



Archaeological Services
University of Durham

Land East of Swindon, Wiltshire

geophysical surveys

on behalf of

CgMs Consulting

Report 1551
October 2006

Archaeological Services
Durham University

South Road

Durham DH1 3LE

Tel: 0191 334 1121

Fax: 0191 334 1126

archaeological.services@durham.ac.uk

www.durham.ac.uk/archaeological.services

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Burlington House, Lypiatt Road, Cheltenham, GL50 2SY

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1. Summary

The project

- 1.1 This report presents the results of geophysical surveys conducted on land to the east of Swindon in order to provide information for the Swindon Strategic Plan.
- 1.2 The works were commissioned by CgMs Consulting and conducted by Archaeological Services Durham University in accordance with instructions from CgMs Consulting.

Results

- 1.3 Soil-filled features, probably ditches and pits, have been detected throughout the study area, most notably in Areas B, E, N, P and Q. Evidence of rectilinear and curvilinear enclosures, ditches and possible ring-ditches has been detected, possibly representing former occupation.
- 1.4 Intense positive and dipolar magnetic anomalies detected within one of the enclosures in Area E could reflect fired structures such as kilns or hearths, or industrial activity such as metalworking or the manufacture of ceramics.
- 1.5 Evidence of ridge and furrow cultivation, which can date from the medieval period to the late 19th century, has been detected in Areas B, E and G.

2. Project background

Location (Figure 1)

- 2.1 The study area is located on land to the east of Swindon, Wiltshire (NGR centre: SU 1980 8600) and comprised 19 separate survey areas, three of which could not be surveyed.

Development proposal

- 2.2 The survey has been carried out in order to provide information for the Swindon Strategic Plan.

Objective

- 2.3 The principal aim of the surveys was to assess the nature and extent of any sub-surface features of potential archaeological significance within the specified areas, so that an informed decision may be made regarding the nature and scope of any further scheme of archaeological works that may be required in advance of possible development.

Methods statement

- 2.4 The surveys have been undertaken in accordance with instructions from CgMs Consulting.

Dates

- 2.5 Fieldwork was undertaken between 25th September and 6th October 2006. This report was prepared between 9th and 26th October 2006.

Personnel

- 2.6 Fieldwork was conducted by Bryan Atkinson, Sam Roberts (Supervisor), Natalie Swann and Richard Villis. This report was prepared by Sam Roberts and Lorne Elliott with illustrations by Janine Wilson. The Project Manager was Duncan Hale.

Archive/OASIS

- 2.7 The site code is **NFS06**, for **Nythe Farm, Swindon 2006**. The survey archive is currently held at Archaeological Services Durham University. Archaeological Services is registered with the **Online AccesS to the Index of archaeological investigationS** project (OASIS). The OASIS ID number for this project is **archaeol3-19536**.

3. Archaeological and historical background

- 3.1 The Roman road, Ermine Street, oriented northwest-southeast is situated in the southwestern part of the study area. A section of this road, visible on aerial photographs as an earthwork, was excavated in 1968 prior to construction of the M4 motorway.
- 3.2 Excavations uncovered the site of a possible Roman small town on Ermine Street, which has been identified as *Durocornovium* though doubts exist about

this placename (Anderson 2001). The site was occupied from the mid-1st century, though coin evidence suggests that the main period for occupation was AD 244-367. Courtyard buildings, strip buildings and part of Ermine Street have been investigated. The large number of finds suggested that most of the buildings were both residential and commercial. Products of the local north Wiltshire pottery industry were prominent in the pottery assemblage. A late 2nd century coin hoard was found here in 1689. It consisted of 1600-2000 coins, none later than Commodus, AD 180-192.

- 3.3 A layer of black occupation soil over 100m in length and up to 0.6m deep was cut through by a drainage-pipe trench at Foxbridge Farm, Wanborough. The foundations of a building which comprised chalk walls and floors were found along with 2nd century AD pottery. This has been listed as a possible villa site by Scott (1993).
- 3.4 A number of ditches of uncertain date have been recorded as cropmarks southeast of Foxhill alongside Ermine Way.
- 3.5 Four Romano-British inhumations were found at Covingham in 1987, west of the study area, during house extension work.

4. Landuse, topography and geology

- 4.1 At the time of survey the study area mostly comprised a combination of arable, pasture, turf fields and woodland. The surveys were undertaken over various landuses. Nineteen areas of survey were specified by CgMs Consulting. Of these, it was not possible to survey three: Area C (unresolved access permissions); Area H (woodland) and Area K (trestle tables and underground irrigation had been installed to grow strawberries). Areas A and B were used to grow turf; at the time of survey both were newly seeded. Area J was a newly planted arable field and Area P was located in recently harvested millet field. The rest of the survey areas were pasture.
- 4.2 The landscape was predominantly level at a mean elevation of *c.*90m OD.
- 4.3 The underlying solid geology of the area comprises Kimmeridge Clays of the Jurassic and Upper and Lower Greensands of the Cretaceous, which are overlain in parts by alluvium.

5. Geophysical survey

Standards

- 5.1 The surveys and reporting were conducted in accordance with English Heritage Research and Professional Services Guideline No.1, *Geophysical survey in archaeological field evaluation* (David 1995); the Institute of Field Archaeologists Technical Paper No.6, *The use of geophysical techniques in archaeological evaluations* (Gaffney, Gater & Ovenden 2002); and the

Archaeology Data Service *Geophysical Data in Archaeology: A Guide to Good Practice* (Schmidt 2001).

Technique selection

- 5.2 Geophysical surveying enables the relatively rapid and non-invasive identification of potential archaeological features within landscapes and can involve a variety of complementary techniques such as magnetometry, electrical resistivity, ground-penetrating radar and electromagnetic survey. Some techniques are more suitable than others in particular situations, depending on a variety of site-specific factors including the nature of likely targets; depth of likely targets; ground conditions; proximity of buildings, fences or services and the local geology and drift.
- 5.3 In this instance, based on previous work, it was considered likely that cut features, such as ditches and pits, would be present on the site, and that other types of feature such as trackways, wall foundations and fired structures (for example kilns and hearths) might also be present.
- 5.4 Given the anticipated shallowness of targets and the non-igneous geological environment of the study area a geomagnetic technique, fluxgate gradiometry, was considered appropriate for detecting each of the types of feature mentioned above. This technique involves the use of hand-held magnetometers to detect and record minute anomalies in the vertical component of the Earth's magnetic field caused by variations in soil magnetic susceptibility or permanent magnetisation; such anomalies can reflect archaeological features.

Field methods

- 5.5 A 30m grid was established across each survey area and tied-in to known, mapped Ordnance Survey points using a Trimble Pathfinder Pro XRS global positioning system (GPS) with subsequent RINEX calibration.
- 5.6 Measurements of vertical geomagnetic field gradient were determined using Bartington Grad601-2 fluxgate gradiometers with automatic datalogging facilities. A zig-zag traverse scheme was employed and data were logged in 30m grid units. The instrument sensitivity was set to 0.1nT, the sample interval to 0.25m and the traverse interval to 1.0m, thus providing 3600 sample measurements per 30m grid unit.
- 5.7 Data were downloaded on-site into laptop computers for initial processing and storage and subsequently transferred to a desktop computer for processing, interpretation and archiving.

Data processing

- 5.8 Geoplot v.3 software was used to process the geophysical data and to produce both continuous tone greyscale images and trace plots of the raw (unfiltered) data. The greyscale images and interpretations are presented in Figures 2-46; the trace plots are provided in Appendix I. In the greyscale images, positive

magnetic anomalies are displayed as dark grey and negative magnetic anomalies as light grey. A palette bar relates the greyscale intensities to anomaly values in nanoTesla.

- 5.9 The following basic processing functions have typically been applied to each dataset:

<i>Clip</i>	clips, or limits data to specified maximum or minimum values; to eliminate large noise spikes; also generally makes statistical calculations more realistic.
<i>Zero mean traverse</i>	sets the background mean of each traverse within a grid to zero; for removing striping effects in the traverse direction and removing grid edge discontinuities.
<i>Destagger</i>	corrects for displacement of anomalies caused by alternate zig-zag traverses.
<i>Despike</i>	locates and suppresses random iron spikes in gradiometer data.
<i>Interpolate</i>	increases the number of data points in a survey to match sample and traverse intervals. In this instance the data have been interpolated to 0.25m x 0.25m intervals.

Interpretation: anomaly types

- 5.10 Colour-coded geophysical interpretation plans are provided for each survey area. Three types of geomagnetic anomaly have been distinguished in the data:

<i>positive magnetic</i>	regions of anomalously high or positive magnetic field gradient, which may be associated with high magnetic susceptibility soil-filled structures such as pits and ditches.
<i>negative magnetic</i>	regions of anomalously low or negative magnetic field gradient, which may correspond to features of low magnetic susceptibility such as wall footings and other concentrations of sedimentary rock or voids.
<i>dipolar magnetic</i>	paired positive-negative magnetic anomalies, which typically reflect ferrous or fired materials (including fences and service pipes) and/or fired structures such as kilns or hearths.

Interpretation: features

- 5.11 Colour-coded archaeological interpretation plans are provided for each survey area.
- 5.12 Small, discrete dipolar magnetic anomalies have been detected in all of the survey areas. These almost certainly reflect items of near-surface ferrous and/or fired debris, such as horseshoes and brick fragments, and in most cases

have little or no archaeological significance. A sample of these is shown on the geophysical interpretation plans, however, they have been omitted from the archaeological interpretation plans and the following discussion.

Area A (Figures 2-4)

- 5.13 Area A was used to grow turf; the northern part had recently been seeded. An area of disturbance detected in this area, characterised by weak, irregular, positive and negative magnetic anomalies with some stronger positive magnetic anomalies, may reflect recent turf cutting and lifting.
- 5.14 Other weak linear positive magnetic anomalies have been detected. These could reflect soil-filled features such as gullies or ditches, however, it is likely that these features may relate to earlier turf-cutting episodes.
- 5.15 A large dipolar magnetic anomaly detected adjacent to the eastern field boundary reflects a telegraph pole.

Area B (Figures 5-7)

- 5.16 A complex of linear, curvilinear and rectilinear positive magnetic anomalies, as well as discrete positive magnetic anomalies, has been detected in this area. These almost certainly reflect soil-filled features such as ditches and pits, with some anomalies suggesting enclosures, ring-ditches and concentrations of pits.
- 5.17 These features are most apparent along the eastern edge of the survey area, and may have been impacted upon by ridge and furrow cultivation, remains of which have been detected there as a series of parallel positive and negative magnetic anomalies aligned roughly east-west.
- 5.18 Weak positive linear magnetic anomalies were also detected in the western half of the survey area, and are almost certainly further soil-filled features associated with the remains detected to the east. In this part of the survey area some features may have been truncated by the laying of a service pipe, which has been detected as a chain of intense dipolar magnetic anomalies.
- 5.19 Two dipolar magnetic anomalies detected in the southeast corner of the survey area correspond to telegraph poles. Dipolar magnetic anomalies along the northern and southern boundaries of the survey area reflect wire fencing.

Area D (Figures 8-10)

- 5.20 Area D was surveyed in two parts, either side of a stream. In the northern part a series of linear negative magnetic anomalies was detected; this is likely to reflect a system of land drainage.
- 5.21 A large dipolar magnetic anomaly detected in the northwestern corner of the survey area reflects an area of recent burning; other dipolar magnetic anomalies to the south of this reflect a water trough and two telegraph poles, whilst a concentration of discrete dipolar magnetic anomalies reflects brick and rubble hardcore at the entrance to the field.

Area E (Figures 11-13)

- 5.22 Area E was also surveyed in two parts as it spanned two fields.
- 5.23 In the eastern field no features were detected except for very weak parallel positive linear magnetic anomalies possibly reflecting traces of ridge and furrow cultivation. A large dipolar anomaly in the southeastern corner reflects the presence of a water trough. A concentration of dipolar magnetic anomalies in the southwestern corner of this area corresponded to a large patch of nettles and thistles and may indicate recently disturbed ground.
- 5.24 In the western field, strong linear and discrete positive magnetic anomalies almost certainly reflect a complex of ditches and enclosures, possibly used for occupation. Intense dipolar magnetic anomalies detected here could reflect hearths or kilns, possibly associated with industrial activities such as metalworking or ceramics production.
- 5.25 A large dipolar magnetic anomaly in the central part of the survey area reflects a metal water trough.

Area F (Figures 14-15)

- 5.26 No features of archaeological significance were identified in this area.

Area G (Figures 16-18)

- 5.27 Area G spanned three small fields, each enclosed by wide, mature hedgerows. Only the southern half of the westernmost field was available for survey as a large pond occupied the northern half.
- 5.28 Weak parallel, positive magnetic anomalies almost certainly reflect traces of ridge and furrow cultivation in the westernmost field. Ridge and furrow earthworks were clearly visible in the central field; these were aligned northwest-southeast in both fields.
- 5.29 A concentration of dipolar magnetic anomalies at the southern end of the easternmost field corresponds to a track leading to the A419. Dipolar magnetic anomalies at the northern end of the area almost certainly reflect the presence of disturbed or made ground, possibly including backfill of a former canal shown on Ordnance Survey maps.

Area I (Figures 19-21)

- 5.30 A large dipolar magnetic anomaly in the southern half of the survey area reflects a water trough.
- 5.31 Very weak positive magnetic lineations may reflect the remains of ditches or gullies. Several pieces of Roman pot were noted on the surface of this field.

Area J (Figures 22-24)

- 5.32 A chain of dipolar magnetic anomalies extending from the northwestern corner of the area to a tree-lined pond may reflect the course of a former fenceline or iron collars along a pipe.

5.33 A sinuous positive magnetic anomaly traversing the survey area on a northwest-southeast alignment may reflect the former course of a stream or drain.

5.34 Linear positive magnetic anomalies detected in this area may reflect further field drains or former field boundaries and an associated track.

Area L (Figures 25-26)

5.35 Dipolar magnetic anomalies aligned north-south reflect metal supports for an electric fence.

5.36 Very weak linear positive magnetic anomalies aligned north-south on either side of the electric fence may result from a previous plough regime and are unlikely to be of archaeological significance.

Area M (Figures 27-29)

5.37 Area M was surveyed in two parts either side of a stream. Dipolar magnetic anomalies aligned north-south in each of the two areas correspond to metal electric fence supports. A larger dipolar magnetic anomaly on the southern boundary of the western survey area corresponds to a metal water trough.

5.38 A chain of discrete positive magnetic anomalies detected in the northwestern corner of the western area could reflect an alignment of small pits or postholes, possibly from a former boundary.

5.39 Weak, discontinuous linear anomalies detected in the eastern half of the survey area are likely to reflect land drains.

5.40 Sinuous, positive magnetic anomalies traversing the eastern survey area from north to south probably reflect earlier channels of the adjacent stream.

Area N (Figures 30-32)

5.41 A complex of linear and rectilinear positive magnetic anomalies has been detected across this area. These anomalies almost certainly reflect enclosures and other ditched features, possibly indicating settlement activity in this area.

Area O (Figures 33-34)

5.42 An alignment of dipolar magnetic anomalies at the southeastern end of the survey area may indicate a former fenceline.

Area P (Figures 35-37)

5.43 Clearly defined positive magnetic anomalies almost certainly reflect a complex of rectilinear enclosures at the eastern end of the survey area, with trackways and pits within and around them. These features may be part of a roadside settlement associated with Ermine Street, the Roman road which lies beneath the existing Wanborough Road to the immediate east.

5.44 At the western end of the survey area, an extremely weak curvilinear positive magnetic anomaly has been detected which may reflect a ditch feature.

Area Q (Figures 38-40)

- 5.45 Curvilinear positive magnetic anomalies detected in this area may reflect ring-ditches such as those often found in association with roundhouses or round barrows.
- 5.46 A chain of dipolar magnetic anomalies detected here reflects the course of an old fenceline; the fenceposts were still standing at the time of survey.

Area R (Figures 41-43)

- 5.47 Two small arcuate positive magnetic anomalies detected here may reflect the remains of ring-ditches.

Area S (Figures 44-46)

- 5.48 A weak negative linear magnetic anomaly has been detected in this area, aligned approximately north-south. This may reflect a pipe or drain.
- 5.49 A strong positive magnetic anomaly has also been identified. This may reflect a large pit.

6. Conclusions

- 6.1 Fluxgate gradiometer surveys have been undertaken on land east of Swindon, Wiltshire, in order to determine the nature and extent of features of potential archaeological significance prior to possible development.
- 6.2 Soil-filled features, probably ditches and pits, have been detected throughout the study area, most notably in Areas B, E, N, P and Q. Evidence of rectilinear and curvilinear enclosures, ditches and possible ring-ditches have been detected, possibly representing occupation.
- 6.3 Intense dipolar magnetic anomalies detected within one of the enclosures of Area E could reflect fired structures such as kilns or hearths or industrial activity of some kind, possibly metalworking or ceramics production.
- 6.4 Evidence of ridge and furrow cultivation, which can date from the medieval period to the late 19th century, has been detected in Areas B, E and G.

7. Sources

Anderson, AS, Wachter, JS, & Fitzpatrick, AP, 2001 *The Romano-British 'Small Town' at Wanborough, Wiltshire: Excavations 1966-76*, Britannia Monograph Series **No. 19**, English Heritage

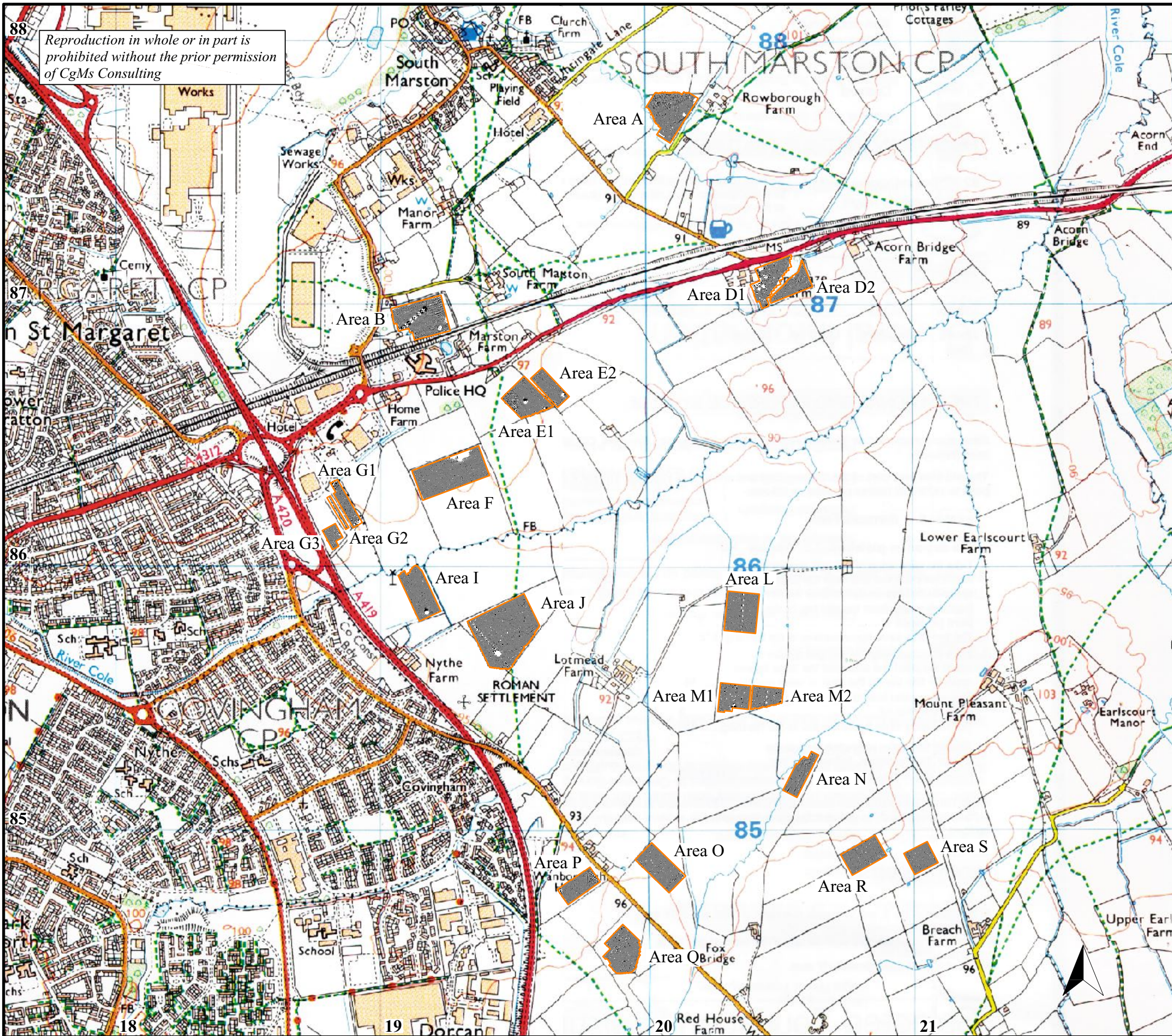
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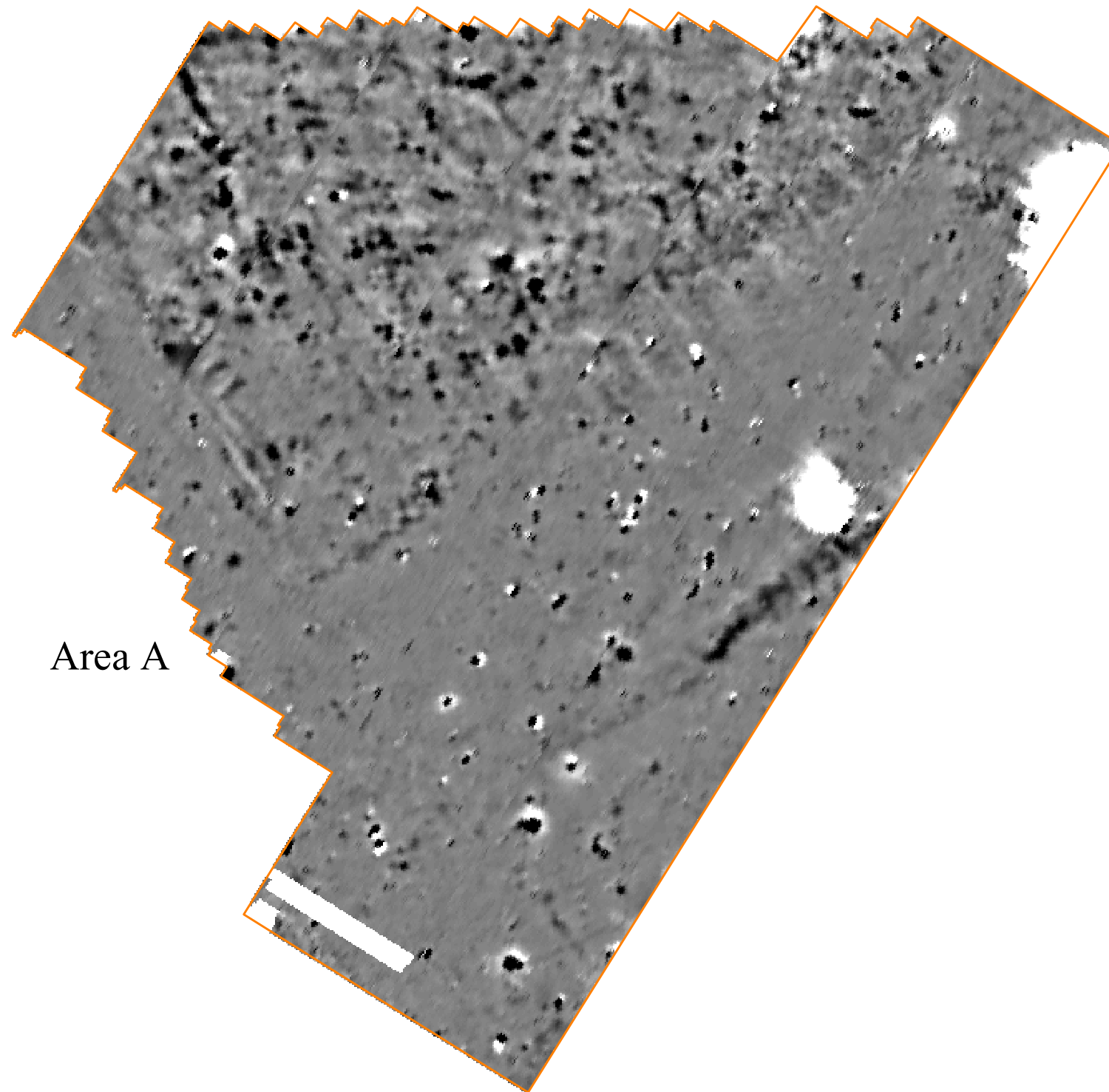
Land east of Swindon, Wiltshire

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Figure 2

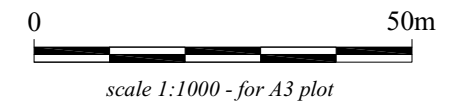
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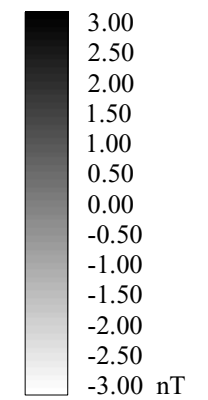
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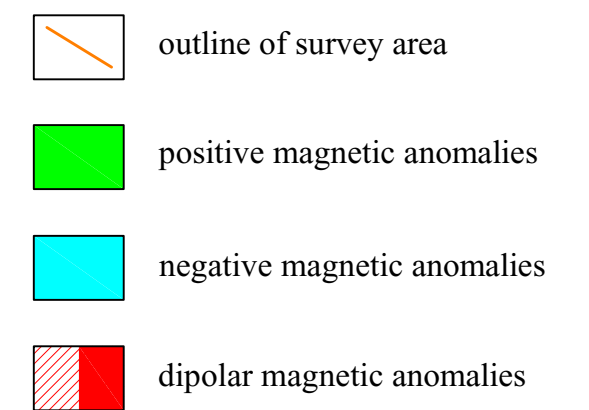
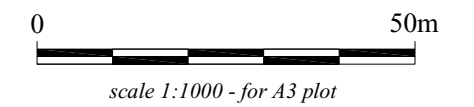
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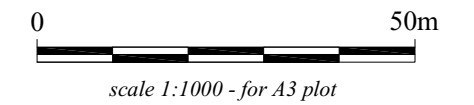
 outline of survey area







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-  outline of survey area
-  soil-filled features
-  disturbed ground
-  electricity pylon



