LAND AT MORETON HALL, BURY ST EDMUNDS, SUFFOLK

DETAILED MAGNETOMETER SURVEY

Report Number: 1070

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BURY ST EDMUNDS, SUFFOLK

DETAILED MAGNETOMETER SURVEY

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Site Code	RGH 083	**NGR**	TL 886 646
Planning Ref.	-	**OASIS**	britanni1-191238
Approved By	Matthew Adams	**DATE**	October 2014

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ABSTRACT

In October 2014, Britannia Archaeology Ltd undertook a detailed fluxgate gradiometer survey over c.8 hectares of land at Moreton Hall, Bury St Edmunds, Suffolk, in one agricultural field, covering the footprint of a proposed new school. A range of anomalies were recorded during the survey, some of which have a potential archaeological origin.

Isolated dipolar responses were most common and probably relate to demolition material associated with the former airfield, or ferrous material introduced through manuring.

A broad linear area of magnetic enhancement running north-west to south-east is likely to be of geological derivation.

Three linear areas of magnetic disturbance were recorded in the dataset and interpreted as demolition material of the former runways.

Two dis-continuous strong positive linear trends are likely to be remnant field boundaries removed to create either a larger field or to open up the airfield itself.

A curving dis-continuous positive linear trend and two other short linear anomalies are of possible archaeological origin, further archaeological investigations should ascertain a derivation.

Sixteen positive discrete anomalies were recorded that are indicative of archaeological rubbish pits, however a more modern origin cannot be ruled out.

One thermo-remnant response recorded in between the curvilinear anomalies may prove to be an area of burning or burnt material backfilled within the potential ditch itself.

It would be prudent to target the thermo-remnant response, discretes, curvilinear and linear anomalies that have been interpreted as being of a potential archaeological origin.

1.0 INTRODUCTION

On Monday 6th to Thursday 9th October 2014 Britannia Archaeology Ltd (BA) undertook detailed fluxgate gradiometer survey over *c.*8ha of land at Moreton Hall, Bury St Edmunds, Suffolk (NGR TL 886 646) in one agricultural field over the footprint of a proposed new school (Figure 1).

This survey was commissioned by Kay Boyden of Concertus Design and Property Consultants Ltd in response to a design brief issued by Suffolk County Council Archaeology Service/Conservation Team (Brudenell. M, dated 15th April 2014). The weather was overcast for the majority of the four day survey, interspersed with heavy rain and high winds with a few periods of sunshine.

2.0 SITE DESCRIPTION

The site is located to the east of Lady Miriam Way in Bury St Edmunds, Suffolk, in one agricultural field. It is bordered to the north and south by agricultural fields, and to the east by the dismantled remains of World War II airfield infrastructure. The survey area covers approximately 8 hectares of land.

Bedrock geology is described as Lewes Nodular Chalk, Seaford Chalk, Newhaven Chalk, and Culver Chalk Formation, deposited approximately 71 to 94 million years ago in the Cretaceous Period when the local environment was dominated by warm chalk seas (BGS, 2014).

Superficial geology is described as Cover Sand, formed up to 3 million years ago in the Quaternary Period when the local environment was dominated by wind-blown deposits (BGS 2014).

3.0 PLANNING POLICIES

The geophysical survey was carried out on the recommendation of the county council (SCCAS/CT), following guidance laid down by the *National Planning and Policy Framework* (NPPF, DCLD 2012) which replaced *Planning Policy Statement 5: Planning for the Historic Environment* (PPS5, DCLG 2010) in March 2012. The relevant local development framework is *The Replacement St Edmundsbury Borough Local Plan (2016)*.

3.1 National Planning Policy Framework (NPPF, DCLG March 2012)

The NPPF recognises that 'heritage assets' are an irreplaceable resource and planning authorities should conserve them in a manner appropriate to their significance when considering development. It requires developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. The key areas for consideration are:

- The significance of the heritage asset and its setting in relation to the proposed development;

- The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance;

- Significance (of the heritage asset) can be harmed or lost through alteration or destruction, or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification;

- Local planning authorities should not permit loss of the whole or part of a heritage asset without taking all reasonable steps to ensure the new development will proceed after the loss has occurred; and

- Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.

3.2 The Replacement St Edmundsbury Borough Local Plan (2016).

The relevant section in the local plan (9. Heritage and Conservation) states the following aims and objectives:

9.1 To maintain and improve the quality of the built environment

9.2 To achieve this aim, the objectives are to:

a) retain and enhance the character and appearance of the historic environment and ensure that new development is sensitive to the character of the locality;

b) safeguard listed buildings, conservation areas and parks and gardens of special historic or design interest and their settings from inappropriate development;

c) protect and conserve the fabric of historic buildings, structures and other features, and the archaeological remains related to them; and

d) protect and conserve sites of archaeological importance and their settings.

4.0 ARCHAEOLOGICAL BACKGROUND

The proposed development lies in an area of archaeological potential as recorded in the County Historic Environment Record (HER), and summarised in the Desk-Based Assessment by Archaeological Solutions (Peachey 2013, Report no. 3818). Prehistoric remains are known in and around the site (HER nos. BRG 009, BRG 024 and RGH 065)

and Roman, Saxon and medieval sites recorded in similar topographic locations immediately to the west and north (e.g. BRG 024-027 and RGH 031). In October 2012, an archaeological evaluation on land with consent for a community football facility, in the southern half of the development area, identified Iron Age settlement remains (RGH 066, SCC Archaeology Service Report 2012/164). These preliminary investigations have confirmed the presence and survival of archaeological deposits at the site, despite the intrusion of groundwork's associated with the construction and dismantling of the World War II airfield and infrastructure.

5.0 PROJECT AIMS

The geophysical survey was required to determine the extent and significance of any surviving subsurface anomalies to be targeted by a subsequent trial trench evaluation, the aims and objectives are laid out as follows in Section 4 of the brief:

4.1 A geophysical survey and preliminary trenched evaluation is required of the development area to enable the archaeological resource, both in quality and extent, to be assessed prior to the determination of the planning application.

4.2 Trial Trenching is required to:

- 'Ground-truth' the geophysical results.
- Identify the date, approximate form and purpose of any archaeological deposit, together with its likely extent, localised depth and quality of preservation.
- Evaluate the likely impact of past land uses, and the possible presence of masking colluvial/alluvial deposits.
- Establish the potential for the survival of environmental evidence.
- Establish the suitability of the area for development.

6.0 METHODOLOGY

6.1 Instrument Type Justification

Britannia Archaeology Ltd employed a Bartington Dual Grad 601-2 fluxgate gradiometer to undertake the survey, because of its high sensitivity and rapid ground coverage. The surveyors noted that that the background magnetic susceptibility signature was relatively low across the site, a suitable zero station was located with relative ease.

6.2 Instrument Calibration

One hour was allowed in the morning for the magnetometers sensors to settle before the start of the first grid. The instrument was zeroed after every three to five grids to minimise the effect of sensor drift. An area with a relatively low magnetic reading was chosen to calibrate the instrument; this same point was used to zero the sensors throughout the survey providing a common zero point. The surveyors noted a degree of sensor drift during the outbreaks of sunshine, causing the characteristic parallel traverse 'striping' that is prevalent throughout the raw dataset (Figures 2A and 3A).

6.3 Sampling Interval and Grid Size

The sampling interval was set at 0.25m along 1m traverse intervals, providing 4 readings a metre, the magnetometer survey was undertaken within 20 x 20m grids.

6.4 Survey Grid Location

The survey grid was set out to the Ordnance Survey OSGB36 datum to an accuracy of ±0.1m employing a Leica Viva Glonnass Smart Rover GS08 real time kinetic (RTK) survey system. Data were converted to the National Grid Transformation OSTN02 and the instrument was regularly tested using stations with known ETRS89 coordinates. The grids were positioned on an east to west alignment (Figure 1).

