

GEOPHYSICAL SURVEY REPORT

STRATASCAN™



Project name:

Twin Yards Farms, Beristowe Lane, Hilcote

Client:

Global Renewable Construction Ltd

June 2015

Job ref:

J8411

Report author:

Thomas Richardson MSc ACIfA

GEOPHYSICAL SURVEY REPORT

Project name:

Twin Yards Farms, Beristowe Lane, Hilcote

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J8411

Techniques:

**Detailed magnetic survey –
Gradiometry**

Survey date:

20th - 21st May 2015

Site centred at:

SK 457 580

Post code:

DE55 2FW

Field team:

Andrew Bateman BSc (Hons), **Iride Tomazic** MA,
Jay Griffiths BA (Hons)

Project manager:

Simon Haddrell BEng(Hons) AMBCS PCIfA

Report written By:

Thomas Richardson MSc ACIfA

CAD illustrations by:

Thomas Richardson MSc ACIfA

Checked by:

David Elks MSc ACIfA

TABLE OF CONTENTS

LIST OF FIGURES.....	2
1 SUMMARY OF RESULTS	3
2 INTRODUCTION	3
2.1 Background synopsis.....	3
2.2 Site location	3
2.3 Description of site	3
2.4 Geology and soils	3
2.5 Site history and archaeological potential	3
2.6 Survey objectives	4
2.7 Survey methods	4
2.8 Processing, presentation and interpretation of results.....	4
2.8.1 Processing	4
2.8.2 Presentation of results and interpretation.....	5
3 RESULTS.....	5
3.1 Probable Archaeology.....	5
3.2 Possible Archaeology	5
3.3 Medieval/Post-Medieval Agriculture.....	5
3.4 Other Anomalies	5
4 DATA APPRAISAL & CONFIDENCE ASSESSMENT.....	6
5 CONCLUSION.....	6
6 REFERENCES.....	7
APPENDIX A – METHODOLOGY & SURVEY EQUIPMENT.....	8
APPENDIX B – BASIC PRINCIPLES OF MAGNETIC SURVEY	9
APPENDIX C – GLOSSARY OF MAGNETIC ANOMALIES.....	10

LIST OF FIGURES

Figure 01	1:25 000	Location plan of survey area
Figure 02	1:2000	Location of survey grids and referencing
Figure 03	1:2000	Colour plot of gradiometer data showing extreme values – overview
Figure 04	1:1000	Colour plot of gradiometer data showing extreme values – north
Figure 05	1:1000	Colour plot of gradiometer data showing extreme values – south
Figure 06	1:2000	Plot of minimally processed gradiometer data – overview
Figure 07	1:1000	Plot of minimally processed gradiometer data – north
Figure 08	1:1000	Plot of minimally processed gradiometer data – south
Figure 09	1:2000	Abstraction and interpretation of gradiometer anomalies – overview
Figure 10	1:1000	Abstraction and interpretation of gradiometer anomalies – north
Figure 11	1:1000	Abstraction and interpretation of gradiometer anomalies – south

1 SUMMARY OF RESULTS

A detailed gradiometry survey was conducted over approximately 10 hectares of grassland. The survey has not identified any features of archaeological origin. The site is dominated by areas of strong magnetic responses related to a former railway line and the mining activity in the surrounding area. Within the area unaffected by strong magnetic responses the survey has detected a number of modern anomalies relating to a track way, probable agricultural activity, ferrous objects and fencing.

2 INTRODUCTION

2.1 *Background synopsis*

Stratascan were commissioned to undertake a geophysical survey of an area outlined for a solar farm development. This survey forms part of an archaeological investigation being undertaken by Global Renewable Construction Ltd.

2.2 *Site location*

The site is located to the east of New Street, Hilcote, Derbyshire at OS ref. SK 457 580.

2.3 *Description of site*

The survey area is approximately 10 hectares of grassland. The site lies on a gentle south facing slope, with no obstructions.

2.4 *Geology and soils*

The underlying geology is Pennine Middle Coal Measures Formation – Mudstone, Siltstone and Sandstone (British Geological Survey website). There is no recorded drift geology (British Geological Survey website).

The overlying soils are known as Bardsey, which are typical cambic stagnogley soils. These consist of loamy over clayey and fine silty soils, over soft rock (Soil Survey of England and Wales, Sheet 3 Midland and Western England).

2.5 *Site history and archaeological potential*

Extract from 'Land at Twin Yards Farm, Hilcote, Derbyshire: Archaeological Desk-Based Assessment' (Cotswold Archaeology 2015):

No heritage assets are recorded within the proposed development site in the sources consulted as part of this assessment. On current evidence, the potential for buried or surface archaeological remains within the site of sufficient significance to contribute to local or regional research goals is considered to be limited.

Across the wider study area, a medieval and post-medieval agricultural landscape appears to have given way to an industrial one by the mid-19th century. Collieries were located at Blackwell (in fact, Hilcote), Berristow and South Normanton. Whilst mining does not seem to have occurred within the proposed development site itself, the routes of branch lines to the Grand Central Railway and Midland Railway align with its north-eastern and south-eastern boundaries. Low earthen banks observed close to the western edge during the site walkover survey are likely to be recent dumps of agricultural and building debris.

2.6 **Survey objectives**

The objective of the survey was to locate any features of possible archaeological origin in order that they may be assessed prior to development.

2.7 **Survey methods**

This report and all fieldwork have been conducted in accordance with both the English Heritage guidelines outlined in the document: *Geophysical Survey in Archaeological Field Evaluation, 2008* and with the Chartered Institute for Archaeologists document *Standard and Guidance for Archaeological Geophysical Survey*.

Detailed magnetic survey (gradiometry) was used as an efficient and effective method of locating archaeological anomalies. More information regarding this technique is included in Appendix A.

2.8 **Processing, presentation and interpretation of results**

2.8.1 *Processing*

Processing is performed using specialist software. This can emphasise various aspects contained within the data but which are often not easily seen in the raw data. Basic processing of the magnetic data involves 'flattening' the background levels with respect to adjacent traverses and adjacent grids. Once the basic processing has flattened the background it is then possible to carry out further processing which may include low pass filtering to reduce 'noise' in the data and hence emphasise the archaeological or man-made anomalies.

The following schedule shows the basic processing carried out on all minimally processed gradiometer data used in this report:

1. *Destripe* (Removes striping effects caused by zero-point discrepancies between different sensors and walking directions)
2. *Destagger* (Removes zigzag effects caused by inconsistent walking speeds on sloping, uneven or overgrown terrain)

2.8.2 Presentation of results and interpretation

The presentation of the data for each site involves a print-out of the minimally processed data both as a greyscale plot and a colour plot showing extreme magnetic values. Magnetic anomalies have been identified and plotted onto the 'Abstraction and Interpretation of Anomalies' drawing for the site.

3 RESULTS

The detailed magnetic gradiometer survey conducted at Hilcote has not identified any anomalies that have been characterised as being either of a *probable* or *possible* archaeological origin. The following list of numbered anomalies refers to numerical labels on the interpretation plots.

3.1 Probable Archaeology

No probable archaeology has been identified within the survey area.

3.2 Possible Archaeology

No probable archaeology has been identified within the survey area.

3.3 Medieval/Post-Medieval Agriculture

- 1 A positive linear anomaly in the east of the site. This is related to a track way visible on aerial photographs of the site.

3.4 Other Anomalies

- 2 Two parallel linear anomalies in the east of the site. These are of unknown origin, however they are most likely related to modern agricultural activity.
- 3 A large area of strong magnetic disturbance in the south-west of the site. This is likely to relate to a former coke works and mining activity in the area seen on available mapping 1880-1962.
- 4 An area of strong magnetic debris across the north of the site. This is related to a former railway line, dismantled between 1966 and 1970.
- 5 Areas of strong magnetic debris across the site. This is likely to be areas of made ground related to the mining activity in the area. These effects can mask weaker archaeological anomalies.

- 6 An area of magnetic disturbance in the east of the site. This is the result of substantial nearby ferrous metal objects such as fences and underground services. These effects can mask weaker archaeological anomalies, but on this site have not affected a significant proportion of the area.
- 7 A magnetic 'spike' (strong focussed values with associated antipolar response) indicating a ferrous metal object. This is likely to be modern rubbish.

4 DATA APPRAISAL & CONFIDENCE ASSESSMENT

The data across the site is dominated by areas of strong magnetic disturbance and strong magnetic debris related to the mining activity seen in the surrounding area. These features may be masking weaker archaeological anomalies. The small area not affected by these strong responses shows three, likely modern, anomalies. This would suggest that the geology is suitable for magnetic survey, and any archaeological anomalies would likely be detected if it was not for the magnetic debris and disturbance.