Land east of Swindon, Wiltshire

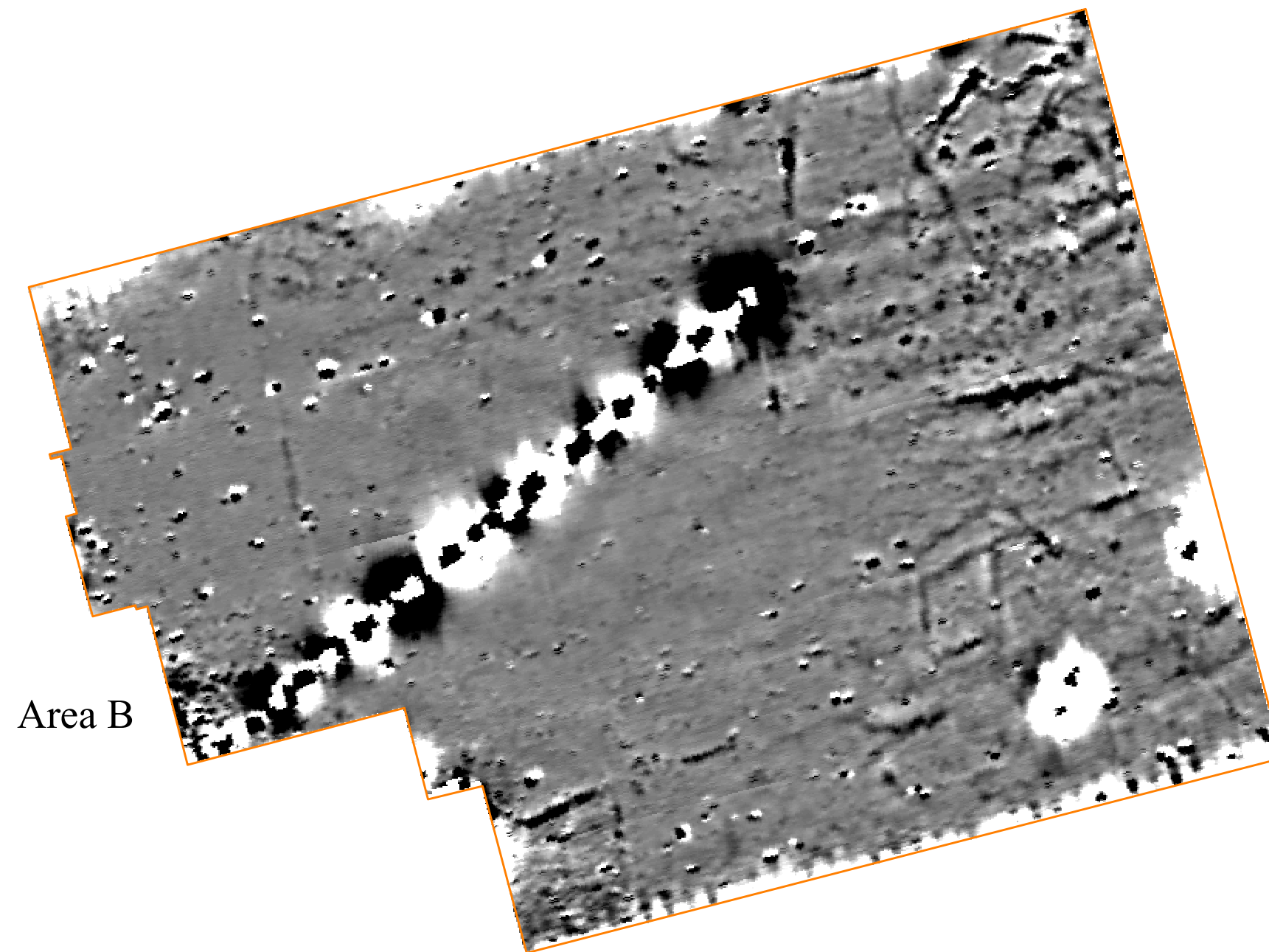
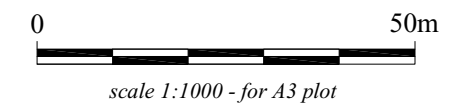
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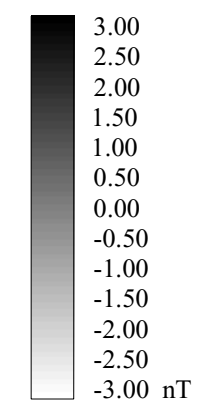
Figure 5

Area B, geophysical survey

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 outline of survey area





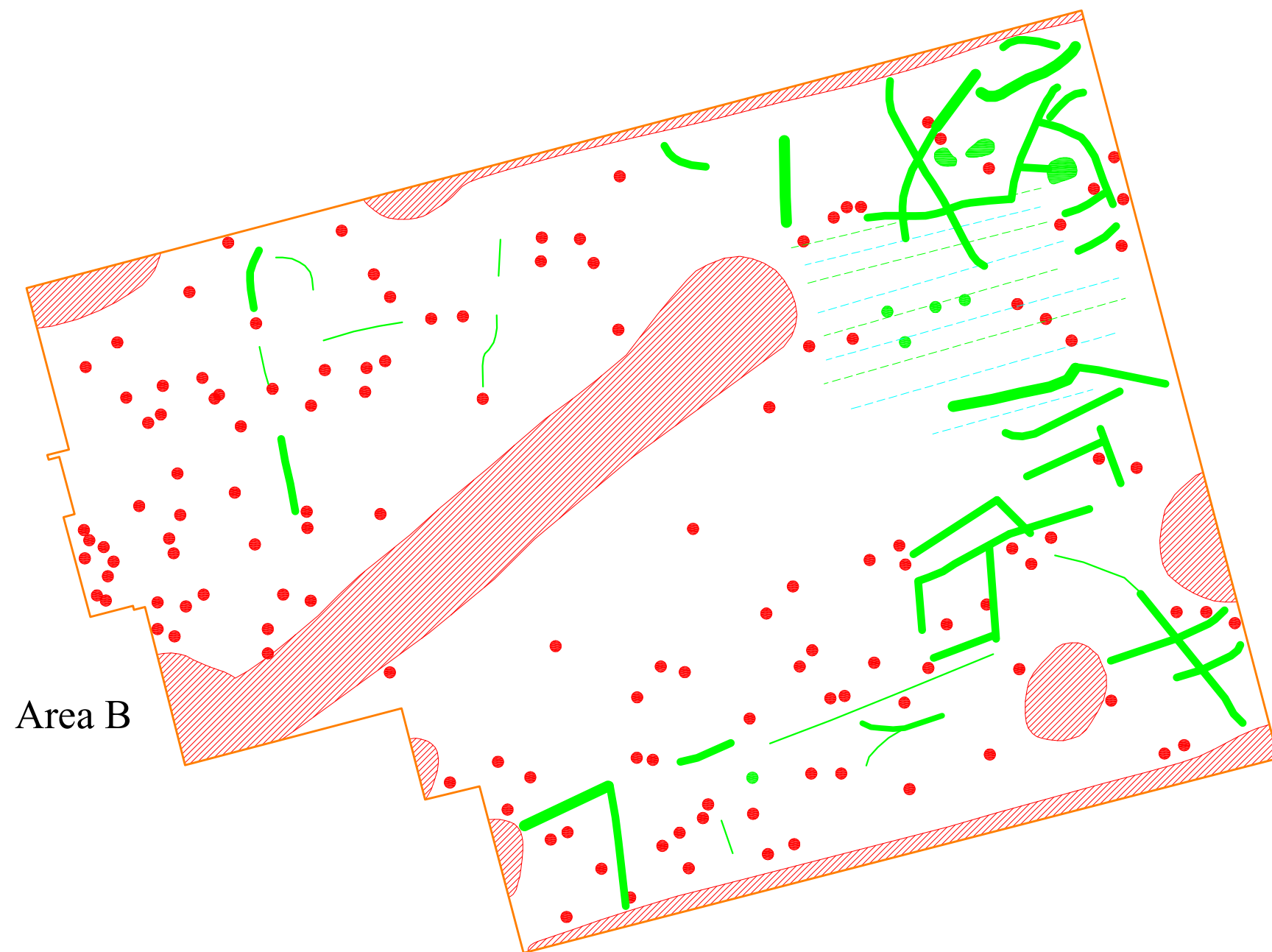
Land east of Swindon, Wiltshire

geophysical surveys

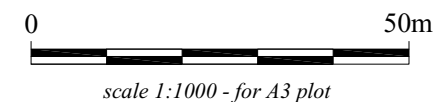
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



Figure 6

Area B, geophysical interpretation



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-  outline of survey area
-  positive magnetic anomalies
-  negative magnetic anomalies
-  dipolar magnetic anomalies

Land east of Swindon, Wiltshire

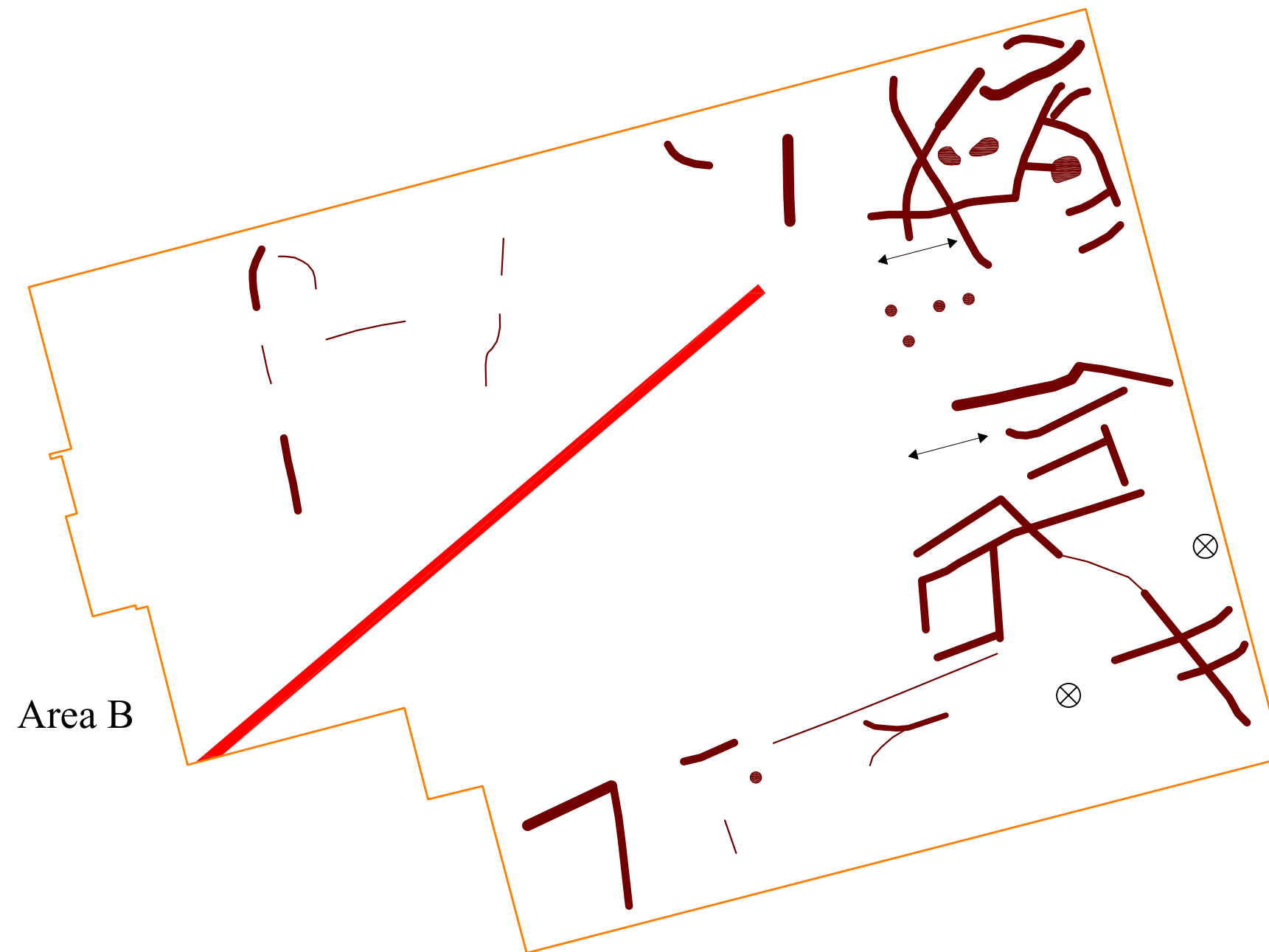
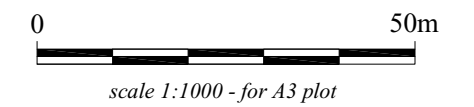
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

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Figure 7

Area B, archaeological interpretation

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-  outline of survey area
-  soil-filled features
-  service pipes
-  orientation of ridge and furrow
-  telegraph poles



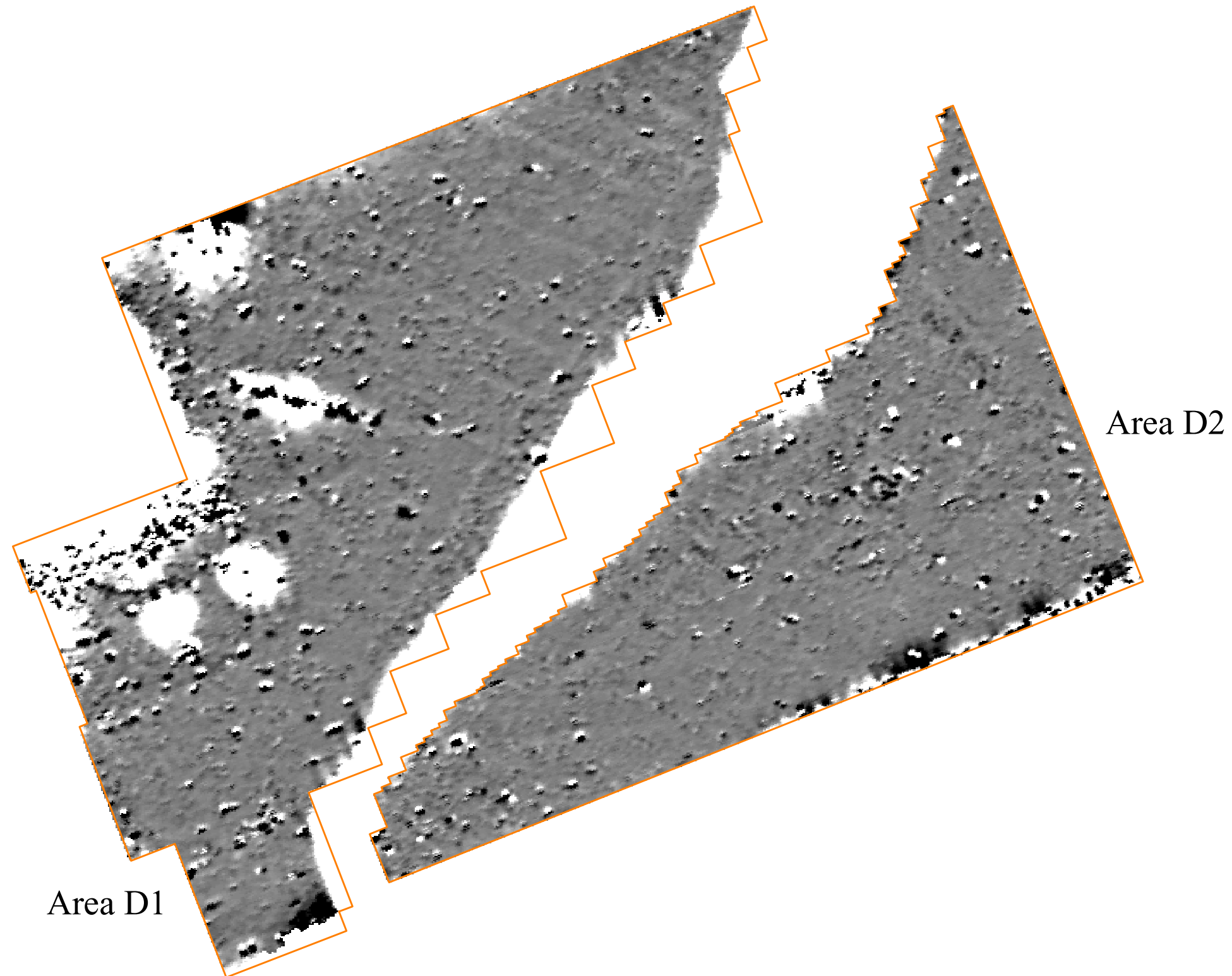
Land east of Swindon, Wiltshire

geophysical surveys

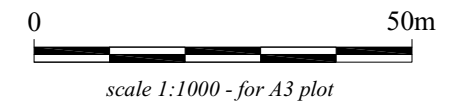
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Figure 8

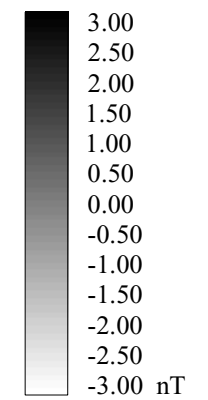
Areas D1 and D2, geophysical surveys



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 outline of survey area



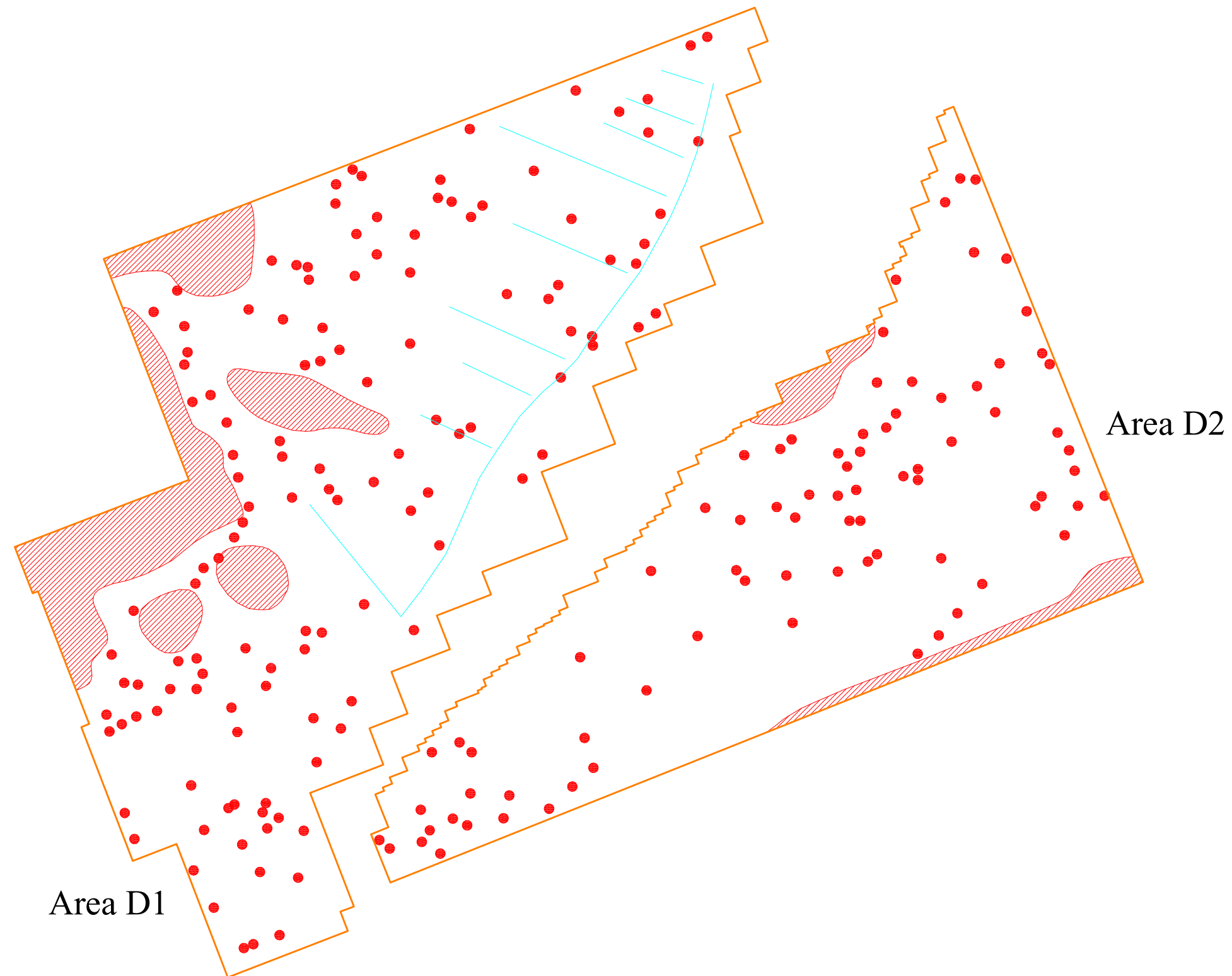
Land east of Swindon, Wiltshire

geophysical surveys

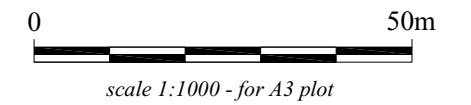
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Figure 9

Areas D1 and D2, geophysical interpretations



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-  outline of survey area
-  positive magnetic anomalies
-  negative magnetic anomalies
-  dipolar magnetic anomalies



Land east of Swindon, Wiltshire

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Figure 10

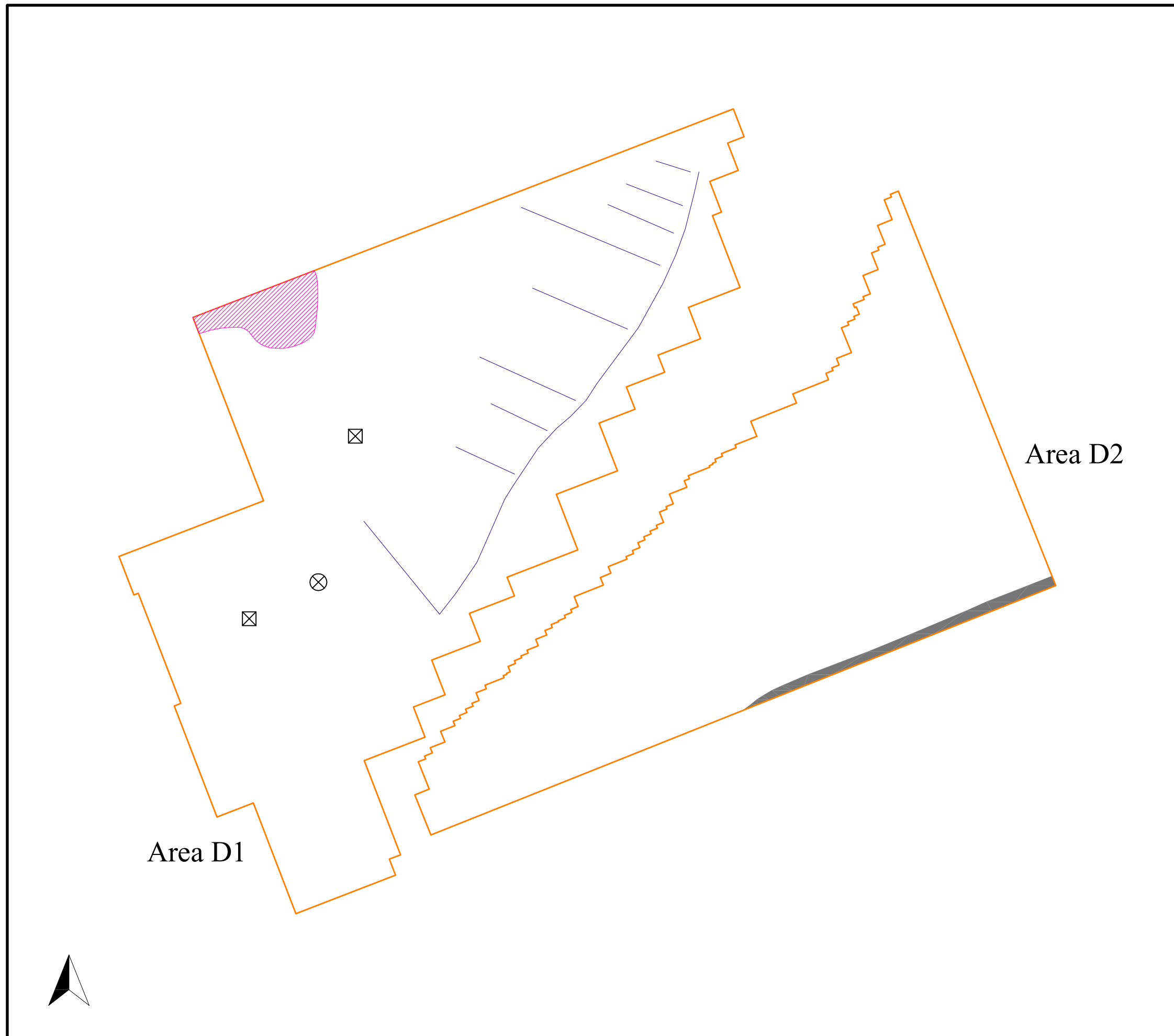
Areas D1 and D2, archaeological interpretation

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0 50m

scale 1:1000 - for A3 plot

-  outline of survey area
-  soil-filled features
-  possible land drains
-  area of burning
-  asphalt path
-  telegraph poles
-  trough



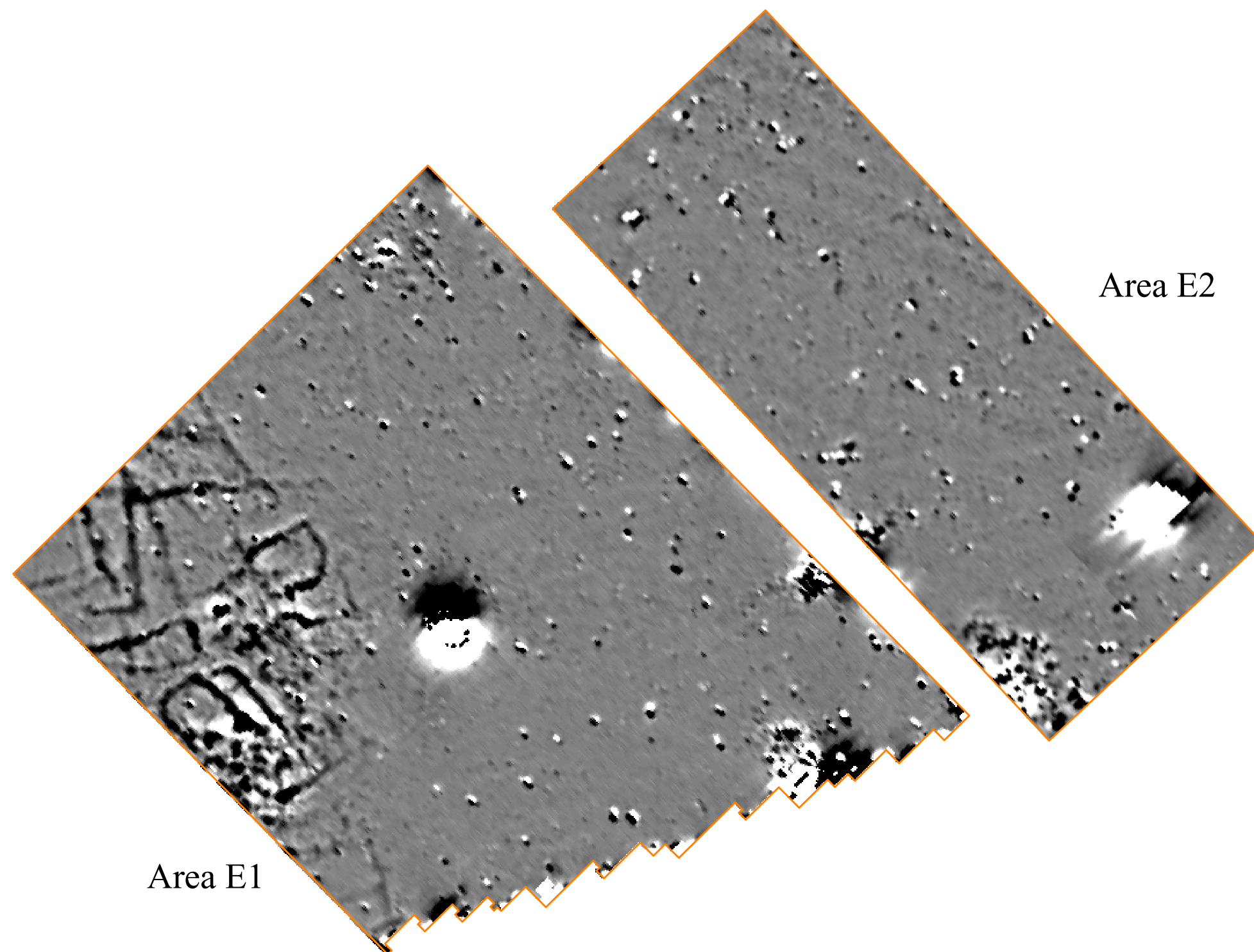
Land east of Swindon, Wiltshire

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Figure 11

Areas E1 and E2, geophysical surveys

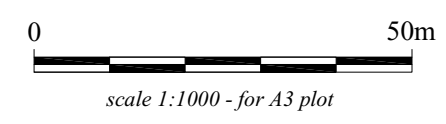



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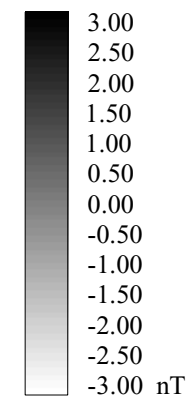
Area E1



