898$_{00}$

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Project ID: XK77_EXG23 Area F

Interpretation of magnetometer data; Sector 23

Fig. 73

Title

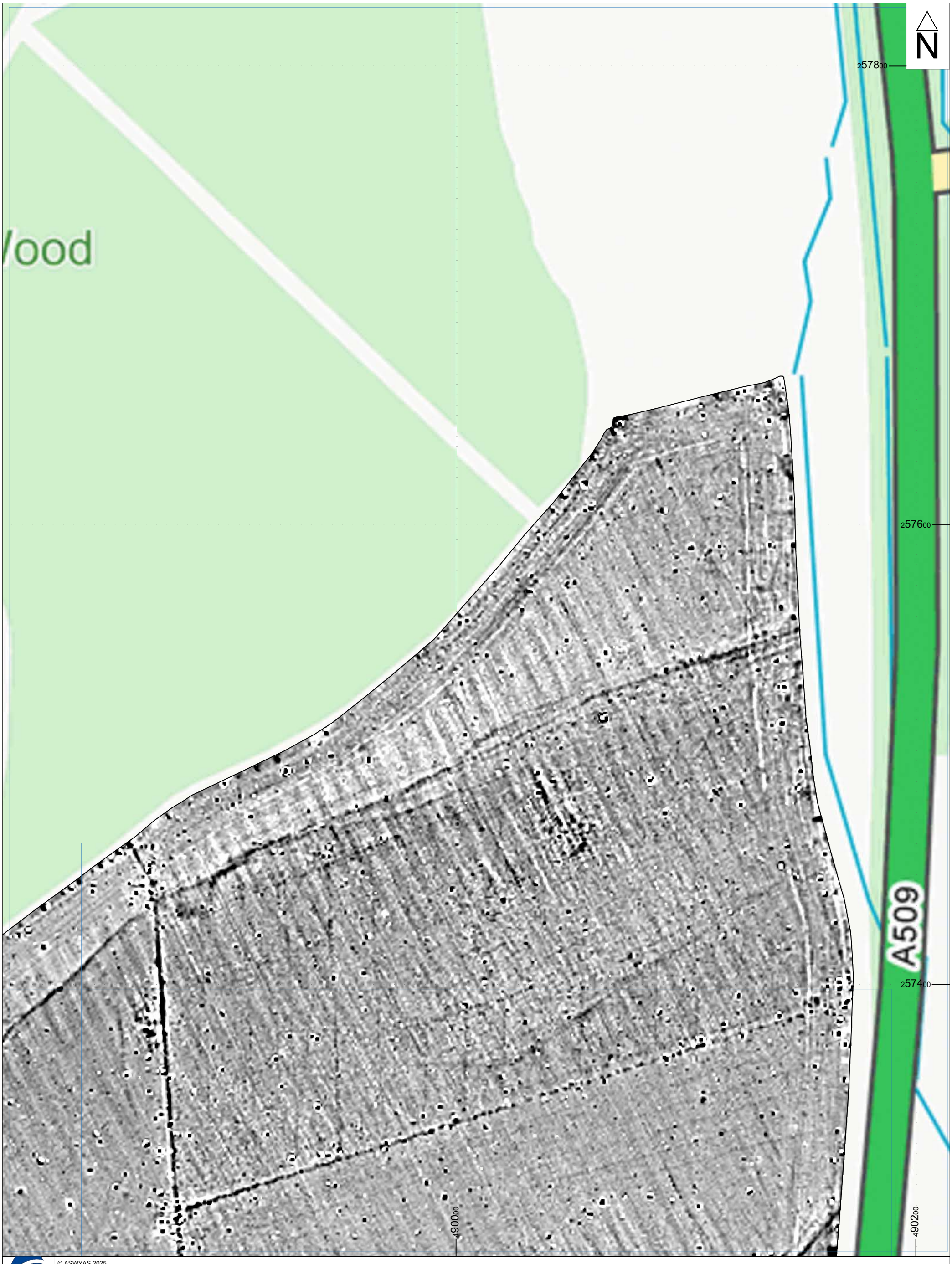
- SECTOR BOUNDARY

Interpretation

- FERROUS
- MAGNETIC DISTURBANCE
- FIELD DRAIN
- RIDGE & FURROW
- AGRICULTURAL
- FORMER FIELD BOUNDARY
- GEOLOGY
- GEOLOGY ZONE
- UNCERTAIN

0 50m

1:1500 @ A3



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Project ID: XK77_EXG23 Area F

Processed greyscale magnetometer data; Sector 24

Fig. 74

Title

SECTOR BOUNDARY

-1.0 2.0
nT

0 50m

1:1500 @ A3

N

2578 00

2576 00

2574 00

A509

3900 00

4902 00

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Project ID: XK77_EXG23 Area F

XY trace plot of minimally processed magnetometer data; Sector 24

Fig. 75

Title

SECTOR BOUNDARY

15.0 nT/cm

0 50m

1:1500 @ A3

N

2578 00

2576 00

2574 00

4900 00

4902 00

U11

FB14

A509

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Project ID: XK77_EXG23 Area F

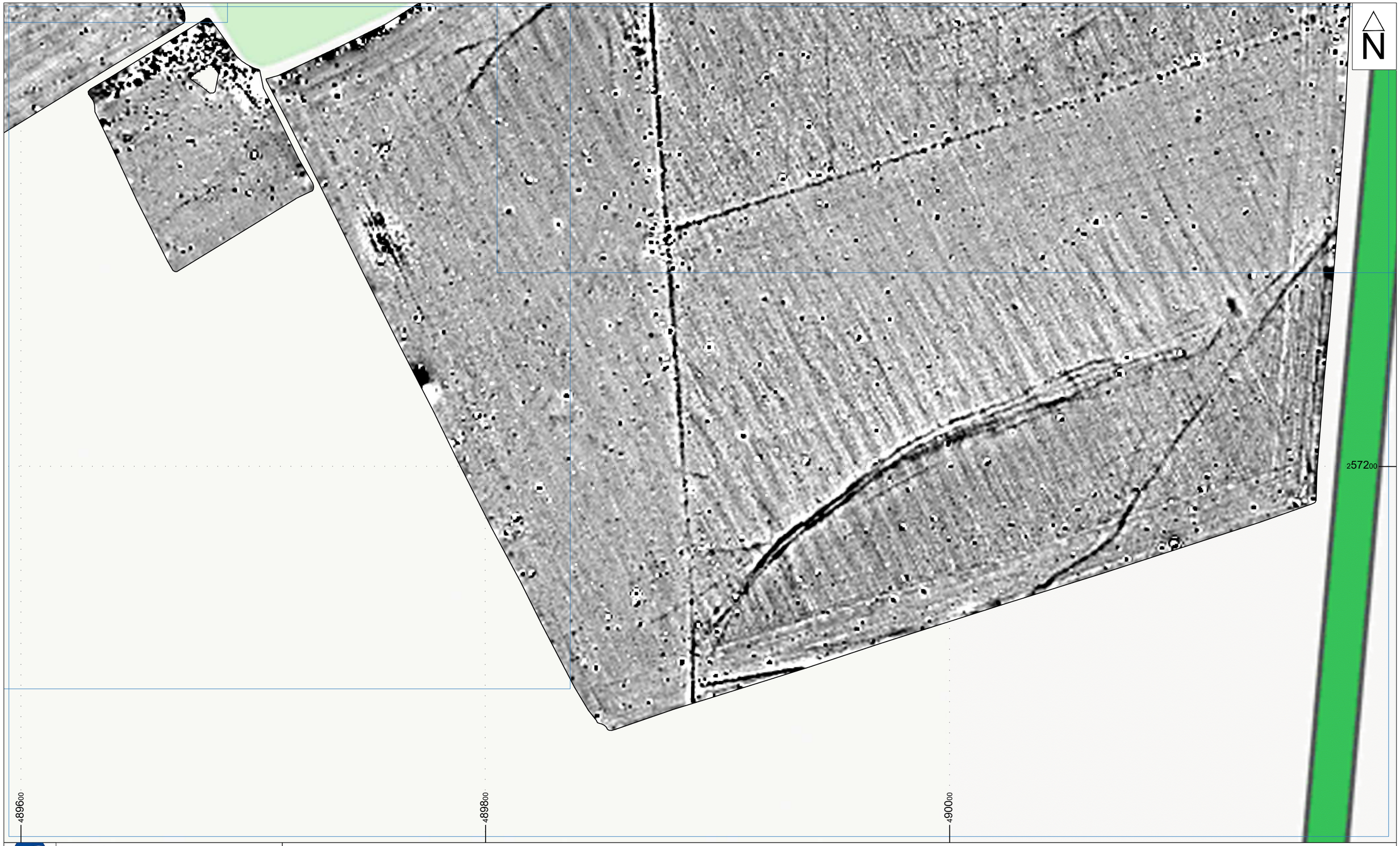
Interpretation of magnetometer data; Sector 24

Fig. 76

Title	Interpretation		
SECTOR BOUNDARY	FIELD DRAIN	GEOLOGY	
	RIDGE & FURROW	GEOLOGY ZONE	
FERROUS	AGRICULTURAL	UNCERTAIN	
MAGNETIC DISTURBANCE	FORMER FIELD BOUNDARY		

0 50m

1:1500 @ A3



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Project ID: XK77_EXG23 Area F

Processed greyscale magnetometer data; Sector 25

Fig. 77

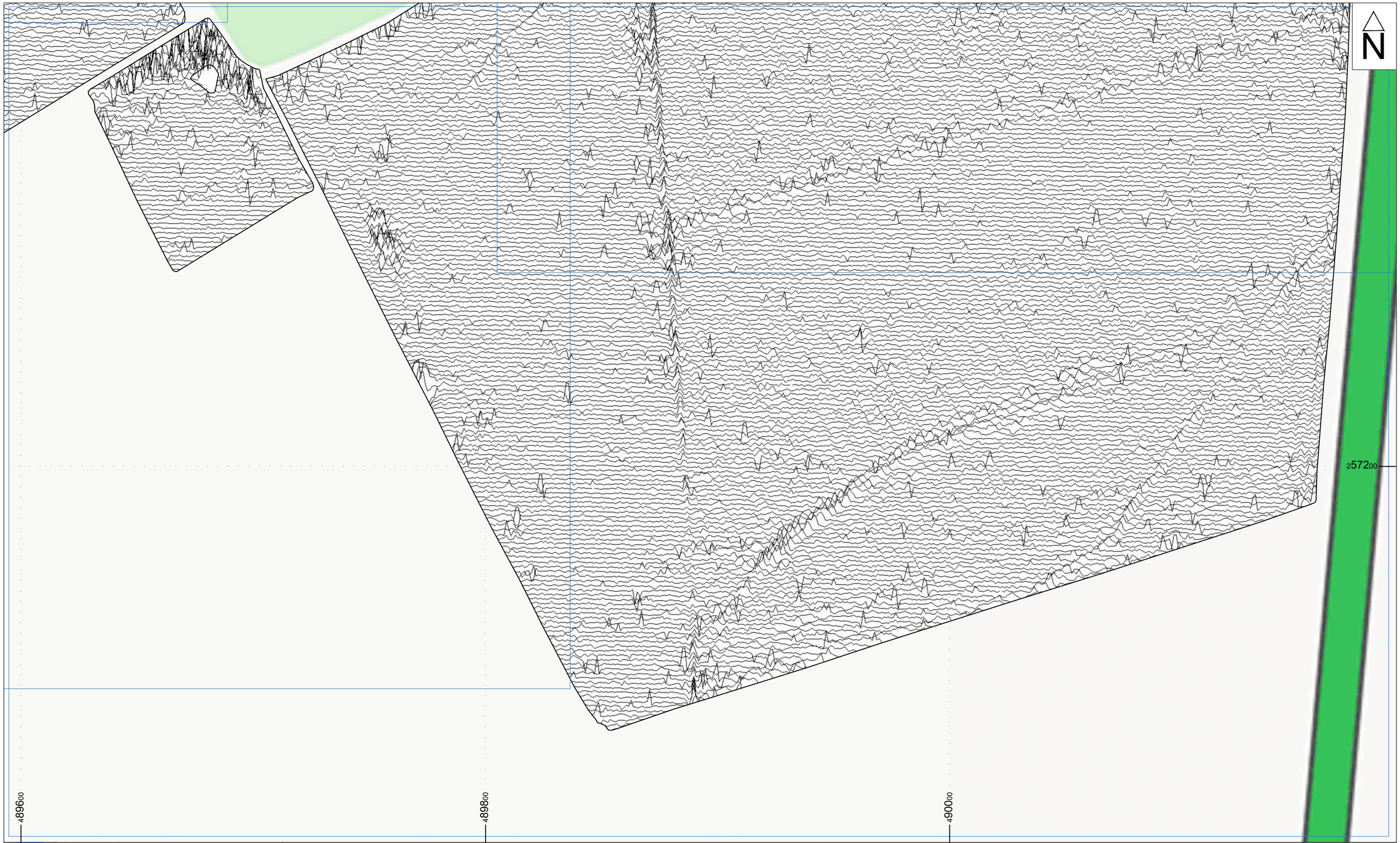
Title

SECTOR BOUNDARY

-1.0 2.0
nT

0 50m

1:1500 @ A3



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Project ID: XK77_EXG23 Area F