5 CONCLUSION

The survey at Hilcote has not identified any features of archaeological origin. The site is dominated by areas of strong magnetic responses related to a former railway line and the mining activity in the surrounding area. Within the area unaffected by strong magnetic responses the survey has detected a number of modern anomalies. These relate to a track way, probable agricultural activity, ferrous objects and fencing.

6 REFERENCES

British Geological Survey South Sheet, 1977. *Geological Survey Ten Mile Map, South Sheet First Edition (Quaternary)*. Institute of Geological Sciences.

British Geological Survey, 2001. *Geological Survey Ten Mile Map, South Sheet, Fourth Edition (Solid)*. British Geological Society.

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Chartered Institute For Archaeologists. *Standard and Guidance for Archaeological Geophysical Survey*.
<http://www.archaeologists.net/sites/default/files/nodefiles/Geophysics2010.pdf>

Cotswold Archaeology, 2015. *Land at Twin Yards Farm, Hilcote, Derbyshire: Archaeological Desk-Based Assessment*

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Soil Survey of England and Wales, 1983. *Soils of England and Wales, Sheet 3 Midland and Western England*.

APPENDIX A – METHODOLOGY & SURVEY EQUIPMENT

Grid locations

The location of the survey grids has been plotted together with the referencing information. Grids were set out using a Leica 705auto Total Station and referenced to suitable topographic features around the perimeter of the site or a Leica Smart Rover RTK GPS.

An RTK GPS (Real-time Kinematic Global Positioning System) can locate a point on the ground to a far greater accuracy than a standard GPS unit. A standard GPS suffers from errors created by satellite orbit errors, clock errors and atmospheric interference, resulting in an accuracy of 5m-10m. An RTK system uses a single base station receiver and a number of mobile units. The base station re-broadcasts the phase of the carrier it measured, and the mobile units compare their own phase measurements with those they received from the base station. A SmartNet RTK GPS uses Ordnance Survey's network of over 100 fixed base stations to give an accuracy of around 0.01m.

Survey equipment and gradiometer configuration

Although the changes in the magnetic field resulting from differing features in the soil are usually weak, changes as small as 0.2 nanoTeslas (nT) in an overall field strength of 48,000nT, can be accurately detected using an appropriate instrument.

The mapping of the anomaly in a systematic manner will allow an estimate of the type of material present beneath the surface. Strong magnetic anomalies will be generated by buried iron-based objects or by kilns or hearths. More subtle anomalies such as pits and ditches can be seen if they contain more humic material which is normally rich in magnetic iron oxides when compared with the subsoil.

To illustrate this point, the cutting and subsequent silting or backfilling of a ditch may result in a larger volume of weakly magnetic material being accumulated in the trench compared to the undisturbed subsoil. A weak magnetic anomaly should therefore appear in plan along the line of the ditch.

The magnetic survey was carried out using a dual sensor Grad601-2 Magnetic Gradiometer manufactured by Bartington Instruments Ltd. The instrument consists of two fluxgates very accurately aligned to nullify the effects of the Earth's magnetic field. Readings relate to the difference in localised magnetic anomalies compared with the general magnetic background. The Grad601-2 consists of two high stability fluxgate gradiometers suspended on a single frame. Each gradiometer has a 1m separation between the sensing elements so enhancing the response to weak anomalies.

Sampling interval

Readings were taken at 0.25m centres along traverses 1m apart. This equates to 3600 sampling points in a full 30m x 30m grid.

Depth of scan and resolution

The Grad 601-2 has a typical depth of penetration of 0.5m to 1.0m, though strongly magnetic objects may be visible at greater depths. The collection of data at 0.25m centres provides an optimum methodology for the task balancing cost and time with resolution.

Data capture

The readings are logged consecutively into the data logger which in turn is daily down-loaded into a portable computer whilst on site. At the end of each site survey, data is transferred to the office for processing and presentation.

APPENDIX B – BASIC PRINCIPLES OF MAGNETIC SURVEY

Detailed magnetic survey can be used to effectively define areas of past human activity by mapping spatial variation and contrast in the magnetic properties of soil, subsoil and bedrock.

Weakly magnetic iron minerals are always present within the soil and areas of enhancement relate to increases in *magnetic susceptibility* and permanently magnetised *thermoremanent* material.

Magnetic susceptibility relates to the induced magnetism of a material when in the presence of a magnetic field. This magnetism can be considered as effectively permanent as it exists within the Earth's magnetic field. Magnetic susceptibility can become enhanced due to burning and complex biological or fermentation processes.

Thermoremanence is a permanent magnetism acquired by iron minerals that, after heating to a specific temperature known as the Curie Point, are effectively demagnetised followed by re-magnetisation by the Earth's magnetic field on cooling. Thermoremanent archaeological features can include hearths and kilns and material such as brick and tile may be magnetised through the same process.

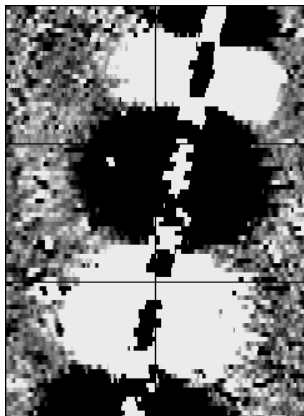
Silting and deliberate infilling of ditches and pits with magnetically enhanced soil creates a relative contrast against the much lower levels of magnetism within the subsoil into which the feature is cut. Systematic mapping of magnetic anomalies will produce linear and discrete areas of enhancement allowing assessment and characterisation of subsurface features. Material such as subsoil and non-magnetic bedrock used to create former earthworks and walls may be mapped as areas of lower enhancement compared to surrounding soils.

Magnetic survey is carried out using a fluxgate gradiometer which is a passive instrument consisting of two sensors mounted vertically 1m apart. The instrument is carried about 30cm above the ground surface and the top sensor measures the Earth's magnetic field whilst the lower sensor measures the same field but is also more affected by any localised buried field. The difference between the two sensors will relate to the strength of a magnetic field created by a buried feature, if no field is present the difference will be close to zero as the magnetic field measured by both sensors will be the same.

Factors affecting the magnetic survey may include soil type, local geology, previous human activity, disturbance from modern services etc.

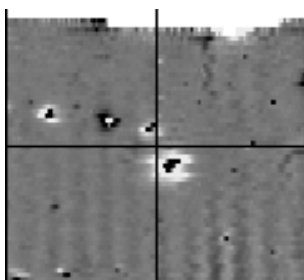
APPENDIX C – GLOSSARY OF MAGNETIC ANOMALIES

Bipolar



A bipolar anomaly is one that is composed of both a positive response and a negative response. It can be made up of any number of positive responses and negative responses. For example a pipeline consisting of alternating positive and negative anomalies is said to be bipolar. See also dipolar which has only one area of each polarity. The interpretation of the anomaly will depend on the magnitude of the magnetic field strength. A weak response may be caused by a clay field drain while a strong response will probably be caused by a metallic service.

Dipolar

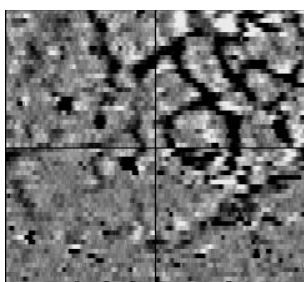


This consists of a single positive anomaly with an associated negative response. There should be no separation between the two polarities of response. These responses will be created by a single feature. The interpretation of the anomaly will depend on the magnitude of the magnetic measurements. A very strong anomaly is likely to be caused by a ferrous object.

Positive anomaly with associated negative response

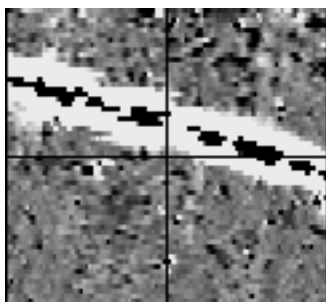
See bipolar and dipolar.

Positive linear



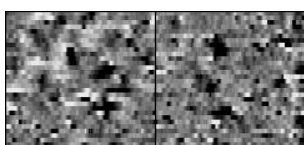
A linear response which is entirely positive in polarity. These are usually related to in-filled cut features where the fill material is magnetically enhanced compared to the surrounding matrix. They can be caused by ditches of an archaeological origin, but also former field boundaries, ploughing activity and some may even have a natural origin.

Positive linear anomaly with associated negative response



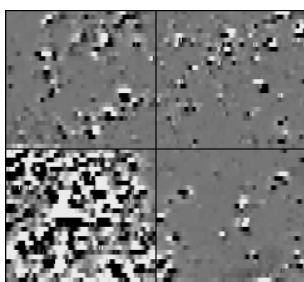
A positive linear anomaly which has a negative anomaly located adjacently. This will be caused by a single feature. In the example shown this is likely to be a single length of wire/cable probably relating to a modern service. Magnetically weaker responses may relate to earthwork style features and field boundaries.