6.5 Data Capture

Instrument readings were recorded on an internal data logger that were downloaded to a laptop at lunchtime and then also at the end of the day. The grid order was recorded on a BA pro-forma to aid in the creation of the data composites. Data were filed in job specific folders. These data composites were checked for quality on site by BA, allowing grids to be re-surveyed if necessary. The data were backed up onto an external storage device in the office and finally a remote server at the end of the day. A five metre exclusion zone was left between the boundaries and the survey area to reduce the amount of field boundary magnetic disturbance, which slightly reduced the area available.

6.6 Data Presentation and Processing

Data are presented in both raw and processed data plots in greyscale format (Figures 2A, 2B, 3A, 3B and 4). An XY trace plot of the processed data has also been included (Figure 2C and 3C).

The raw data is presented with no processing, and was clipped to produce a uniform greyscale plot, processed data schedules are also displayed below.

Raw Data:
Data Clipping: 1.00 standard deviation;
Display Clipping: +/- 3 standard deviations.

Processed Data:
De-stripe: Median Sensors: All;
Data Clipping: 1.00 standard deviation;
Display Clipping: +/- 3 standard deviations.

An interpretation plan characterising the anomalies recorded can be found at Figure 5, drawing together the evidence collated from both greyscale and XY trace plots (Figures 2A, 2B, 2C, 3A, 3B, 3C and 4). All figures are tied into the National Grid and printed at an appropriate scale.

6.7 Software

Raw data were downloaded using DW Consulting's Archeosurveyor v2.5.16.0 and will be stored in this format as raw data. The software used to process the data and produce the composites was also DW Consulting's Archeosurveyor v2.5.16.0. Datasets were exported into AutoCAD and placed onto the local survey grid. Interpretation plots were then produced using AutoCAD.

6.8 Grid Restoration

Britannia Archaeology Ltd did not position any reference stations within the field; however three geo-referenced virtual survey stations are presented in Figure 1 that can be used to relocate the anomalies recorded and position the subsequent trial trenches.

7.0 RESULTS & DISCUSSION (Figure 5)

Isolated dipolar ('iron spike') responses (yellow hatched circles) were the most common anomaly recorded in the dataset and probably relate to modern ferrous material present within the topsoil. A lot of demolition material associated with the former airfield was noted by the surveyors within the topsoil across the site. It is probable that some of these responses may also be caused by ferrous or burnt material introduced through manuring.

A broad linear area of magnetic enhancement has been recorded running north-west to south-east in the dataset (cyan hatching) that comprises both weak positive and negative readings and due to its size is likely to be of geological derivation. The surveyors noted a slight change to the crop within this area.

Two parallel linear areas of magnetic disturbance (blue hatching) were recorded in the northern section of the survey aligned approximately east to west that have been interpreted as the remains of demolition material relating to the former runway. The runway sat in the centre of these two anomalies in an area recorded as having relatively low magnetic susceptibility. A third linear area of magnetic disturbance was further recorded running north-west to south-east which has also been interpreted as a Second World War runway. This anomaly aligns well with a runway feature recorded during the trial trench evaluation undertaken immediately to the south (Beverton, A. 2012).

Two dis-continuous strong positive linear trends (green linear hatching), both aligned approximately east to west are likely to be remnant field boundaries removed to create either a larger field or to open up the airfield itself. They are therefore likely to have been backfilled at the time of the Second World War. The northern most linear aligns well with an existing hedge row that is still extant to its east.

A curving dis-continuous positive linear trend (orange hatched linear) is of possible archaeological origin. It is quite different in character to the strong positive linear trends that are likely to be of modern agricultural origin (green linear hatching). Two other short linear anomalies are located to the east of this curvilinear, they are relatively weaker in strength. All three of these are likely to relate to a different phase of site activity, and perhaps are older ditch type features. Further archaeological investigations should ascertain a derivation.

Sixteen positive discrete anomalies have been recorded (orange hatching) that are indicative of archaeological rubbish pits, however a more modern origin cannot be ruled out. These anomalies can also be caused by discrete magnetic variations within the superficial geology.

One thermo-remnant response (magenta hatching) was recorded in between the dis-continuous curvilinear anomalies. This anomaly may prove to be a separate area of burning, located within the gap of the curvilinear, or it could be burnt material backfilled within the curving ditch. It is potentially of archaeological origin, however a more modern derivation cannot be ruled out.

8.0 CONCLUSION

The geophysical survey was successful in locating anomalies of a potential archaeological origin. A degree of truncation and therefore a higher background magnetic signature was expected to be seen within the dataset, caused by the demolition of the airfield. However the magnetic background was found to be relatively quiet, allowing a range of anomalies to be recorded by the fluxgate gradiometer, some of which may have an archaeological origin.

It would be prudent to target the thermo-remnant response, discretes, curvilinear and linear anomalies that have been interpreted as being of a potential archaeological origin. This will enable the hypotheses given within this report to be tested.

9.0 PROJECT ARCHIVE AND DEPOSITION

A full archive will be prepared for all work undertaken in accordance with guidance from the *Selection, Retention and Dispersion of Archaeological Collections,* Archaeological Society for Museum Archaeologists, 1993. Arrangements will be made for the archive to be deposited with the relevant museum/HER Office.

10.0 ACKNOWLEDGEMENTS

Britannia Archaeology Ltd would like to thank Kay Boyden and Simon Marsh of Concertus for commissioning the project and arranging access, and to Dr Matthew Brudenell of Suffolk County Council Archaeological Service/Conservation Team for his advice throughout.

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APPENDIX 1 METADATA SHEETS

Raw Data

Filename	Moreton 1R.xcp
Description	
Instrument Type	Grad 601-2 (Gradiometer)
Units	nT
Surveyed by	TPS/MB on 10/9/2014
Assembled by	TPS on 10/9/2014
Direction of 1st Traverse	45 deg
Collection Method	ZigZag
Sensors	2 @ 1.00 m spacing.
Dummy Value	32702.00
Dimensions	
Composite Size (readings)	1200 x 320
Survey Size (meters)	300.00m x 320.00 m
Grid Size	20.00 m x 20.00 m
X Interval	0.25 m
Y Interval	1.00 m
Stats	
Max	4.15
Min	-3.75
Std Dev	1.23
Mean	0.14
Median	0.13
Composite Area	9.60 ha
Surveyed Area	7.71 ha
Program	
Name	ArcheoSurveyor
Version	2.5.16.0

Processed Data

Filename	Moreton 1P.xcp
Description	
Instrument Type	Grad 601-2 (Gradiometer)
Units	nT
Surveyed by	TPS/MB on 10/9/2014
Assembled by	TPS on 10/9/2014
Direction of 1st Traverse	45 deg
Collection Method	ZigZag
Sensors	2 @ 1.00 m spacing.
Dummy Value	32702.00
Dimensions	
Composite Size (readings)	1200 x 320
Survey Size (meters)	300.00m x 320.00 m
Grid Size	20.00 m x 20.00 m
X Interval	0.25 m
Y Interval	1.00 m
Stats	
Max	4.00
Min	-3.81
Std Dev	1.09
Mean	0.03
Median	0.00
Composite Area	9.60 ha
Surveyed Area	7.71 ha
Program	
Name	ArcheoSurveyor
Version	2.5.16.0

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203 Col:14 Row:4 grids\214.xgd
204 Col:14 Row:5 grids\154.xgd
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212 Col:14 Row:13 grids\85.xgd
213 Col:14 Row:14 grids\86.xgd
214 Col:14 Row:15 grids\87.xgd

APPENDIX 2 – TECHNICAL DETAILS

Magnetometer Survey

The magnetometer differs from the 'active' magnetic susceptibility meter by being a 'passive' instrument. Rather than injecting a signal into the ground it detects slight variations in the Earth's magnetic field caused by cultural and natural disturbance (Clark).