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 outline of survey area



Land east of Swindon, Wiltshire

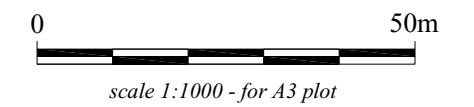
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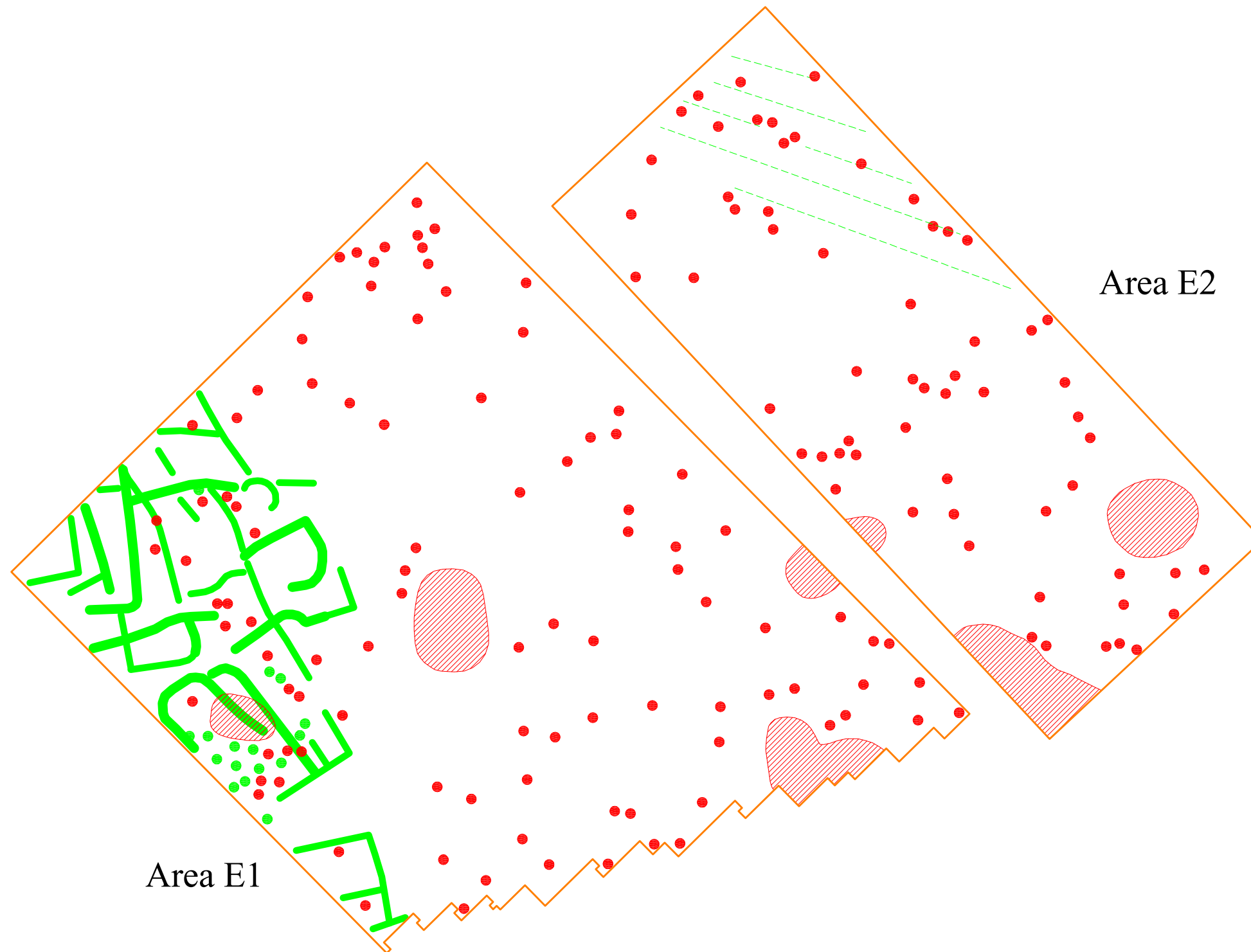
Figure 12

Areas E1 and E2, geophysical interpretations

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-  outline of survey area
-  positive magnetic anomalies
-  dipolar magnetic anomalies



Land east of Swindon, Wiltshire

geophysical surveys






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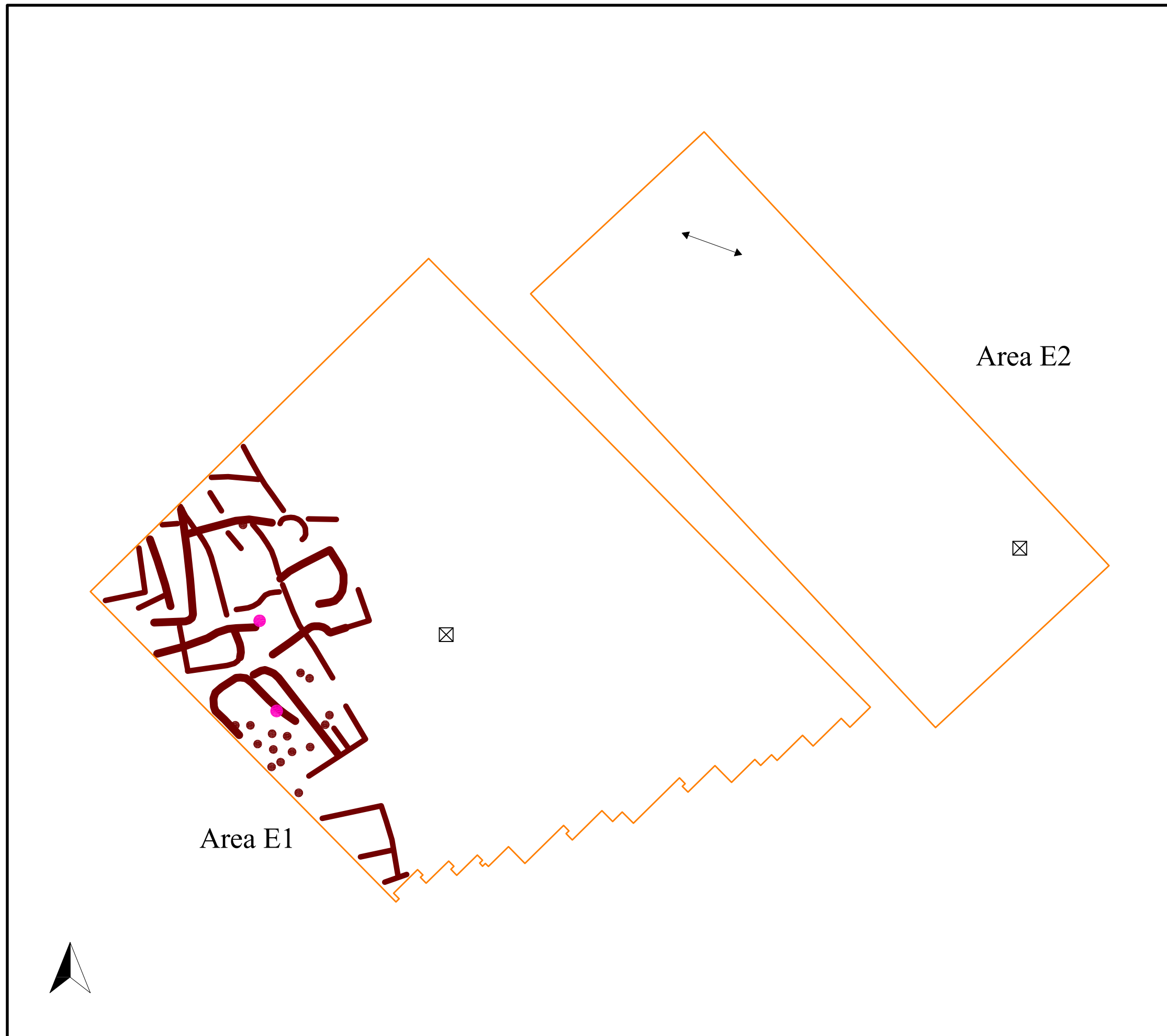
Figure 13

Areas E1 and E2, archaeological interpretations

on behalf of
CgMs Consulting

0 50m
scale 1:1000 - for A3 plot

-  outline of survey area
-  soil-filled features
-  orientation of ridge and furrow
-  possible kiln/hearth
-  trough



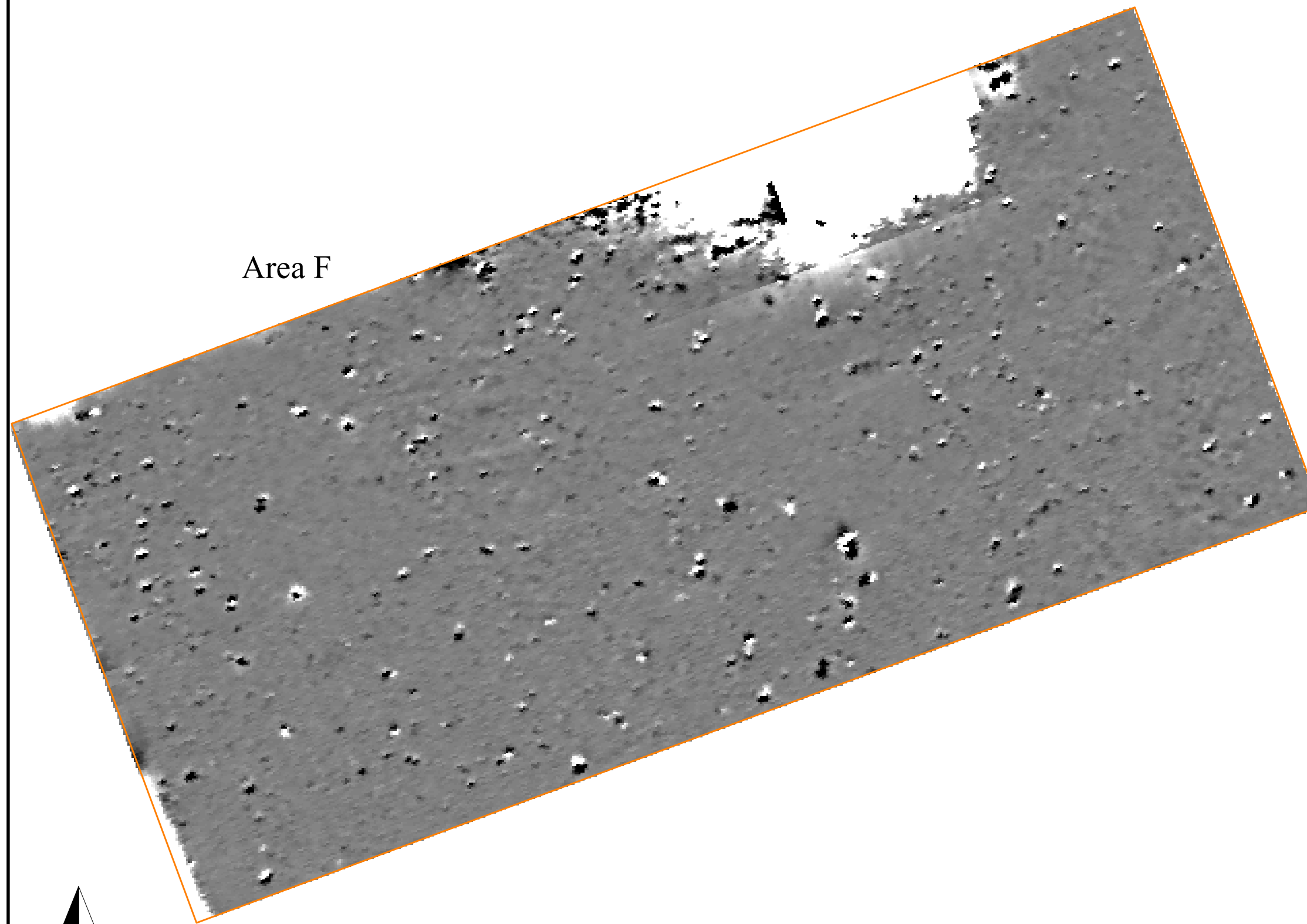
Land east of Swindon, Wiltshire

geophysical surveys

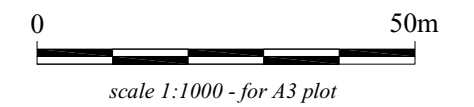
Report 1551


Figure 14

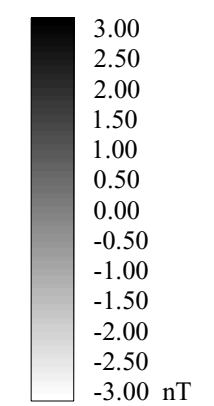
Area F, geophysical survey



on behalf of
CgMs Consulting



 outline of survey area



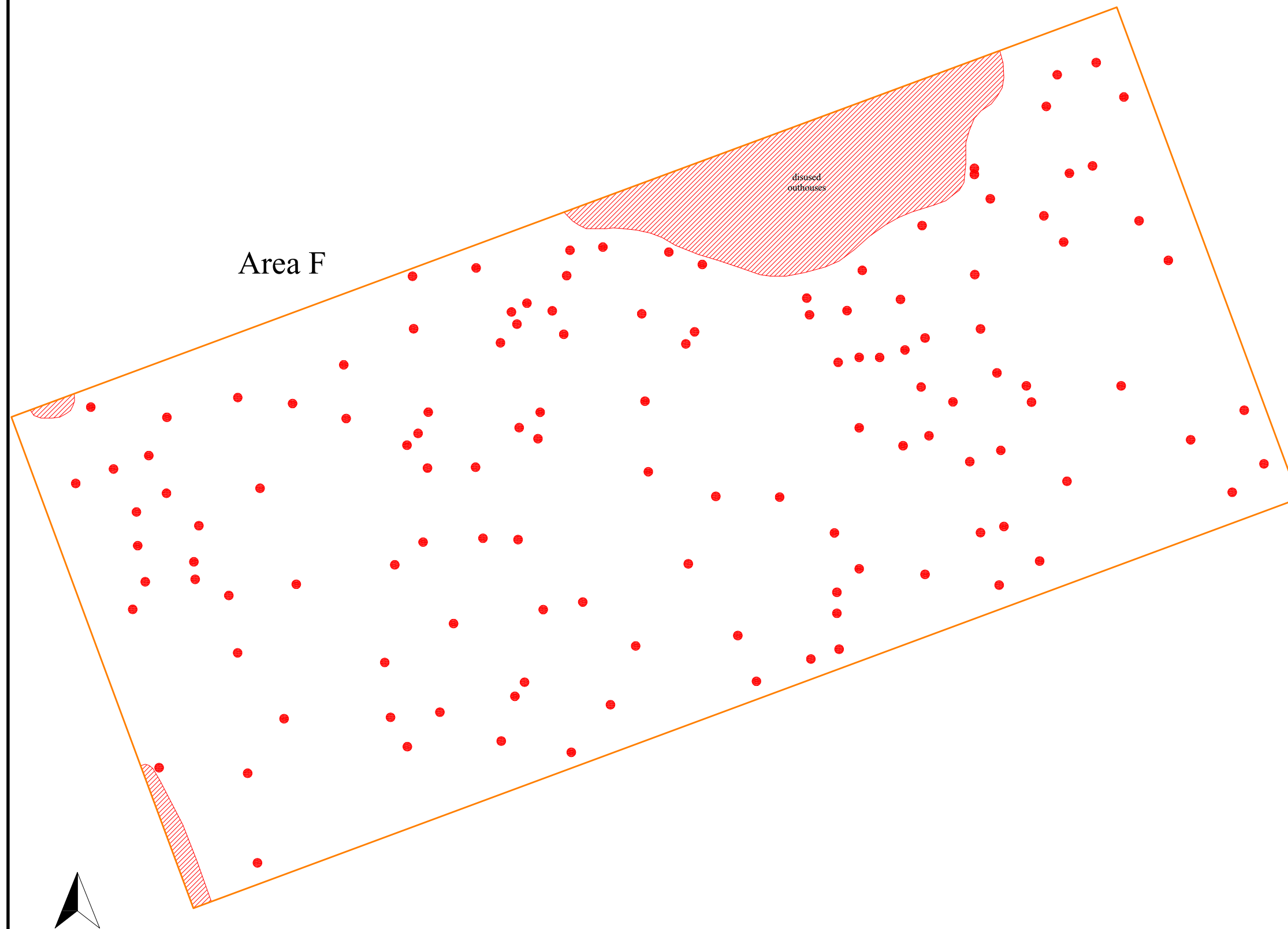
Land east of Swindon, Wiltshire

geophysical surveys

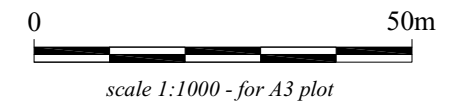
Report 1551



Figure 15

Area F, geophysical interpretation



on behalf of
CgMs Consulting



-  outline of survey area
-  dipolar magnetic anomalies

Land east of Swindon, Wiltshire

geophysical surveys


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Figure 16

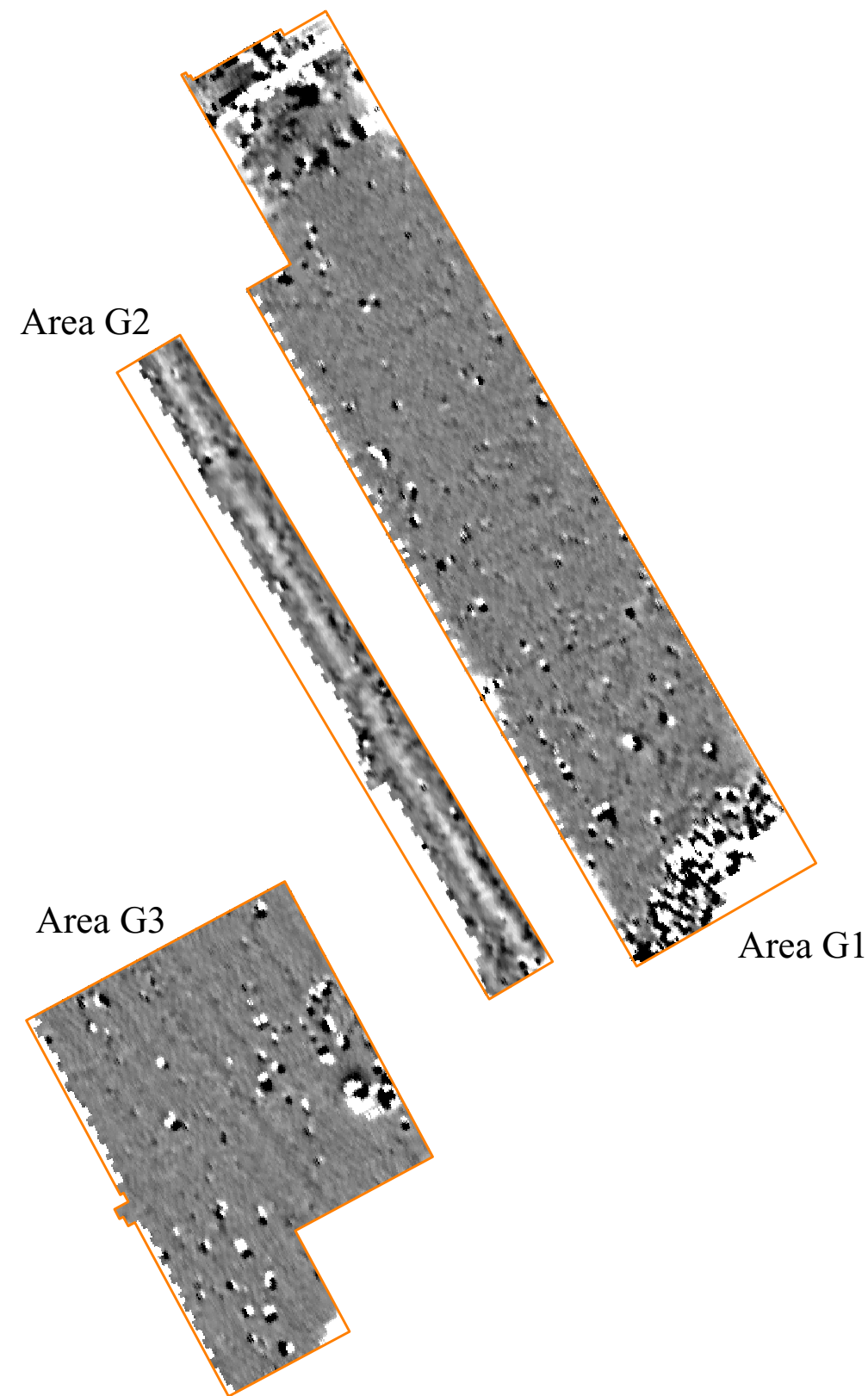
Areas G1, G2 and G3, geophysical surveys

on behalf of
CgMs Consulting

0 50m
scale 1:1250 - for A3 plot

 outline of survey area

3.00
2.50
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
-1.50
-2.00
-2.50
-3.00 nT



Land east of Swindon, Wiltshire

geophysical surveys





Report 1551

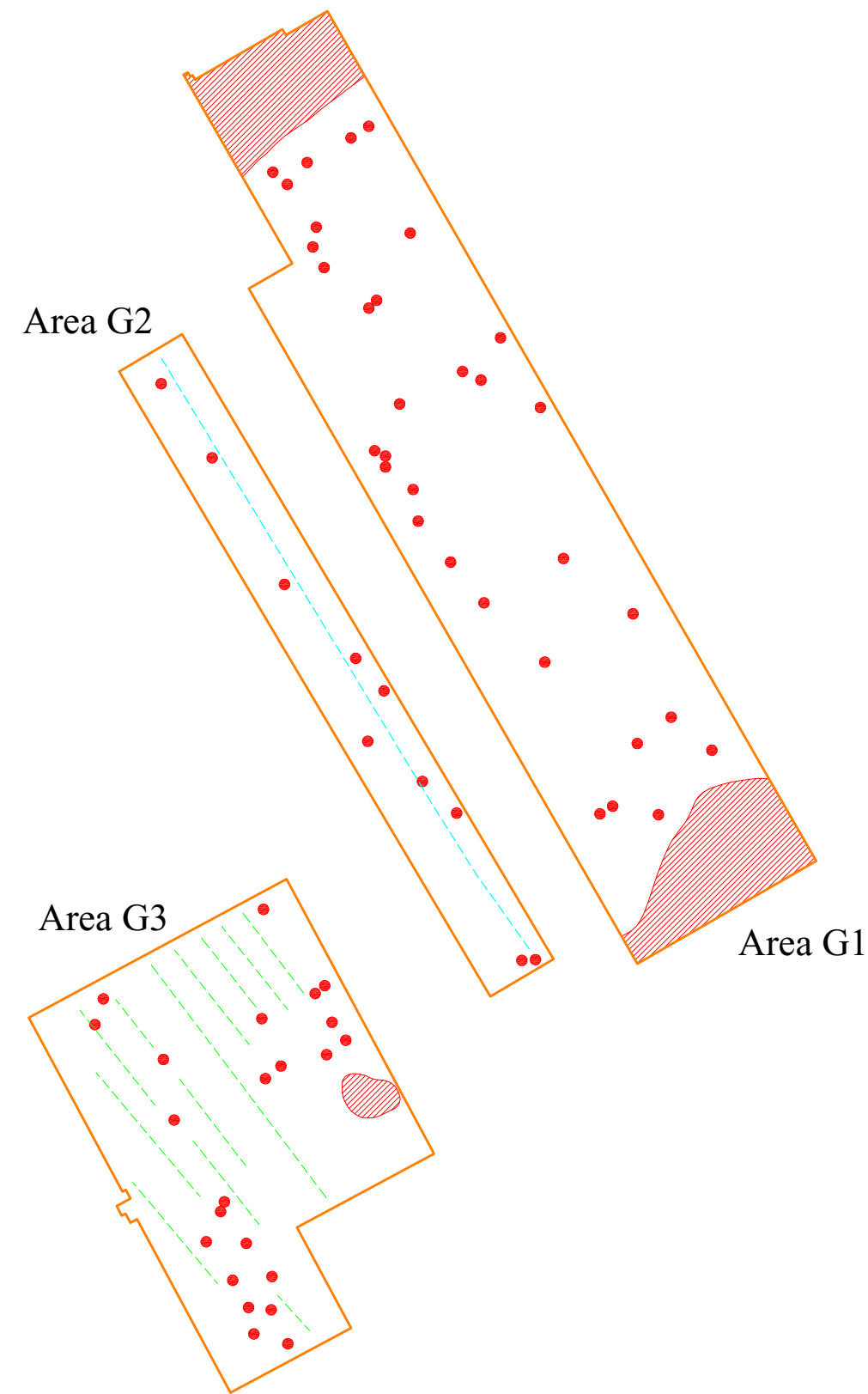
Figure 17

Areas G1, G2 and G3, geophysical interpretations

on behalf of
CgMs Consulting

0 50m
scale 1:1250 - for A3 plot

-  outline of survey area
-  positive magnetic anomalies
-  negative magnetic anomalies
-  dipolar magnetic anomalies



Land east of Swindon, Wiltshire

geophysical surveys





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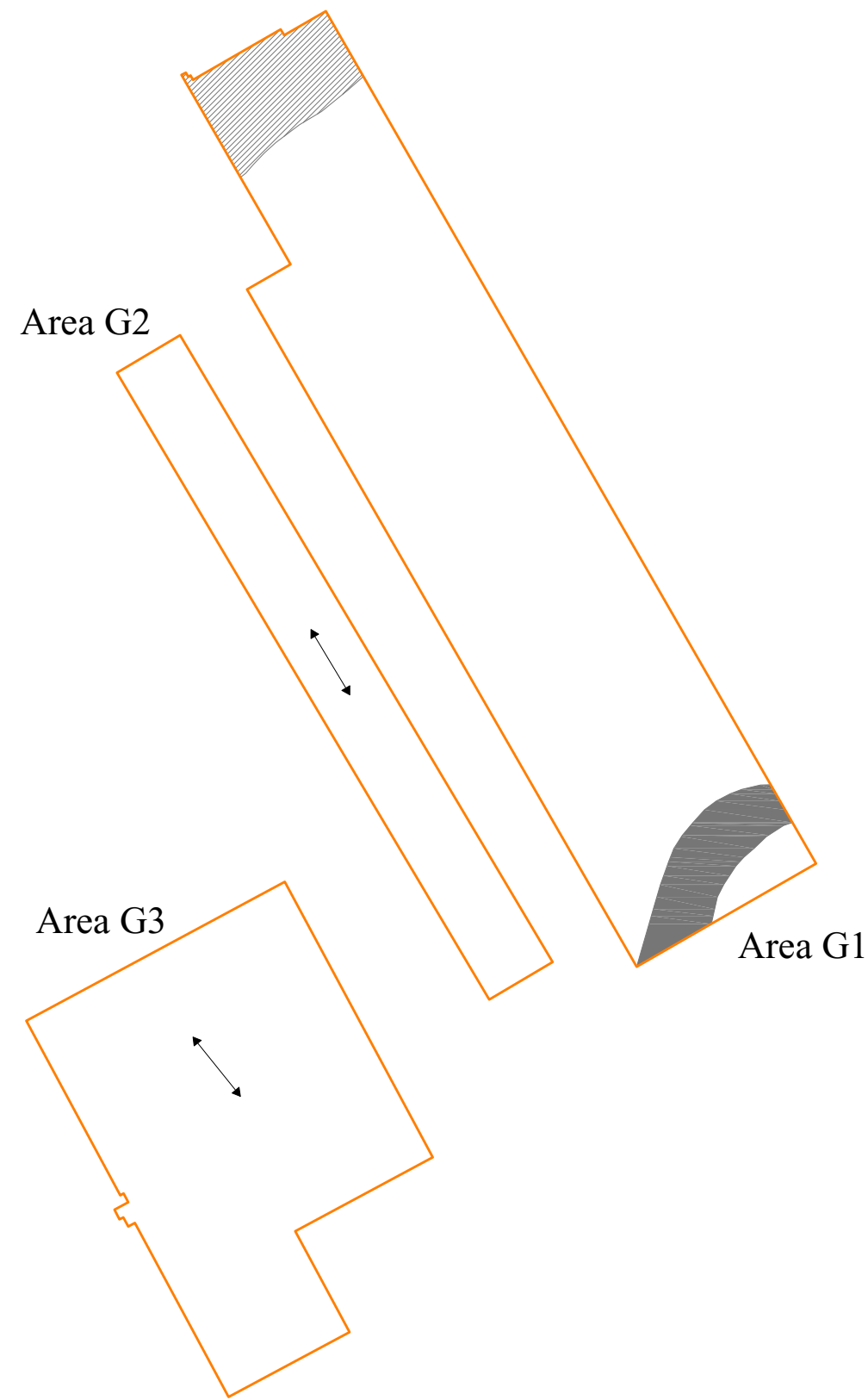
Figure 18