Positive point/area



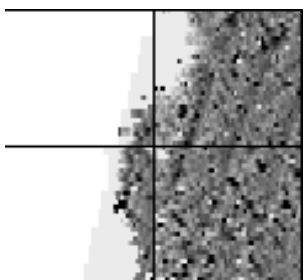
These are generally spatially small responses, perhaps covering just 3 or 4 reading nodes. They are entirely positive in polarity. Similar to positive linear anomalies they are generally caused by in-filled cut features. These include pits of an archaeological origin, possible tree bowls or other naturally occurring depressions in the ground.

Magnetic debris



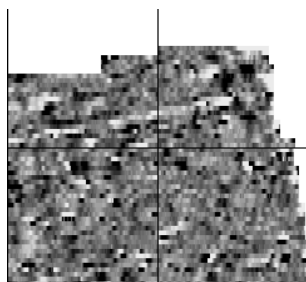
Magnetic debris consists of numerous dipolar responses spread over an area. If the amplitude of response is low ($\pm 3nT$) then the origin is likely to represent general ground disturbance with no clear cause, it may be related to something as simple as an area of dug or mixed earth. A stronger anomaly ($\pm 250nT$) is more indicative of a spread of ferrous debris. Moderately strong anomalies may be the result of a spread of thermoremanent material such as bricks or ash.

Magnetic disturbance



Magnetic disturbance is high amplitude and can be composed of either a bipolar anomaly, or a single polarity response. It is essentially associated with magnetic interference from modern ferrous structures such as fencing, vehicles or buildings, and as a result is commonly found around the perimeter of a site near to boundary fences.

Negative linear

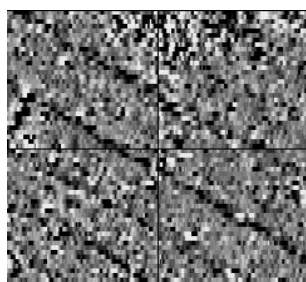


A linear response which is entirely negative in polarity. These are generally caused by earthen banks where material with a lower magnetic magnitude relative to the background top soil is built up. See also ploughing activity.

Negative point/area

Opposite to positive point anomalies these responses may be caused by raised areas or earthen banks. These could be of an archaeological origin or may have a natural origin.

Ploughing activity



Ploughing activity can often be visualised by a series of parallel linear anomalies. These can be of either positive polarity or negative polarity depending on site specifics. It can be difficult to distinguish between ancient ploughing and more modern ploughing. Clues such as the separation of each linear, straightness, strength of response and cross cutting relationships can be used to aid this, although none of these can be guaranteed to differentiate between different phases of activity.

Polarity

Term used to describe the measurement of the magnetic response. An anomaly can have a positive polarity (values above 0nT) and/or a negative polarity (values below 0nT).

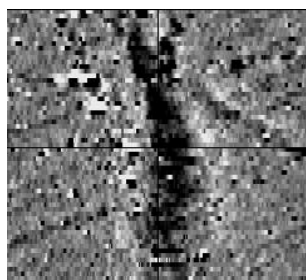
Strength of response

The amplitude of a magnetic response is an important factor in assigning an interpretation to a particular anomaly. For example a positive anomaly covering a 10m² area may have values up to around 3000nT, in which case it is likely to be caused by modern magnetic interference. However, the same size and shaped anomaly but with values up to only 4nT may have a natural origin. Colour plots are used to show the amplitude of response.

Thermoremanent response

A feature which has been subject to heat may result in it acquiring a magnetic field. This can be anything up to approximately +/-100 nT in value. These features include clay fired drains, brick, bonfires, kilns, hearths and even pottery. If the heat application has occurred in situ (e.g. a kiln) then the response is likely to be bipolar compared to if the heated objects have been disturbed and moved relative to each other, in which case they are more likely to take an irregular form and may display a debris style response (e.g. ash).

Weak background variations

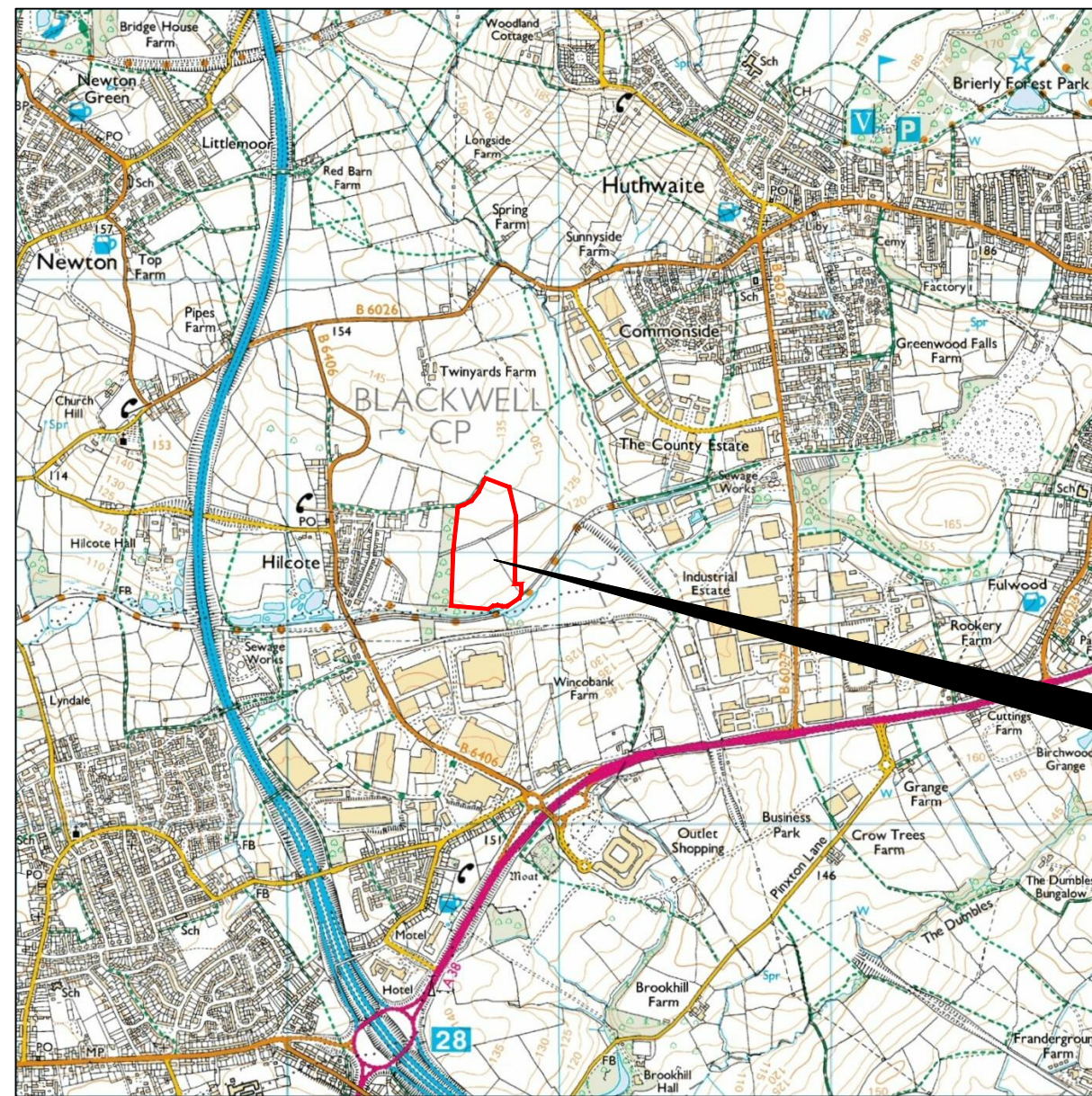


Weakly magnetic wide scale variations within the data can sometimes be seen within sites. These usually have no specific structure but can often appear curvy and sinuous in form. They are likely to be the result of natural features, such as soil creep, dried up (or seasonal) streams. They can also be caused by changes in the underlying geology or soil type which may contain unpredictable distributions of magnetic minerals, and are usually apparent in several locations across a site.