Thermoremanent magnetism is produced when a material containing iron oxides is strongly heated. Clay for example has a high iron oxide content that in a natural state is weakly magnetic, when heated these weakly magnetic compounds become highly magnetic oxides that a magnetometer can detect.

The demagnetisation of iron oxides occurs above a temperature known as the Curie point; for example haematite has a Curie point of 675 Celsius and magnetite 565C. At the time of cooling the iron oxides become permanently re-magnetised with their magnetic properties re-aligned in the direction of the Earth's magnetic field (Gaffney and Gater). The direction of the Earth's magnetic field shifts over time and these subtle alignment differences can be recorded. Kilns, hearths, baked clay and ovens can reach Curie point temperatures, and are the strongest responses apart from large iron objects that can be detected. Other cultural anomalies that can be prospected include occupation areas, pits, ditches, furnaces, sunken feature buildings, ridge and furrow field systems and ritual activity (David, 2011). Commonly recorded anomalies include modern ferrous service pipes, field drainage pipes, removed field boundaries, perimeter fences and field boundaries.

Fluxgate Gradiometers

Fluxgate gradiometers are sensitive instruments that utilise two sensors placed in a vertical plane, spaced 1 metre apart. The sensor above reads the Earth's magnetic (background) response while the sensor below records the local magnetic field. Both sensors are carefully adjusted to read zero before survey commences at a 'zeroing' point, selected for its relatively 'quiet' magnetic background reading. When differences in the magnetic field strength occur between the two sensors a positive or negative reading is logged. Positive anomalies have a positive magnetic value and conversely negative anomalies have a negative magnetic value relative to the site's magnetic background. Examples of positive magnetic anomalies include hearths, kilns, baked clay, areas of burning, ferrous material, ditches, sunken feature buildings, furrows, ferrous service pipes, perimeter fences and field boundaries. Negative magnetic anomalies include earthwork embankments, plastic water pipes and geological features.

The instruments are usually held approximately 0.30m to 0.50m above the ground surface and can detect to a depth of between 1-2metres. Best practice dictates that the optimal direction of traverse in Britain is east to west.

Magnetic Anomalies

Linear trends

Linear trends can be both positive and negative magnetic responses. If they are broad, relatively weak or negative in nature they may be of agricultural or geological origin, for example periglacial channels, land drains or ploughing furrows. If the responses are strong positive trends they are more likely to be of archaeological origin. Archaeological settlement ditches tend to be rich in highly magnetic iron oxides that accumulate in them via anthropogenic activity and humic backfills. Conversely surviving banks will be negative in nature, the material is derived from subsoil deposits that is less likely to be positively magnetic. Curvilinear trends can also be recorded and are indicative of archaeological structures such as drip-gullies.

Discrete anomalies

Discrete anomalies appear as increased positive responses present within a localised area. They are caused by a general increase in the amount of magnetic iron oxides present within the humic back-fill of for example a rubbish pit.

'Iron spike' anomalies

These strong isolated dipolar responses are usually caused by ferrous material present in the topsoil horizon. They can have an archaeological origin but are usually introduced into the topsoil during manuring.

Areas of magnetic disturbance

An area of magnetic disturbance is usually associated with material that has been fired. For example areas of burning, demolition (brick) rubble or slag waste spreads. They can also be caused by ferrous material, e.g. close proximity to barbwire or metal fences and field boundaries, buried services, pylons and modern rubbish deposits.

APPENDIX 3 OASIS FORM

OASIS ID: britanni1-191238

Project details

Project name	Land at Moreton Hall, Bury St Edmunds, Suffolk; Detailed Magnetometer Survey
Short description of the project	In October 2014, Britannia Archaeology Ltd undertook a detailed fluxgate gradiometer survey over c.8 hectares of land in one agricultural field, covering the footprint of a proposed new school. A range of anomalies were recorded during the survey, some of which have a potential archaeological origin. Isolated dipolar responses were most common and probably relate to demolition material associated with the former airfield, or ferrous material introduced through manuring. A broad linear area of magnetic enhancement running north-west to south-east is likely to be of geological derivation. Three linear areas of magnetic disturbance were recorded in the dataset and interpreted as demolition material of the former runways. Two dis-continuous strong positive linear trends are likely to be remnant field boundaries removed to create either a larger field or to open up the airfield itself. A curving dis-continuous positive linear trend and two other short linear anomalies are of possible archaeological origin, further archaeological investigations should ascertain a derivation. Sixteen positive discrete anomalies were recorded that are indicative of archaeological rubbish pits, however a more modern origin cannot be ruled out. One thermo-remnant response recorded in between the curvilinear anomalies may prove to be an area of burning or burnt material backfilled within the potential ditch itself.
Project dates	**Start:** 06-01-2014 **End:** 09-01-2014
Previous/future work	No / Yes
Any associated project reference codes	P1079 - Contracting Unit No. RGH 083 - Sitecode
Type of project	Field evaluation
Site status	None
Current Land use	Cultivated Land 3 - Operations to a depth more than 0.25m
Monument type	NONE None
Significant Finds	NONE None
Methods & techniques	"Geophysical Survey"
Development type	Public building (e.g. school, church, hospital, medical centre, law courts etc.)
Prompt	Direction from Local Planning Authority - PPS
Position in the planning process	Pre-application
Solid geology	CHALK (INCLUDING RED CHALK)
Drift geology (other)	Cover Sand
Techniques	Magnetometry

Project location

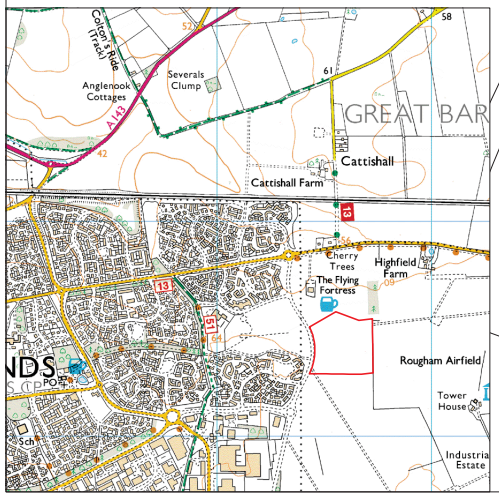
Country	England
Site location	SUFFOLK ST EDMUNDSBURY BURY ST EDMUNDS Land at Moreton Hall, Bury St Edmunds, Suffolk
Postcode	IP32 7QA
Study area	8.00 Hectares
Site coordinates	TL 886 646 52.2467435889 0.762999883685 52 14 48 N 000 45 46 E Point
Lat / Long Datum	Unknown
Height OD / Depth	**Min:** 64.00m **Max:** 64.00m