XY trace plot of minimally processed magnetometer data; Sector 25

Fig. 78

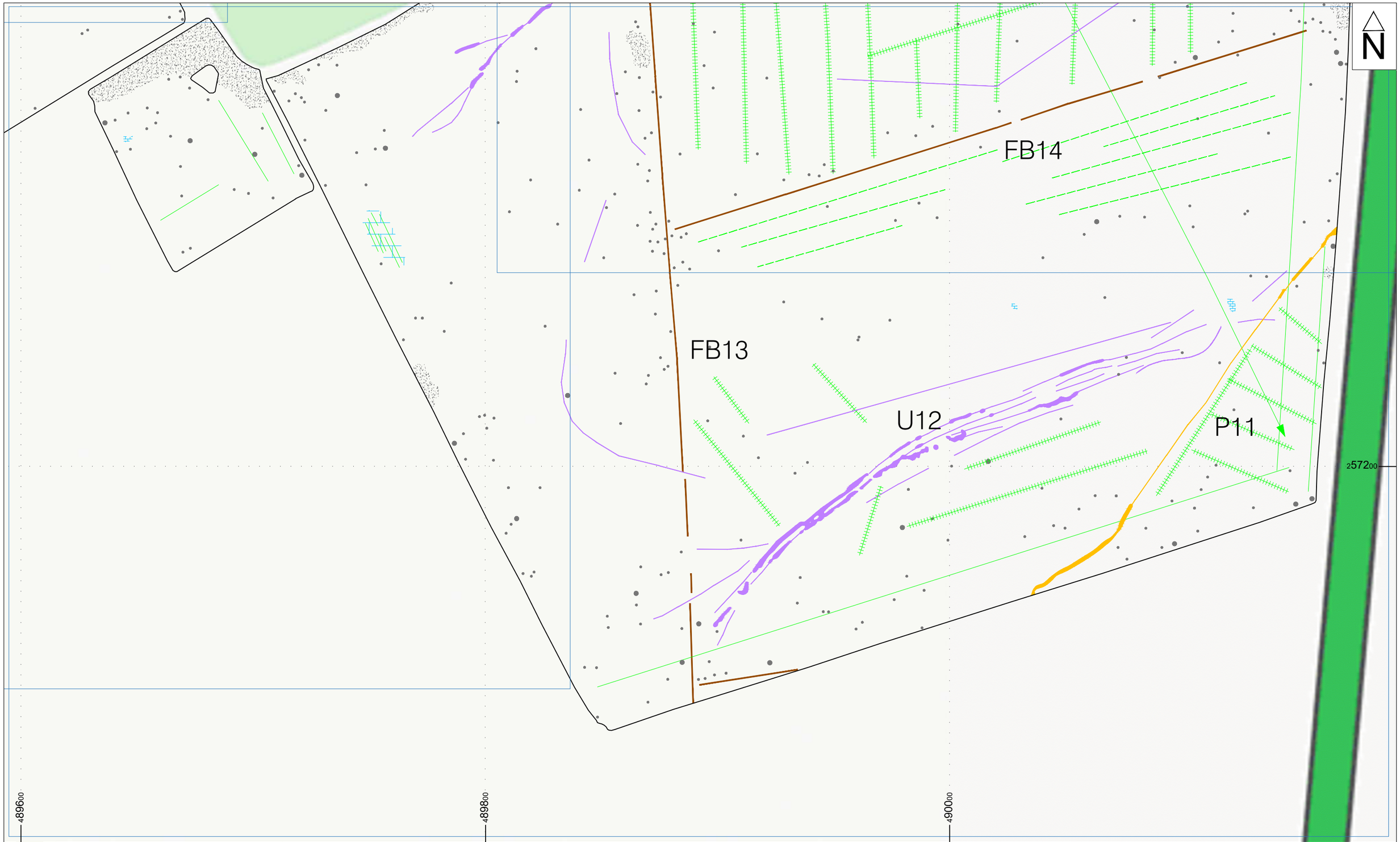
Title

SECTOR BOUNDARY

15.0 nT/cm

0 50m

1:1500 @ A3



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Tel: 0113 535 3007 Email: archaeology@wyjs.org.uk www.aswyas.com

Project ID: XK77_EXG23 Area F

Interpretation of magnetometer data; Sector 25

Fig. 79

Title

- SECTOR BOUNDARY

Interpretation

- FERROUS
- MAGNETIC DISTURBANCE
- FIELD DRAIN
- RIDGE & FURROW
- AGRICULTURAL
- FORMER FIELD BOUNDARY
- GEOLOGY
- GEOLOGY ZONE
- UNCERTAIN
- ARCHAEOLOGY?

0 50m

1:1500 @ A3

Appendix 1: Magnetic survey - technical information

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 haemetite. 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. Areas of human occupation or settlement can then be identified by measuring the magnetic susceptibility of the topsoil because 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 and the fermentation and bacterial effects associated with rubbish decomposition. The area of enhancement is usually quite large, mainly due to the tendency of discard areas to extend beyond the limit of the occupation site itself, and spreading by the plough.

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 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.

Methodology: Gradiometer Survey

The main method of using the fluxgate gradiometer for commercial evaluations is referred to as ***detailed survey*** and requires the surveyor to walk at an even pace carrying the instrument within a grid system. A sample trigger automatically takes readings at predetermined points,

typically at 0.25m intervals, on traverses 1m apart. These readings are stored in the memory of the instrument and are later dumped to computer for processing and interpretation.

During this survey an eight channel Sensys MX V3 system containing eight FGM650 sensors was also used which was towed across the area using an ATV. Readings were taken every 20MHz (between 0.05 and 0.1m). Data was be recorded onto a device, using a Carlson GNSS Smart antenna, for centimetre accuracy. These readings were stored in the memory of the instrument and downloaded for processing and interpretation.

Fields FF1, FF2 and the paddocks of FF27 were carried out using hand-held equipment. An initial survey station was established using a Trimble VRS differential Global Positioning System (Trimble R6 model). The data was geo-referenced using the geo-referenced survey station with a Trimble RTK differential Global Positioning System (Trimble R6 model). The accuracy of this equipment is better than 0.01m. The survey grids 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 co-ordinates are measured off hard copies of the mapping rather than using the digital co-ordinates.

Appendix 2: Survey location information

Data was recorded onto a device, using a Carlson GNSS BRx7 Smart antenna, for centimetre accuracy. These readings were stored in the memory of the instrument and downloaded for processing and interpretation. The accuracy of the BRx7 is between 0.15cm – 0.8cm. The BRx7 has a built-in tilt sensor to correct collected point coordinates to within 2cm.

The survey data were then super-imposed onto a base map provided by the client to produce the displayed 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 co-ordinates are measured off hard copies of the mapping rather than using the digital co-ordinates.

Archaeological Services WYAS cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party.

Appendix 3: Geophysical archive

The geophysical archive comprises:-

- an archive disk containing compressed (WinZip 8) files of the raw data, report text (Microsoft Word 2003), and graphics files (Adobe Illustrator CS6 and AutoCAD 2017) files; and
- a full copy of the report.

At present the archive is held by Archaeological Services WYAS although it is anticipated that it may eventually be lodged with the Archaeology Data Service (ADS). Brief details may also be forwarded for inclusion on the English Heritage Geophysical Survey Database after the contents of the report are deemed to be in the public domain (i.e. available for consultation in the Northamptonshire Historic Environment Record).

Appendix 4: Oasis form

OASIS Summary for archaeol11-532092

OASIS ID (UID)	archaeol11-532092
Project Name	Geophysical Survey at Green Hill Solar Project - Site F
Sitename	Green Hill Solar Project - Site F
Sitecode	EXG23
Project Identifier(s)	
Activity type	Geophysical Survey, MAGNETOMETRY SURVEY
Planning Id	
Reason For Investigation	Planning: Pre application
Organisation Responsible for work	Archaeological Services WYAS
Project Dates	11-Mar-2024 - 17-Oct-2024
Location	Green Hill Solar Project - Site F NGR : SP 89589 58341 LL : 52.2160091767717, -0.690107263113038 12 Fig : 489589,258341
Administrative Areas	Country : England County/Local Authority : North Northamptonshire Local Authority District : North Northamptonshire Parish : Easton Maudit
Project Methodology	The cart-based survey was undertaken using an eight channel SenSYS MX V3 system containing eight FGM650 sensors. Readings are taken every 20MHz (between 0.05 and 0.1m). Data were recorded onto a device, using a Carlson GNSS Smart antenna, for centimetre accuracy. These readings were stored in the memory of the instrument and downloaded for processing and interpretation. DLMGPS and MAGNETO software, alongside bespoke in-house software was used to process and present the data. Fields FF1, FF2 and the paddocks of FF27 was surveyed using a hand-held approach. The Site grid was laid out using a Trimble VRS differential Global Positioning System (Trimble R8 model). The survey was undertaken using Bartington Grad601 magnetic gradiometers. These were employed taking readings at 0.25m intervals on zig-zag traverses 1.0m apart within 30m by 30m grids, so that 3600 readings were recorded in each grid. These readings were stored in the memory of the instrument and later downloaded to computer for processing and interpretation.

Project Results	A geophysical (gradiometer) survey was undertaken on approximately 292 hectares of land within Site F of the Green Hill Solar Project, Grendon, Northamptonshire. Archaeological and possible archaeological responses have been recorded. These comprise ring ditches, linear ditches, pits and rectilinear enclosures, indicative of settlement activity over a probable prehistoric to medieval timeframe. A possible henge monument has also been recorded along with the location of a windmill. A previously excavated Roman villa is also apparent surrounded by field divisions. Uncertain anomalies recorded within the data generally appear to be agricultural or geological in origin. Former field boundaries have been recorded along with medieval/post-medieval ridge and furrow cultivation, modern ploughing and land drains. Magnetic disturbance within the dataset can be attributed to adjacent tracks, metal fencing within field boundaries, electricity pylons, overhead cables, and demolition of a former brick works. Geological responses seen within the dataset reflect either the topography of the site, discrete pockets of natural variations, possible quarrying, or former watercourses. Based on the geophysical survey, the archaeological potential of this Site is deemed to be high where there are areas of activity and low elsewhere.
Keywords	Post Mill - POST MEDIEVAL - FISH Thesaurus of Monument Types Henge - UNCERTAIN - FISH Thesaurus of Monument Types Villa - ROMAN - FISH Thesaurus of Monument Types Linear Settlement - LATER PREHISTORIC - FISH Thesaurus of Monument Types
Funder	Private or public corporation Green Hill Solar Project
HER	Northamptonshire SMR - unRev - STANDARD
Person Responsible for work	Emma Brunning
HER Identifiers	
Archives	

Report generated on: 21 Mar 2025, 10:29

Bibliography

BGS, 2025. https://geologyviewer.bgs.ac.uk British Geological Survey (viewed March 2025)

CIfA, 2020. *Standard and Guidance for Archaeological Geophysical Survey*. Chartered Institute for Archaeologists

GE, 2025. Google Earth Pro 7.3.3.7786

LandIS, 2025. https://landis.org.uk/soilscapes Cranfield Soil and Agrifood Institute (viewed March 2025)

MHCLG, 2019. *National Planning Policy Framework*. Ministry of Housing, Communities and Local Government.

NLS, 2025. https://maps.nls.uk/index.html. National Library of Scotland (viewed March 2025)

Schmidt, A. Linford, P., Linford, N., David, A., Gaffney, C., Sarris, A, and Fassbinder, J. 2015. *EAC Guidelines for the Use of Geophysics in Archaeology*. English Heritage

Appendix E

Green Hill G Geophysical Survey Report

WYAS Archaeological Services

Green Hill Solar Project

Site G

Buckinghamshire

Geophysical Survey

Report no. 4179
August 2024

Client: Green Hill Solar Project

Green Hill Solar Project
Site G
Buckinghamshire

Geophysical Survey

Summary

A geophysical (gradiometer) survey was undertaken on approximately 168 hectares of land associated with Site G of the Green Hill Solar Project, Warrington, Buckinghamshire. Archaeological and possible archaeological responses have been recorded. These comprise ring ditches, linear ditches and rectilinear enclosures, indicative of settlement activity over a probable prehistoric to medieval timeframe. Uncertain anomalies recorded within the data may also have an anthropogenic origin. A large area of magnetic disturbance in the centre of the Site along with dipolar ferrous responses are associated with a recorded World War II bombing site. Former field boundaries have been recorded along with medieval/post-medieval ridge and furrow cultivation, modern ploughing and land drains. Further magnetic disturbance within the dataset can be attributed to adjacent tracks and metal fencing within field boundaries, whilst disturbance from overhead power lines and electricity pylons have also been recorded. Geological responses seen within the south of the Site are associated with natural cracking to the limestone geology. Based on the geophysical survey, the archaeological potential of this Site is deemed to be high where there are areas of activity and low elsewhere.