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 OS 100km square = SK



60
59
58
57
56



Survey Area

44 45 46 47 48

Amendments

Issue No.	Date	Description
-	-	-
-	-	-

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Site centred on NGR SK 457 580

Client
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Project Title
TWIN YARDS FARM, BERISTOWE LANE, HILCOTE, DERBYSHIRE

Job No. J8411

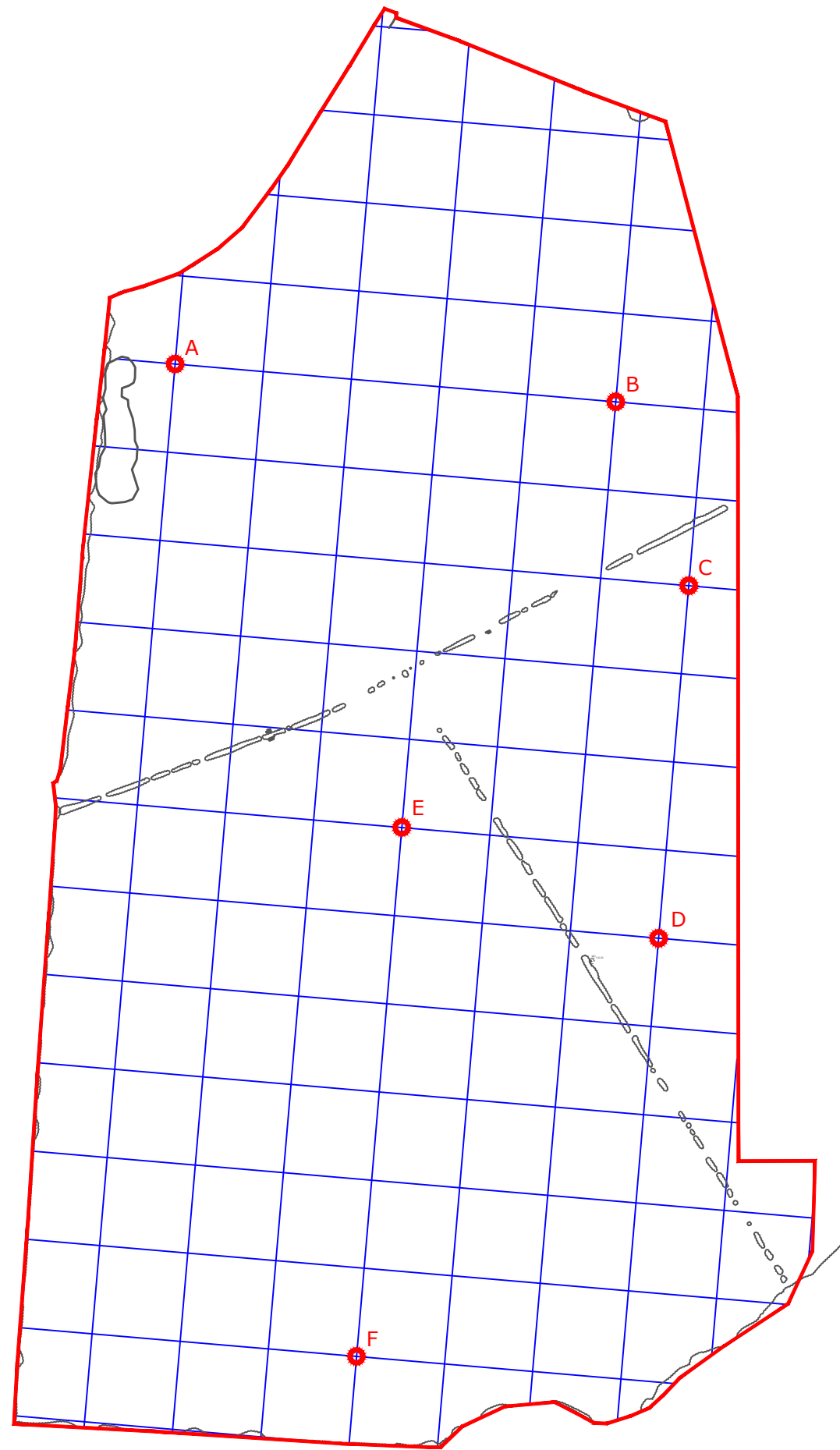
Subject
LOCATION PLAN OF SURVEY AREA

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SUMO SURVEYS SUMO GROUP MEMBER
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Scale 1:25000
 0m 500m 1000m

Plot A3	Checked by DGE	Issue No. 01
Survey date MAY 15	Drawn by TR	Figure No. 01



Amendments

Issue No.	Date	Description
-	-	-
-	-	-

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OS GRID REFERENCES

A	445652.76, 358154.49
B	445802.21, 358141.68
C	445826.98, 358079.34
D	445816.73, 357959.78
E	445729.62, 357997.35
F	445714.26, 357818.01

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Subject
**LOCATION OF SURVEY GRIDS AND
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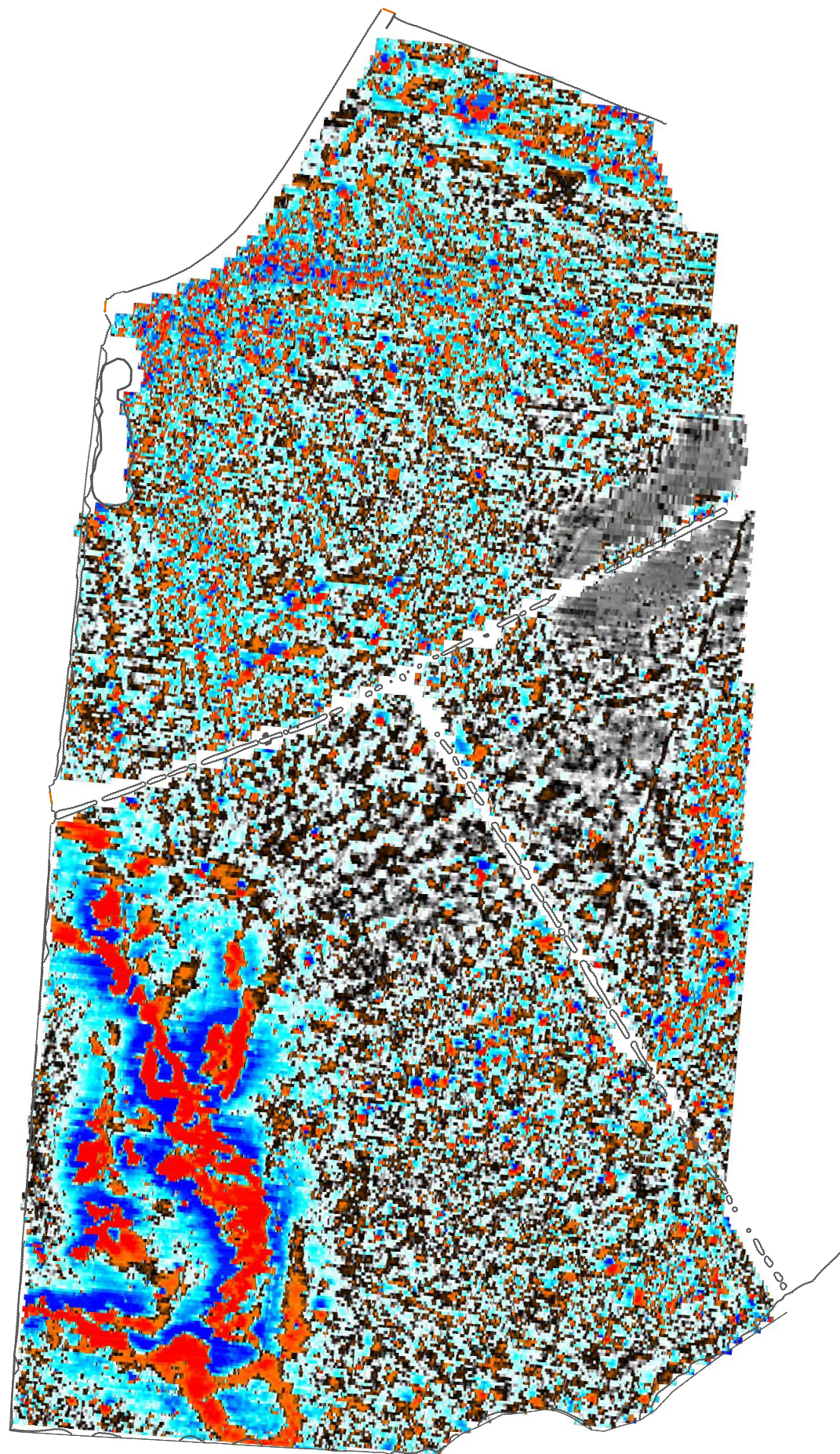
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Plotting parameters

Maximum +100nT (red)
Minimum -100nT (blue)

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Subject
**COLOUR PLOT OF GRADIOMETER
DATA SHOWING EXTREME VALUES -
OVERVIEW**