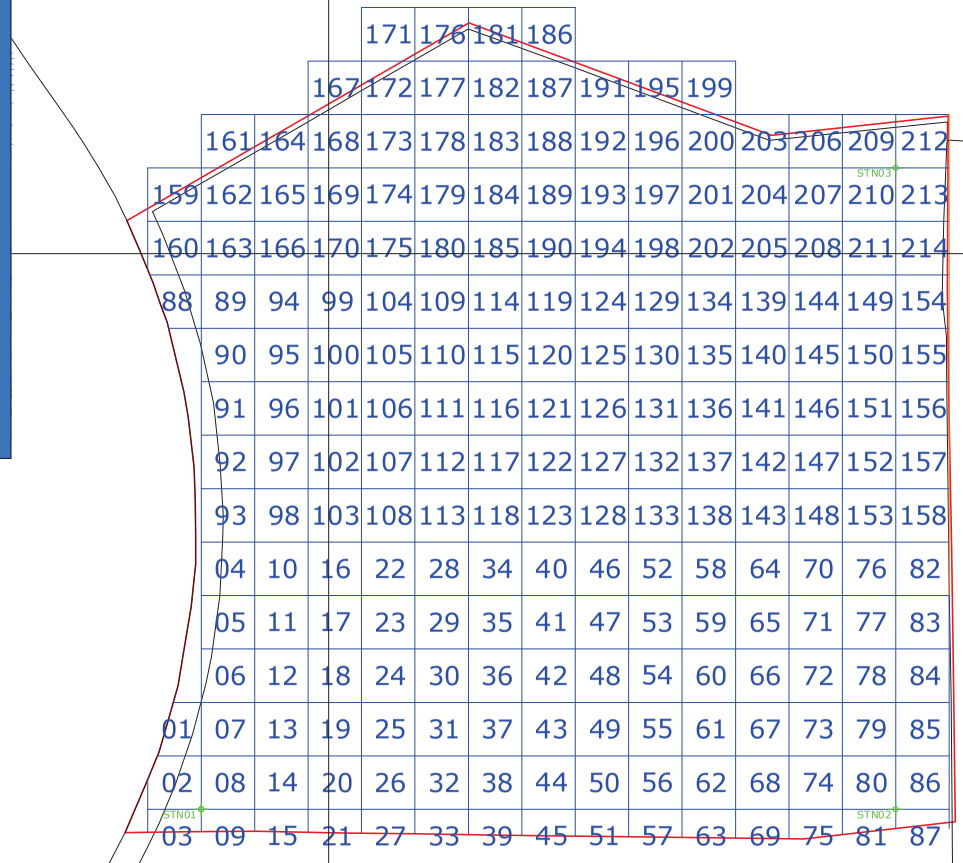
Project creators

Name of Organisation	Britannia Archaeology Ltd
Project brief originator	Local Planning Authority (with/without advice from County/District Archaeologist)
Project design originator	Timothy Schofield
Project director/manager	Timothy Schofield
Project supervisor	Timothy Schofield
Type of sponsor/funding body	District Council
Name of sponsor/funding body	Concertus Design and Property Consultants Ltd

Project archives

Physical Archive Exists?	No
Digital Archive recipient	Suffolk HER
Digital Contents	"Survey"
Digital Media available	"Geophysics", "Survey"
Paper Archive recipient	Suffolk HER
Paper Contents	"Survey"
Paper Media available	"Survey ","Unpublished Text"
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	Land at Moreton Hall, Bury St Edmunds, Suffolk; Detailed Magnetometer Survey
Author(s)/Editor(s)	Schofield, T. P.
Other bibliographic details	R1070
Date	2014
Issuer or publisher	Britannia Archaeology Ltd
Place of issue or publication	Stowmarket
Description	A4 Bound Report with A3 Fold-out Figures
URL	www.britannia-archaeology.com
Entered by	Tim Schofield (tim@britannia-archaeology.com)
Entered on	14 January 2015





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STATION	EASTING	NORTHING
01	588452.308	264292.092
02	588712.308	264292.092
03	588712.308	264532.092

Survey Grid Location

Site Boundary

NGR: TL 8860 6460

REPORT NUMBER: 1070

PROJECT:
LAND AT MORETON HALL,
BURY ST EDMUNDS, SUFFOLK

CLIENT: Concertus

DESCRIPTION:
SITE, SURVEY GRID &
GEO-REFERENCING INFORMATION
PLAN

BRITANNIA ARCHAEOLOGY LTD

115 OSPREY DRIVE, STOWMARKET, SUFFOLK
IP14 5UX

T: 01449 763034
E: info@britannia-archaeology.com
W: www.britannia-archaeology.com

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DATE:	AUTHOR:	FIGURE:
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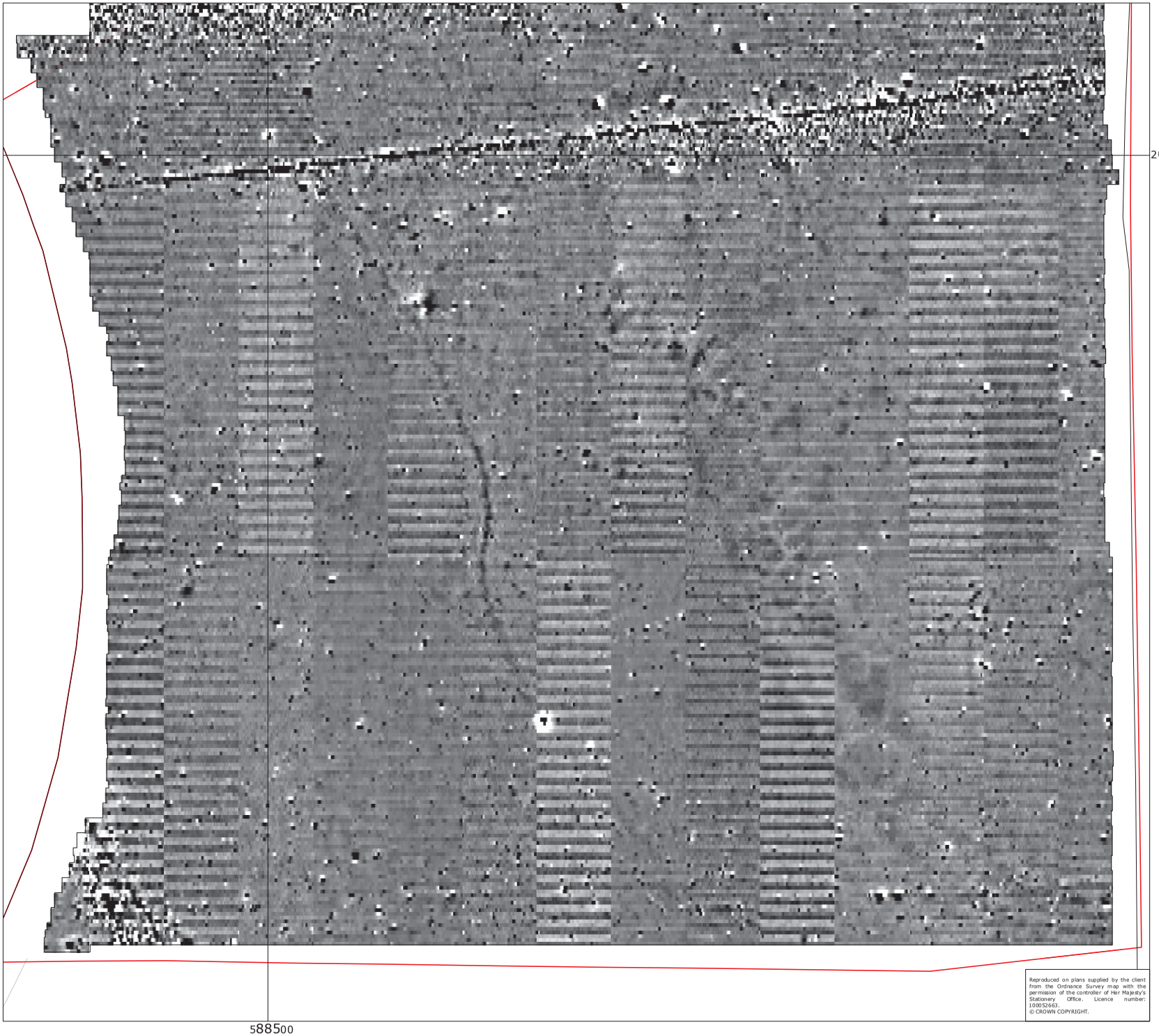