Areas G1, G2 and G3, archaeological interpretations

on behalf of
CgMs Consulting

0 50m
scale 1:1250 - for A3 plot

-  outline of survey area
-  orientation of ridge and furrow
-  track
-  disturbed ground



Land east of Swindon, Wiltshire

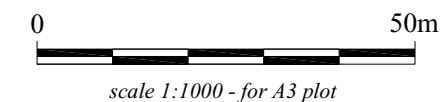
geophysical surveys


Report 1551

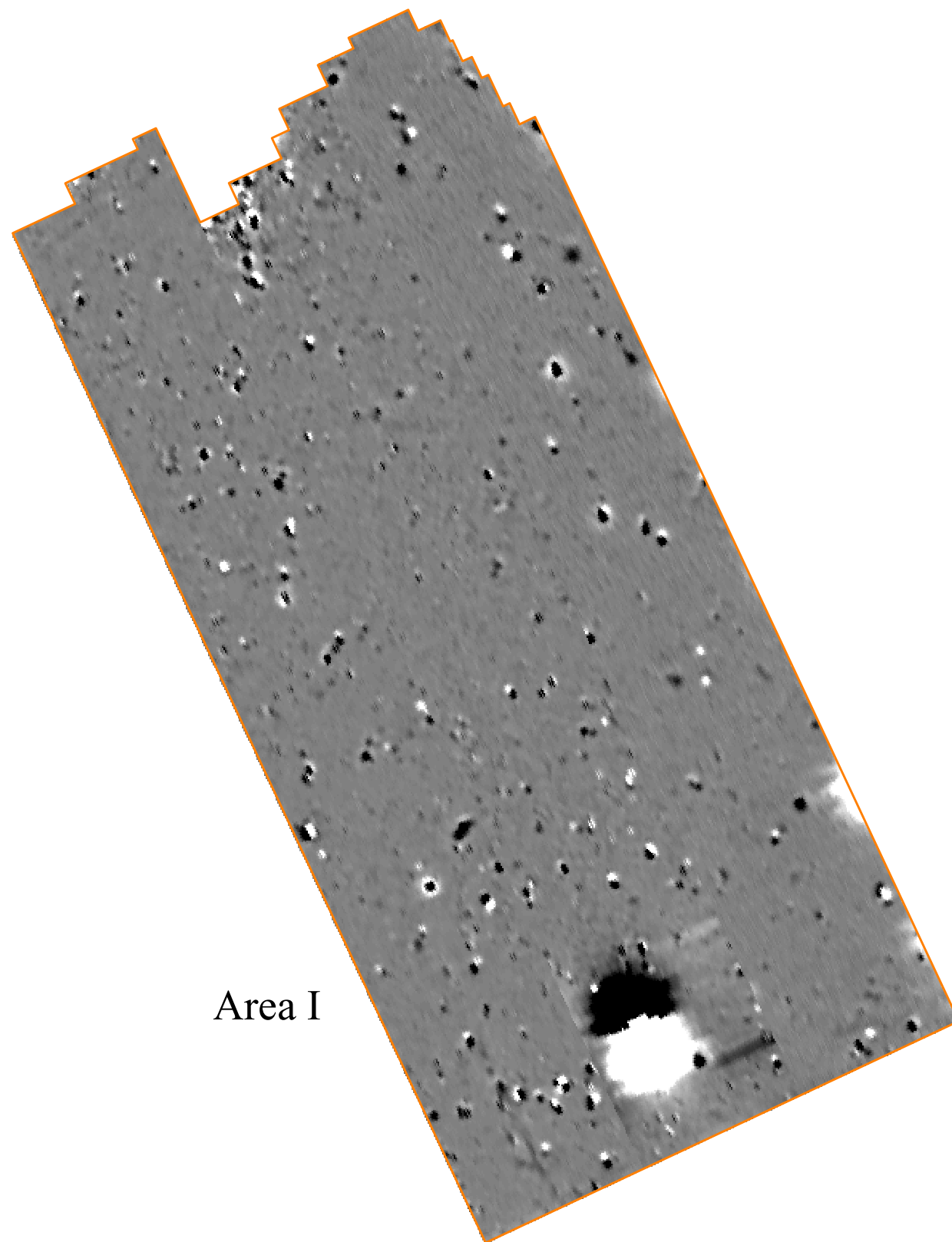
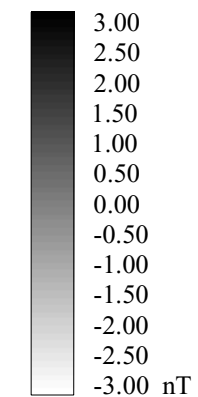
Figure 19

Area I, geophysical survey

on behalf of
CgMs Consulting



 outline of survey area



Land east of Swindon, Wiltshire

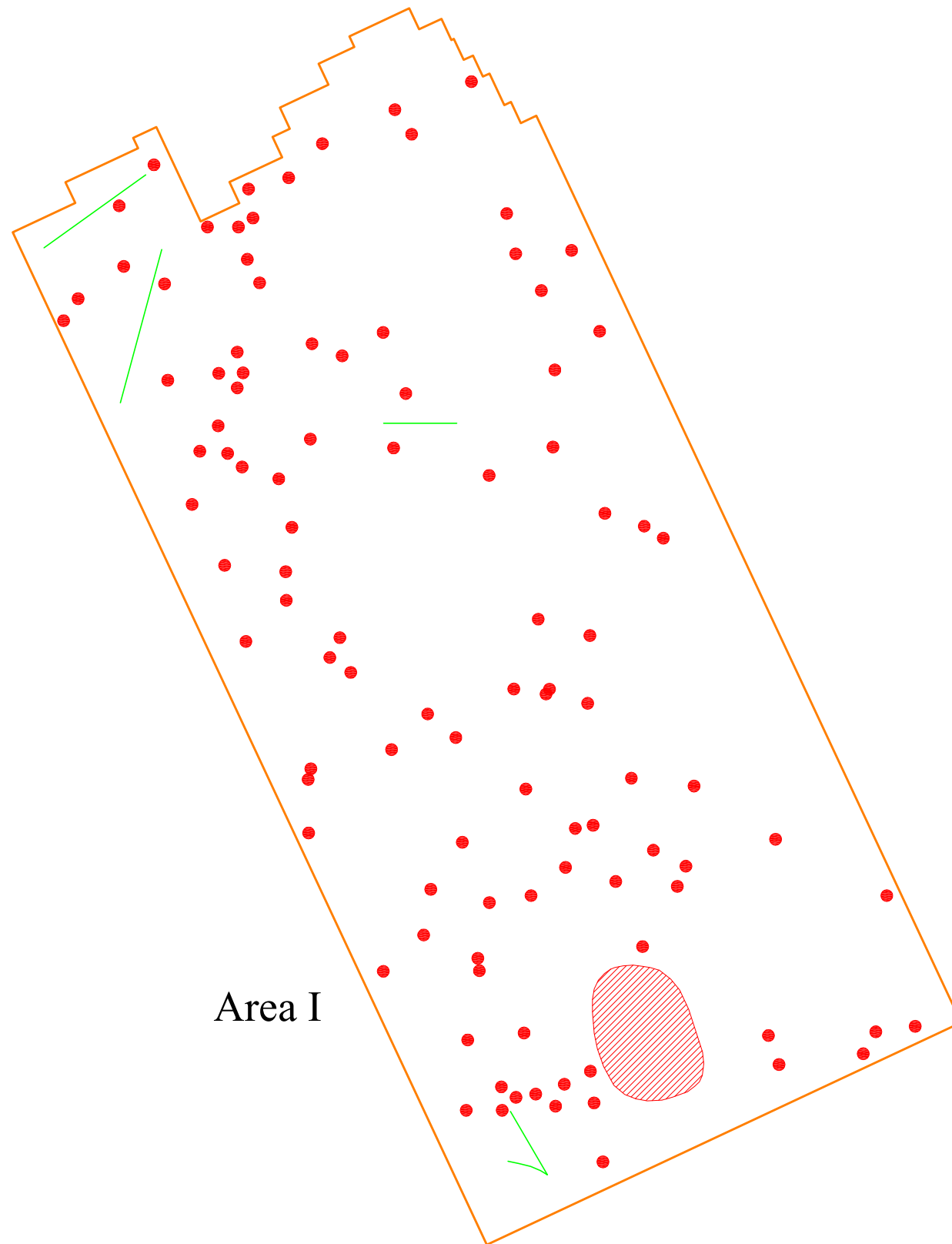
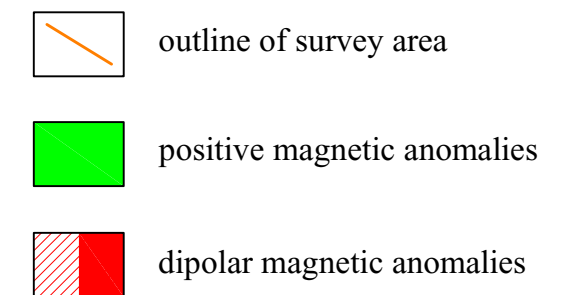
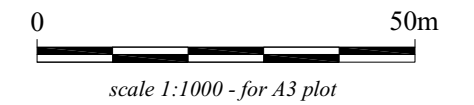
geophysical surveys

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Figure 20

Area I, geophysical interpretation

on behalf of
CgMs Consulting



Land east of Swindon, Wiltshire


geophysical surveys




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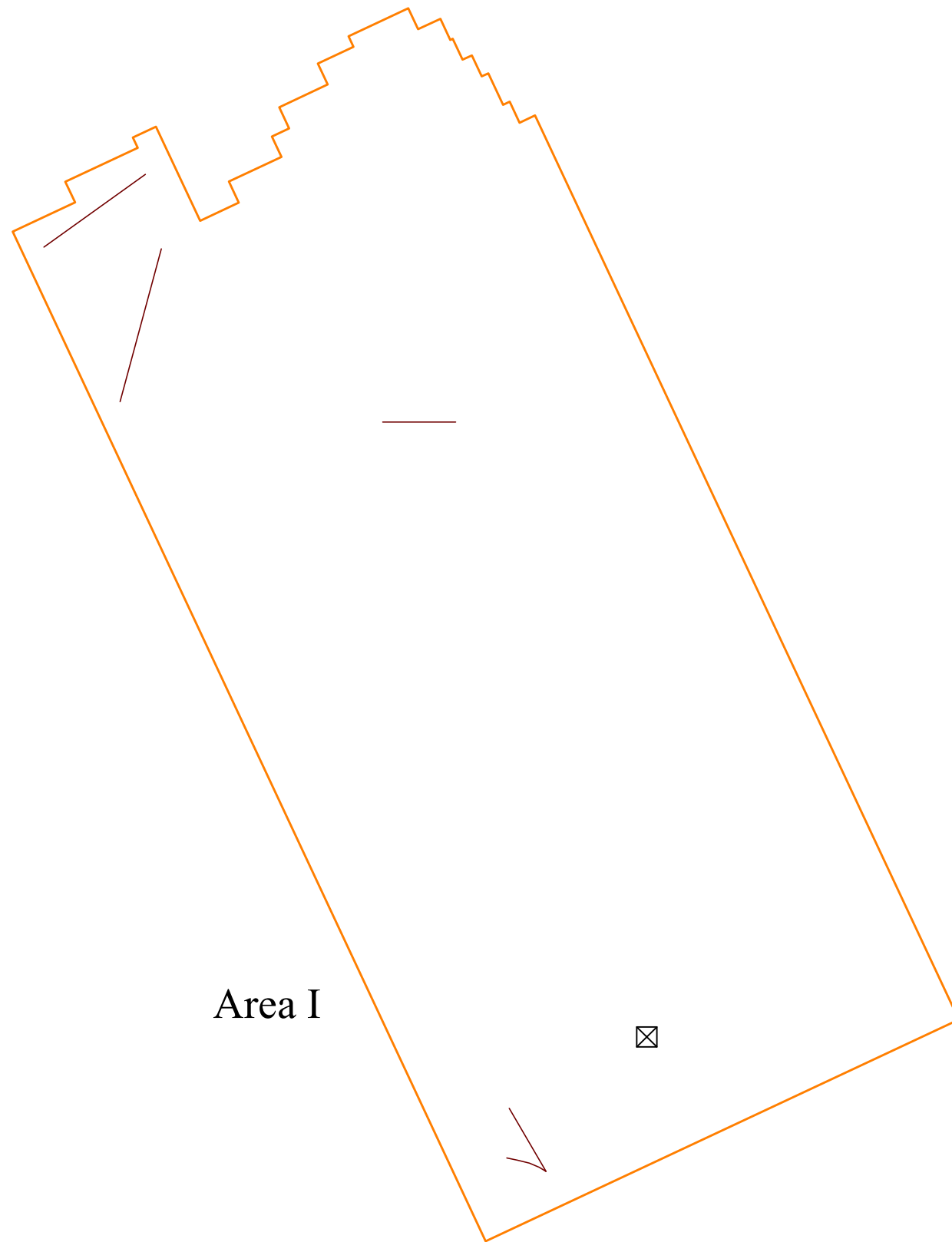
Figure 21

Area I, archaeological interpretation

on behalf of
CgMs Consulting

0 50m

scale 1:1000 - for A3 plot

-  outline of survey area
-  possible soil-filled features
-  trough



Land east of Swindon, Wiltshire

geophysical surveys


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Figure 22

Area J, geophysical survey

on behalf of
CgMs Consulting

0 50m
scale 1:1250 - for A3 plot

 outline of survey area

3.00
2.50
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
-1.50
-2.00
-2.50
-3.00 nT



Area J



Land east of Swindon, Wiltshire

geophysical surveys




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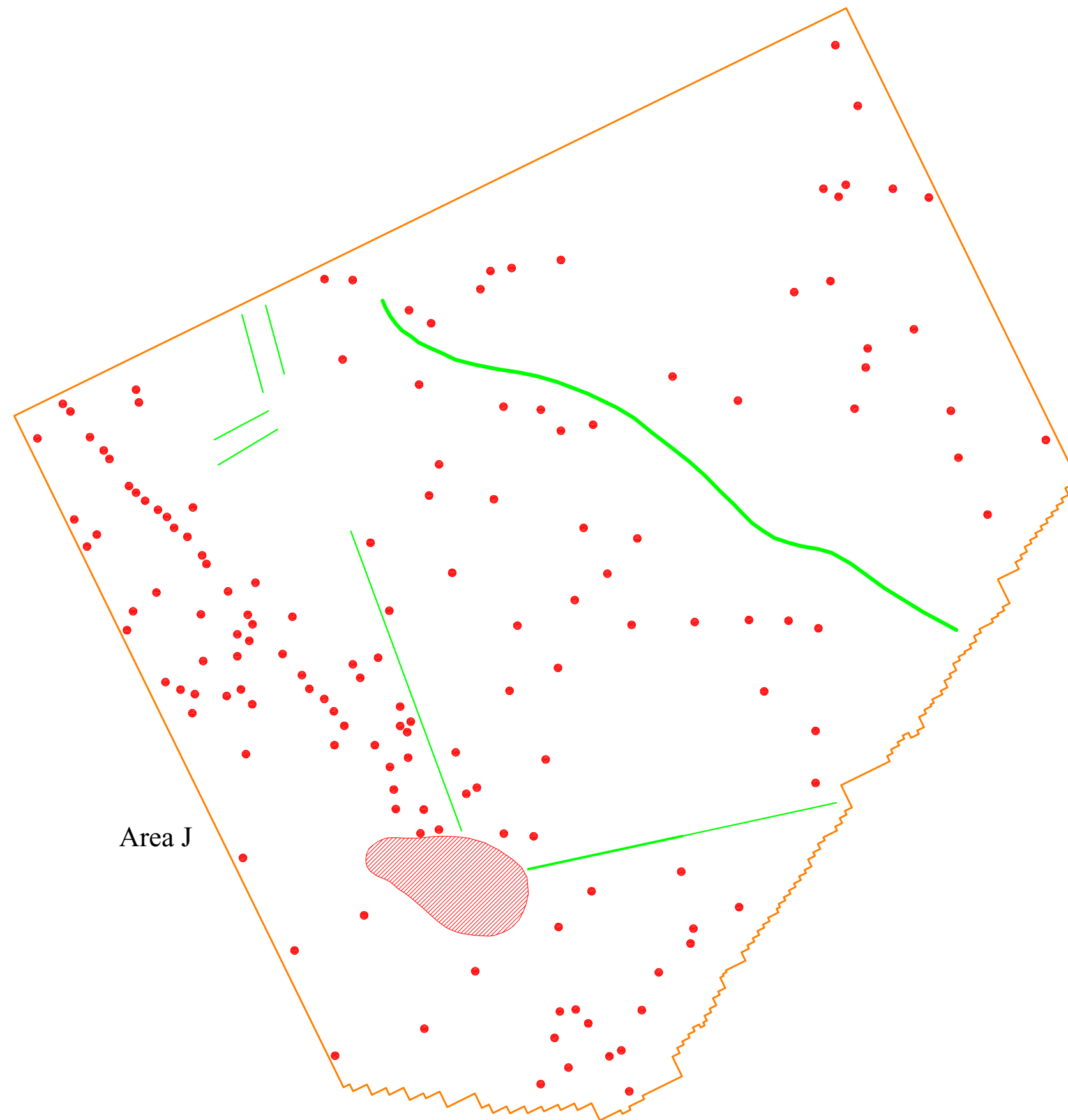
Figure 23

Area J, geophysical interpretation

on behalf of
CgMs Consulting

0 50m
scale 1:1250 - for A3 plot

-  outline of survey area
-  positive magnetic anomalies
-  dipolar magnetic anomalies



Land east of Swindon, Wiltshire

geophysical surveys




Report 1551

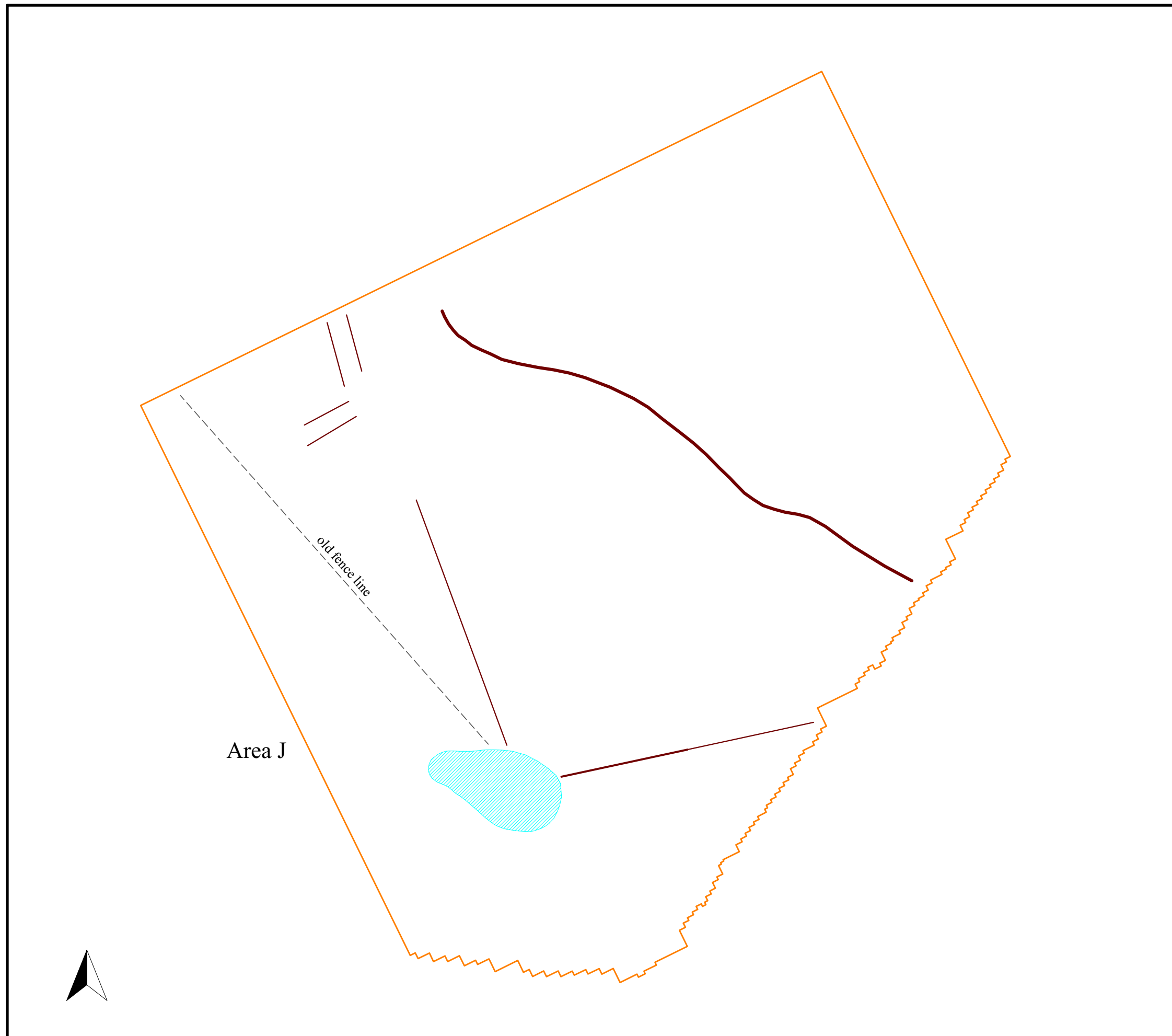
Figure 24

Area J, archaeological interpretation

on behalf of
CgMs Consulting

0 50m
scale 1:1250 - for A3 plot

-  outline of survey area
-  soil-filled features
-  pond



Land east of Swindon, Wiltshire

geophysical surveys

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Figure 25

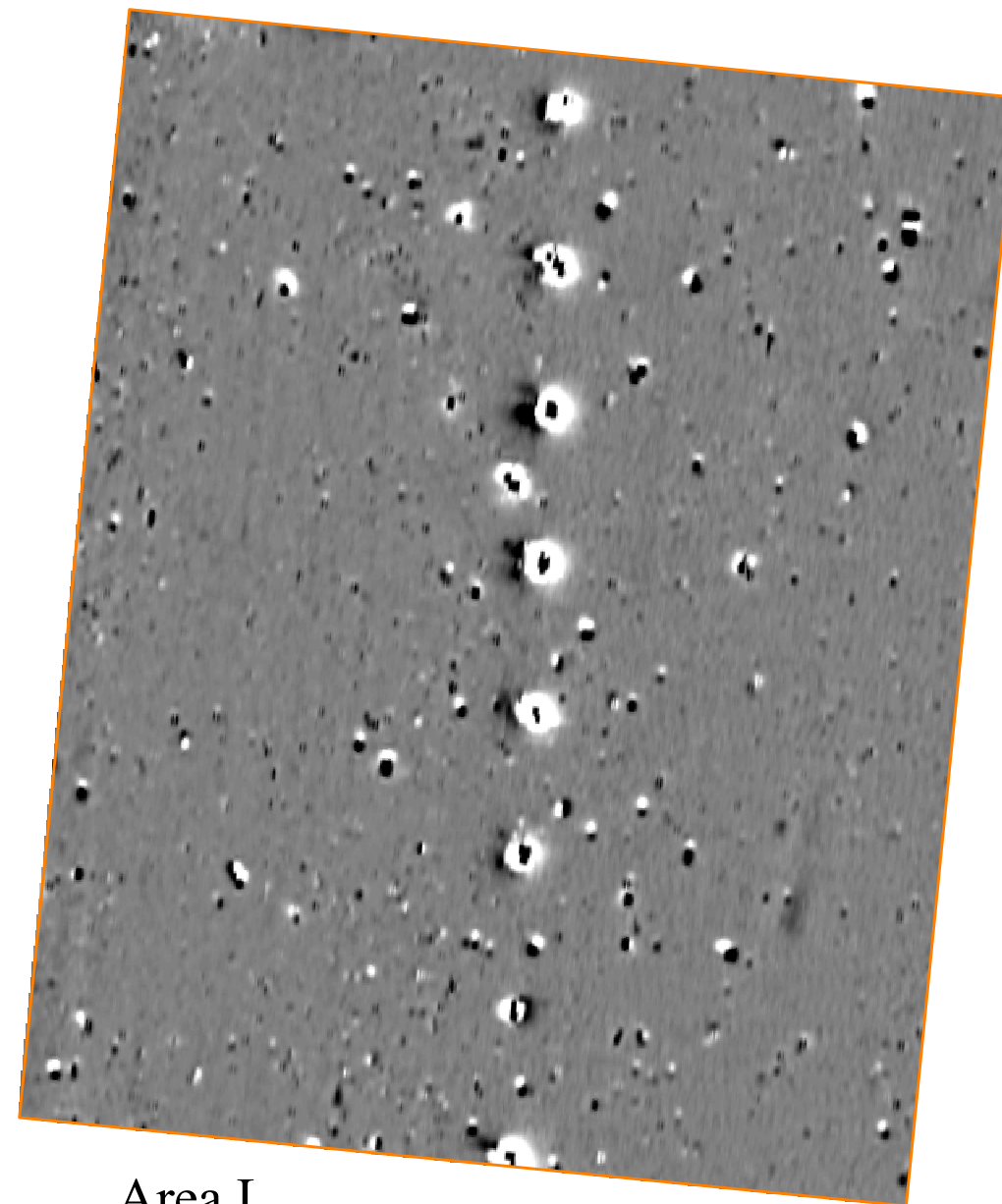
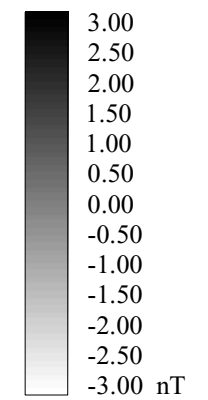
Area L, geophysical survey

on behalf of
CgMs Consulting

0 50m

scale 1:1000 - for A3 plot

 outline of survey area



Area L



Land east of Swindon, Wiltshire

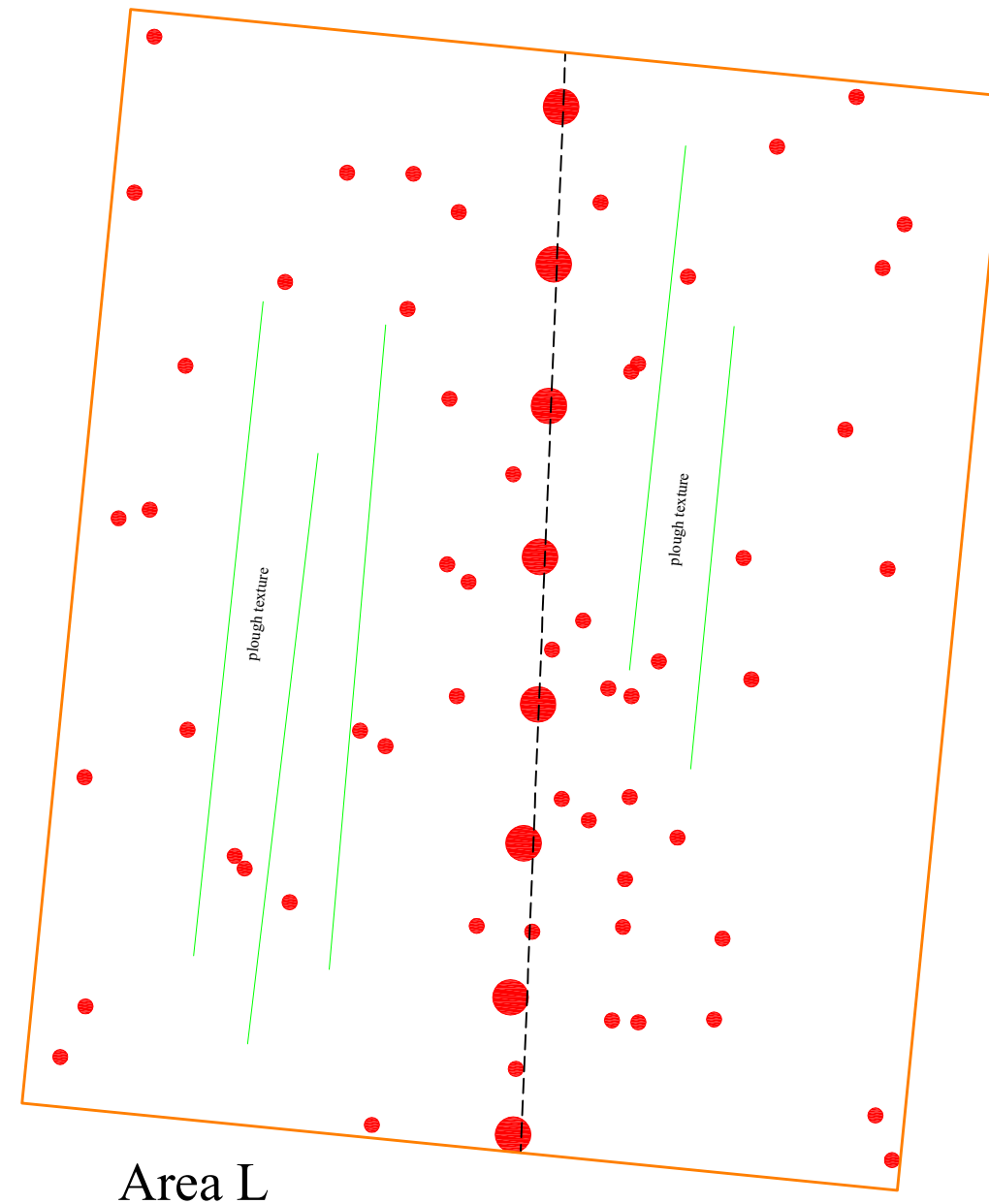
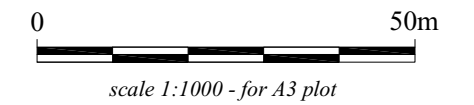
geophysical surveys