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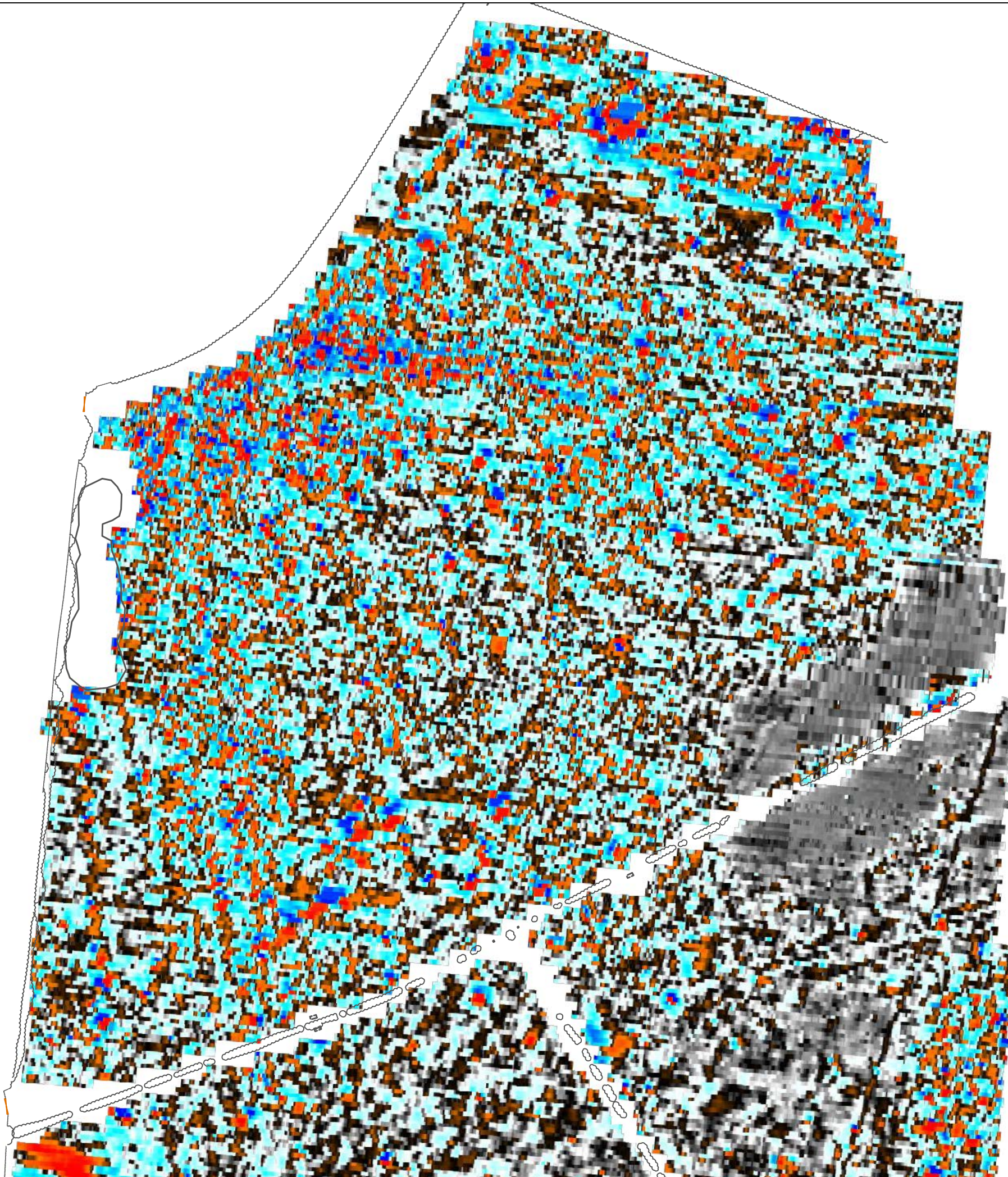
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Issue No.	Date	Description
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Plotting parameters

Maximum +100nT (red)
Minimum -100nT (blue)

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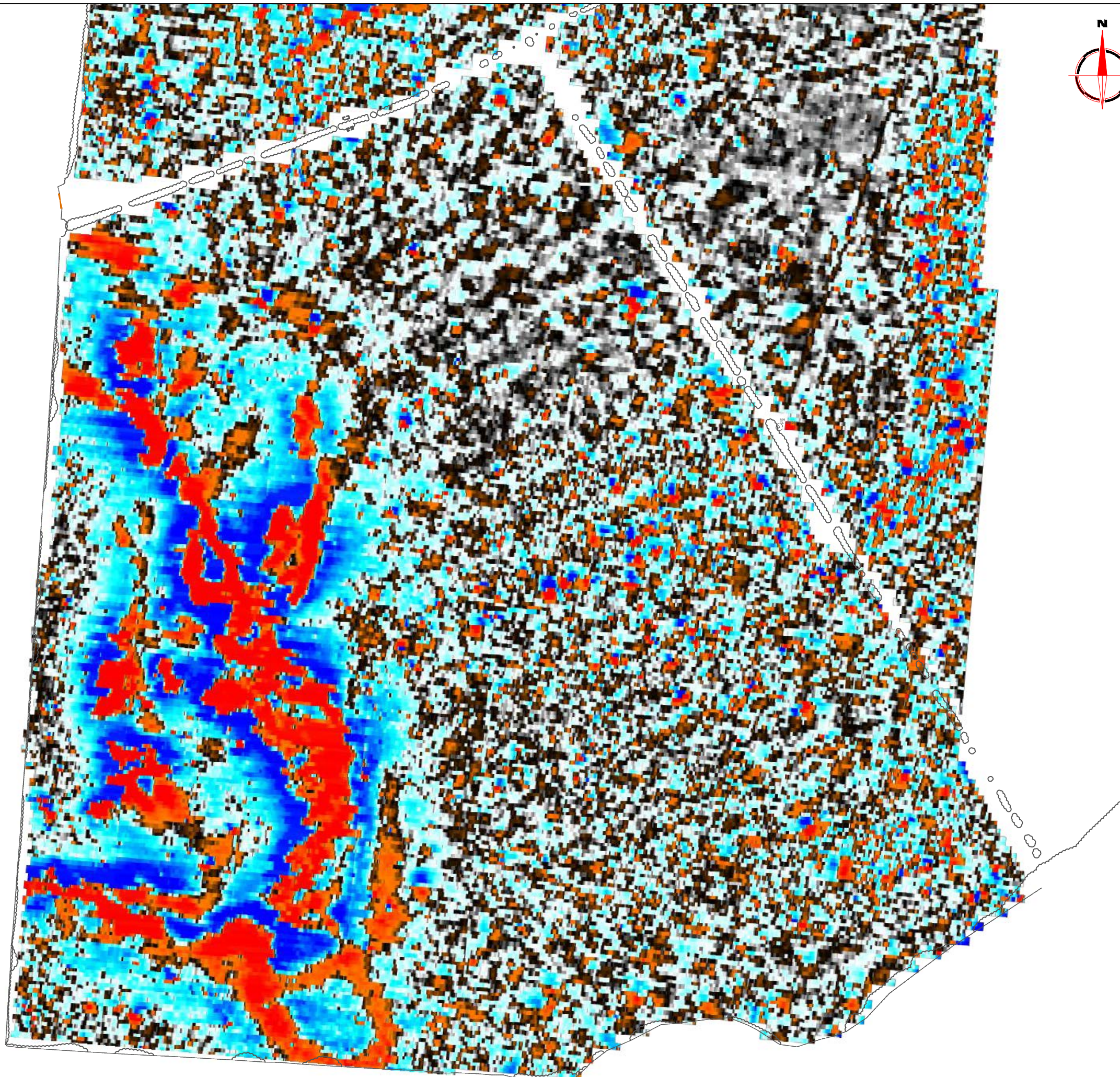
Subject **COLOUR PLOT OF GRADIOMETER DATA SHOWING EXTREME VALUES - NORTH**

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Scale **1:1000** 0m 10 20 30 40 50

Plot A3	Checked by DGE	Issue No. 01
Survey date MAY 15	Drawn by TR	Figure No. 04



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Issue No.	Date	Description
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-	-	-

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Plotting parameters

Maximum +100nT (red)
Minimum -100nT (blue)

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Subject
**COLOUR PLOT OF GRADIOMETER
DATA SHOWING EXTREME VALUES -
SOUTH**