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-3.54nT

Site Boundary

NGR:	REPORT NUMBER:
TL 8860 6460	1070

PROJECT:

LAND AT MORETON HALL,
BURY ST EDMUNDS, SUFFOLK

CLIENT: Concertus

DESCRIPTION:

RAW MAGNETOMETER
GREYSCALE PLOT

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SCALE: 1:1000 (0 – 50m)

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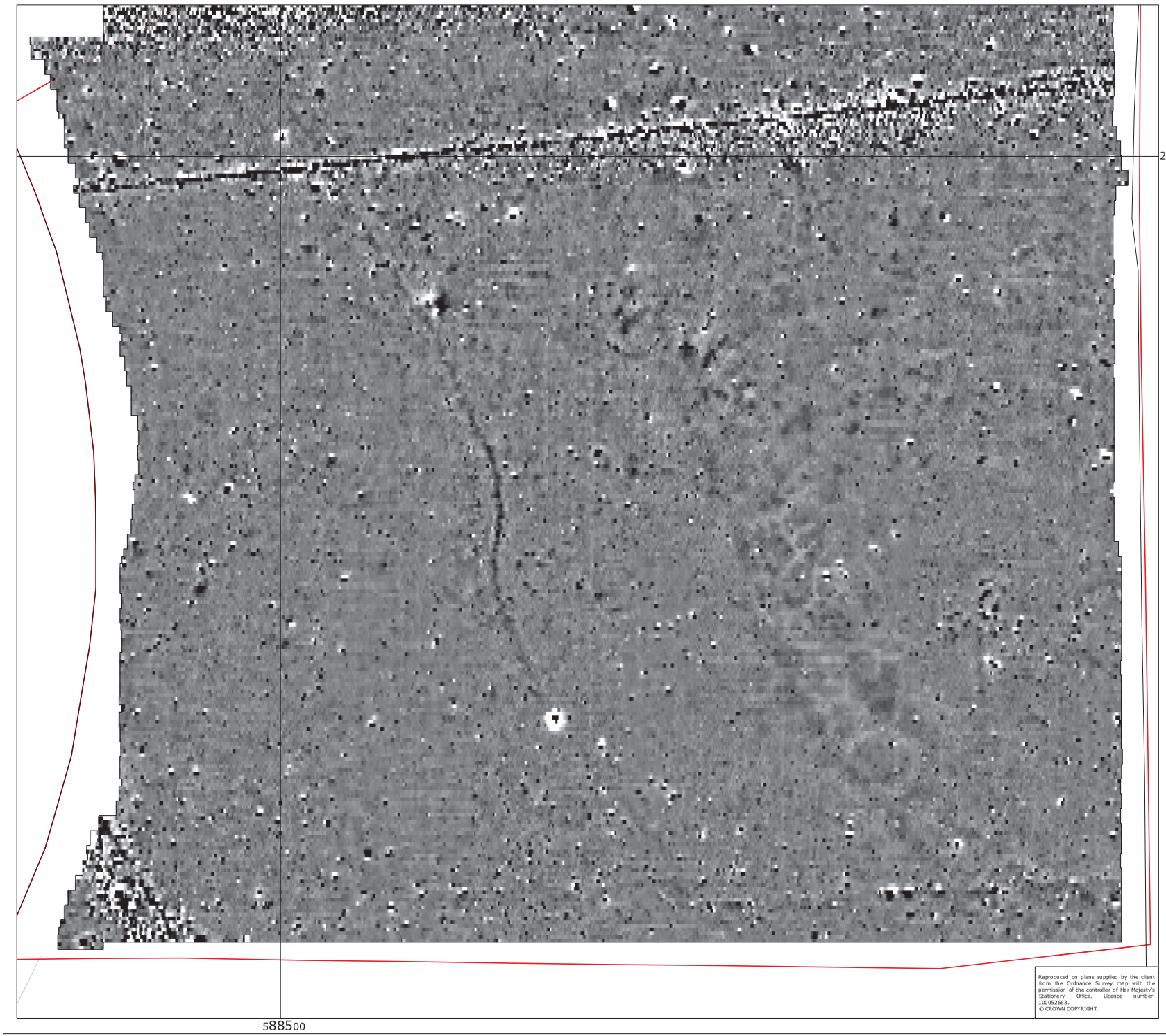

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+4.00nT

-3.81nT

Site Boundary

NGR:	REPORT NUMBER:
TL 8860 6460	1070

PROJECT:

LAND AT MORETON HALL,
BURY ST EDMUNDS, SUFFOLK

CLIENT: Concertus DESIGN & PROPERTY CONSULTANTS

DESCRIPTION:

PROCESSED MAGNETOMETER
GREYSCALE PLOT

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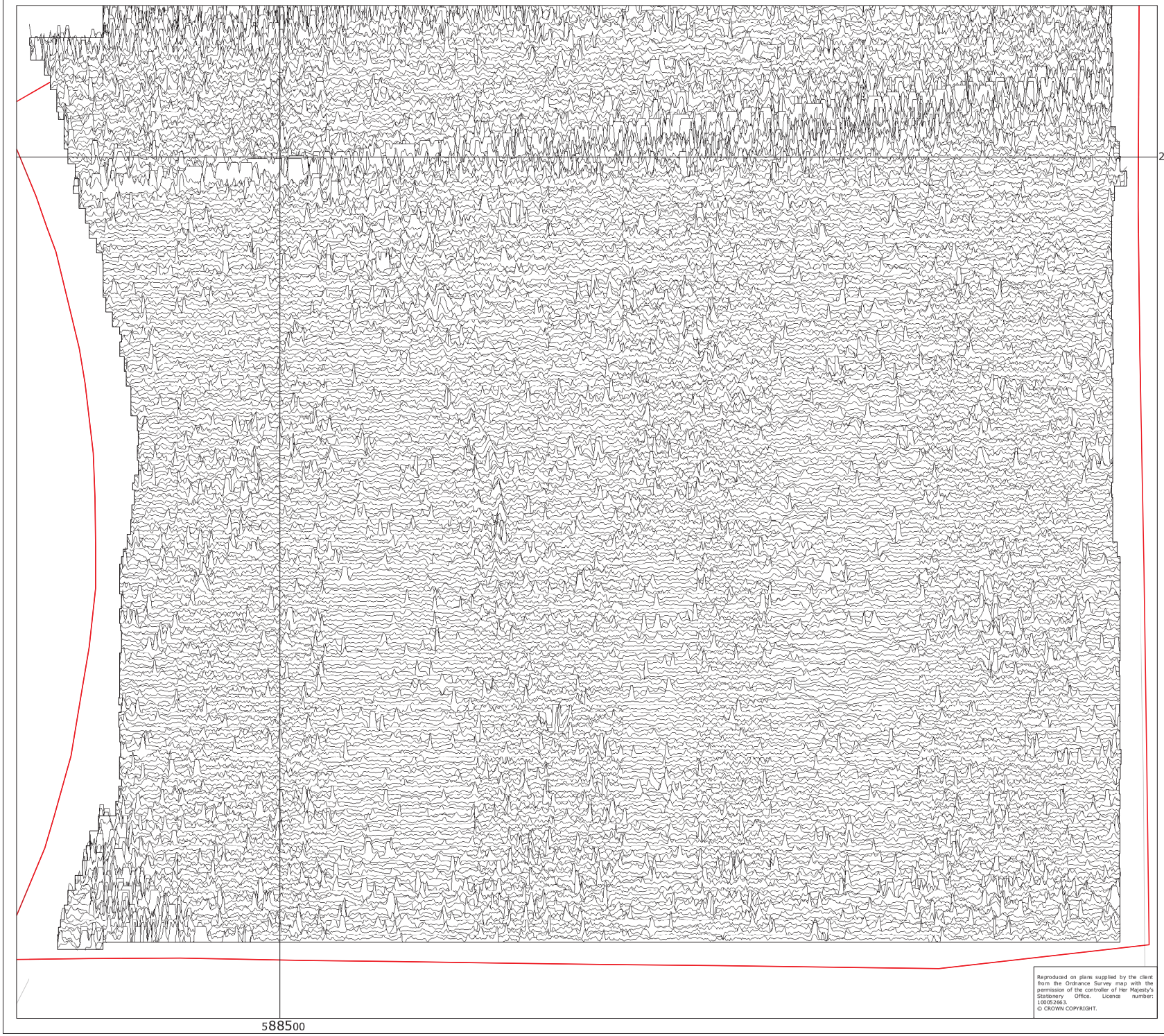