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Figure 26

Area L, geophysical interpretation

on behalf of
CgMs Consulting



-  outline of survey area
-  positive magnetic anomalies
-  dipolar magnetic anomalies
-  line of electric fence



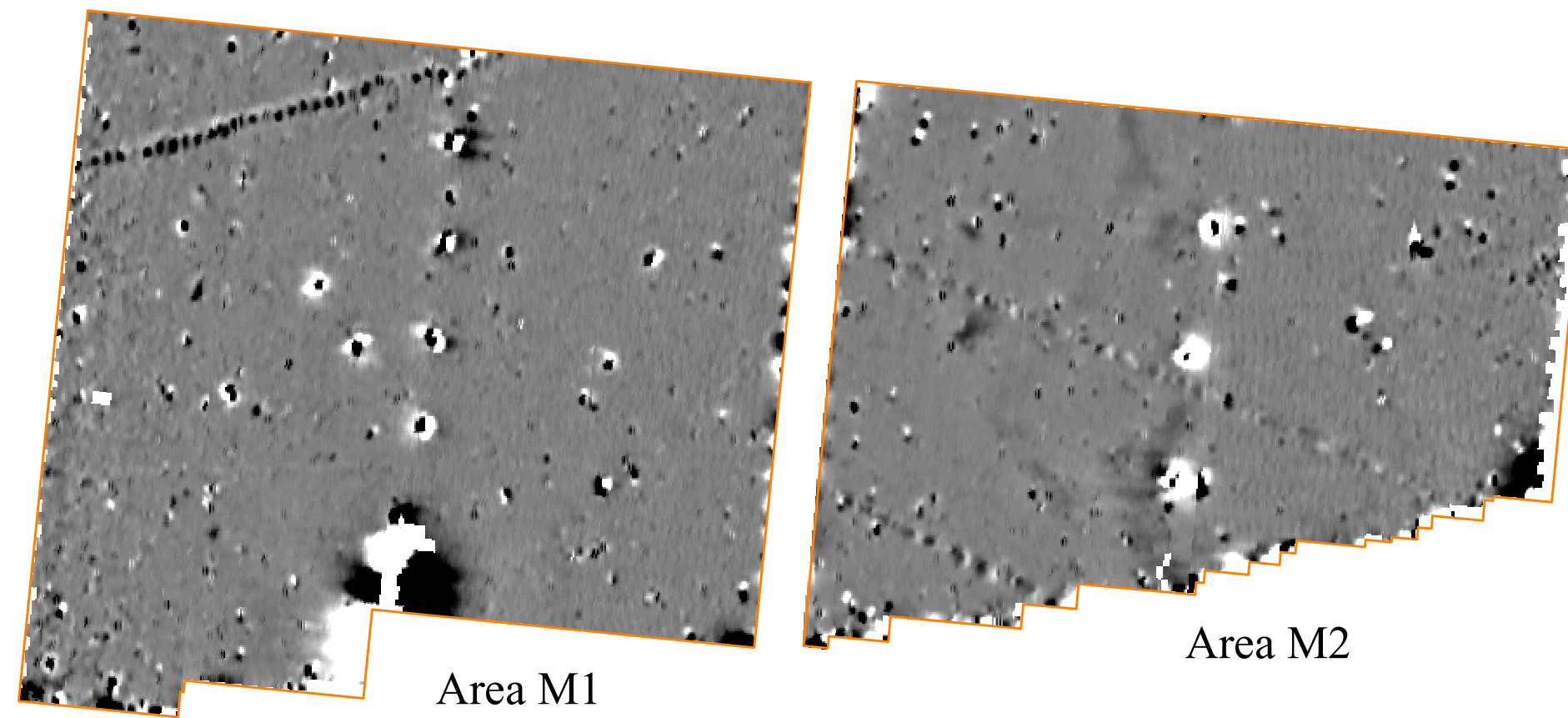
Land east of Swindon, Wiltshire

geophysical surveys

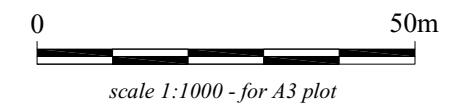
Report 1551


Figure 27

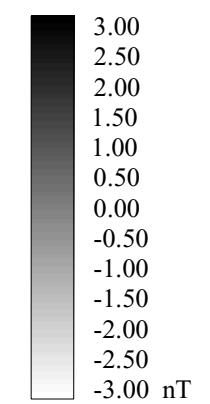
Areas M1 and M2, geophysical surveys



on behalf of
CgMs Consulting



 outline of survey area



Land east of Swindon, Wiltshire

geophysical surveys

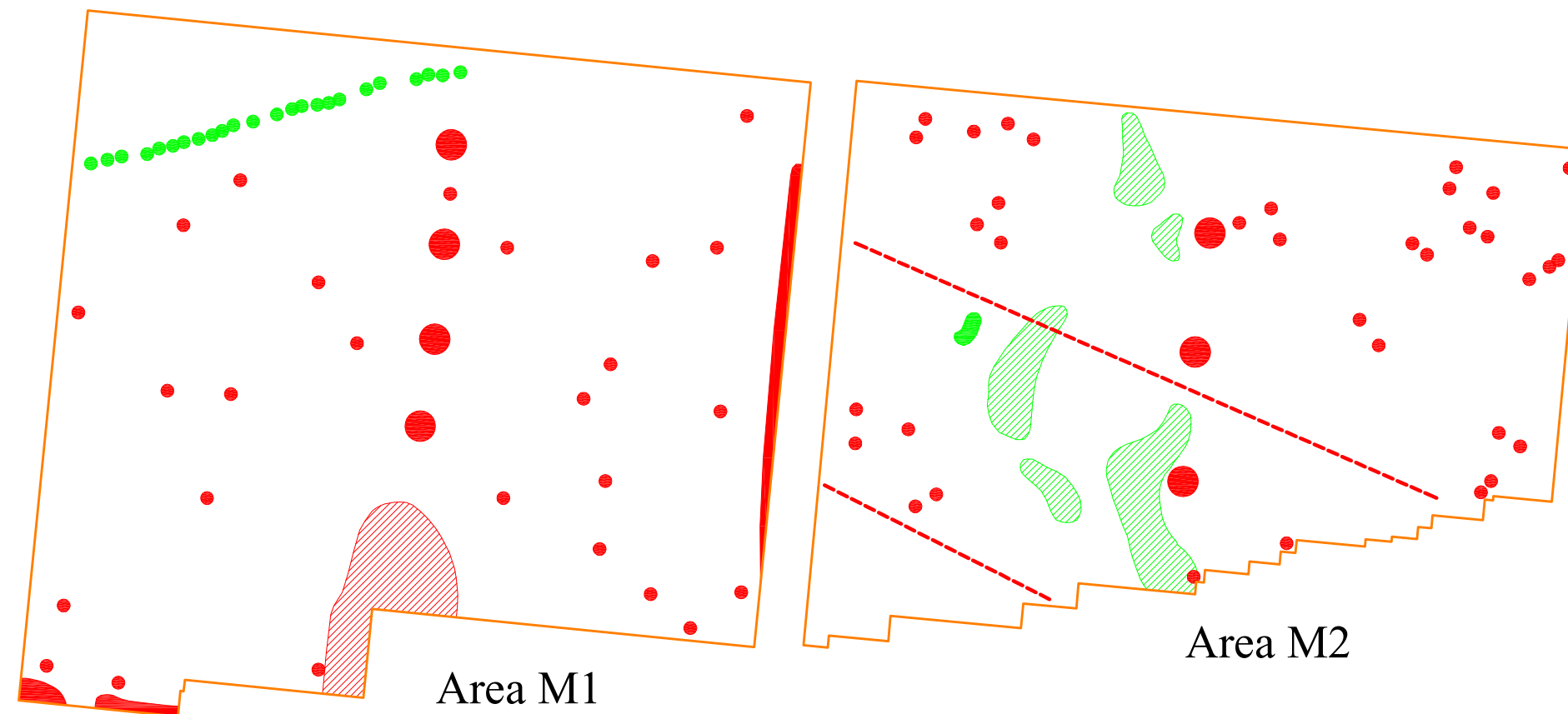
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Figure 28

Areas M1 and M2, geophysical interpretations

on behalf of
CgMs Consulting

0 50m
scale 1:1000 - for A3 plot



-  outline of survey area
-  positive magnetic anomalies
-  dipolar magnetic anomalies

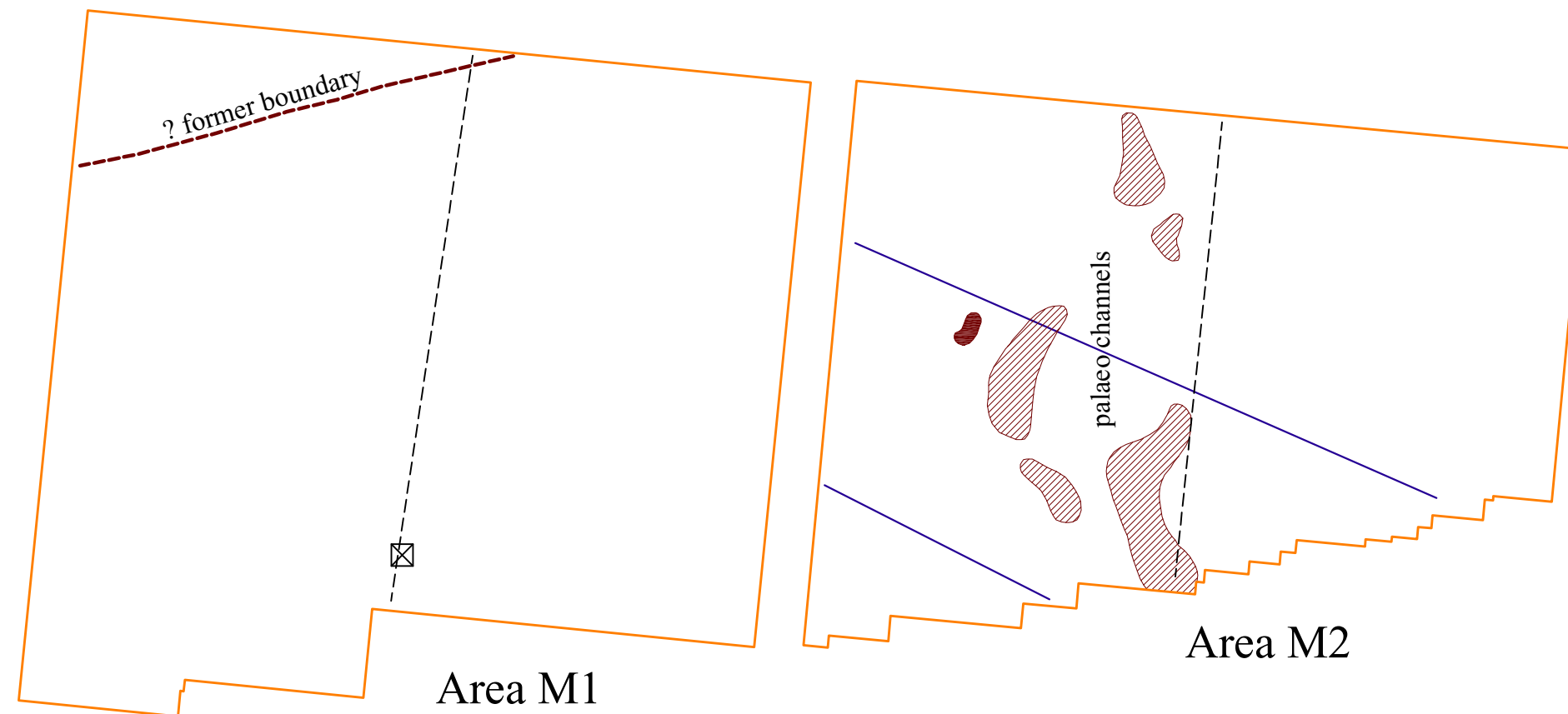
Land east of Swindon, Wiltshire

geophysical surveys

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
Figure 29

Areas M1 and M2, archaeological interpretations



on behalf of
CgMs Consulting

0 50m
scale 1:1000 - for A3 plot

-  outline of survey area
-  soil-filled features
-  land drains
-  trough
-  line of electric fence

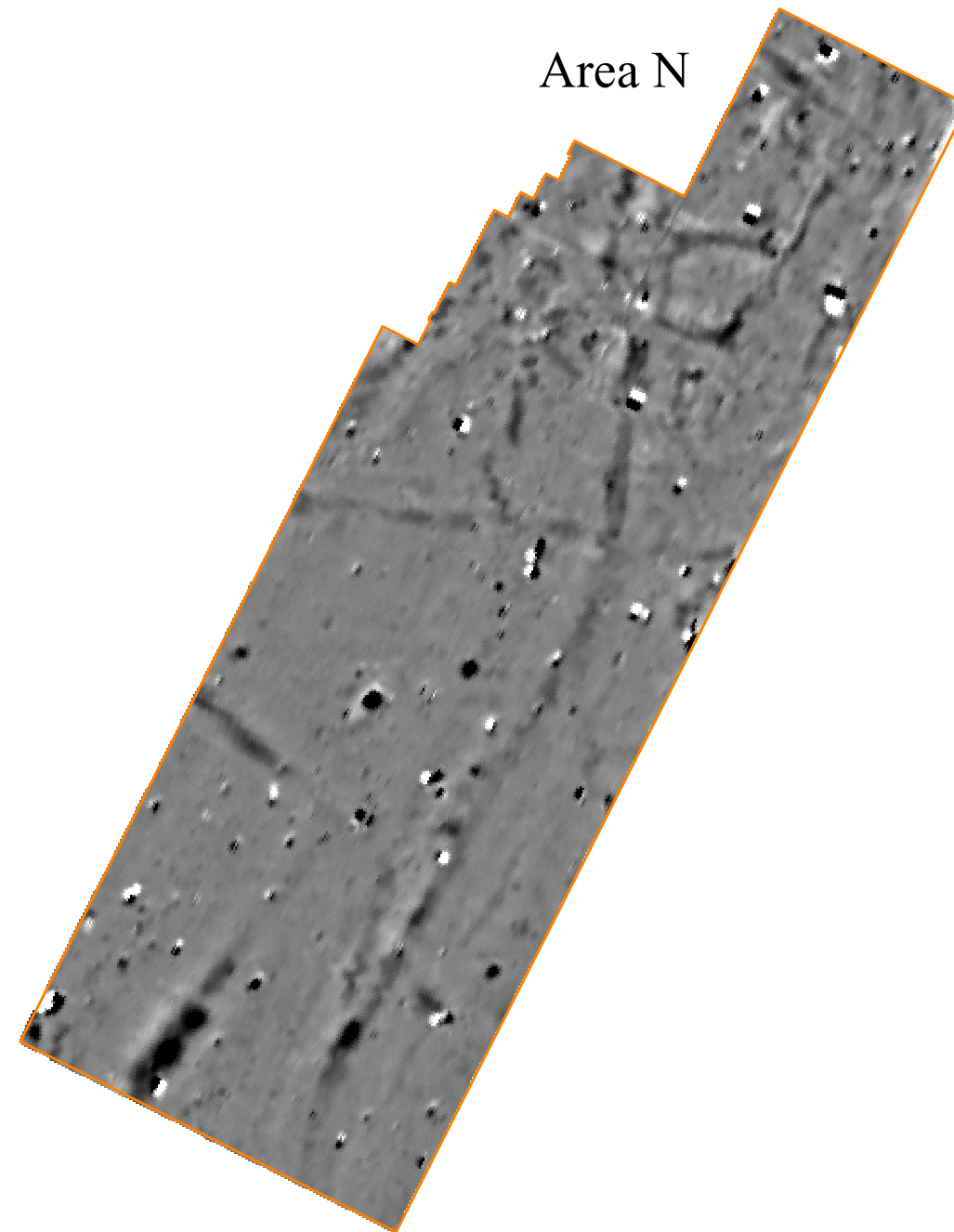
Land east of Swindon, Wiltshire

geophysical surveys

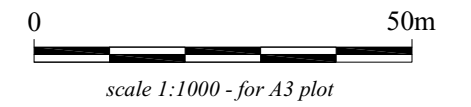
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Figure 30

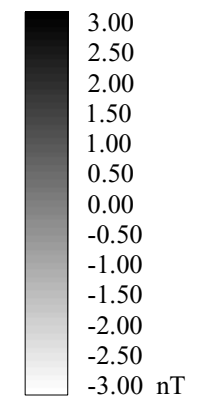
Area N, geophysical survey



on behalf of
CgMs Consulting



 outline of survey area



Land east of Swindon, Wiltshire

geophysical surveys




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Figure 31

Area N, geophysical interpretation

on behalf of
CgMs Consulting

0 50m
scale 1:1000 - for A3 plot

-  outline of survey area
-  positive magnetic anomalies
-  dipolar magnetic anomalies



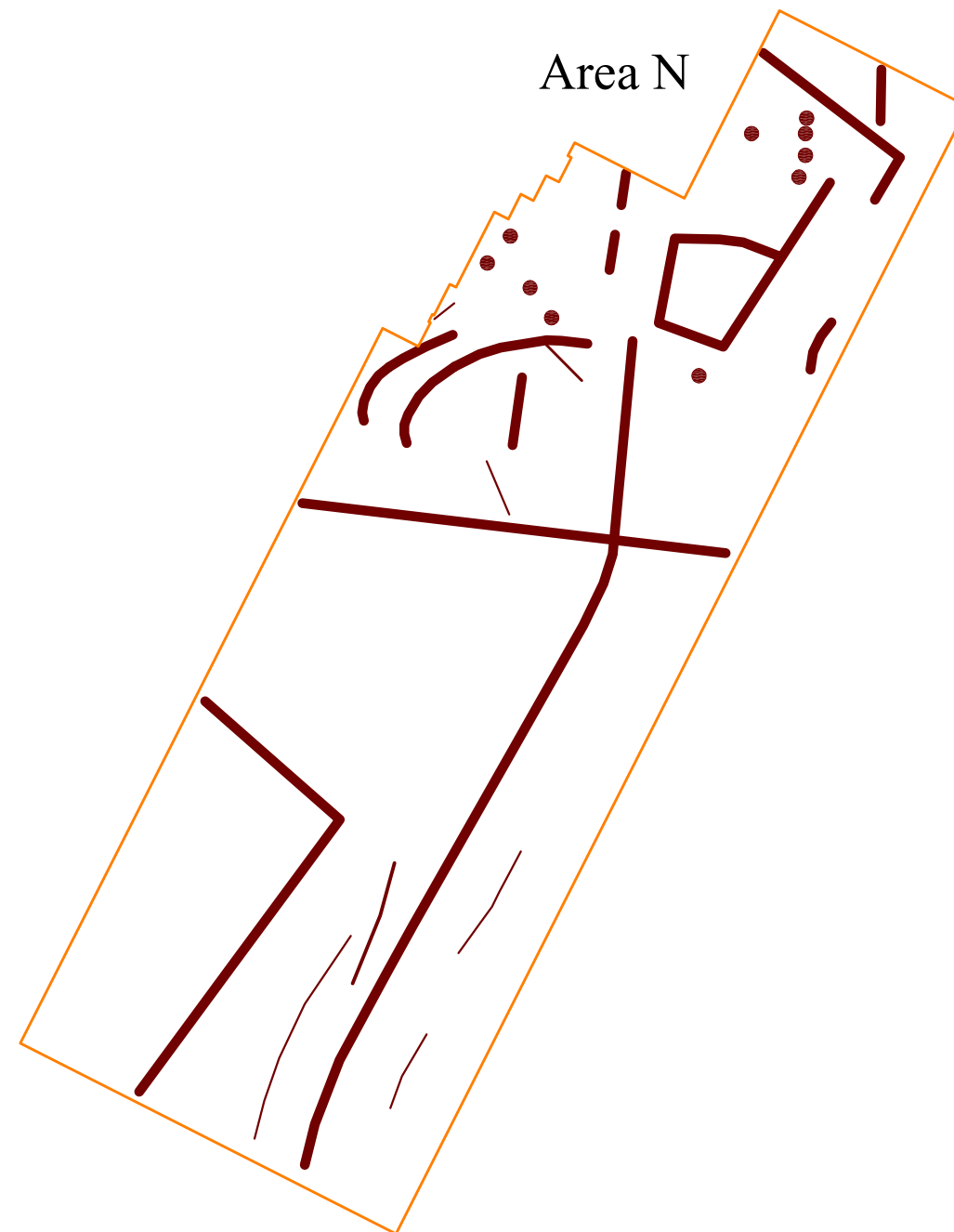
Land east of Swindon, Wiltshire

geophysical surveys

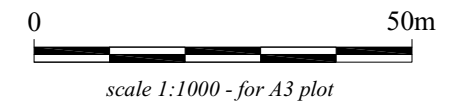
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Figure 32

Area N, archaeological interpretation



on behalf of
CgMs Consulting



-  outline of survey area
-  soil-filled features



Land east of Swindon, Wiltshire

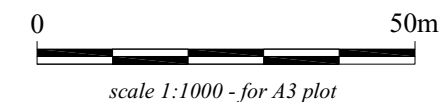
geophysical surveys


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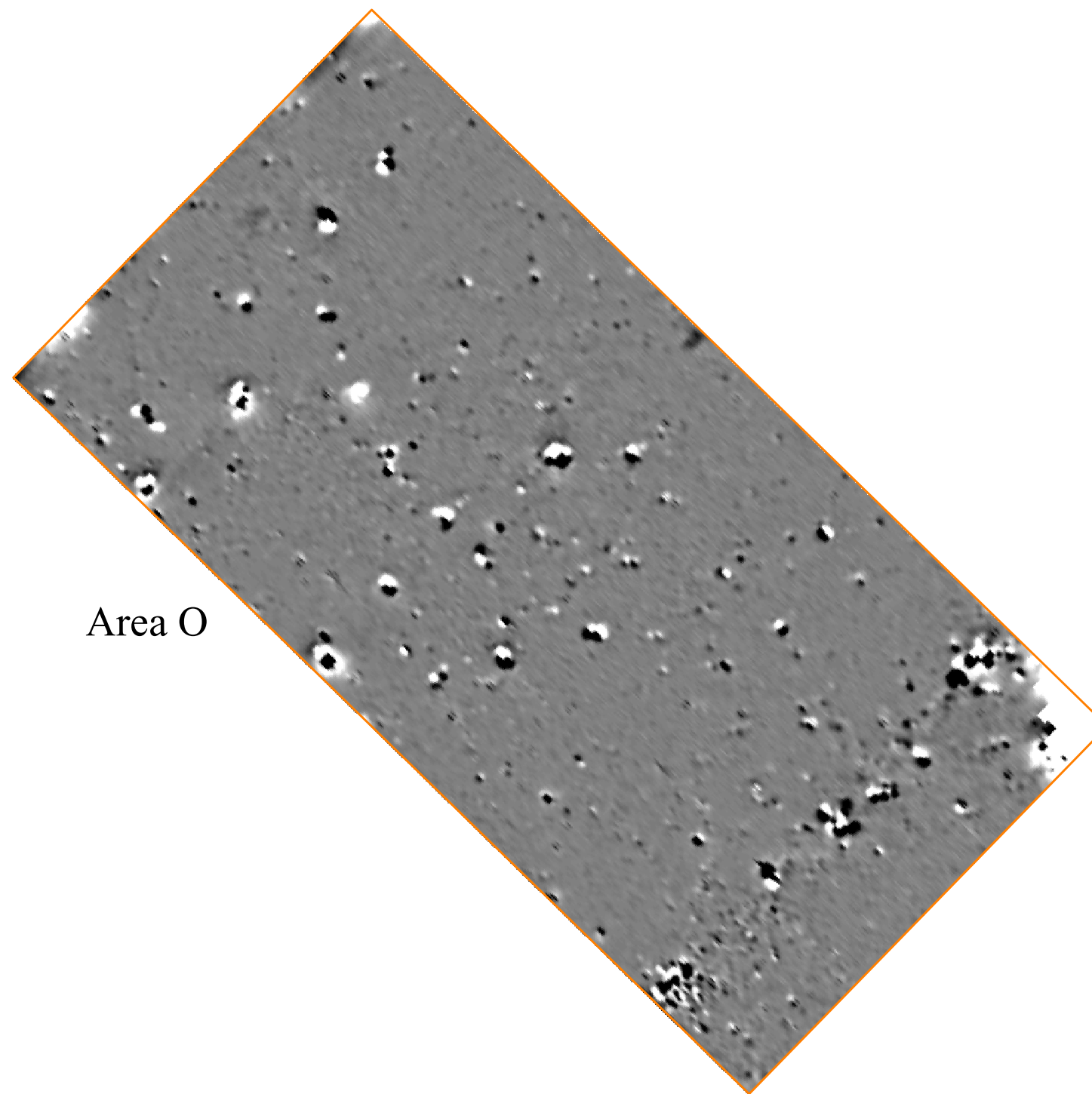
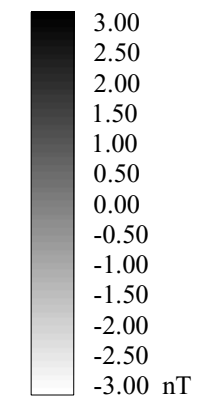
Figure 33