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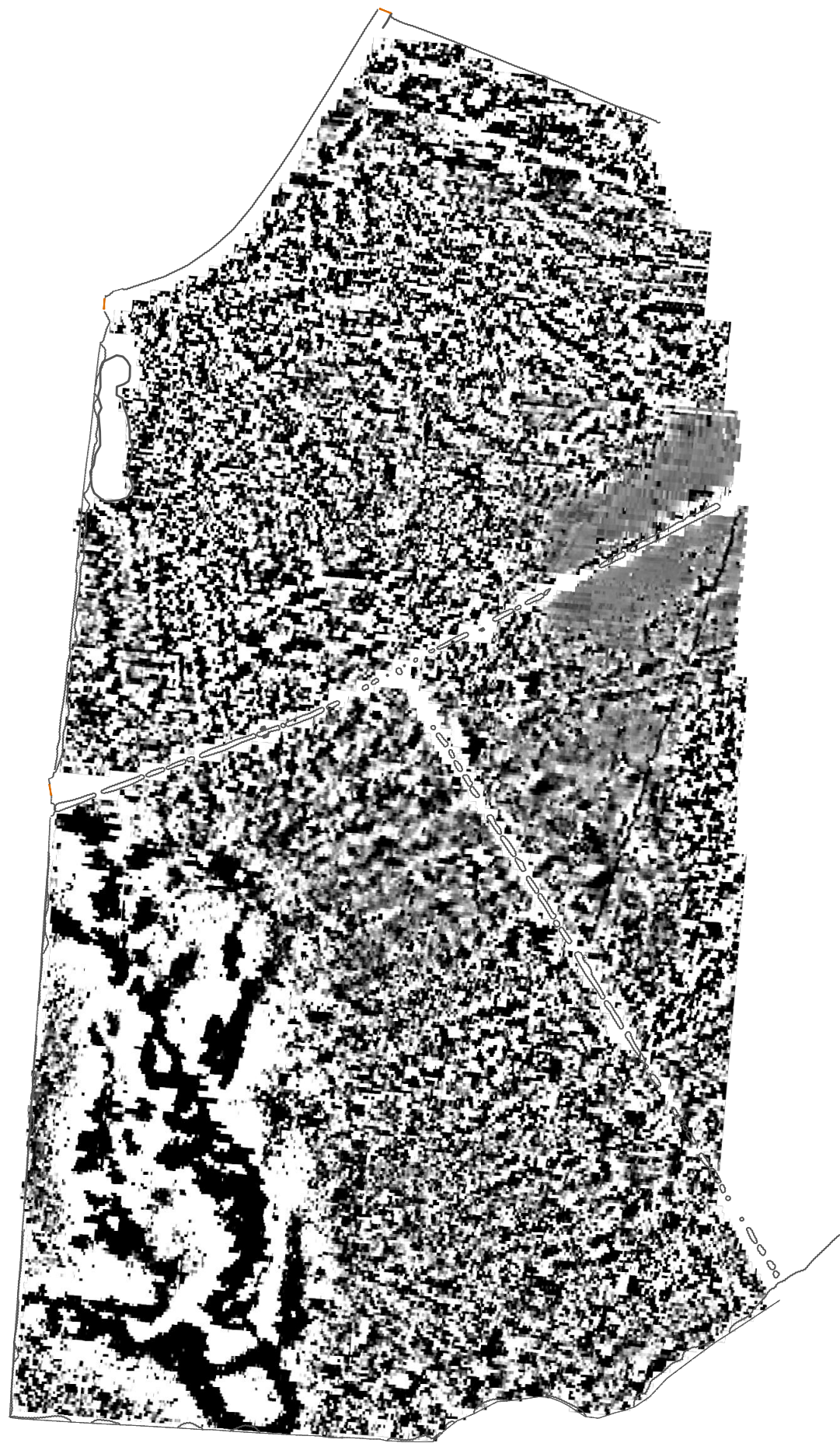
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ims ISO 14001 certified

UKAS
UKAS

Scale
1:1000

Plot A3	Checked by DGE	Issue No. 01
Survey date MAY 15	Drawn by TR	Figure No. 05



Amendments

Issue No.	Date	Description
-	-	-
-	-	-

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Plotting parameters

Maximum +5nT (black)
Minimum -5nT (white)

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GLOBAL RENEWABLE CONSTRUCTION LTD

Project Title Job No. J8411
TWIN YARDS FARM, BERISTOWE LANE, HILCOTE, DERBYSHIRE

Subject
PLOT OF MINIMALLY PROCESSED GRADIOMETER DATA - OVERVIEW

STRATASCAN™
GEOPHYSICS FOR ARCHAEOLOGY AND ENGINEERING

VINEYARD HOUSE T: 01684 592266
UPTON UPON SEVERN E: info@stratascan.co.uk
WR8 0SA www.stratascan.co.uk

EUROPEAN GPR ASSOCIATION

SUMO SUMO GROUP MEMBER

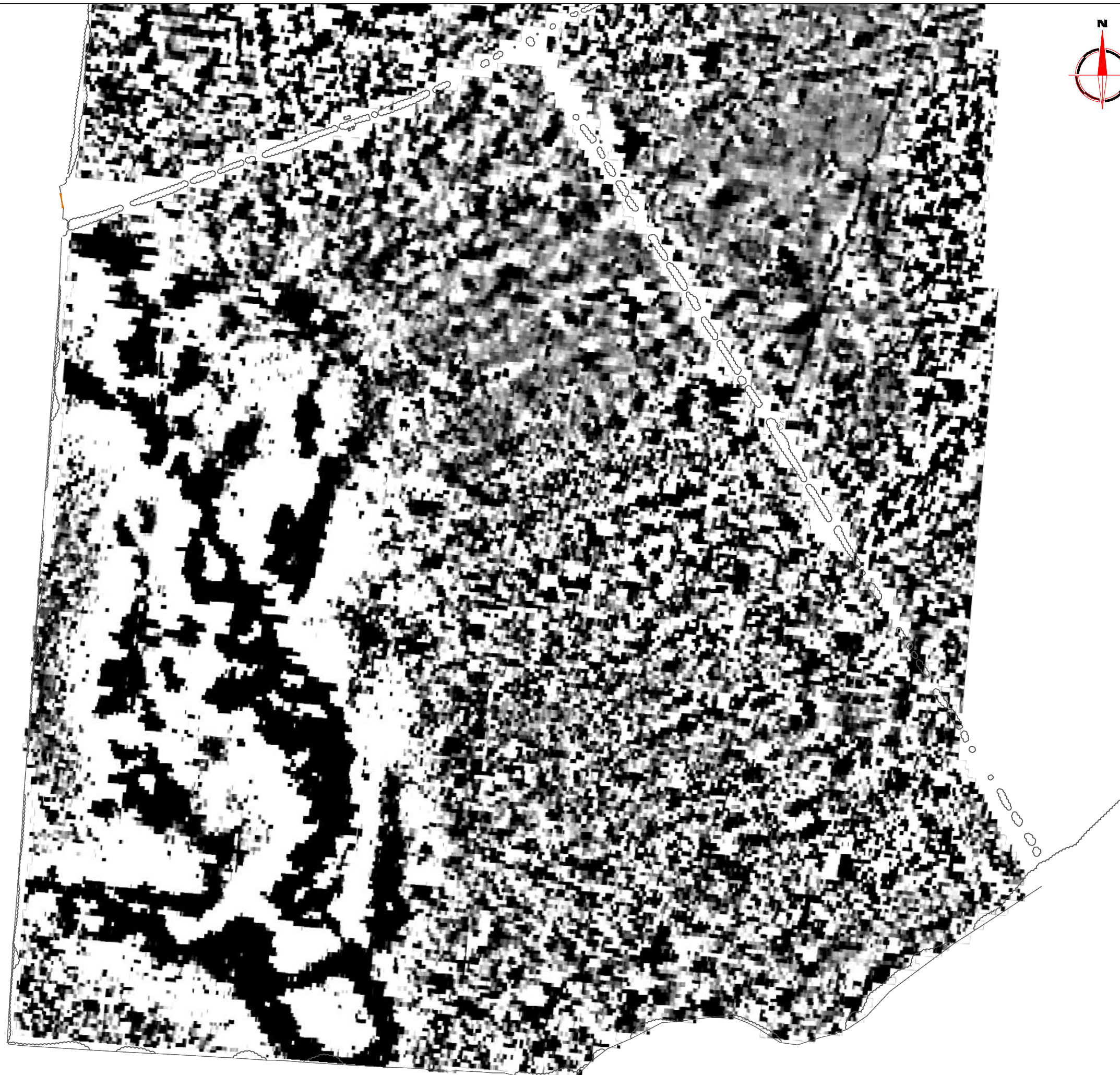
ims ISO 9001 certified **UKAS** ISO 14001 certified