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Services

Report Information

Client:	Green Hill Solar Project
Report Type:	Geophysical Survey
Location:	Warrington
County:	Buckinghamshire
Grid Reference:	SP 9058 5532
Period(s) of activity:	?Prehistoric - post-medieval
Report Number:	4179
Project Number:	XK77
Site Code:	EXG23
OASIS ID:	archaeol11-527357
Date of fieldwork:	May and June 2024
Date of report:	August 2024
Project Management:	Emma Brunning BSc MCIfA
Fieldwork:	Jake Freeman BA
	Jacob Hurst-Myszor BA
	Claire Stephens BA MA
	Cameron Whitley BA
Illustrations:	Emma Brunning
Photography:	Jake Freeman
Research:	Emma Brunning
Report:	Emma Brunning

Authorisation for distribution: ----------

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Ver	Author(s)	Reviewer	Approver	Date
1.0	EB	JR	JR	Aug 24

Contents

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1 Introduction

Archaeological Services ASWYAS has been commissioned by Lanpro on behalf of the Green Hill Solar Project to undertake a geophysical survey on land for the proposed Green Hill Site G, which is located within the administrative boundary of Milton Keynes, Buckinghamshire. This report details Site G only. This was undertaken in line with current best practice (CIfA 2020; Schmidt *et al.* 2015). The survey was carried out in May and June 2024.

Site location, topography and land-use

The Site comprises approximately 168ha of arable land across thirteen fields (GF1-GF13). At the time of survey, a young crop was present (Plates 1-8).

The Site is located to the northeast of Warrington and to the west of Lavendon, Buckinghamshire centred at SP 9058 5532 (see Fig. 1). The Site is bounded by the A428 to the south, the A509 to the west and by arable fields to the north and east. Woodland also bounds the Site in the northeast.

The Site lies between 102m aOD (above Ordnance Datum) in the northwest, and 80m aOD in the southeast.

Soils and geology

The bedrock geology across the Site mainly comprises the Cornbrash Formation – limestone, a sedimentary bedrock which formed between 168.3 and 163.5 million years ago during the Jurassic period. In the southeast of the Site, the bedrock geology comprises Kellaways Sand Member - sandstone and siltstone, interbedded, with a band of mudstone surrounding the sandstone and siltstone. This is a sedimentary bedrock that formed between 166.1 and 163.5 million years ago during the Jurassic period (BGS 2024).

Superficial deposits have been recorded as belonging to the Oadby Member – Diamicton, a sedimentary superficial deposit that formed between 480 and 423 thousand years ago during the Quaternary period. A deposit of alluvium is also recorded along the watercourse to the north of Field GF13 (BGS 2024).

Soils across the majority of the Site have been described as lime-rich loamy and clayey soils with impeded drainage (Soilscape 9). Soils in the very south are described as Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils (Soilscape 18) and in the very south as freely draining lime-rich loamy soils (Soilscape 5) (LandIS 2024).

2 Archaeological Background

The following information is a summary of an archaeological background provided by Lanpro Services.

Prehistoric period

The only recorded evidence for Neolithic activity within the search area is a findspot of an unidentified Neolithic artefact (possibly a stone axe?) that was discovered in a field *c*. 180m to the south of Field GF13 (MKHER MMK965).

Evidence for possible Bronze Age activity within the 1km search area is represented by two HER 'monument' records, both apparently referring to the same feature. 'A single ring ditch or circular enclosure' is recorded *c*. 250m northwest of Lower Farm, *c*. 85 to the north of Field GF13 (MKHER MMK3564). Another record describes 'Imported NMP record consisting of 2 Bronze Age ring ditch features' (MKHER MMK8034). However, an assessment of the NMP data indicates that the two rings are actually the inner and outer edges of the same ditch, which is at the same location as MKHER MMK3564.

Iron Age and Roman periods

Within the Site there are nine HER 'monument' records relating to Iron Age activity, and six that have been assigned a Roman date. In addition, there are eight HER 'monument' records within the Site that are of unknown date, and it is possible that some of these could also relate to Iron Age or Romano-British activity.

Within the wider 1km search area there are 19 HER 'monument' records that have been assigned an Iron Age date, three that that have been assigned an 'Early Iron Age to late medieval' date, one that has been assigned an 'Early Iron Age to Late Roman' date, four that have been assigned an 'Iron Age/medieval' date, and twenty that have been assigned an 'Iron Age/Roman' date. In addition, 17 HER 'monument' records have been assigned a Roman date, and one has been assigned a 'Roman/medieval' date.

In Easton Maudit parish, Late Iron Age pottery, charcoal and blackened pebbles were identified during fieldwalking to the south of Easton Lodge farm, c.800m to the northwest of Field GF1 (95/0/0). This site is close to an Iron Age enclosure (NHER 95/0/11) abutting a trackway (NHER 95/0/8) identified by the NMP which has been traced southwards to a point c.350m to the northwest of Field GF4 of the study site. Partway along this trackway (NHER 95/0/12) there are cropmarks interpreted as Iron Age ironstone workings and an undated enclosure (NHER 95/0/13) that may be contemporary.

A short distance to the east in Bozeat parish is an area of Iron Age settlement to the west of Bozeat Grange (NHER 95/2) where fieldwalking has identified a scatter of Iron Age pottery and iron slag patches, associated with cropmarks of four enclosures (NHER 95/2/2; NHER 95/2/3; NHER 95/2/8; NHER 95/2/10) and a double-ditched trackway (NHER 95/2/4). Further Iron Age/prehistoric enclosures (NHER 95/0/14; NHER 95/0/15; NHER 95/0/16) have been identified a short distance to the south, *c*. 450m to the northwest of Field GF1, and there is a cluster of undated ironstone workings (NHER 95/3/2) in the field immediately to

the north of Field GF1 which may be associated with other undated linear features, some of which extend into the study site (MKHER MMK8125).

Further to the east, in Harrold parish, four rectangular ditched enclosures of uncertain date and function are visible as cropmarks on aerial photographs, c.300m to the northeast of Field GF2 (BBHER MBB22675), which have been interpreted as being of possible Iron Age date by the NMP. Roman pottery and iron slag have been recovered from within a circular cropmark just to the east of this, c.400m to the northeast of Field GF2 (BBHER MBD832), and further Iron Age/Romano-British cropmarks have been recorded by the NMP in Harrold, c.920m to the east of Field GF2 (BBHER MBD16429).

To the south in Lavendon parish, cropmarks of three Iron Age enclosures and associated ditches have been identified c.50m to the east of Field GF9 at its nearest point (MKHER MMK8099), and extensive Iron Age/Romano-British settlement activity has been identified immediately to the south of the A428 in the fields directly adjacent to Field GF13. These comprise a probable Iron Age sub-rectangular enclosure with a small internal near-square enclosure, and a smaller 'banjo'-type enclosure immediately to the east (MKHER MMK8065). A short distance to the east of this is a complex palimpsest of Iron Age and Romano-British enclosures and linear boundaries (MKHER MMK7975). A large quantity of artefacts have been recovered from this area of cropmarks, including Roman building materials and possible kiln evidence (MKHER MMK316), walls of a possible villa (MKHER MMK319), pottery, tile, tesserae, imbrex, hypocaust (MKHER MMK320), a grave with fragmentary remains of a crouched inhumation (MKHER MMK323), Iron Age and Roman pottery including Samian ware (MKHER MMK326), Roman coins (MKHER MMK327), and bronze items including bracelets, rings, chains and a probable mirror (MKHER MMK328). Excavations undertaken at the site have confirmed the presence of ditches and gullies in the northern part of the field thought to be on the edge of an unenclosed Iron Age settlement (MKHER MMK317). A collection of 138 mid-late Iron Age sherds were also recovered during trial trenching (MKHER MMK318), as well as 726 pieces of animal bone, mostly from cow and sheep, but with pig, horse and deer also represented, and a high incidence of butchery marks (MKHER MMK321). Further evidence for a high-status Roman building has been identified c.725m to the east of Field GF13 where pottery, including Samian, as well as roof tiles of red painted tegula, have been recovered (MKHER MMK 890-892).

Further to the west in Warrington parish, Iron Age and Roman pottery, burnt pebbles and slag patches have been identified by field walking at locations c.725m to the west of Field GF10 (MKHER MMK271-2) and c.750m to the west of Field GF10 (MKHER MMK953-4). In addition, three Roman coins dating from the late 1st to early 2nd centuries, Roman pottery and a spindle whorl have been recovered during roadworks c.700m to the south-west of Field GF12-A.

Medieval period

There are nine HER ‘monument’ records of possible medieval date within the Site. Within the wider 1km search area there are 57 HER ‘monument’ records that have been assigned a medieval date, one that has been assigned a ‘Roman/medieval’ date, three that have been assigned an ‘early medieval’ date, two that have been assigned an ‘Early Saxon to late medieval’ date, 11 that have been assigned a ‘medieval to post medieval’ date, and one that has been assigned a ‘medieval to 16th century’ date.

There is no evidence for medieval settlement activity within the study site, but slag patches of a potential medieval date have been identified by fieldwalking in Fields GF2 (MKHER MMK3477), GF3 (MKHER MMK390 and MMK391), GF6 (MKHER MMK3478 and MK3479) and GF11 (MKHER MMK476). It is possible, however, that some or all of these sites could relate to Iron Age or Romano-British activity.

Evidence for medieval agricultural activity in the form of ridge and furrow and/or plough headlands has been identified from air photos in Fields GF2 (MKHER MMK8105), GF3-GF4, GF7-GF9 and GF13 (MKHER MMK7984), and GF10-GF12 (MKHER MMK8028).

The placename Lavendon is thought to derive from the Old English personal name Lāfa and denu (valley), hence ‘Lafa’s valley’ (Watts 2004, 263) which attests to the early medieval origins of the settlement. The placename Warrington may be derived from the Old English personal name Wearda and ing + tūn, or possibly relates to the Old English Wearding or ‘look-out place’, hence ‘settlement called or at Wearding, the lookout place’ or ‘estate called after Wearda or the look-out’.

Archaeoogical evidence for early medieval activity includes the possible site of 'hild's mound' (hildes hlaew) mentioned in 979 Olney Charter as forming part of the Olney Saxon boundary, c.850m to the west of Field GF3, although an alternative location has been identified c.885m to the west of Field GF10. (MKHER MMK3836). Possible early medieval wood boundary banks have also been identified, c.800m to the north of the Site as soil marks (NHER 0335/0/2) and earthworks (NHER 4033/0/2) from air photos. An early medieval sceatta coin (MKHER MMK7082 has also been found in the historic core of Lavendon, c.760m to the southeast of the Site.

By the time of the Domesday survey of 1086, land in Lavendon comprised 10 landholdings which were owned variously by the King, Bishop of Coutances the Count of Mortain, Walter Giffard and Countess Judith, and two and a half mills are recorded (Williams and Martin 1992 400; 406; 419; 421). The mills are likely to have been located on the River Ouse which forms the southern boundary to the parish, and therefore outside of the search area. Warrington is not mentioned in Domesday, the earliest historical reference being 1175 when it was recorded as Wardintone.

Post medieval to modern

Many of the post-medieval and modern heritage assets within the search area relate to buildings or monuments of a well-defined extent that do not contribute to the understanding of the Site's archaeological potential. The understanding of settlement, land-use and the utilisation of the landscape is enhanced by cartographic and documentary sources which can give additional detail to data contained within the HER and, notably, to the study site.

An air photograph taken in 1944 shows various features within the study site associated with a United States Strategic Air Forces Practice Bombing Range (PBR) that have been mapped by the NMP. These include numerous bomb craters within Field GF7, a concrete range directing arrow and probable range observation building in Field GF12, as well as two Nissen-type huts immediately to the east of Field GF11 (MK8118). Air photographs from 1949 show that the structures and buildings had all been demolished and that the bomb craters had all been levelled by ploughing. The bombing range covered an area of approximately 84,620 hectares and is thought to have been under the authority of the USAAF and used by the 95th Bombing Group (1st Line Defence 2024, 21). Documentary material relating to the Air Ministry's Release of Practice Bombing Ranges indicates that the range on site was not immediately cleared of ordnance, as it states that the Lavendon Bombing Range was 'not yet certified clear of unexploded bombs' following derequisitioning, and it is unclear whether clearance tasks were subsequently undertaken (1st Line Defence 2024, 25). The initial geophysical survey results include a dense cluster of dipolar magnetic anomalies centred around Field GF6 and GF11 and extended out into the surrounding fields which is likely to indicate the presence of shrapnel fragments associated with the PBR.