Area O, geophysical survey

on behalf of
CgMs Consulting



 outline of survey area



Land east of Swindon, Wiltshire

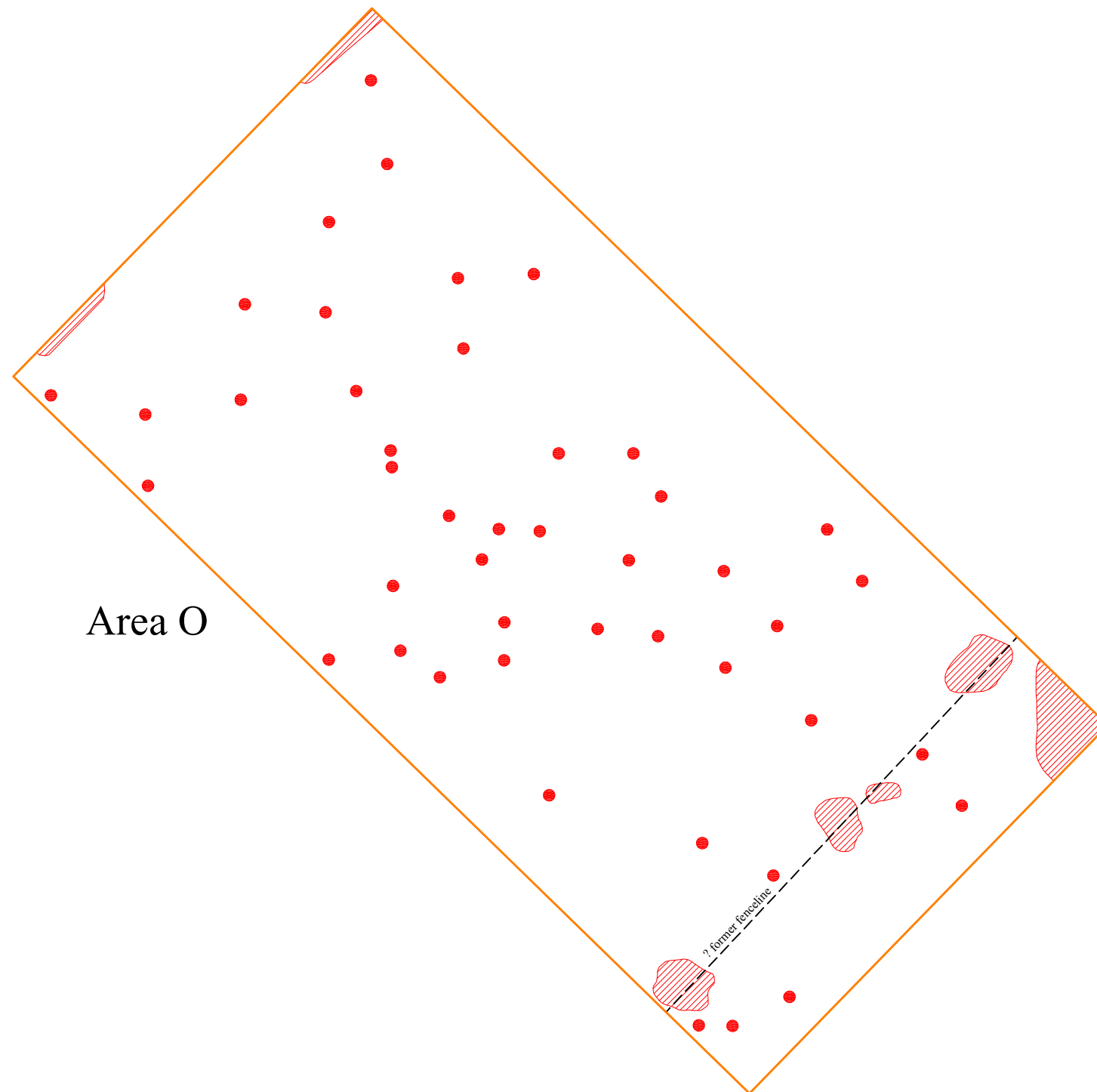
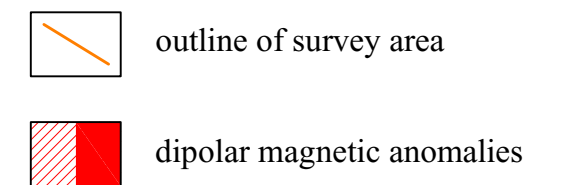
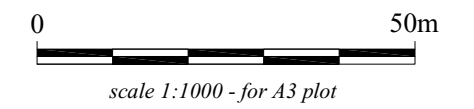
geophysical surveys

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Figure 34

Area O, geophysical interpretation

on behalf of
CgMs Consulting



Land east of Swindon, Wiltshire

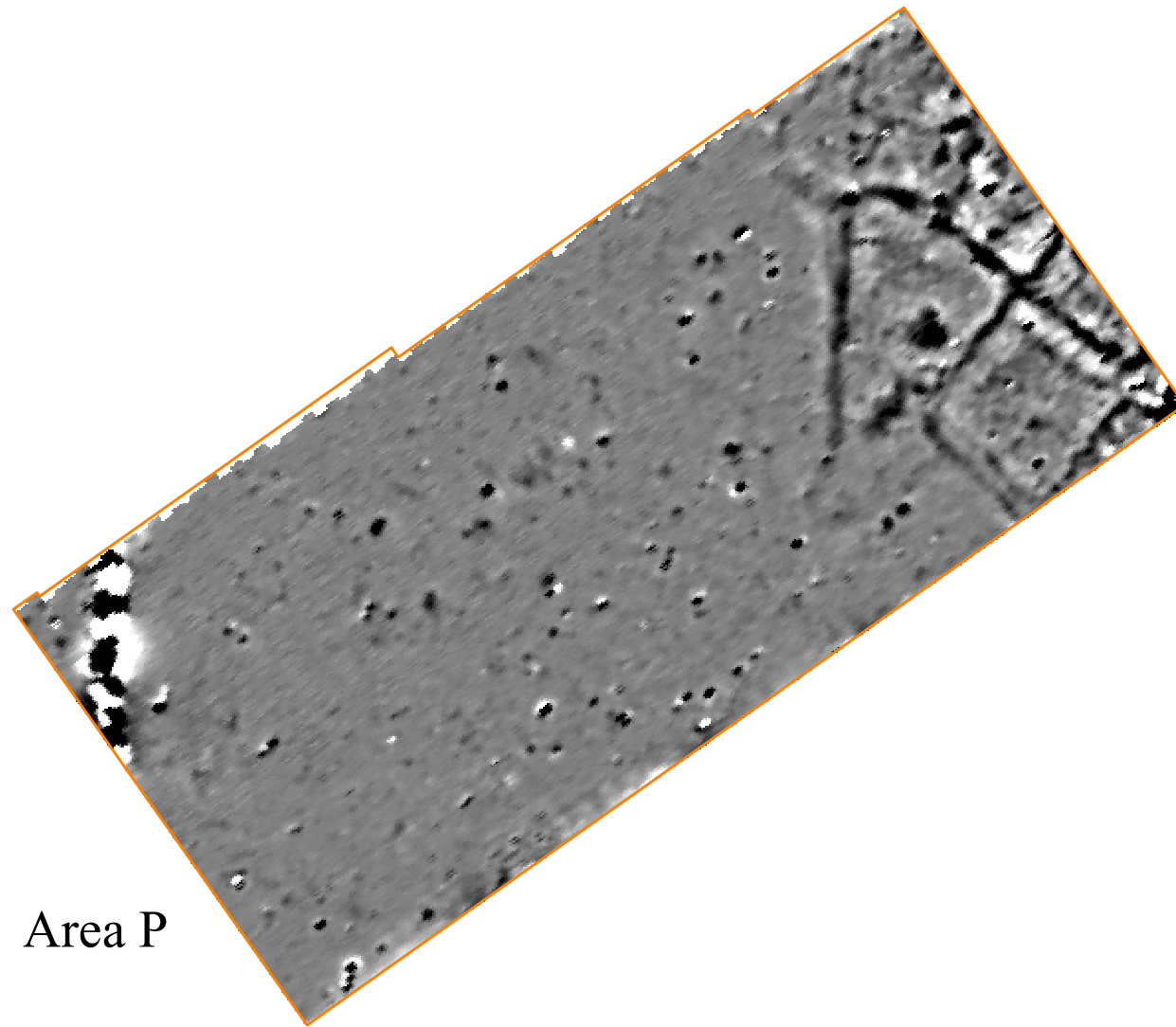
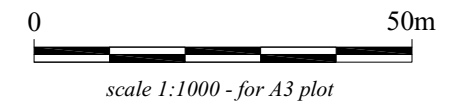
geophysical surveys


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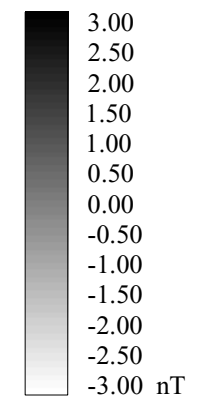
Figure 35

Area P, geophysical survey

on behalf of
CgMs Consulting



 outline of survey area



Land east of Swindon, Wiltshire

geophysical surveys




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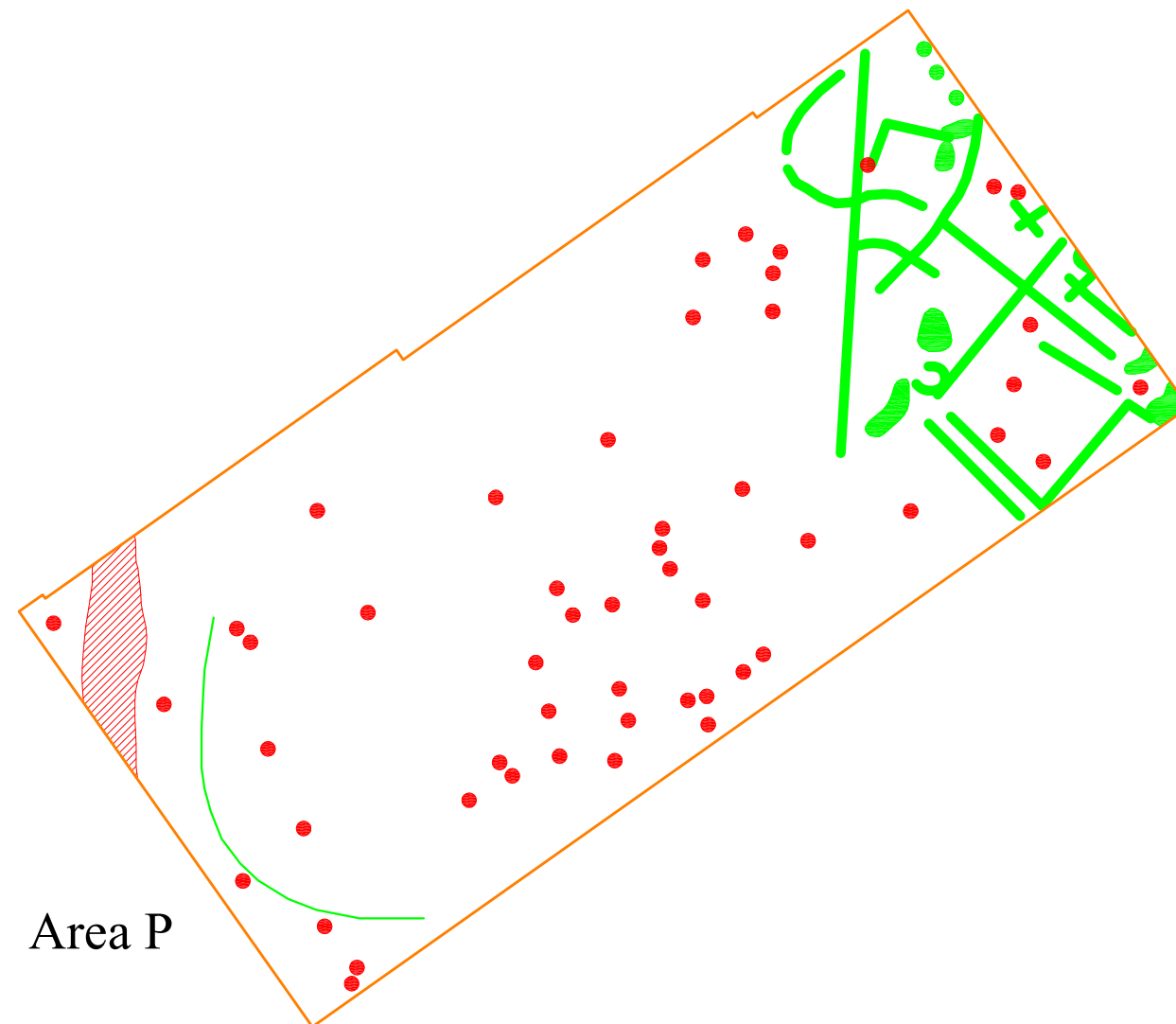
Figure 36

Area P, geophysical interpretation

on behalf of
CgMs Consulting

0 50m
scale 1:1000 - for A3 plot

-  outline of survey area
-  positive magnetic anomalies
-  dipolar magnetic anomalies



Area P



Land east of Swindon, Wiltshire

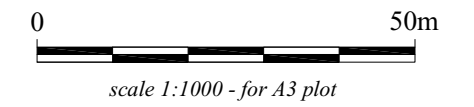
geophysical surveys




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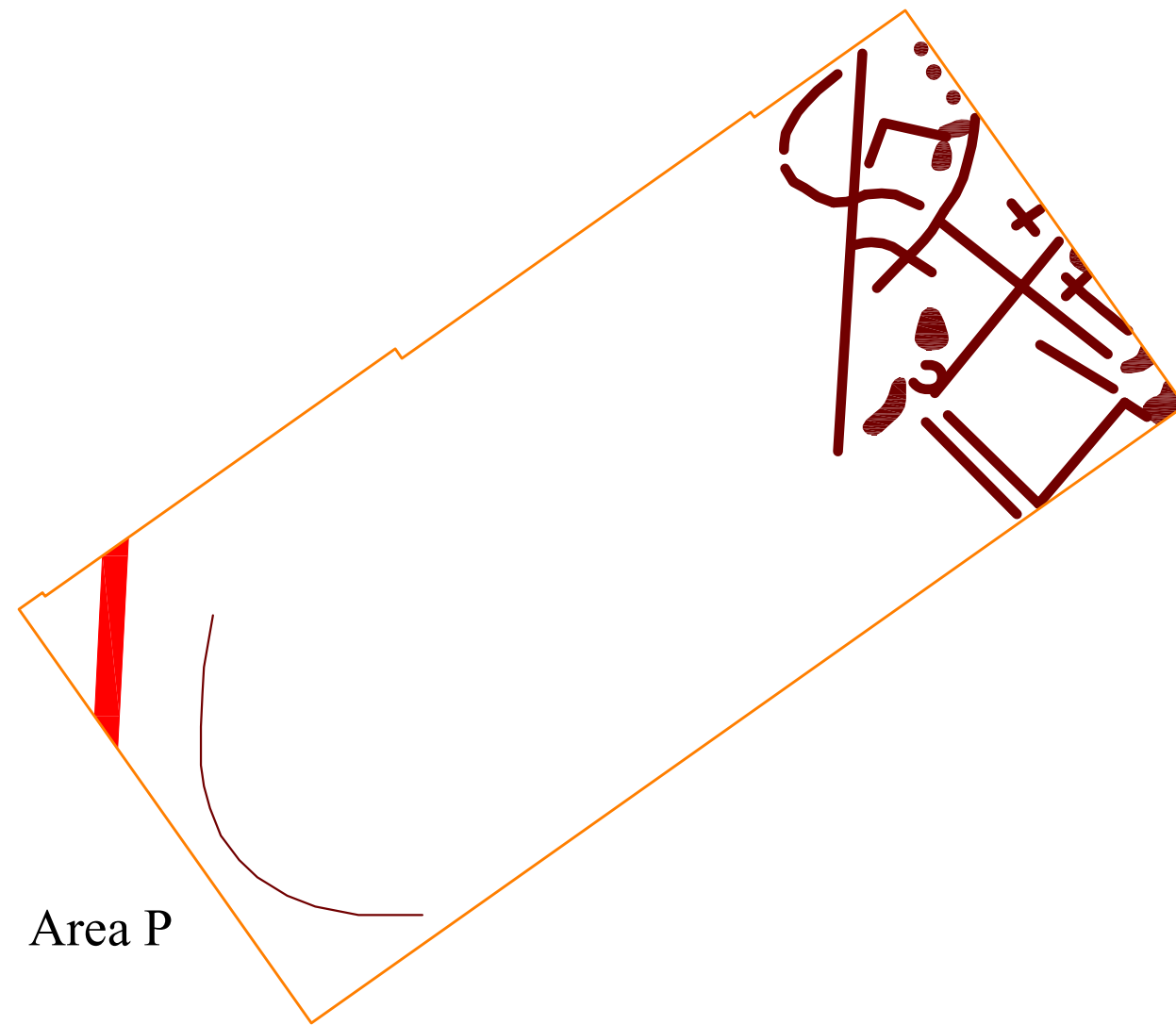
Figure 37

Area P, archaeological interpretation

on behalf of
CgMs Consulting



-  outline of survey area
-  soil-filled features
-  services



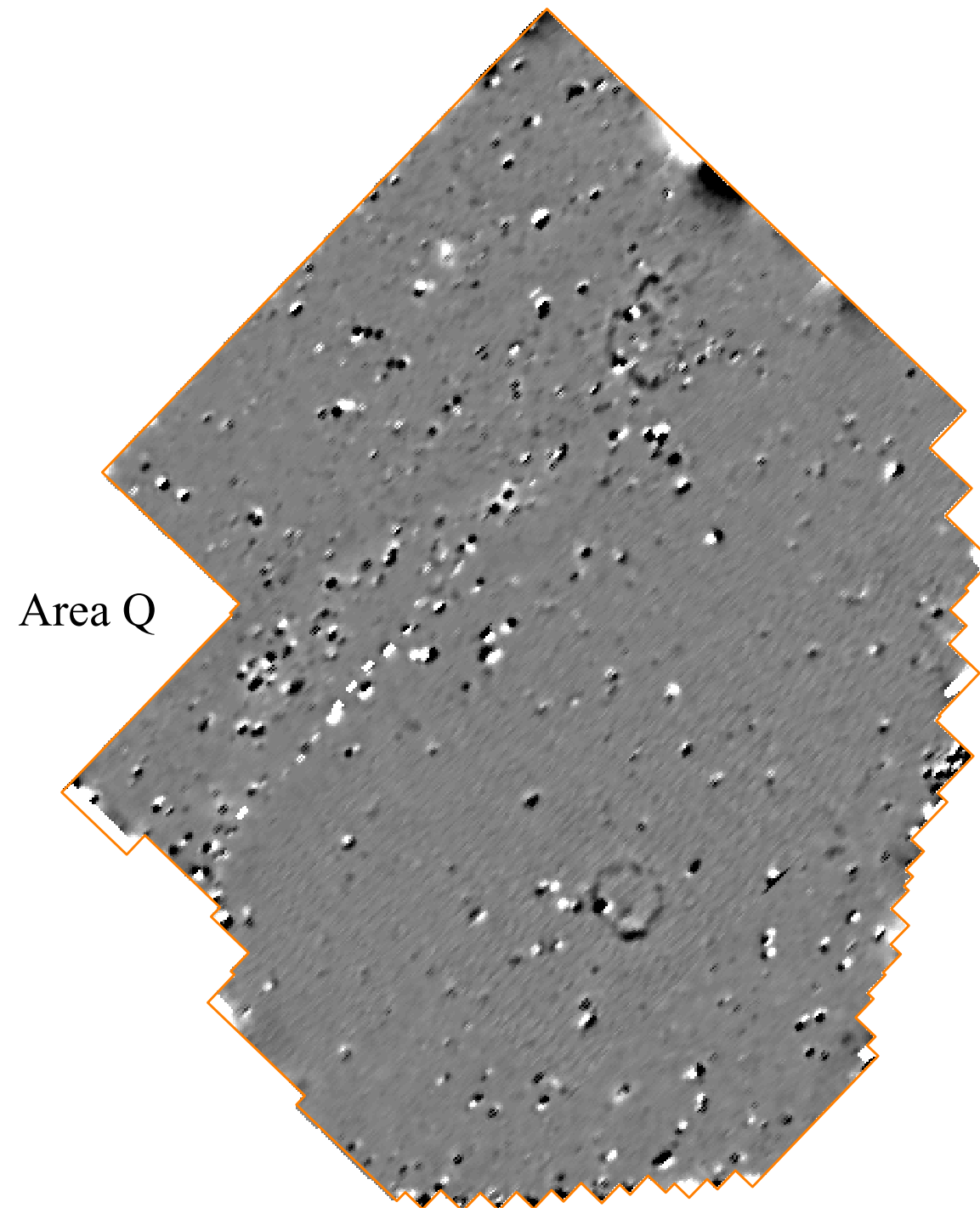
Land east of Swindon, Wiltshire

geophysical surveys

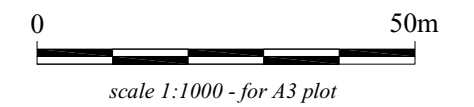
Report 1551


Figure 38

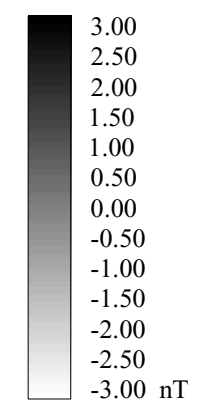
Area Q, geophysical survey



on behalf of
CgMs Consulting



 outline of survey area



Land east of Swindon, Wiltshire

geophysical surveys

Report 1551




Figure 39

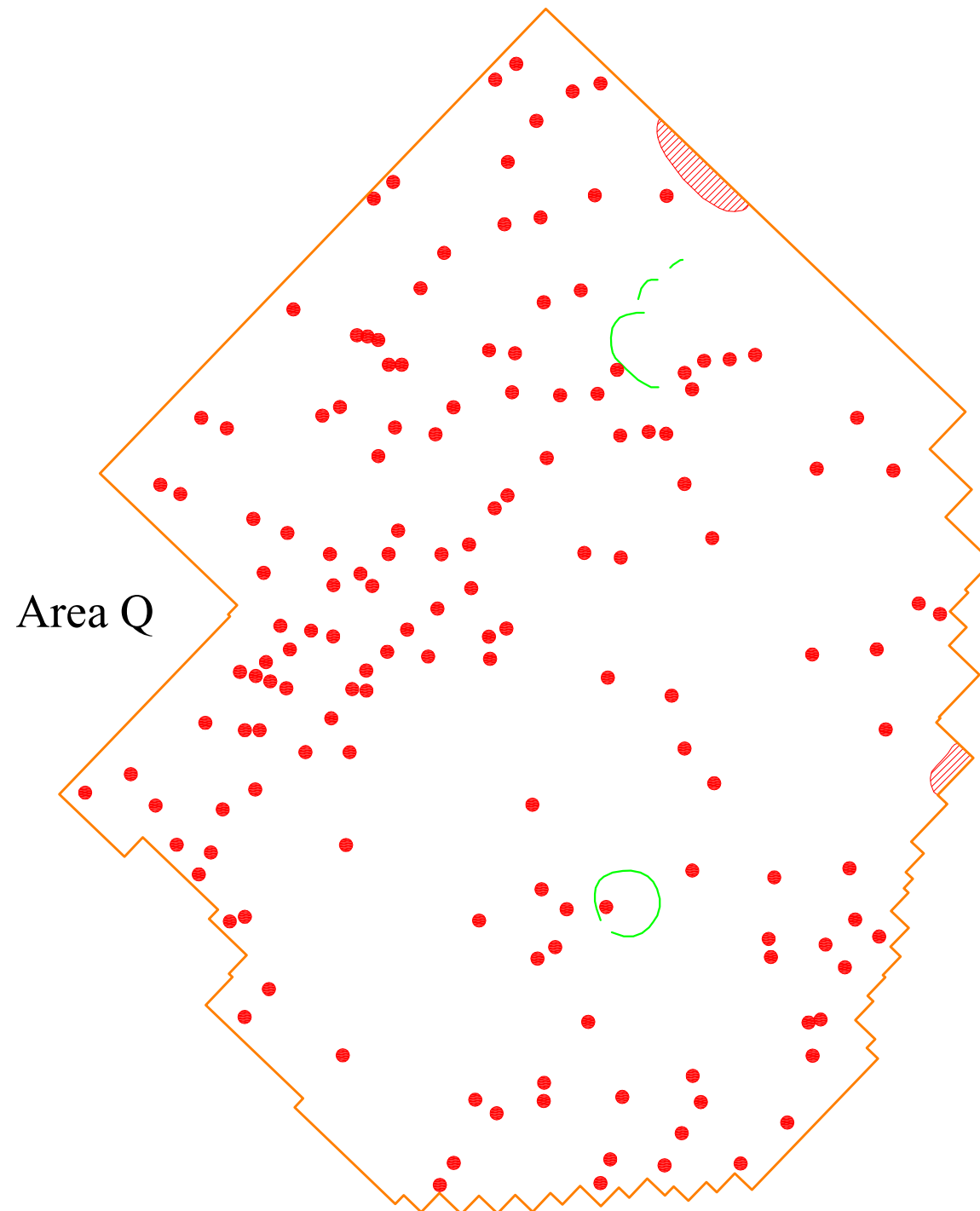
Area Q, geophysical interpretation

on behalf of
CgMs Consulting

0 50m

scale 1:1000 - for A3 plot

-  outline of survey area
-  positive magnetic anomalies
-  dipolar magnetic anomalies