Scale **1:2000** 0m 20 40 60 80 100m

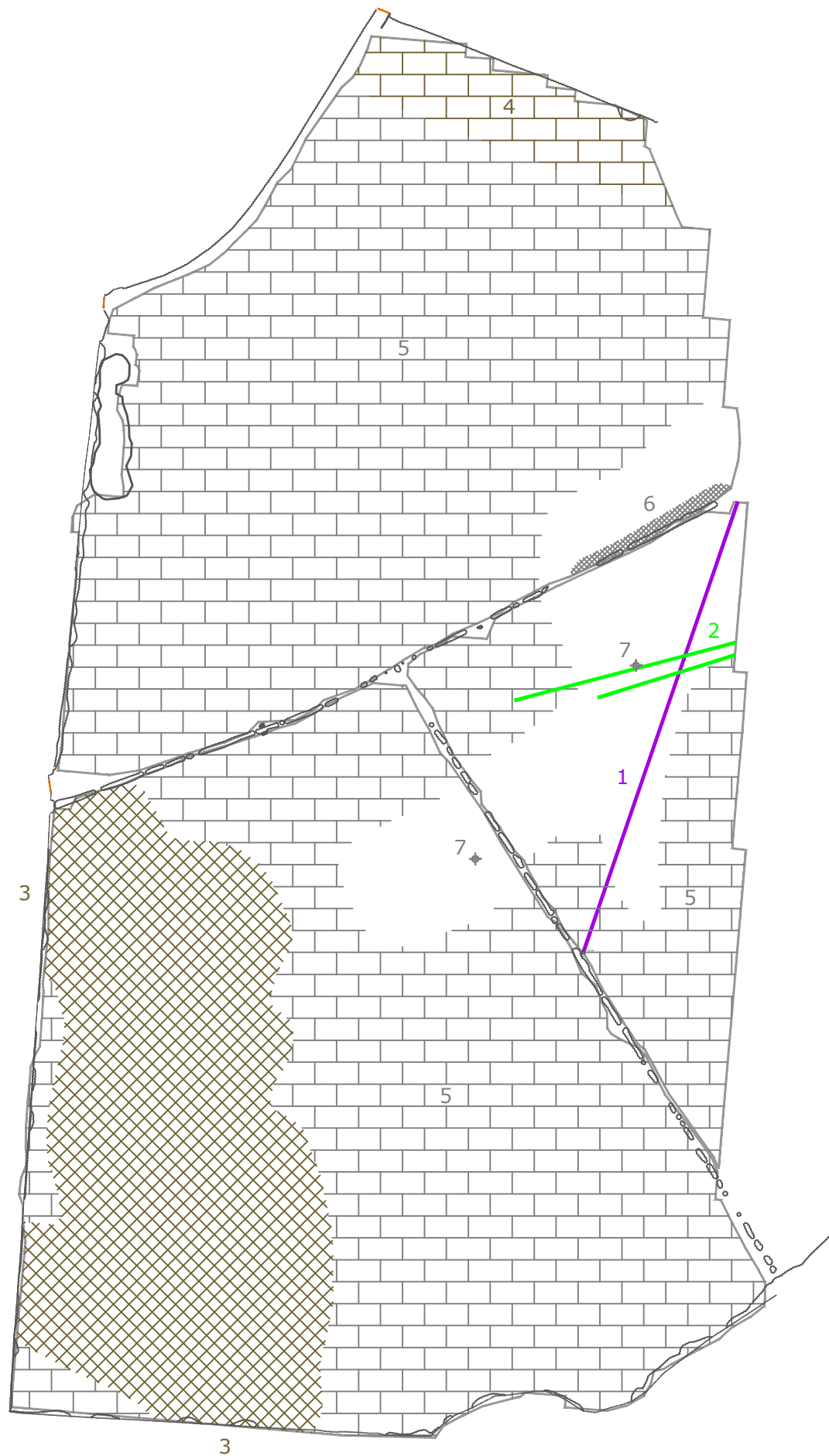
Plot A3	Checked by DGE	Issue No. 01
Survey date MAY 15	Drawn by TR	Figure No. 06



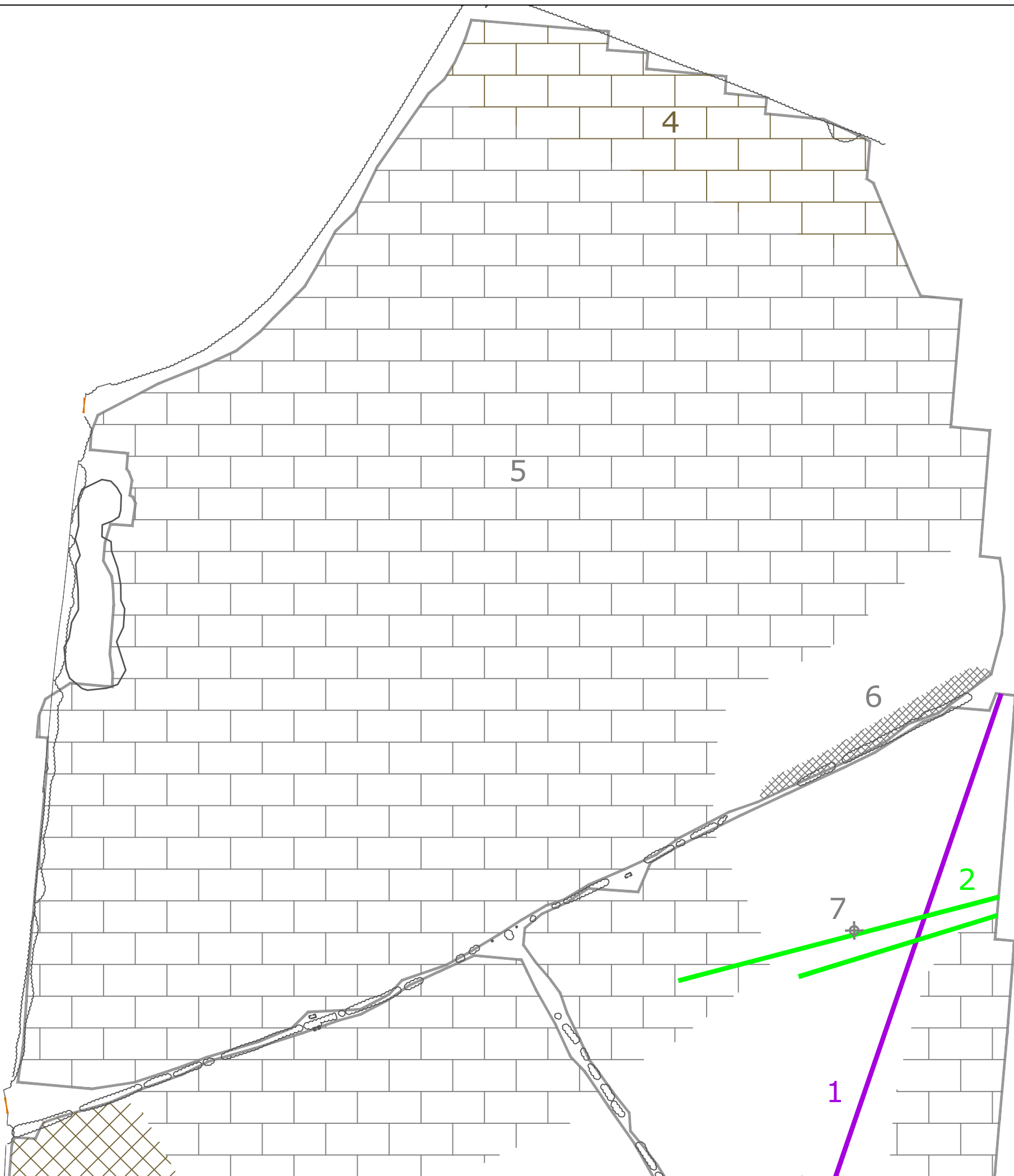
Amendments		
Issue No.	Date	Description
-	-	-
-	-	-
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Plotting parameters		+5nT
Maximum +5nT (black)		
Minimum -5nT (white)		
Client		GLOBAL RENEWABLE CONSTRUCTION LTD
Project Title	Job No. J8411	
TWIN YARDS FARM, BERISTOWE LANE, HILCOTE, DERBYSHIRE		
Subject		
PLOT OF MINIMALLY PROCESSED GRADIOMETER DATA - NORTH		
STRATASCAN™ GEOPHYSICS FOR ARCHAEOLOGY AND ENGINEERING VINEYARD HOUSE T: 01684 592266 UPTON UPON SEVERN E: info@stratascan.co.uk WR8 0SA www.stratascan.co.uk		
Scale	0m 10 20 30 40 50	
1:1000		
Plot	Checked by	Issue No.
A3	DGE	01
Survey date	Drawn by	Figure No.
MAY 15	TR	07