In addition, on 21st January 1957 a de Havilland Vampire aircraft crashed in fields adjacent to Lower Farm, killing the American Air Force Pilot and British trainee that was accompanying him. It was reported that the aircraft flew over Lavendon and then over Lower Farm before crashing into the '12 Acre Field'. The field occupying the north-eastern corner of Field GF13 at this time was approximately 12 acres in area and therefore this is the likely location of the crash site.

3 Aims, Methodology and Presentation

The aims and objectives of the programme of geophysical survey were to gather sufficient information to establish the presence/absence, character and extent, of any archaeological remains within the specific area and to inform an assessment of the archaeological potential of the site. To achieve this aim, a magnetometer survey covering all amenable parts of the Site was undertaken (see Fig. 2).

The general aims of the geophysical survey were:

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

Magnetometer survey

The cart-based survey was undertaken using an eight channel SenSYS MX V3 system containing eight FGM650 sensors. Readings are taken every 20MHz (between 0.05 and 0.1m). Data were recorded onto a device, using a Carlson GNSS Smart antenna, for centimetre accuracy. These readings were stored in the memory of the instrument and downloaded for processing and interpretation. DLMGPS and MAGNETO software, alongside bespoke in-house software was used to process and present the data. Further details are given in Appendix 1.

Reporting

A general site location plan, incorporating the 1:50000 Ordnance Survey (OS) mapping, is shown in Figure 1. Figure 2 displays the survey areas at a scale of 1:10000 whilst Figure 3 shows an overview of the processed magnetometer data and Figure 4 shows an overview of the interpretation both at a scale of 1:10000. Processed and minimally processed data, together with interpretation of the survey results are presented in Figures 5 to 46 inclusive at a scale of 1:1500.

Technical information on the equipment used, data processing and survey methodologies are given in Appendix 1. Technical information on locating the survey area is provided in Appendix 2. Appendix 3 describes the composition and location of the archive. A copy of the completed OASIS form is included in Appendix 4.

The survey methodology, report and any recommendations comply with guidelines outlined by the European Archaeological Council (Schmidt *et al*. 2015) and by the Chartered Institute for Archaeologists (CIfA 2020). All figures reproduced from Ordnance Survey mapping are with the permission of the controller of His Majesty's Stationery Office (© Crown copyright).

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

4 Results and Discussion (see Figures 5 to 46)

Ferrous anomalies and magnetic disturbance

Ferrous anomalies, as individual ‘spikes’, or as large discrete areas 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 rural sites, often being present as a consequence of manuring or tipping/infilling. There is no obvious pattern or clustering to their distribution in this survey to suggest anything other than a random background scatter of ferrous debris in the plough-soil.

The Second World War bombing area has clearly been identified within the geophysical data. Field GF7 is dominated by ferrous disturbance with the surrounding fields (GF5, GF6, GF8, GF9 and GF11) all showing areas of further disturbance. Within and outside this disturbance large circular dipolar responses are more than likely to represent bomb craters and have been marked as such on the interpretation diagrams.

An area of disturbance in the northeast of Field GF13 may be associated with the crash site of the de Havilland Vampire aircraft in 1957 as mentioned in the archaeological background above.

Overhead electricity pylons running through the southwest of the Site have been recorded within Fields GF3, GF11, GF12 and GF13 and has produced a ‘shimmer’ effect. Large ferrous responses **F1**, are associated with the pylons.

A linear dipolar trend has been recorded in Field GF10 which relate to a service pipe.

Magnetic disturbance along the limits of the survey areas is due to interference from metal fencing and adjacent tracks.

Geological anomalies

The survey has detected anomalies that have been interpreted as geological in origin. It is thought that the responses have been detected because of the variation in the composition and depth of the deposits of superficial material in which they derive.

A band of geological responses in Field GF12 corresponds to a change in the recorded soils and is most likely to reflect cracks and fissures in the limestone geology. Often, this can mimic archaeological responses, so whilst a geological origin is expected, an archaeological origin cannot be ruled out entirely.

Agricultural anomalies

Former field boundaries (**FB1** – **FB20**) have been recorded within Fields GF2, GF3, GF4, GF6, GF10, GF11, GF12 and GF13 and correspond to historic mapping dating from 1884 (NLS 2024).

Medieval or post-medieval ridge and furrow cultivation has been recorded within Fields GF2, GF6, GF10, GF11, GF12 and GF13 on differing alignments.

Field drains have been recorded in Fields GF3 and GF6. These have quite a low magnetic strength, and it is likely that their construction is of a non-fired clay construction.

Other parallel linear trends can be seen within most of the areas and are associated with modern ploughing. Only a selection of these have been highlighted on the interpretation diagrams to show the direction of the plough lines.

Uncertain anomalies

A handful of anomalies within the dataset have been interpreted as having an uncertain origin.

Magnetically weak linear trends in Field GF1, along with stronger trends (recorded as possible archaeology) may form enclosures or field systems and may be associated with archaeological anomalies to the south in Field GF6.

A cluster of pit-like responses and linear trends (**U1**) in the northeast of Field GF4 lies to the west of archaeological anomalies **A5** and **A6** and may also be archaeological, although the pit-like responses could also suggest a geological or natural origin.

Weak linear responses (**U2**) in Field GF6 are most likely to be a continuation of the field boundary/drainage ditch to the immediate south. A cautious interpretation has been given due to this feature not showing on historic mapping.

The rectilinear anomalies (**U3**) in Field GF12 exhibit characteristics indicative of an anthropogenic origin, but their proximity to geological cracking in the south might indicate that the anomalies are a natural response to these geological features.

Possible and definite archaeological anomalies

Anomalies of both an archaeological and possible archaeological origin have been recorded within the Site, and some correspond to the HER records. Anomalies **A1** and **A2** in Field GF3 correspond to the cropmarks associated with the ‘D’ shaped enclosure and associated trackway (MMK8011) and the oval enclosure and field boundary (MMK8030) respectively. Anomalies **P1** in the southeast of Field GF3 are not as well defined as the above responses, which could be partly due to the magnetic disturbance associated with the bombing.

Ditch **A3** in the southwest of Field GF3 along with anomalies **A7** to the south are also associated with the cropmarks identified by the National Mapping Programme (NMP) (MMK8011).

Possible archaeological anomalies in Field GF4 may be associated with enclosures and field systems, although due to their weak magnetic strength a clear pattern is not possible.

A sub circular enclosure (**A4**) in Field GF6 measures approximately 27m by 22m with a possible entrance showing in the east and is of a possible Iron Age/Romano-British date. A length of ditch (**A5**) measuring at least 230m and a possible enclosure (**A6**) along with a handful of other features may be associated with a prehistoric field system.

Further anomalies (**A8**) of archaeological interest have been recorded straddling Fields GF11 and GF12. The main feature appears to be a 'D' shaped enclosure measuring approximately 70m by 40m at its widest points, with a handful of ditches 'crossing' the enclosure. It is difficult to determine if these are contemporary or not. A small ring ditch (**P2**) has been recorded to the immediate southeast of **A8** and measures 7m in diameter.

Curving ditch **P3** located in the southeast of Field GF11 may be associated with a ring ditch and may be partially masked by bombing debris. Definite ring ditches (**A9**) can be seen in the northeast of Field GF12 and measure approximately 13m in diameter.

Ditch lengths (**P4** and **P5**) in the northwest of Field GF13 are likely to be former field divisions, although are not shown on historic mapping. Ditch **P5** is likely to be a continuation of **FB18**.

5 Conclusions

The geophysical survey has detected a number of magnetic anomalies associated with an archaeological and possible archaeological origin and comprise ring ditches, rectilinear enclosures and field systems over a probable prehistoric to medieval timeframe.

A large area of magnetic disturbance in the centre of the Site along with scattered dipolar ferrous responses are associated with a recorded World War II bombing site. Former field boundaries have been recorded along with medieval/post-medieval ridge and furrow cultivation, modern ploughing and land drains.

Further magnetic disturbance within the dataset can be attributed to adjacent tracks and metal fencing within field boundaries, whilst disturbance from overhead power lines and electricity pylons have also been recorded. Geological responses seen within the south of the Site are associated with natural cracking to the limestone geology.

Based on the geophysical survey, the archaeological potential of this Site is deemed to be high where there are areas of activity and low elsewhere.

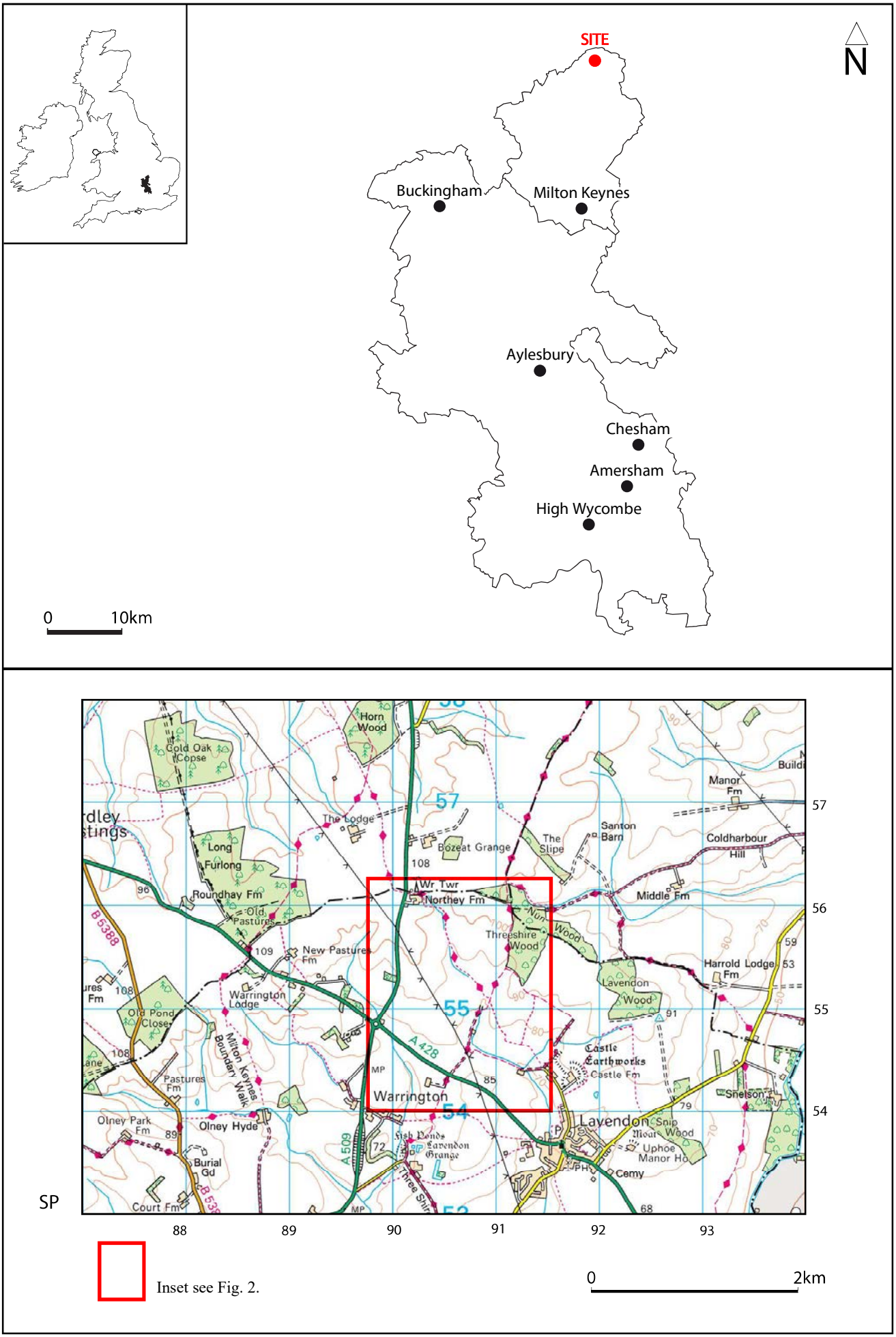

Fig. 1. Site location

N

SECTOR 1
SEE FIGS 5-7

SECTOR 2
SEE FIGS 8-10

SECTOR 3
SEE FIGS 11-13

SECTOR 4
SEE FIGS 14-16

SECTOR 5
SEE FIGS 17-19

SECTOR 6
SEE FIGS 20-22

SECTOR 7
SEE FIGS 23-25

SECTOR 8
SEE FIGS 26-28

SECTOR 9
SEE FIGS 29-31

SECTOR 10
SEE FIGS 32-34

SECTOR 11
SEE FIGS 35-37

SECTOR 12
SEE FIGS 38-40

SECTOR 13
SEE FIGS 41-43

SECTOR 14
SEE FIGS 44-46

GF1 GF2 GF3 GF4 GF5 GF6 GF7 GF8 GF9 GF10 GF11 GF12 GF13

1 2 3 4 5 6 7 8

Easton Lodge Farm
Bozeat Grange
Bozeat Wood
The Slipe
The Oaks Wood
Nun Wood
Threeshire Wood
Lavendon Lodge Farm
Barslay Spinney
Broadlane Spinney
Nuniron Spinney
The Lodge
The Nest Farm
Castle Farm
Warrington
Abbey Farm House
The Rookery
Lavendon
Education Facility
PO
PW
A509
A428
A429
NORTHAMPTON ROAD
JOINERS WAY
HIGH STREET
RECTORY ORCHARD
SOMMES CL
WHITE
OLD BRICKYARD CL
NEW BRICKYARD
LAVENDON GRANGE
CASTLE ROAD