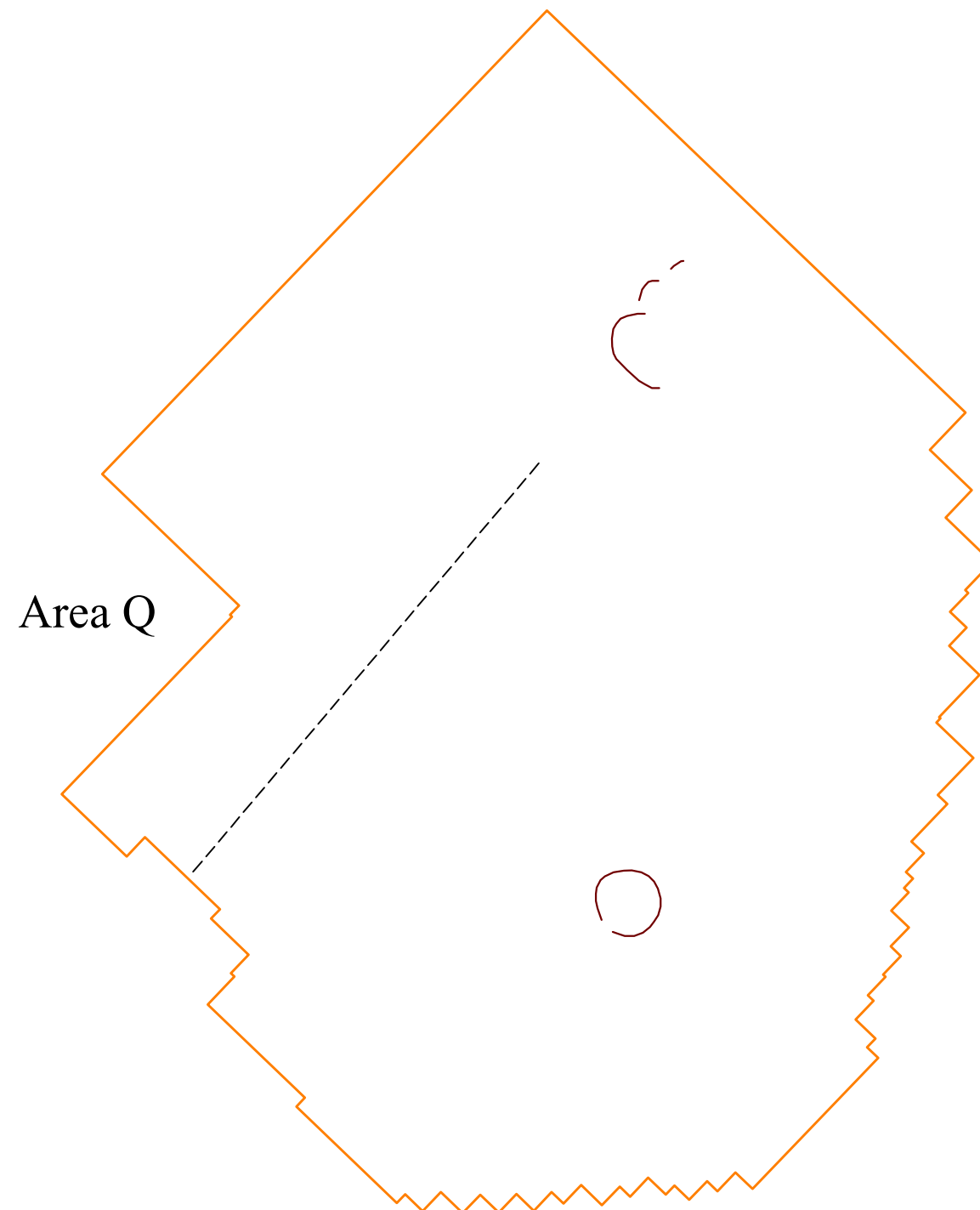
Land east of Swindon, Wiltshire

geophysical surveys

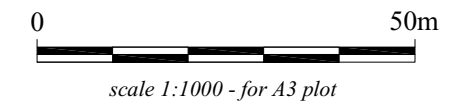
Report 1551




Figure 40

Area Q, archaeological interpretation



on behalf of
CgMs Consulting



-  outline of survey area
-  soil-filled features
-  old fenceline



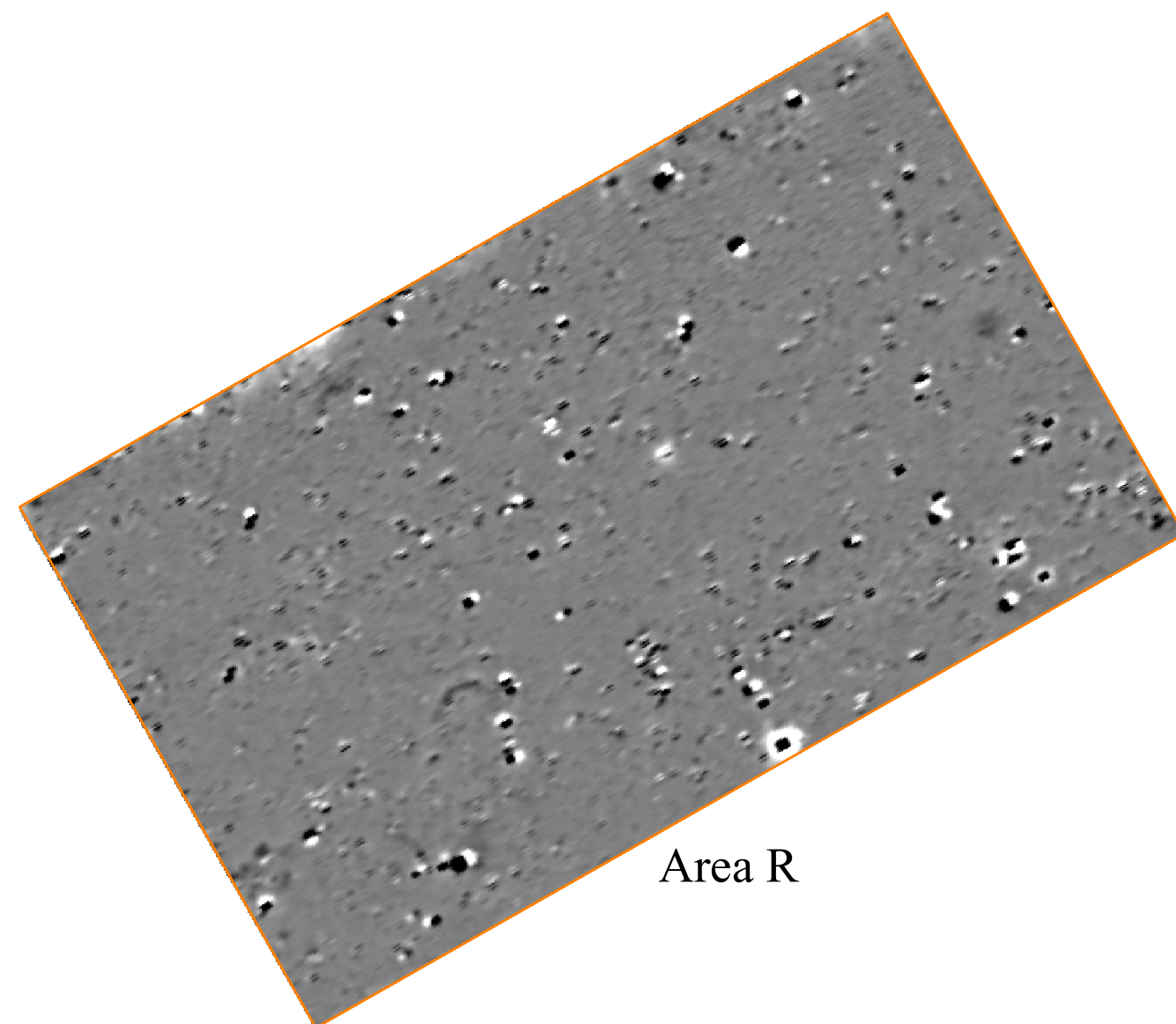
Land east of Swindon, Wiltshire

geophysical surveys

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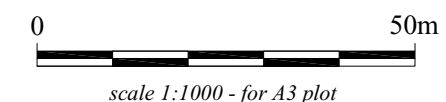
Figure 41


Area R, geophysical survey

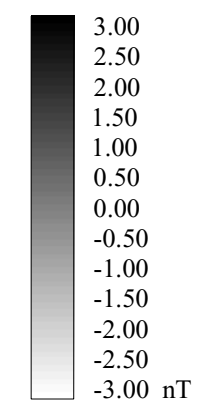


Area R

on behalf of
CgMs Consulting



 outline of survey area



Land east of Swindon, Wiltshire

geophysical surveys




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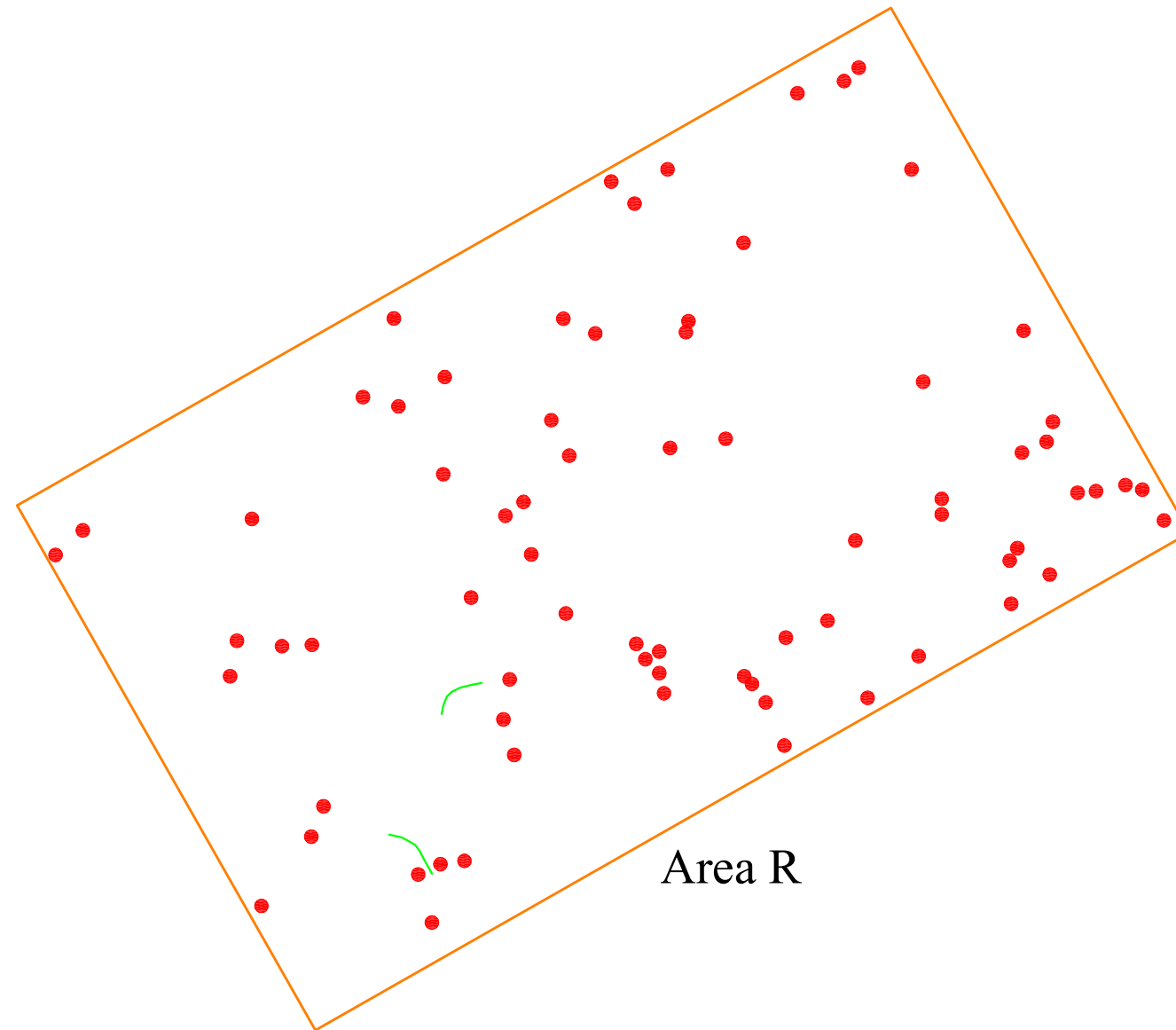
Figure 42

Area R, geophysical interpretation

on behalf of
CgMs Consulting

0 50m
scale 1:1000 - for A3 plot

-  outline of survey area
-  positive magnetic anomalies
-  dipolar magnetic anomalies



Area R



Land east of Swindon, Wiltshire

geophysical surveys

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Figure 43


Area R, archaeological interpretation


on behalf of
CgMs Consulting

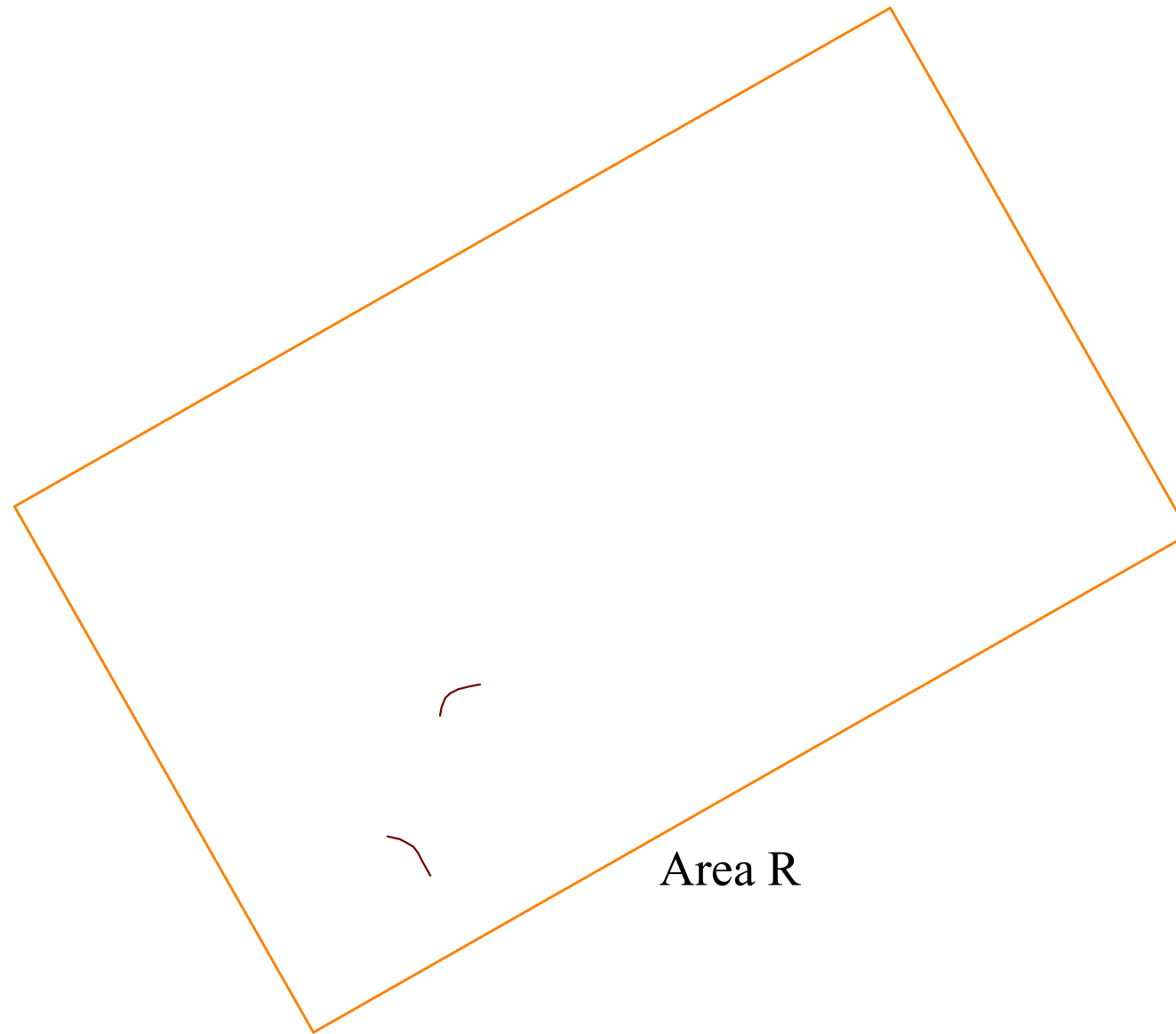
0 50m



scale 1:1000 - for A3 plot

 outline of survey area

 soil-filled features



Area R



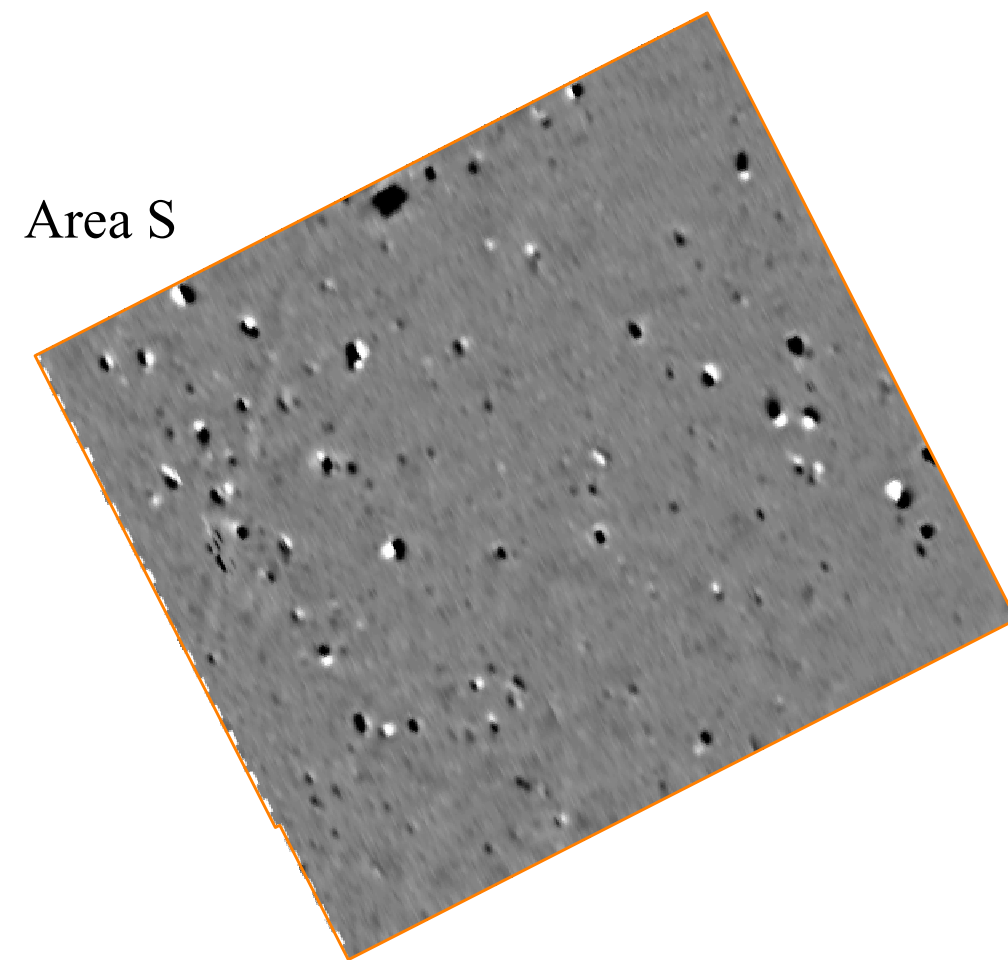
Land east of Swindon, Wiltshire

geophysical surveys

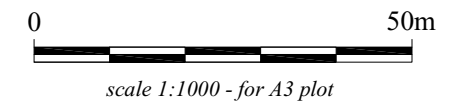
Report 1551


Figure 44

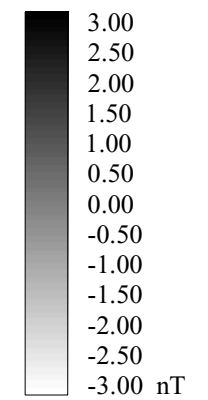
Area S, geophysical survey



on behalf of
CgMs Consulting



 outline of survey area



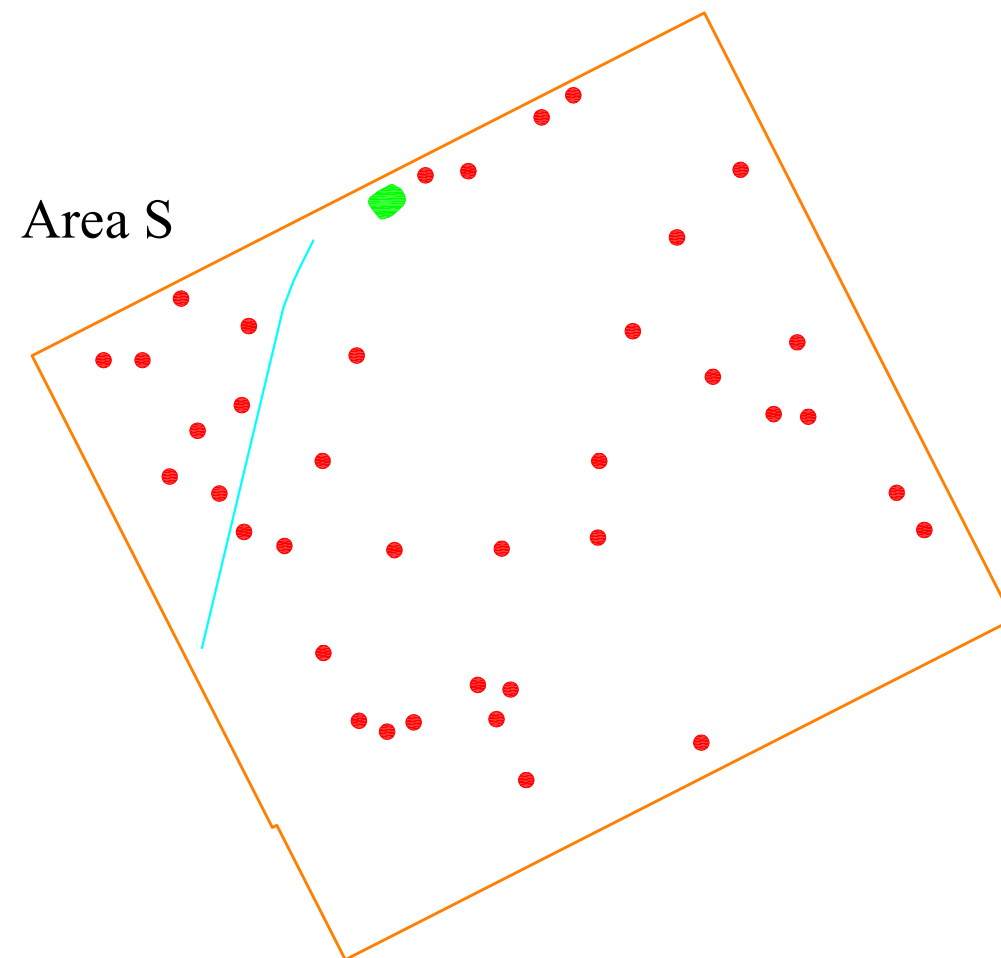
Land east of Swindon, Wiltshire

geophysical surveys

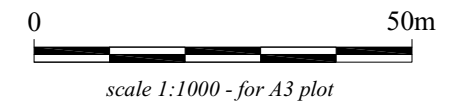
Report 1551





Figure 45

Area S, geophysical interpretation



on behalf of
CgMs Consulting



-  outline of survey area
-  positive magnetic anomalies
-  negative magnetic anomalies
-  dipolar magnetic anomalies



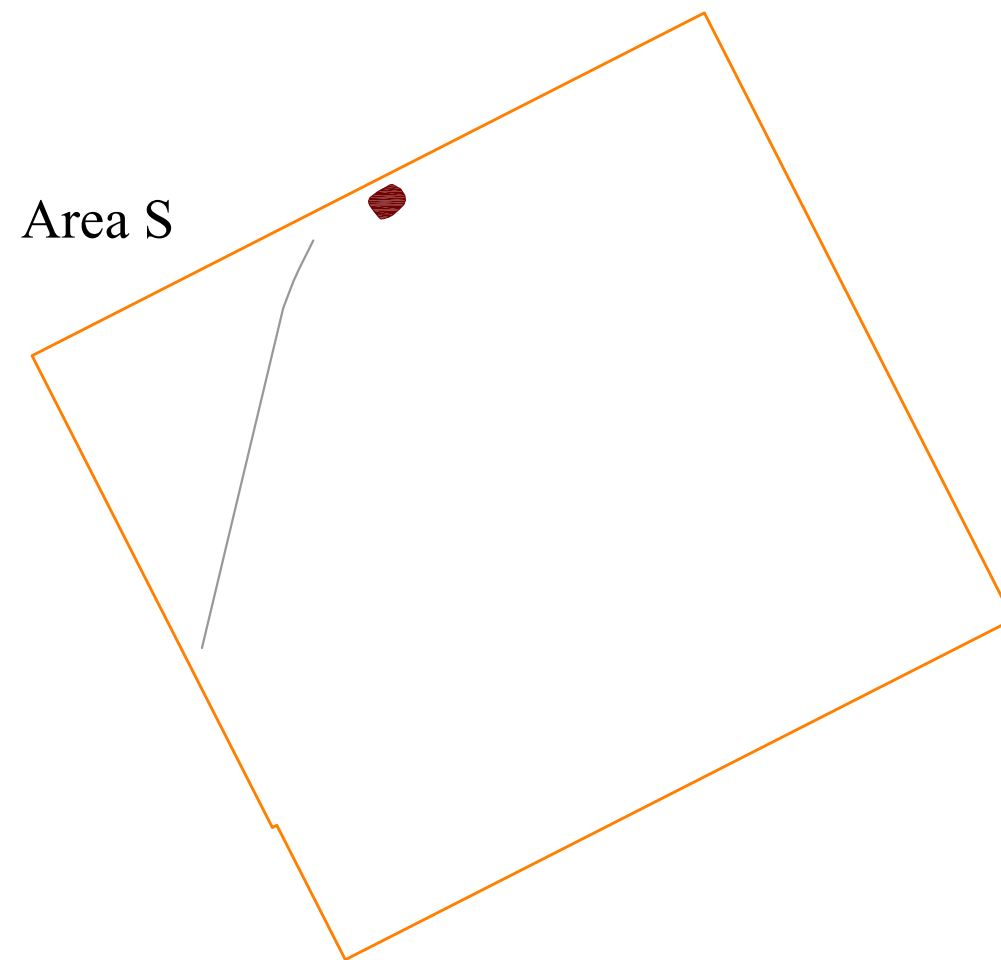
Land east of Swindon, Wiltshire

geophysical surveys

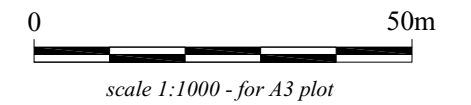
Report 1551




Figure 46

Area S, archaeological interpretation



on behalf of
CgMs Consulting



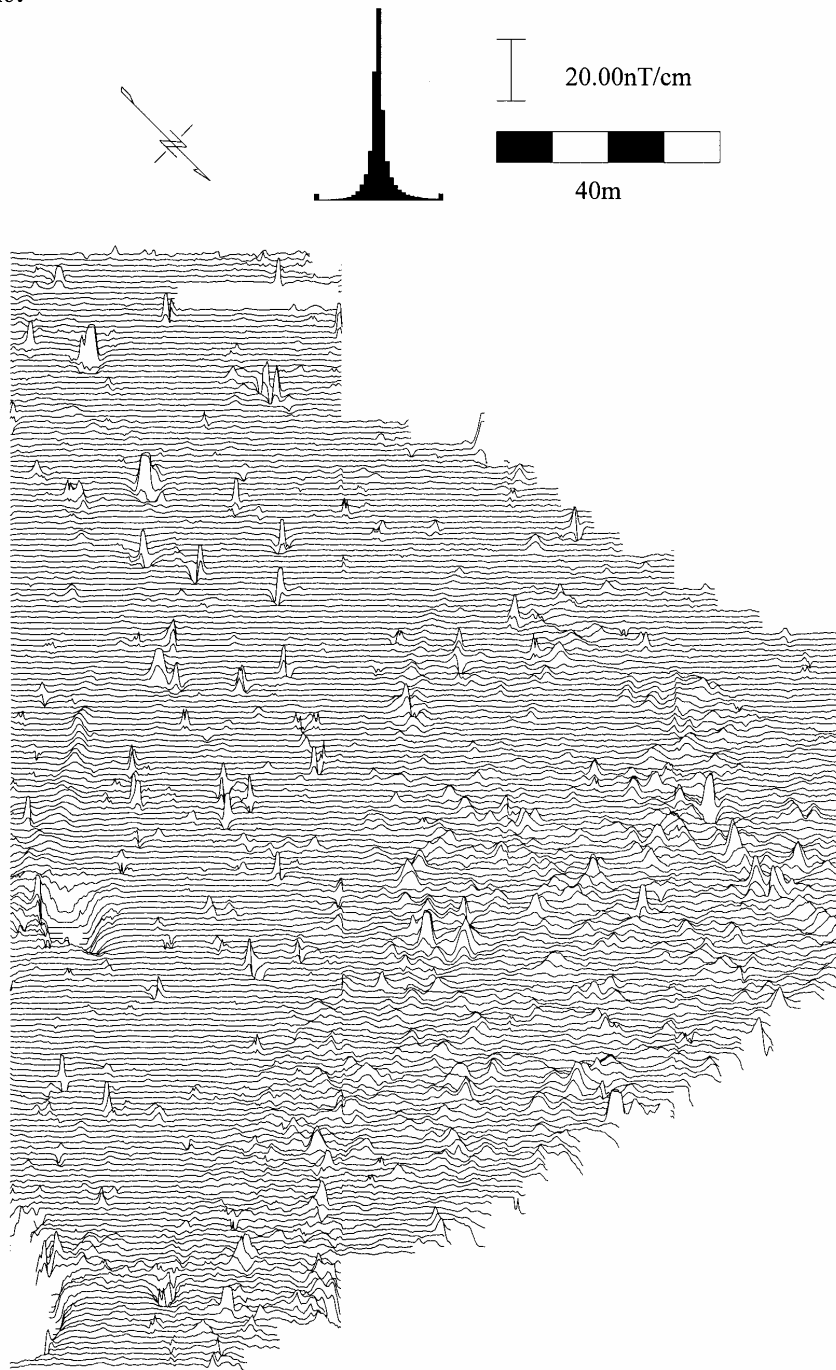
-  outline of survey area
-  soil-filled features
-  ? drain