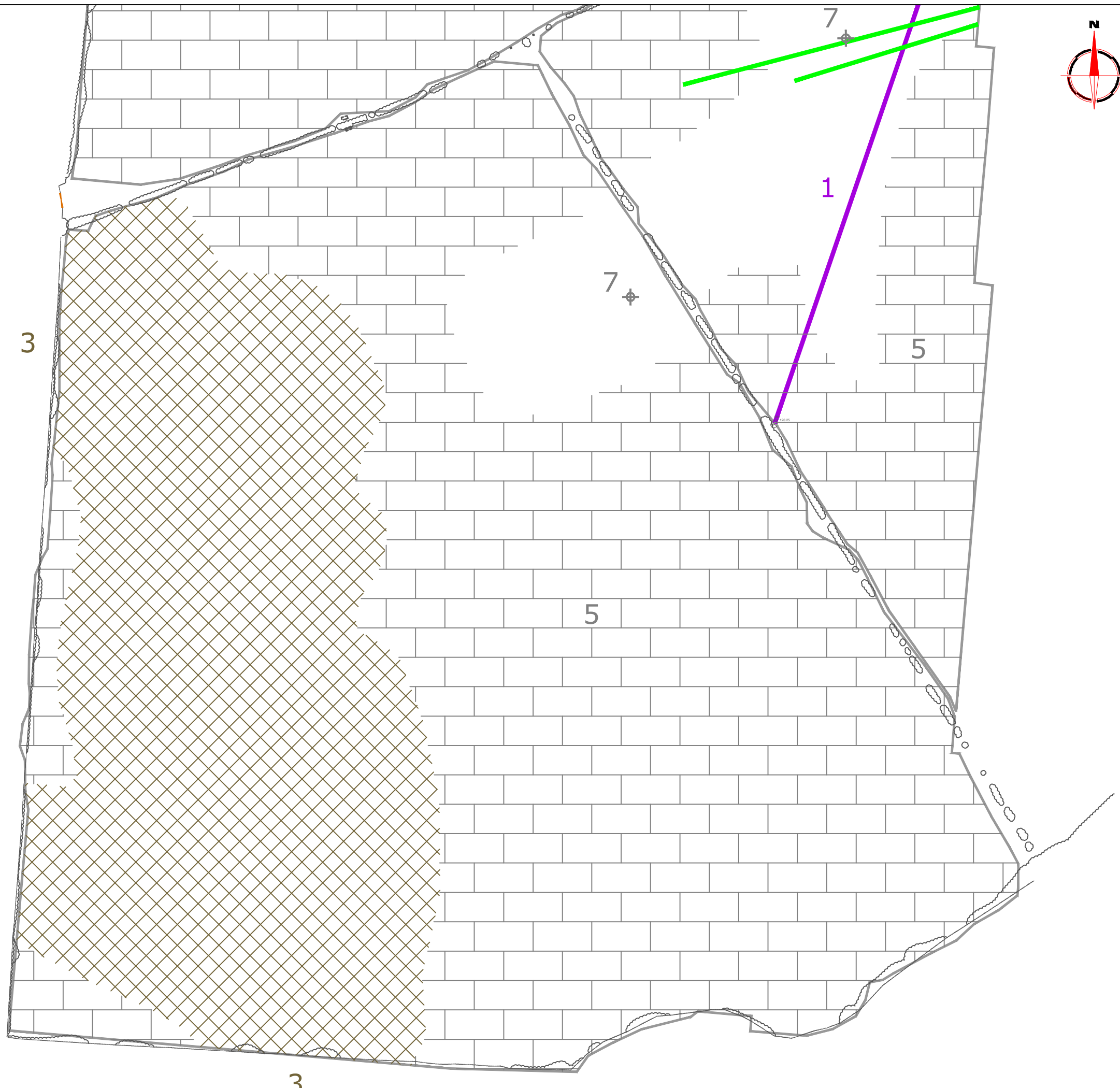
Amendments		
Issue No.	Date	Description
-	-	-
-	-	-
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<p>Plotting parameters</p> <p>Maximum +5nT (black) Minimum -5nT (white)</p>		
Client		GLOBAL RENEWABLE CONSTRUCTION LTD
Project Title	Job No.	J8411
TWIN YARDS FARM, BERISTOWE LANE, HILCOTE, DERBYSHIRE		
Subject		
PLOT OF MINIMALLY PROCESSED GRADIOMETER DATA - SOUTH		
<p>VINEYARD HOUSE T: 01684 592266 UPTON UPON SEVERN E: info@stratascan.co.uk WR8 0SA www.stratascan.co.uk</p>		
Scale 1:1000		
Plot	Checked by	Issue No.
A3	DGE	01
Survey date	Drawn by	Figure No.
MAY 15	TR	08



Amendments		
Issue No.	Date	Description
-	-	-
-	-	-
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PROBABLE ARCHAEOLOGY		
	Positive anomaly / weak positive anomaly - probable cut feature of archaeological origin	
	Negative anomaly / weak negative anomaly - probable bank or earthwork of archaeological origin	
POSSIBLE ARCHAEOLOGY		
	Positive anomaly / weak positive anomaly - possible cut feature of archaeological origin	
	Negative anomaly / weak negative anomaly - possible bank or earthwork of archaeological origin	
MEDIEVAL/POST-MEDIEVAL AGRICULTURE		
	Widely spaced curving parallel linear anomalies - probably related to ridge-and-furrow	
	Closely spaced parallel linear anomalies - probably related to agricultural activity such as ploughing	
	Linear anomaly - related to a track way visible on aerial photography	
	Linear anomaly - related to a former field boundary present on available mapping	
OTHER ANOMALIES		
	Linear anomaly - unknown origin, likely to be modern	
	Magnetic disturbance associated with former coke works	
	Magnetic disturbance associated with nearby metal object such as service or field boundary	
	Strong magnetic debris - possible disturbed or made ground	
	Strong magnetic debris related to dismantled railway line	
	Area of amorphous magnetic variation - probable natural (e.g. geological or pedological) origin	
	Magnetic spike - probable ferrous object	
Client GLOBAL RENEWABLE CONSTRUCTION LTD		
Project Title TWIN YARDS FARM, BERISTOWE LANE, HILCOTE, DERBYSHIRE		Job No. J8411
Subject ABSTRACTION AND INTERPRETATION OF GRADIOMETER ANOMALIES - OVERVIEW		
 STRATASCAN™ GEOPHYSICS FOR ARCHAEOLOGY AND ENGINEERING VINEYARD HOUSE T: 01684 592266 UPTON UPON SEVERN E: info@stratascan.co.uk WR8 0SA www.stratascan.co.uk		
 GPR ASSOCIATION		
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 UKAS ISO 9001 certified UKAS ISO 14001 certified		
Scale 1:2000		
Plot A3	Checked by DGE	Issue No. 01
Survey date MAY 15	Drawn by TR	Figure No. 09



Amendments		
Issue No.	Date	Description
-	-	-
-	-	-
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PROBABLE ARCHAEOLOGY		
	Positive anomaly / weak positive anomaly - probable cut feature of archaeological origin	
	Negative anomaly / weak negative anomaly - probable bank or earthwork of archaeological origin	
POSSIBLE ARCHAEOLOGY		
	Positive anomaly / weak positive anomaly - possible cut feature of archaeological origin	
	Negative anomaly / weak negative anomaly - possible bank or earthwork of archaeological origin	
MEDIEVAL/POST-MEDIEVAL AGRICULTURE		
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	Linear anomaly - related to a track way visible on aerial photography	
	Linear anomaly - related to a former field boundary present on available mapping	
OTHER ANOMALIES		
	Linear anomaly - unknown origin, likely to be modern	
	Magnetic disturbance associated with former coke works	
	Magnetic disturbance associated with nearby metal object such as service or field boundary	
	Strong magnetic debris - possible disturbed or made ground	
	Strong magnetic debris related to dismantled railway line	
	Area of amorphous magnetic variation - probable natural (e.g. geological or pedological) origin	
	Magnetic spike - probable ferrous object	
Client GLOBAL RENEWABLE CONSTRUCTION LTD		
Project Title TWIN YARDS FARM, BERISTOWE LANE, HILCOTE, DERBYSHIRE		Job No. J8411
Subject ABSTRACTION AND INTERPRETATION OF GRADIOMETER ANOMALIES - NORTH		
STRATASCAN™		
GEOPHYSICS FOR ARCHAEOLOGY AND ENGINEERING		
VINEYARD HOUSE UPTON UPON SEVERN WR8 0SA		T: 01684 592266 E: info@stratascan.co.uk www.stratascan.co.uk
Scale 1:1000		
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Amendments		
Issue No.	Date	Description
-	-	-
-	-	-
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PROBABLE ARCHAEOLOGY		
	Positive anomaly / weak positive anomaly - probable cut feature of archaeological origin	
	Negative anomaly / weak negative anomaly - probable bank or earthwork of archaeological origin	
POSSIBLE ARCHAEOLOGY		
	Positive anomaly / weak positive anomaly - possible cut feature of archaeological origin	
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Client GLOBAL RENEWABLE CONSTRUCTION LTD		
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STRATASCAN™		
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VINEYARD HOUSE UPTON UPON SEVERN WR8 0SA		T: 01684 592266 E: info@stratascan.co.uk www.stratascan.co.uk
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STRATASCAN LTD

Vineyard House Upper Hook Road Upton upon Severn
Worcestershire WR8 0SA United Kingdom

T:01684 592266 F: 01684 594142
info@stratascan.co.uk www.stratascan.co.uk

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