2560 00
2550 00
2540 00
4900 00
4910 00

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Location of survey areas

Fig. 2

Title

	SURVEY AREA
GF1	FIELD NUMBERS
	SECTOR BOUNDARY
1	PHOTO LOCATIONS

0 400m

1:10000 @ A3

SECTOR 1
SEE FIGS 5-7

SECTOR 2
SEE FIGS 8-10

SECTOR 3
SEE FIGS 11-13

SECTOR 4
SEE FIGS 14-16

SECTOR 5
SEE FIGS 17-19

SECTOR 6
SEE FIGS 20-22

SECTOR 7
SEE FIGS 23-25

SECTOR 8
SEE FIGS 26-28

SECTOR 9
SEE FIGS 29-31

SECTOR 10
SEE FIGS 32-34

SECTOR 11
SEE FIGS 35-37

SECTOR 12
SEE FIGS 38-40

SECTOR 13
SEE FIGS 41-43

SECTOR 14
SEE FIGS 44-46

Easton Lodge Farm
Bozeat Grange
Bozeat Wood
The Slipe
The Oaks Wood
Nun Wood
Threeshire Wood
Lavendon Lodge Farm
Barslay Spinney
Broadlane Spinney
Nuniron Spinney
The Lodge
The Nest Farm
Castle Farm
Warrington
Abbey Farm House
The Rookery
Lavendon
Education Facility
A509
A428
A422
CASTLE ROAD
NORTHAMPTON ROAD
JOINERS WAY
HIGH STREET
RECTORY ORCHARD
2560 00
2550 00
2540 00
4900 00
4910 00

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Overall greyscale of processed magnetometer data

Fig. 3

Title

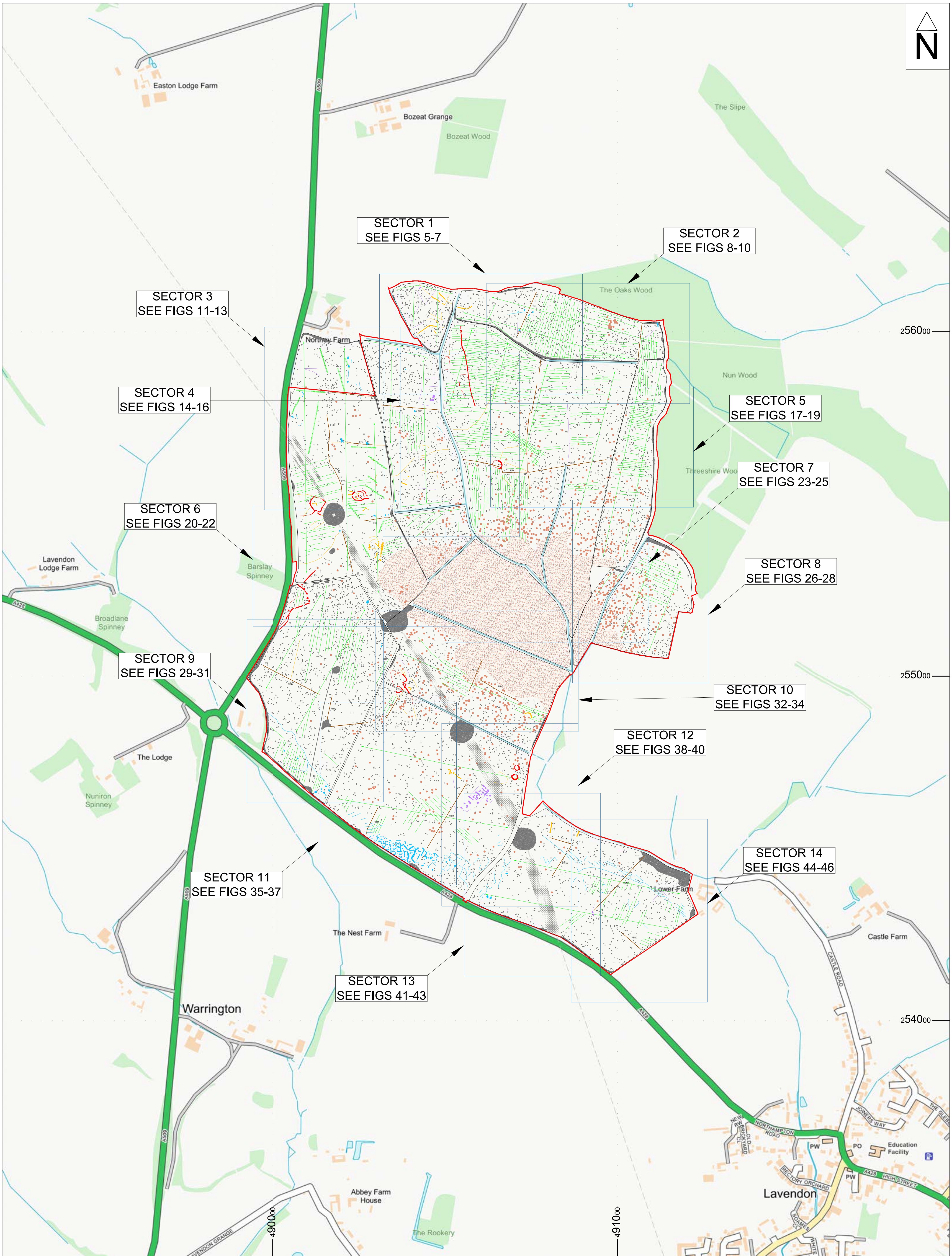
SURVEY AREA

SECTOR BOUNDARY

nT -1.0 2.0

0 400m

1:10000 @ A3



Interpretation

FERROUS	FIELD DRAIN
SERVICE PIPE	RIDGE & FURROW
MAGNETIC DISTURBANCE	AGRICULTURAL
OVERHEAD POWER LINES	FORMER FIELD BOUNDARY
GEOLOGY	BOMBING
UNCERTAIN	
ARCHAEOLOGY?	
ARCHAEOLOGY	

0 400m

1:10000 @ A3

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Overall Interpretation of magnetometer data

Fig. 4

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Processed greyscale magnetometer data; Sector 1

Fig. 5

Title

SECTOR BOUNDARY

-1.0 2.0
nT

0 50m

1:1500 @ A3

N

2560₀₀

2490₀₀

2500₀₀

2510₀₀

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XY trace plot of minimally processed magnetometer data; Sector 1

Fig. 6

Title

SECTOR BOUNDARY

15.0 nT/cm

0 50m

1:1500 @ A3

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Interpretation of magnetometer data; Sector 1

Fig. 7

Title

- SECTOR BOUNDARY

Interpretation

- FERROUS
- MAGNETIC DISTURBANCE
- RIDGE & FURROW
- AGRICULTURAL
- FORMER FIELD BOUNDARY
- GEOLOGY
- UNCERTAIN
- ARCHAEOLOGY?
- ARCHAEOLOGY
- BOMBING

0 50m

1:1500 @ A3

The Oaks Wood

N

2560 00

2558 00

490 800

491 000

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Processed greyscale magnetometer data; Sector 2

Fig. 8

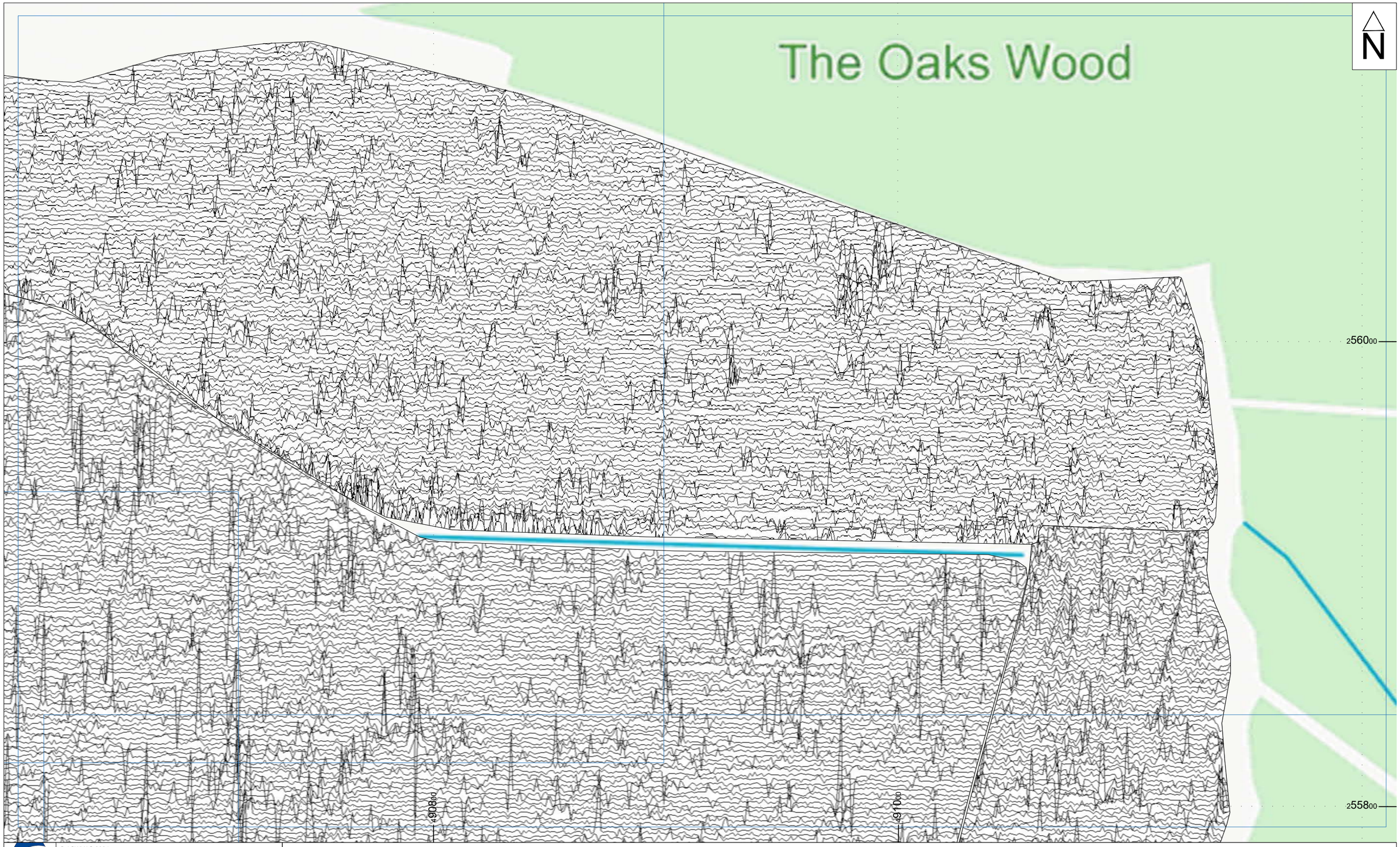
Title

SECTOR BOUNDARY

nT -1.0 2.0

0 50m

1:1500 @ A3



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XY trace plot of minimally processed magnetometer data; Sector 2

Fig. 9

Title

SECTOR BOUNDARY

15.0 nT/cm

0 50m

1:1500 @ A3

The Oaks Wood

N

FB1

FB2

FB7

2560 00

2558 00

4908 00

4910 00

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Interpretation of magnetometer data; Sector 2

Fig. 10

Title

- SECTOR BOUNDARY

Interpretation

- FERROUS
- MAGNETIC DISTURBANCE
- RIDGE & FURROW
- AGRICULTURAL
- FORMER FIELD BOUNDARY
- GEOLOGY
- UNCERTAIN
- ARCHAEOLOGY?
- BOMBING

0 50m

1:1500 @ A3

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Processed greyscale magnetometer data; Sector 3

Fig. 11

Title

SECTOR BOUNDARY

nT -1.0 2.0

0 50m

1:1500 @ A3

N

2560 00

2558 00

2556 00

4900 00

4902 00

A509

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XY trace plot of minimally processed magnetometer data; Sector 3

Fig. 12

Title

SECTOR BOUNDARY

15.0 nT/cm

0 50m

1:1500 @ A3

Northey Farm

FB4

FB3

FB4

FB3

A2

A1

A509

2560 00

2558 00

2556 00

4900 00

4902 00

N

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Interpretation of magnetometer data; Sector 3