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19nT/cm	Scale Interval
	Site Boundary

NGR:	REPORT NUMBER:
TL 8860 6460	1070

PROJECT:
LAND AT MORETON HALL,
BURY ST EDMUNDS, SUFFOLK

CLIENT:
Concertus
DESIGN & PROPERTY CONSULTANTS

DESCRIPTION:
PROCESSED MAGNETOMETER
XY TRACE PLOT

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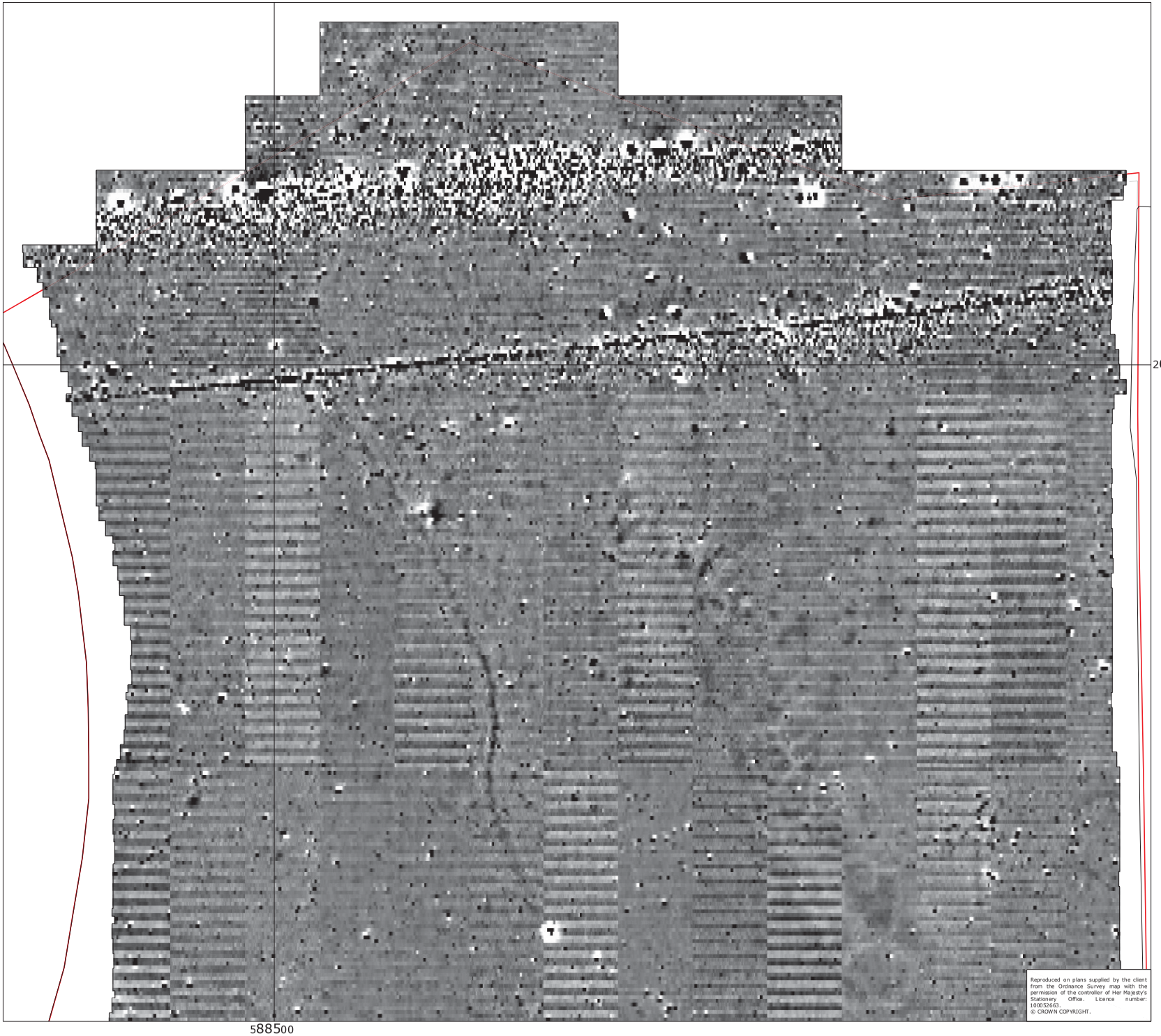

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-3.54nT

Site Boundary

NGR:	REPORT NUMBER:
TL 8860 6460	1070

PROJECT:

LAND AT MORETON HALL,
BURY ST EDMUNDS, SUFFOLK

CLIENT: Concertus

DESCRIPTION:

RAW MAGNETOMETER
GREYSCALE PLOT

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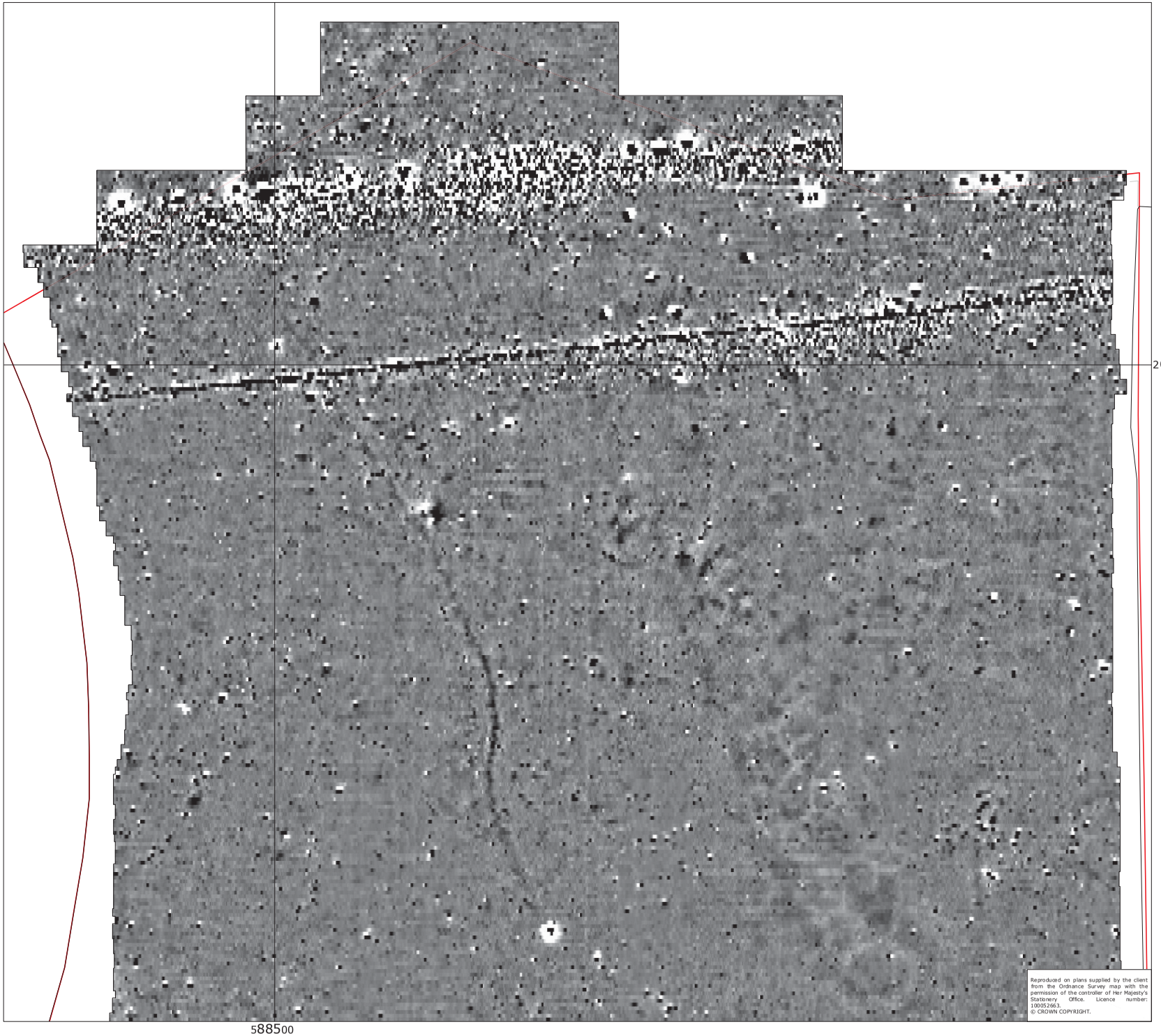