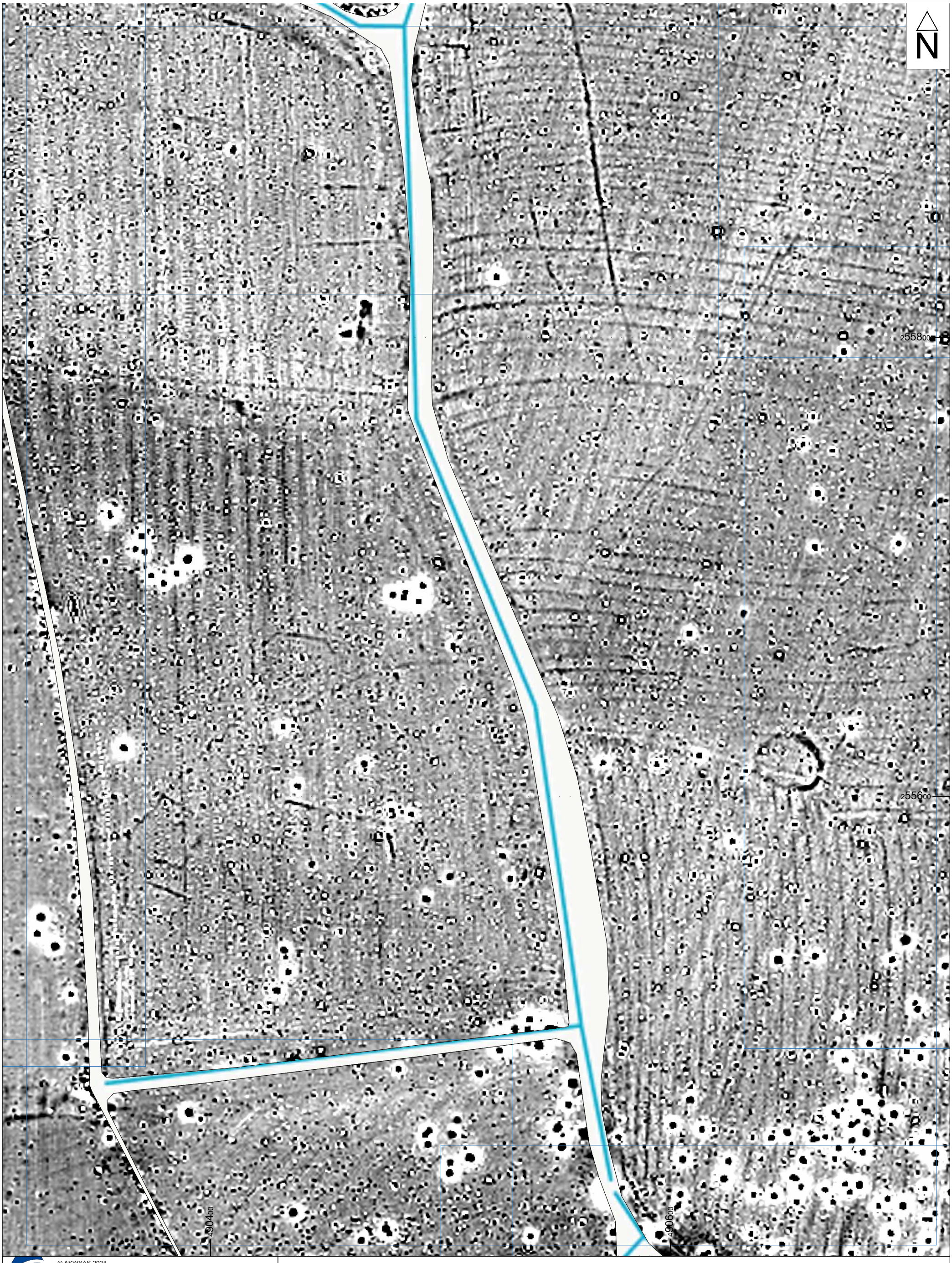
Fig. 13

Interpretation

FERROUS	RIDGE & FURROW	UNCERTAIN
MAGNETIC DISTURBANCE	AGRICULTURAL	ARCHAEOLOGY?
OVERHEAD POWER LINES	FORMER FIELD BOUNDARY	ARCHAEOLOGY
FIELD DRAIN	GEOLOGY	BOMBING

0 50m

1:1500 @ A3



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Processed greyscale magnetometer data; Sector 4

Fig. 14

Title

SECTOR BOUNDARY

-1.0 2.0
nT

0 50m

1:1500 @ A3

N

2558 00

2556 00

490400

490600

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XY trace plot of minimally processed magnetometer data; Sector 4

Fig. 15

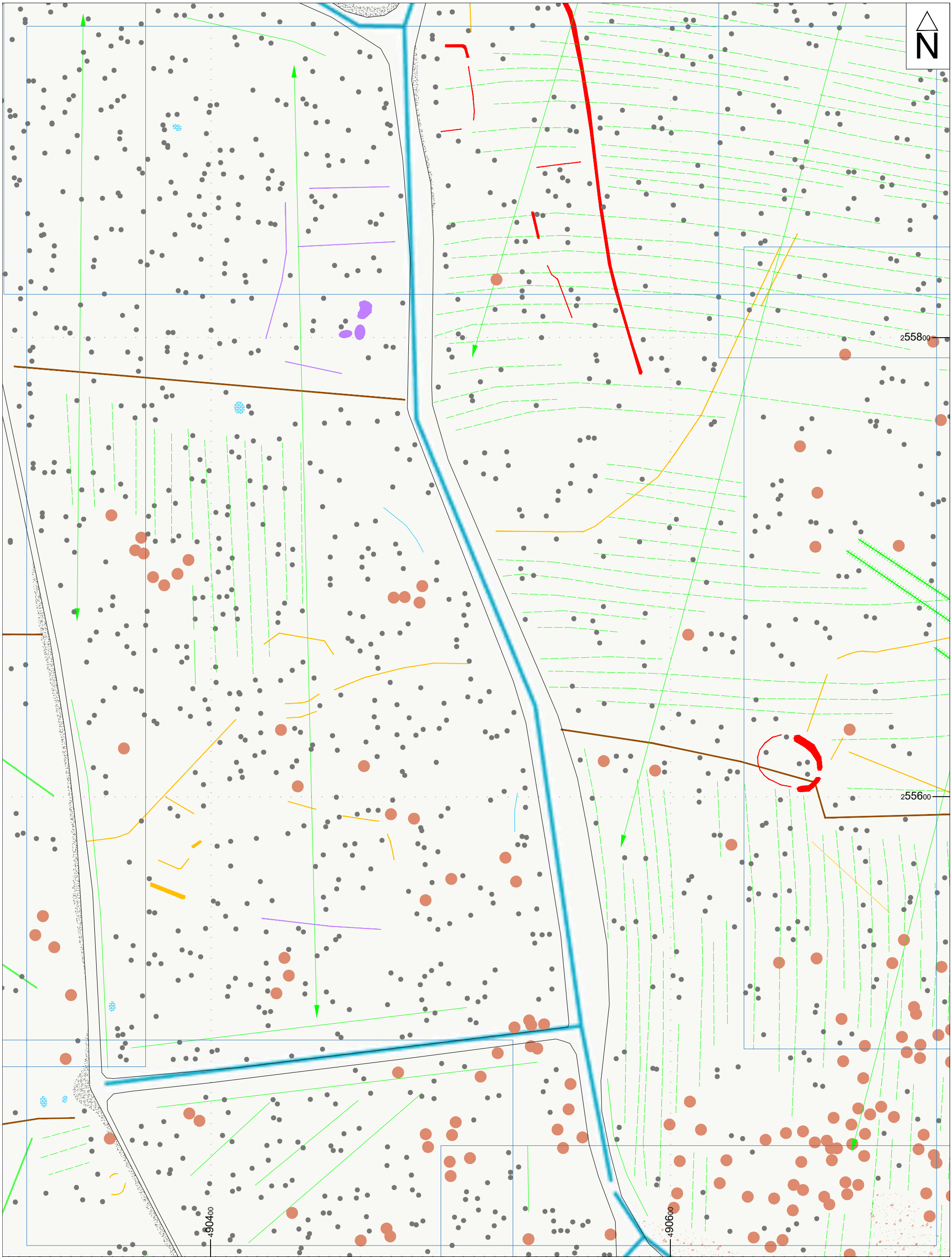
Title

SECTOR BOUNDARY

15.0 nT/cm

0 50m

1:1500 @ A3



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Interpretation of magnetometer data; Sector 4

Fig. 16

Interpretation

- FERROUS
- MAGNETIC DISTURBANCE
- FIELD DRAIN
- RIDGE & FURROW
- AGRICULTURAL
- FORMER FIELD BOUNDARY
- GEOLOGY
- UNCERTAIN
- ARCHAEOLOGY?
- ARCHAEOLOGY
- BOMBING

0 50m

1:1500 @ A3

N

2558 00

2556 00

4908 00

4910 00

4912 00

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Processed greyscale magnetometer data; Sector 5

Fig. 17

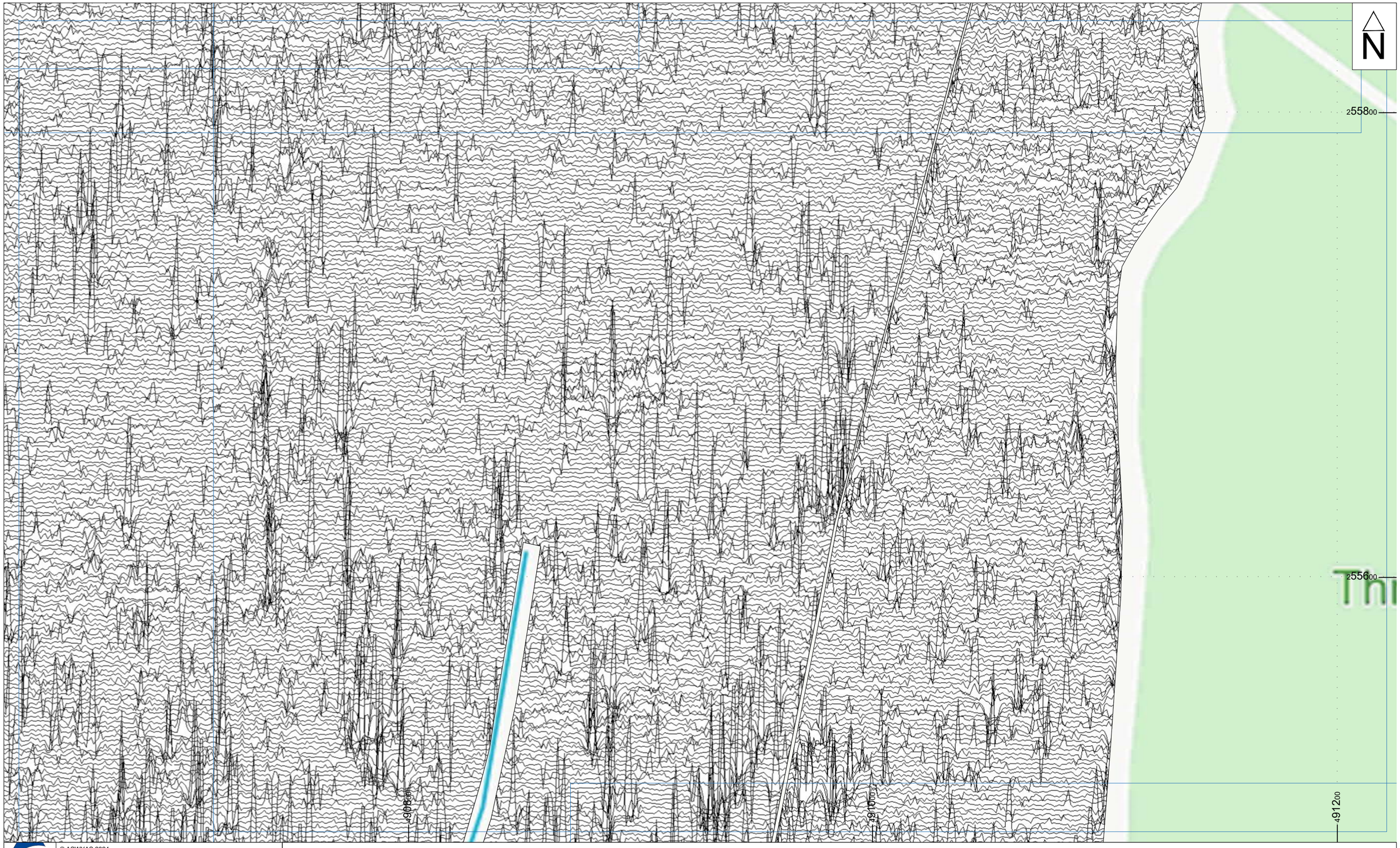
Title

SECTOR BOUNDARY

nT -1.0 2.0

0 50m

1:1500 @ A3



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XY trace plot of minimally processed magnetometer data; Sector 5

Fig. 18

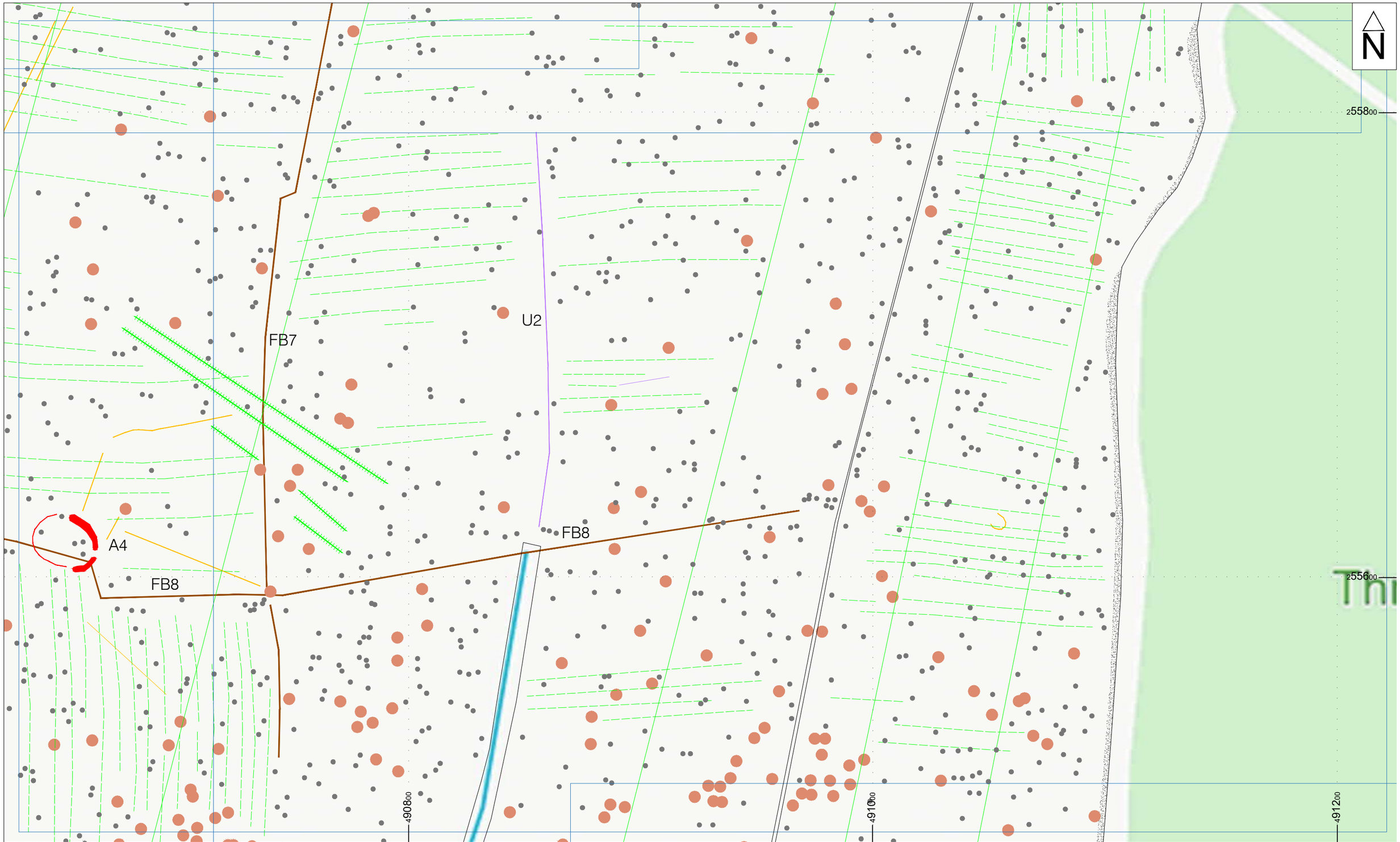
Title

SECTOR BOUNDARY

15.0 nT/cm

0 50m

1:1500 @ A3



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Interpretation of magnetometer data; Sector 5

Fig. 19

Title

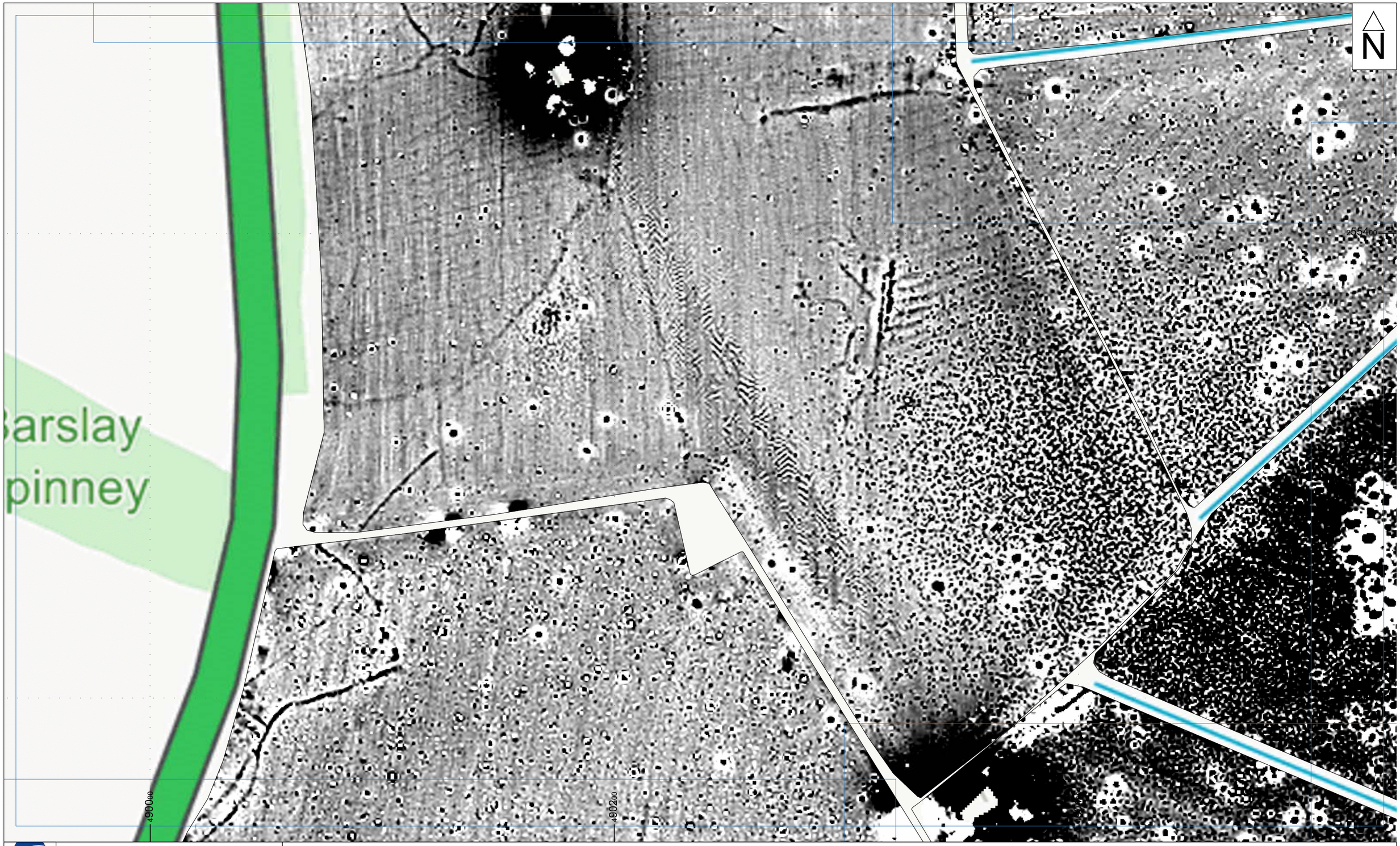
- SECTOR BOUNDARY

Interpretation

- FERROUS
- MAGNETIC DISTURBANCE
- FIELD DRAIN
- RIDGE & FURROW
- AGRICULTURAL
- FORMER FIELD BOUNDARY
- UNCERTAIN
- ARCHAEOLOGY?
- ARCHAEOLOGY
- BOMBING

0 50m

1:1500 @ A3



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Project ID: XK77_EXG23 Area G

Processed greyscale magnetometer data; Sector 6

Fig. 20

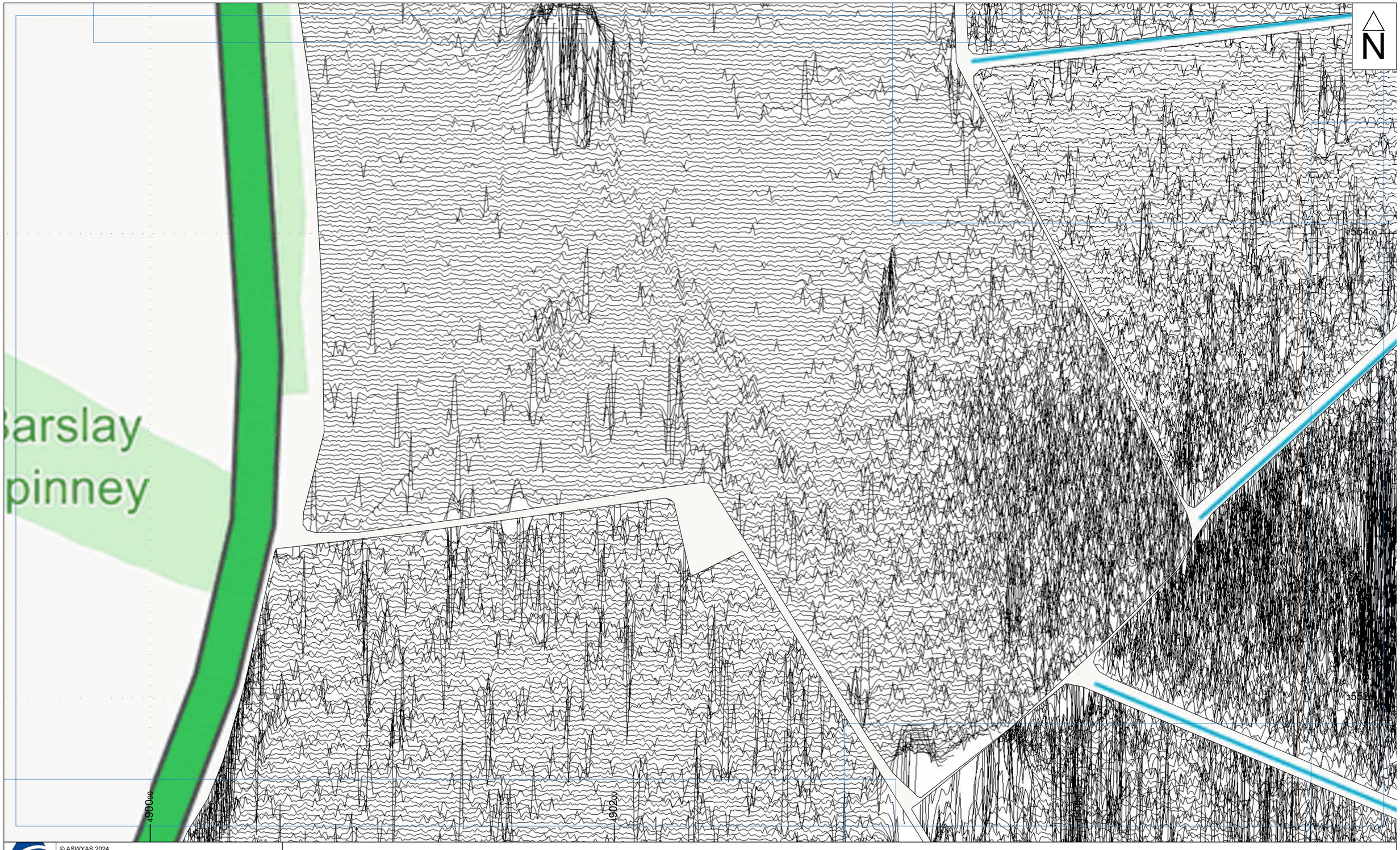
Title

SECTOR BOUNDARY

nT -1.0 2.0

0 50m

1:1500 @ A3



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Project ID: XK77_EXG23 Area G