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-3.81nT

Site Boundary

NGR:	REPORT NUMBER:
TL 8860 6460	1070

PROJECT:

LAND AT MORETON HALL,
BURY ST EDMUNDS, SUFFOLK

CLIENT: Concertus DESIGN & PROPERTY CONSULTANTS

DESCRIPTION:

PROCESSED MAGNETOMETER
GREYSCALE PLOT

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DATE:	AUTHOR:	FIGURE:
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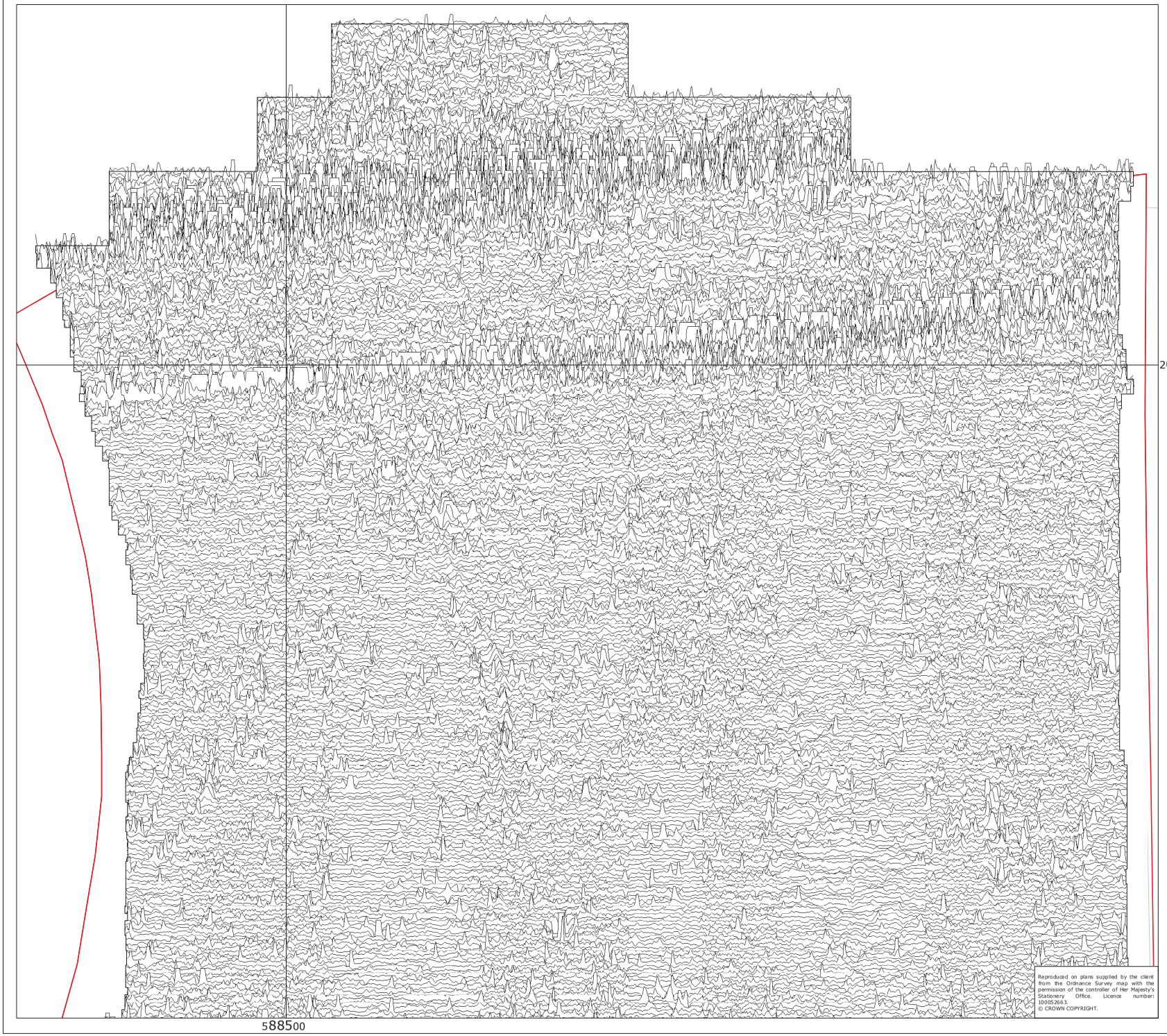

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19nT/cm	Scale Interval
	Site Boundary

NGR:	REPORT NUMBER:
TL 8860 6460	1070

PROJECT:
LAND AT MORETON HALL,
BURY ST EDMUNDS, SUFFOLK

CLIENT:
Concertus
DESIGN & PROPERTY CONSULTANTS

DESCRIPTION:
PROCESSED MAGNETOMETER
XY TRACE PLOT

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SCALE: 1:1000 (0 – 50m)