XY trace plot of minimally processed magnetometer data; Sector 6

Fig. 21

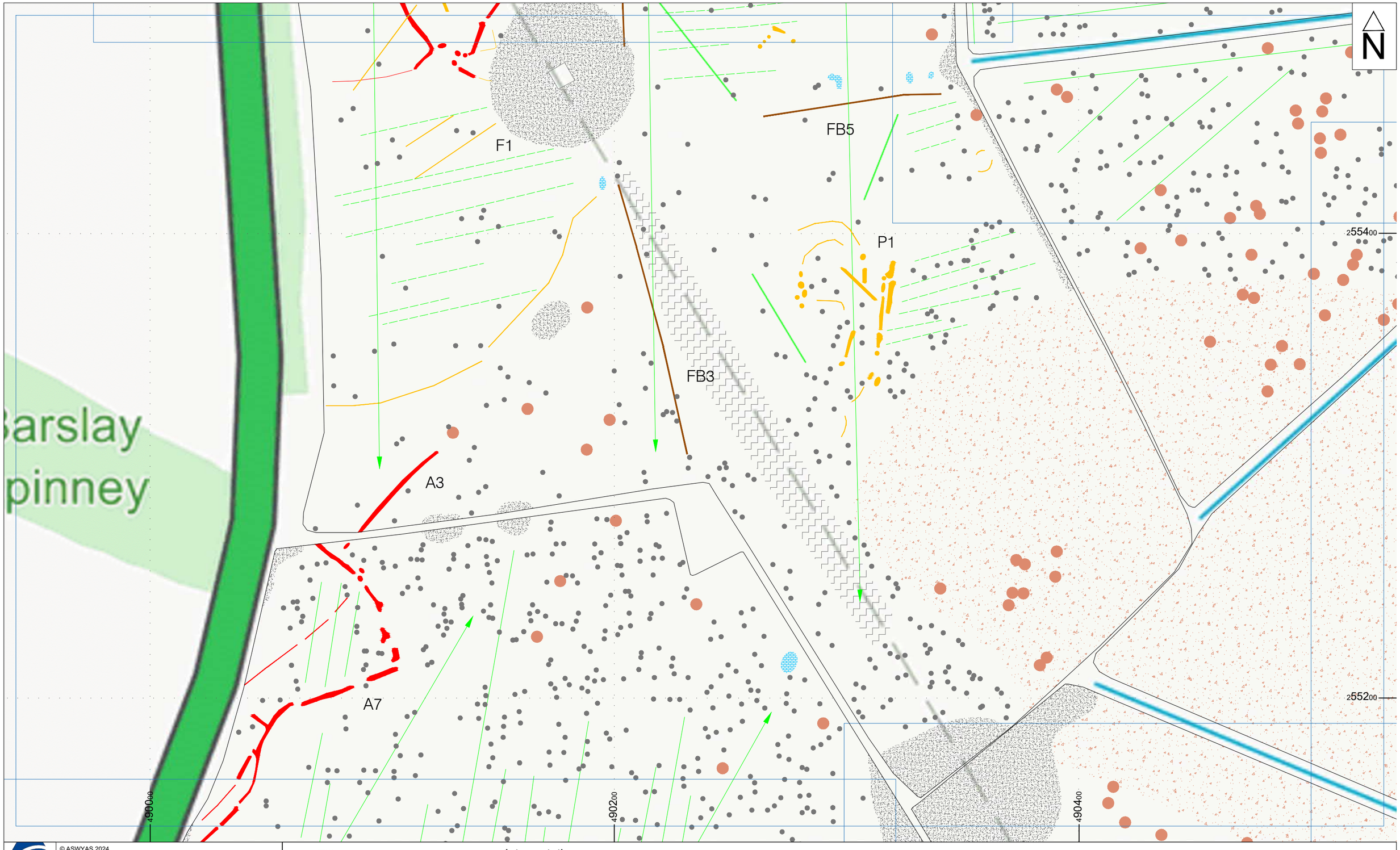
Title

SECTOR BOUNDARY

15.0 nT/cm

0 50m

1:1500 @ A3



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Project ID: XK77_EXG23 Area G

Interpretation of magnetometer data; Sector 6

Fig. 22

Title

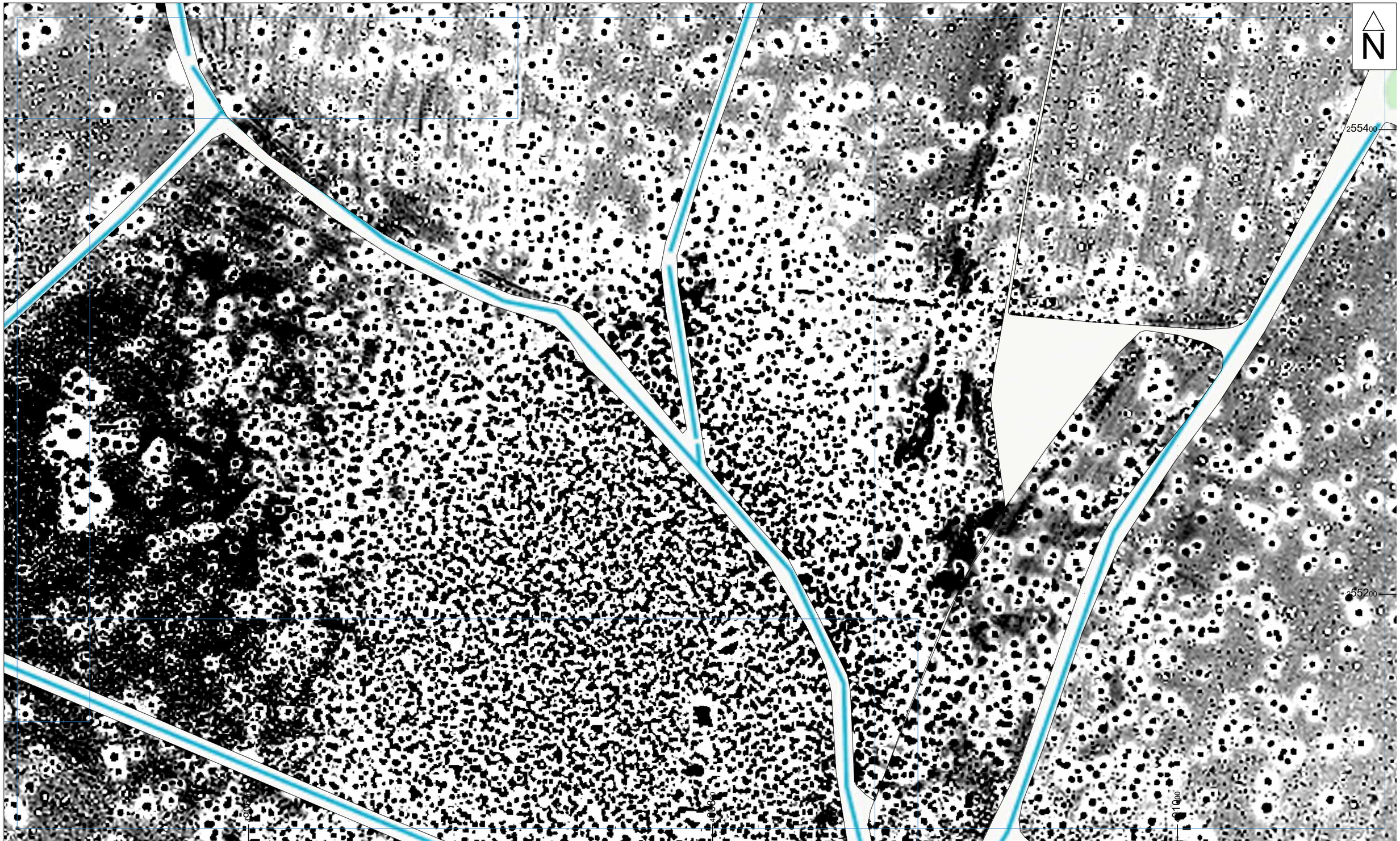
- SECTOR BOUNDARY

Interpretation

- FERROUS
- MAGNETIC DISTURBANCE
- OVERHEAD POWER LINES
- RIDGE & FURROW
- AGRICULTURAL
- FORMER FIELD BOUNDARY
- GEOLOGY
- ARCHAEOLOGY?
- ARCHAEOLOGY
- BOMBING

0 50m

1:1500 @ A3



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Processed greyscale magnetometer data; Sector 7

Fig. 23

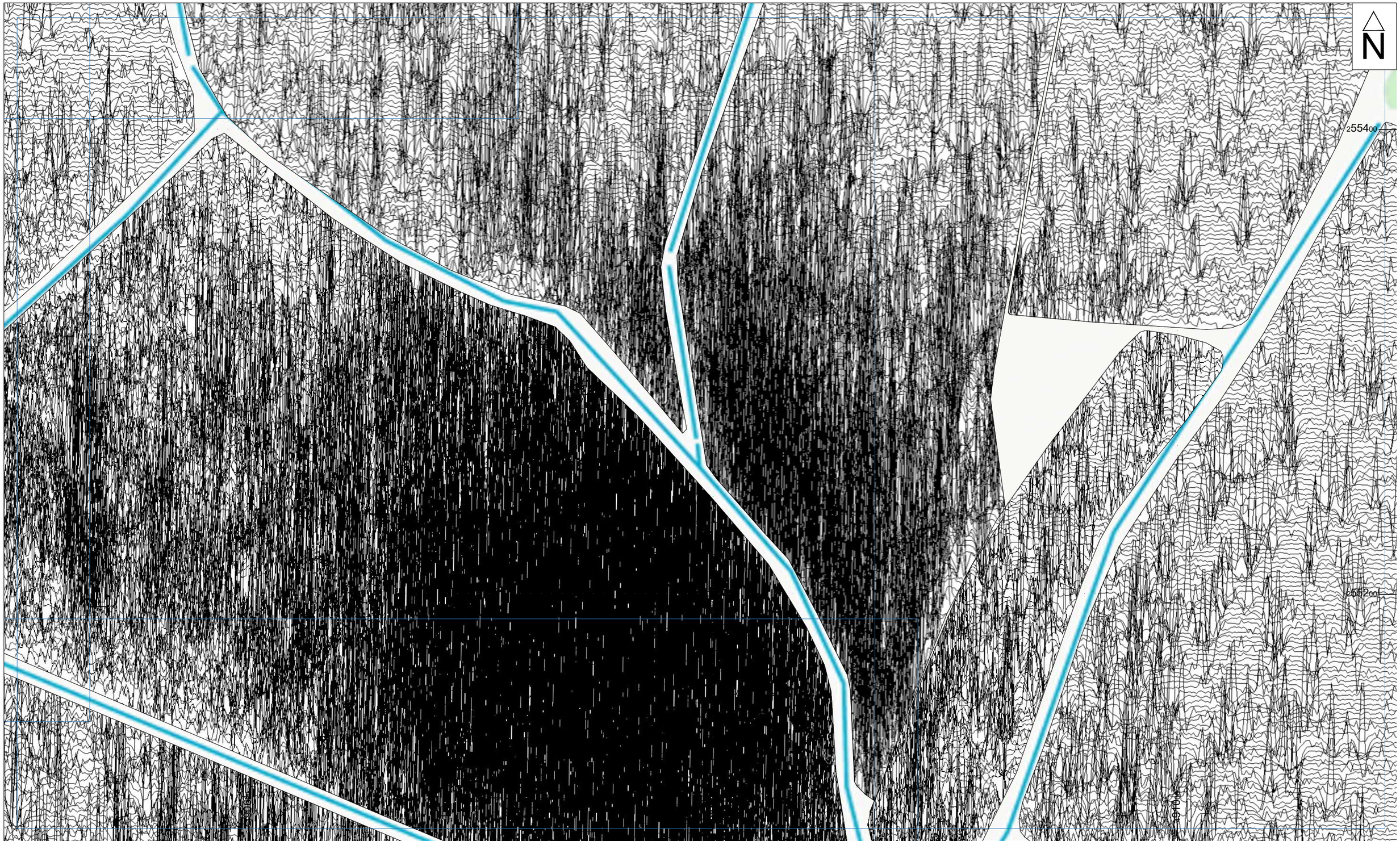
Title

SECTOR BOUNDARY

nT -1.0 2.0

0 50m

1:1500 @ A3



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XY trace plot of minimally processed magnetometer data; Sector 7

Fig. 24

Title

SECTOR BOUNDARY

15.0 nT/cm

0 50m

1:1500 @ A3

N

2554$_{00}$

2552$_{00}$

4906$_{00}$

4908$_{00}$

4910$_{00}$

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Interpretation of magnetometer data; Sector 7

Fig. 25

Title

- SECTOR BOUNDARY

Interpretation

- FERROUS
- MAGNETIC DISTURBANCE
- RIDGE & FURROW
- AGRICULTURAL
- BOMBING

0 50m

1:1500 @ A3

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Processed greyscale magnetometer data; Sector 8

Fig. 26

Title

SECTOR BOUNDARY

nT -1.0 2.0

0 50m

1:1500 @ A3

N

2554 00

2552 00

2550 00

491 00

491 2 00

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XY trace plot of minimally processed magnetometer data; Sector 8

Fig. 27

Title

SECTOR BOUNDARY

15.0 nT/cm

0 50m

1:1500 @ A3

N

2554 00

2552 00

2550 00

4910 00

4912 00

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Interpretation of magnetometer data; Sector 8

Fig. 28

Interpretation

- FERROUS
- RIDGE & FURROW
- BOMBING
- MAGNETIC DISTURBANCE
- AGRICULTURAL

0 50m

1:1500 @ A3