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DATE:	AUTHOR:	FIGURE:
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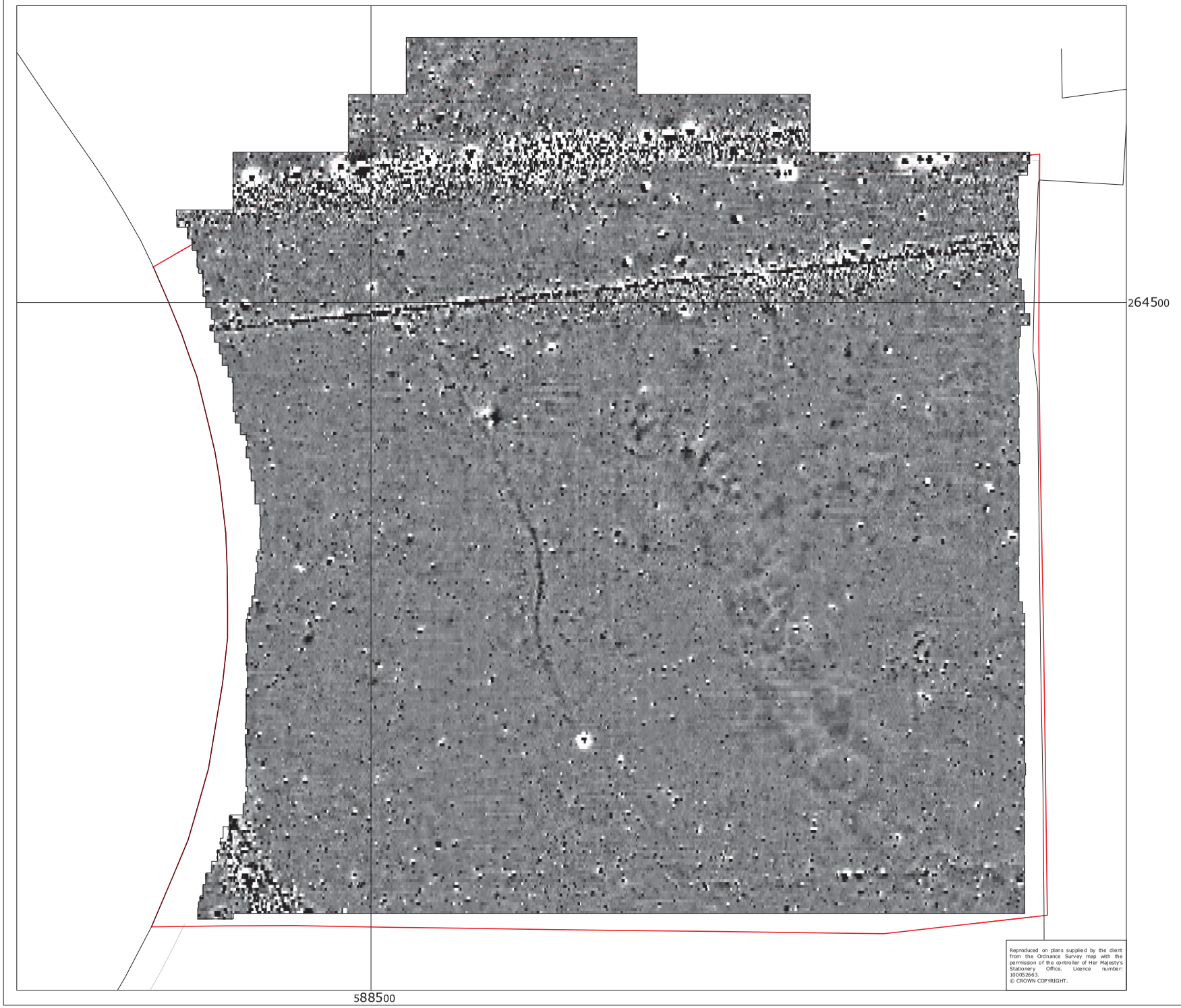

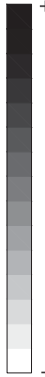

Site Boundary

NGR: TL 8860 6460

REPORT NUMBER: 1070

PROJECT:
LAND AT MORETON HALL,
BURY ST EDMUNDS, SUFFOLK

CLIENT: Concertus DESIGN & PROPERTY CONSULTANTS

DESCRIPTION:
COMBINED PROCESSED
MAGNETOMETER
GREYSCALE PLOT

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SCALE: 1:1250

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PLOT:	APPROVED:	VERSION:
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DATE:	AUTHOR:	FIGURE:
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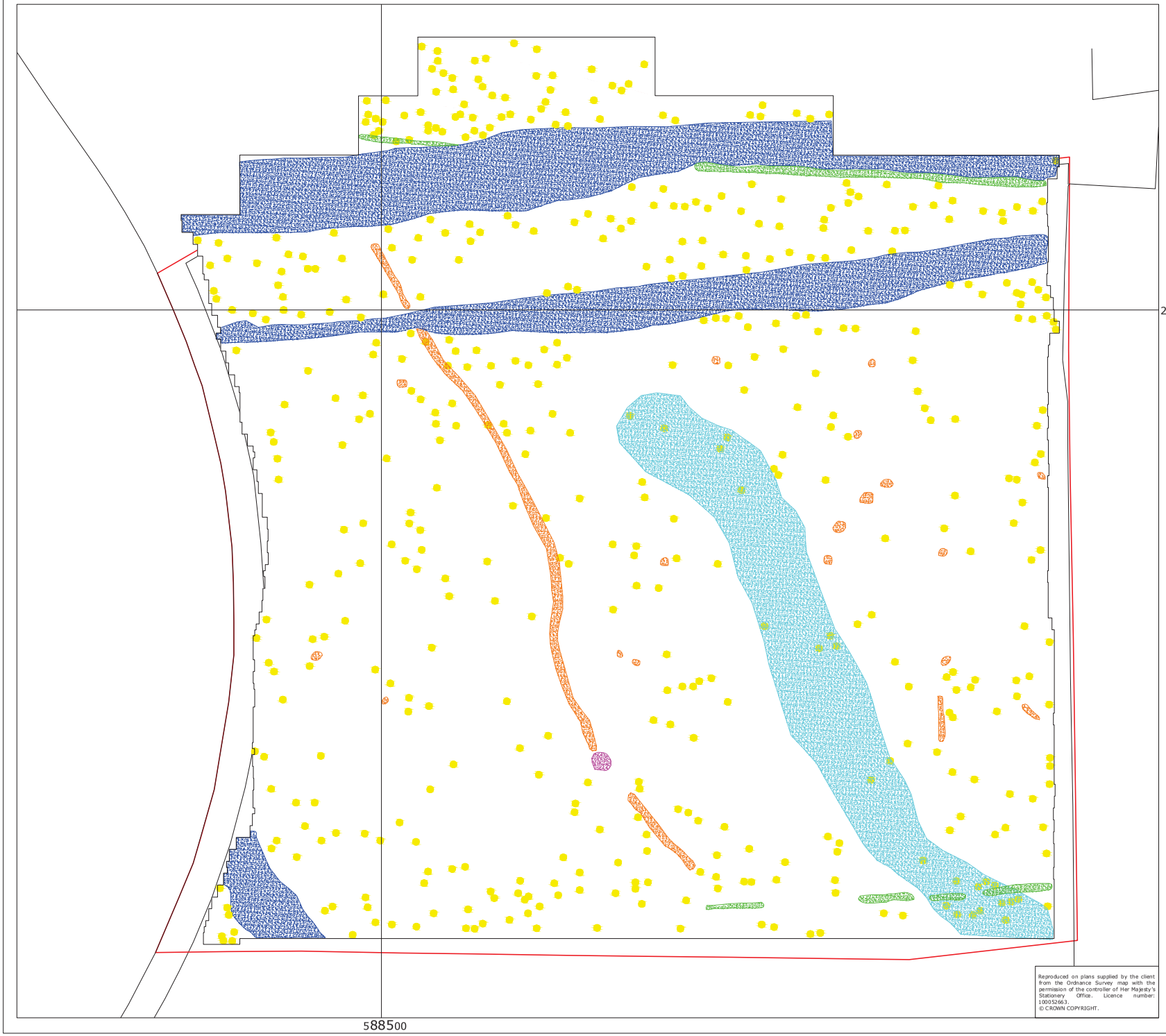

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	Thermo-Remnant Response, Archaeology?
	Positive Discrete Anomaly, Archaeology?
	Positive Linear Trend, Archaeology?
	Strong Positive Linear Trend, Agricultural Ditches
	Linear Magnetic Disturbance, WWII Airfield Remains
	Broad Area of Magnetic Enhancement, Geology
	Isolated Dipolar Responses
	Site Boundary

NGR: TL 8860 6460

REPORT NUMBER: 1070

PROJECT:
LAND AT MORETON HALL,
BURY ST EDMUNDS, SUFFOLK

CLIENT: Concertus DESIGN & PROPERTY CONSULTANTS

DESCRIPTION:
COMBINED INTERPRETATION PLOT OF MAGNETOMETER ANOMALIES

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PLOT:	APPROVED:	VERSION:
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DATE:	AUTHOR:	FIGURE:
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