Appendix I: Trace plots of geophysical data

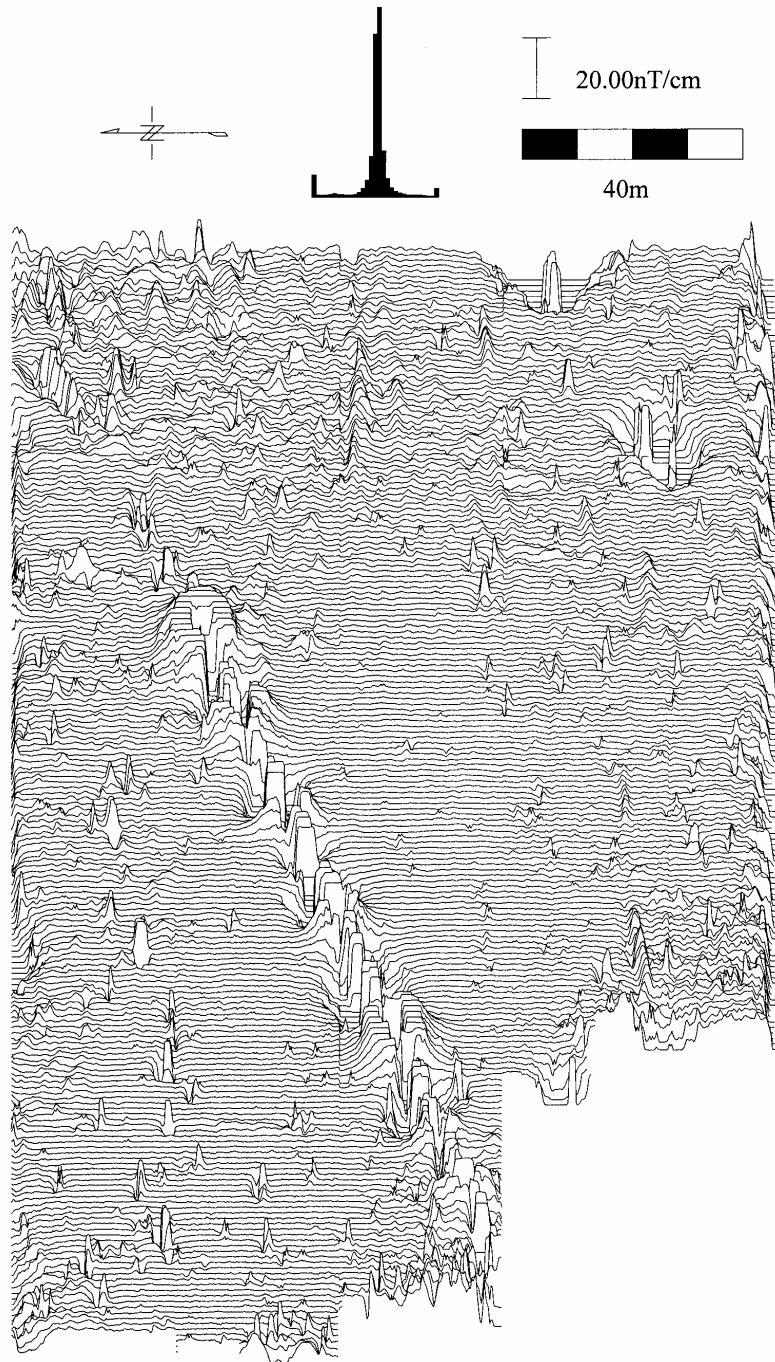
Trace plot

Area A



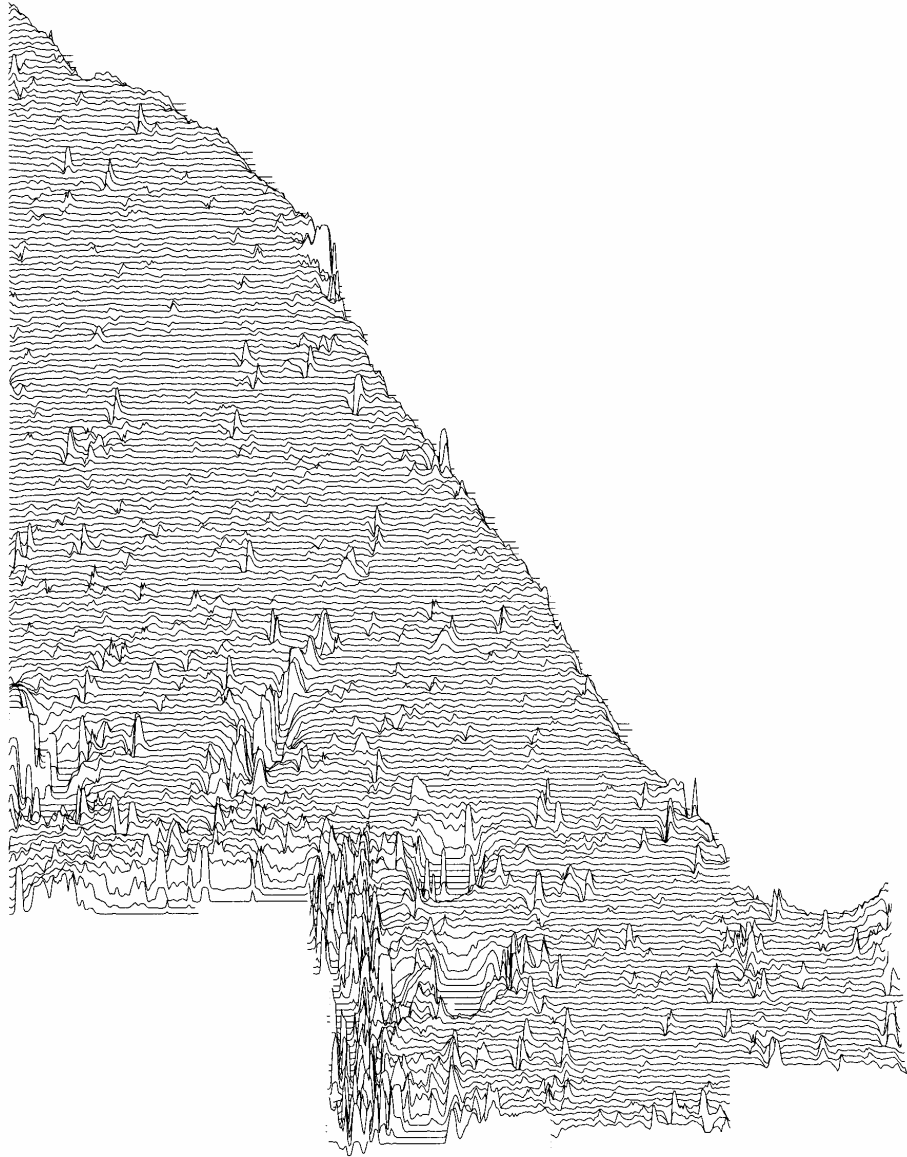
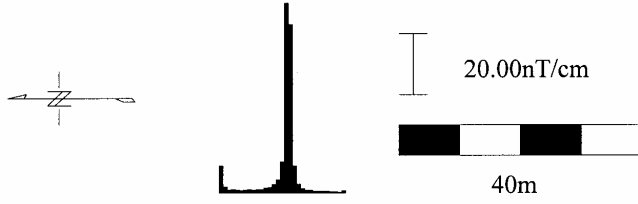
Trace plot

Area B



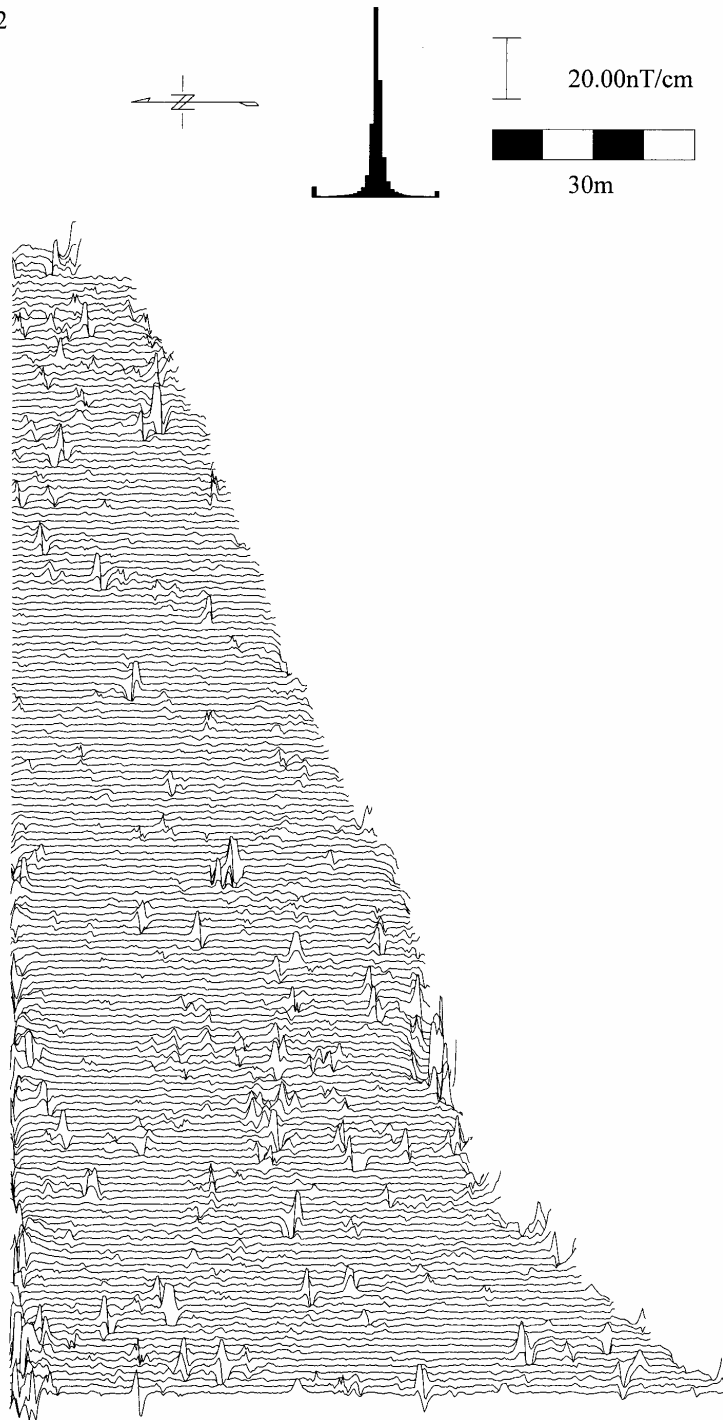
Trace plot

Area D1



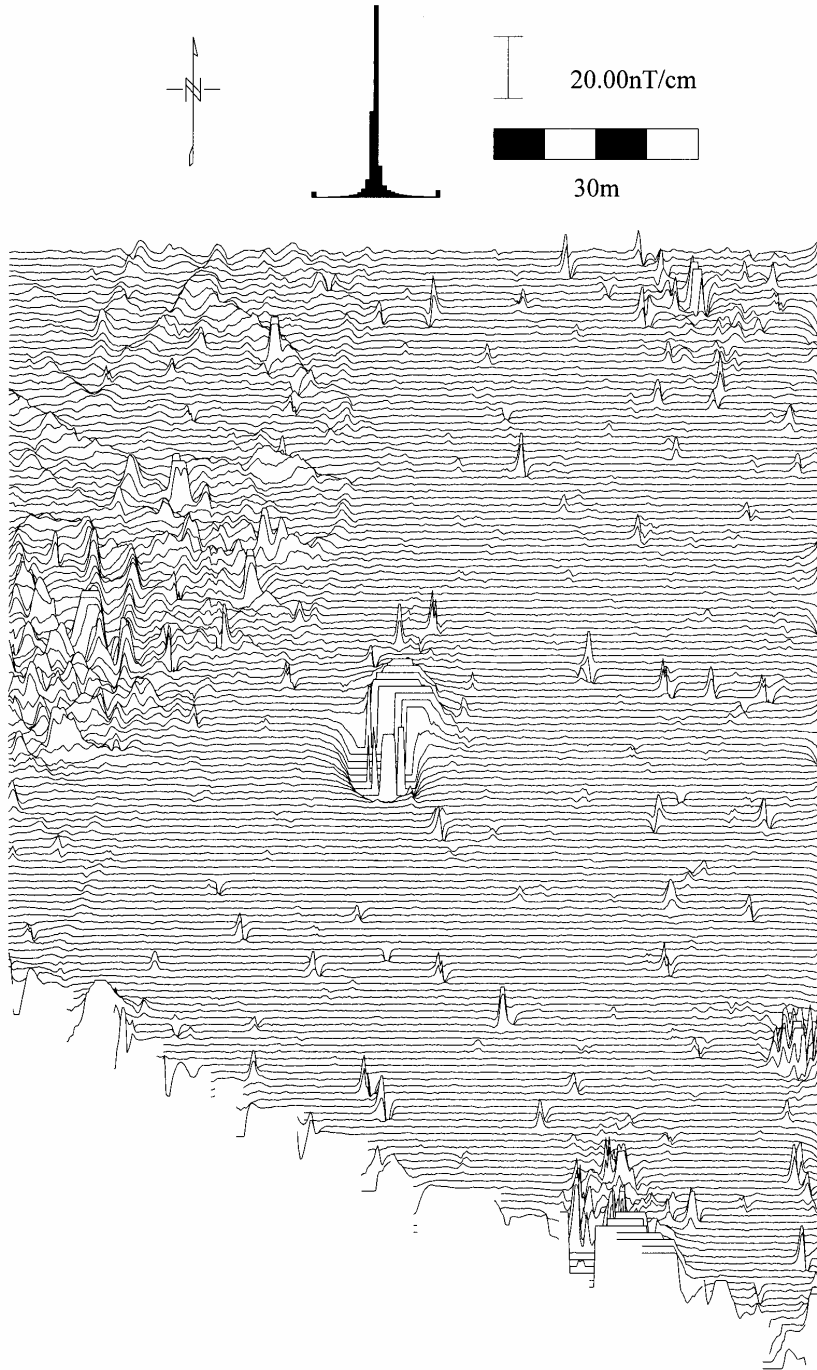
Trace plot

Area D2



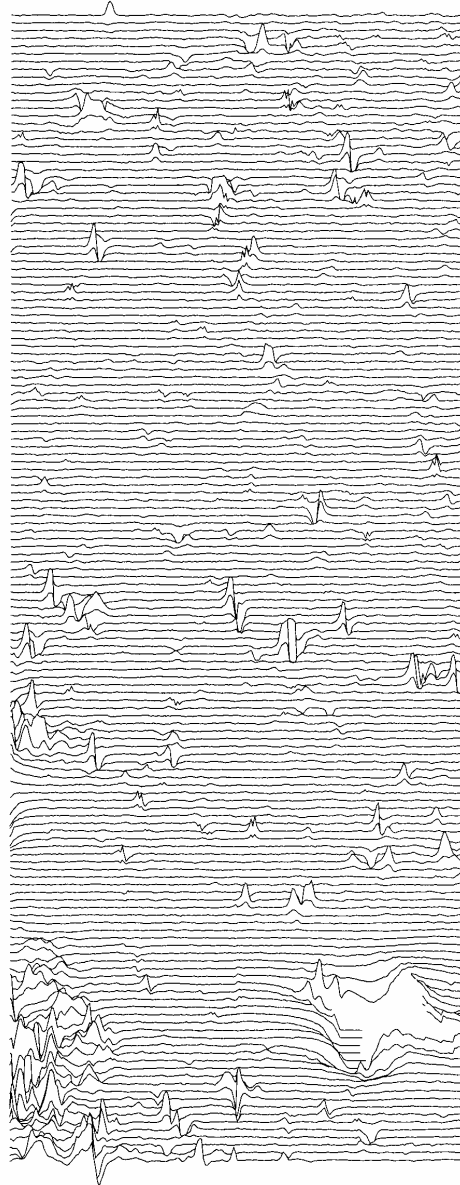
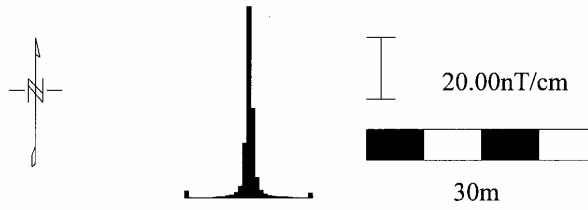
Trace plot

Area E1



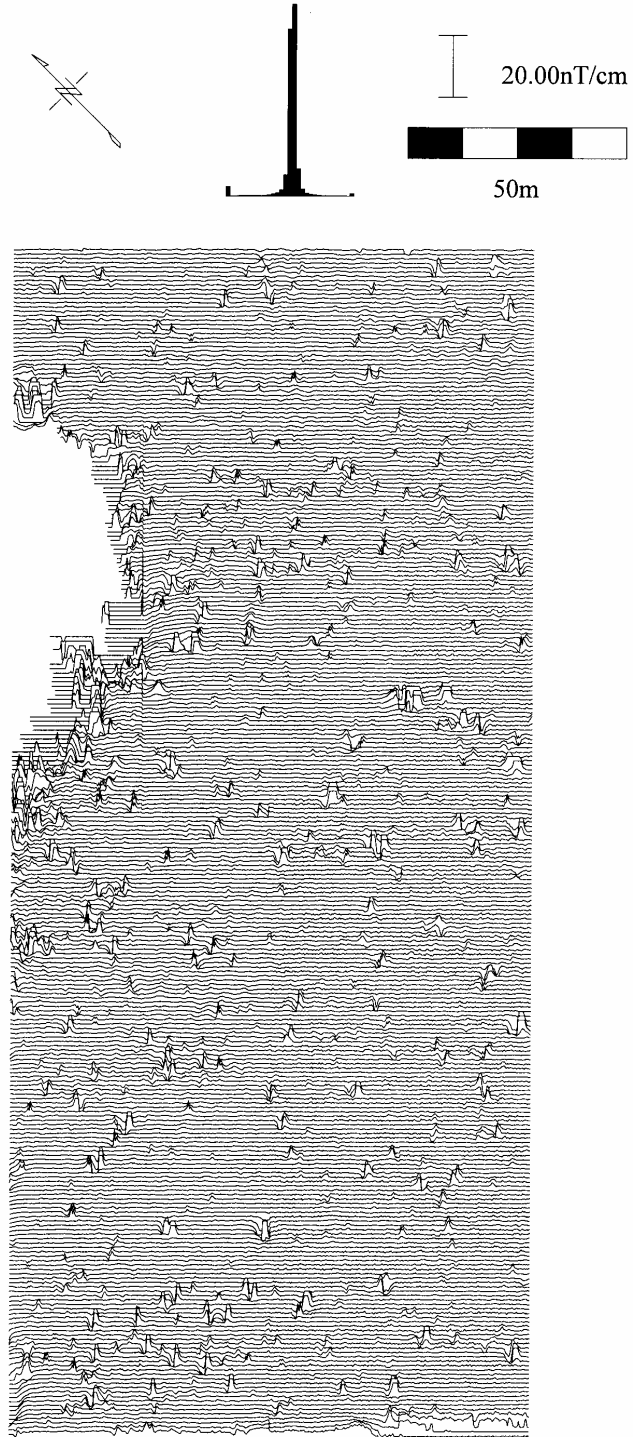
Trace plot

Area E2



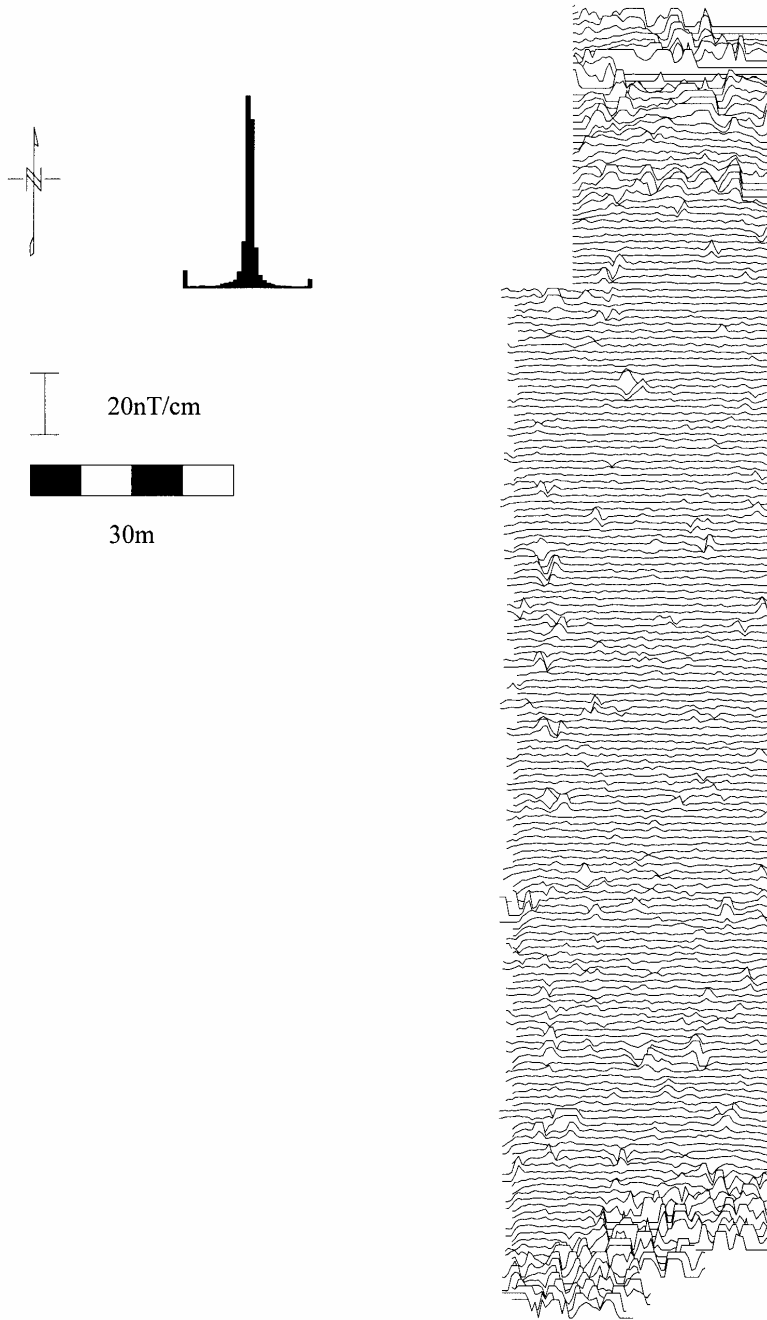
Trace plot

Area F



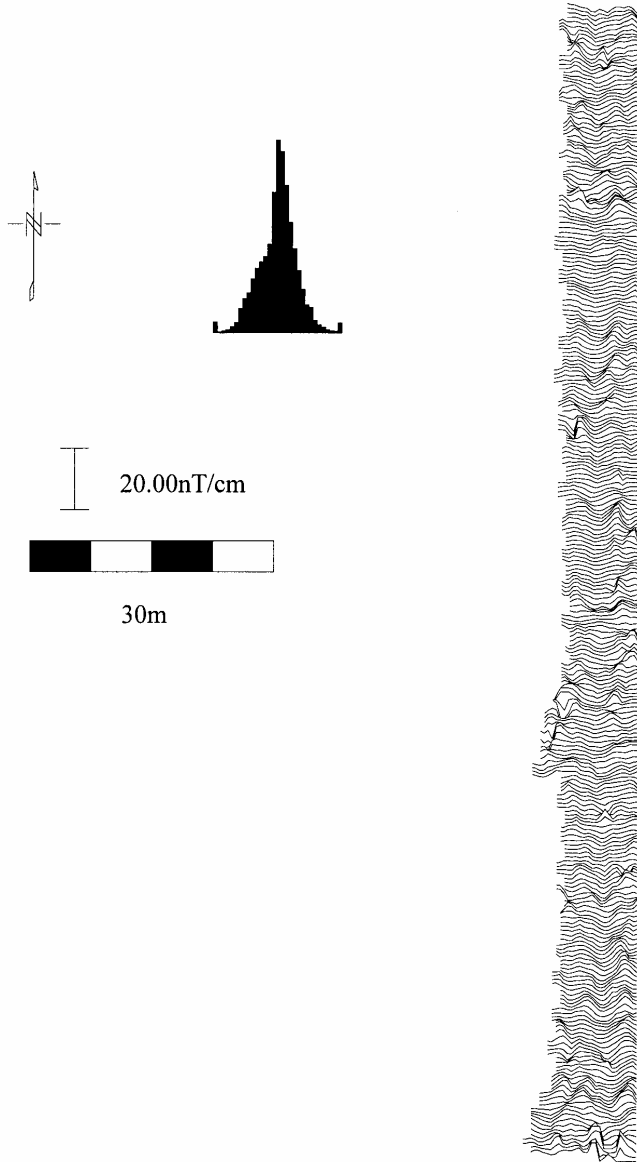
Trace plot

Area G1



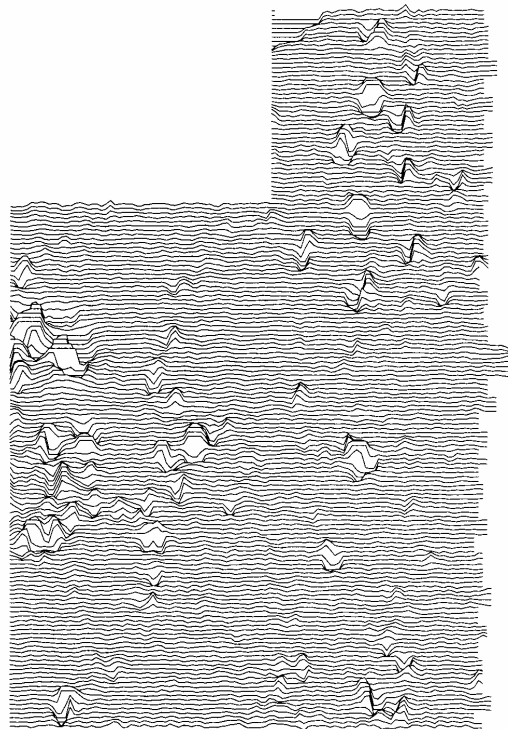
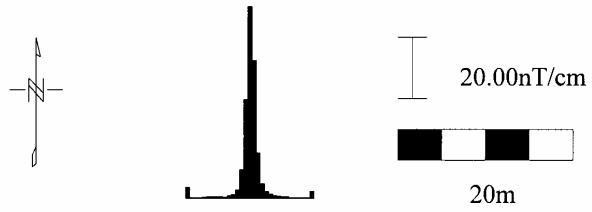
Trace plot

Area G2



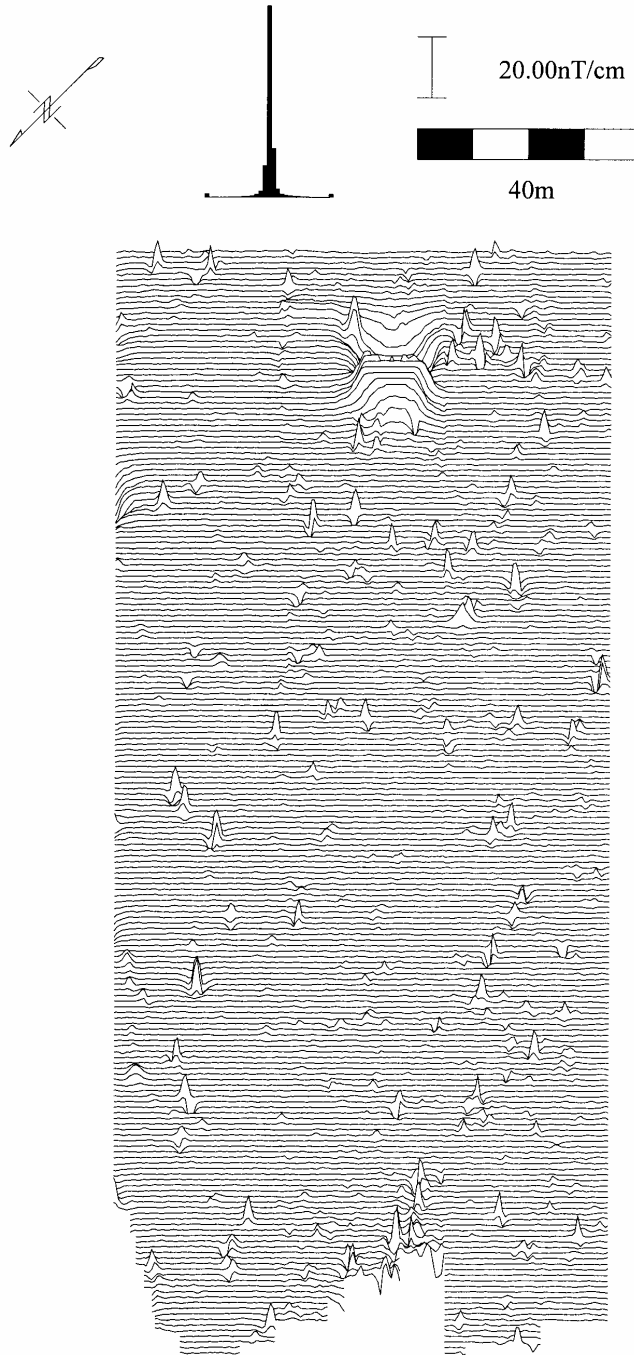
Trace plot

Area G3



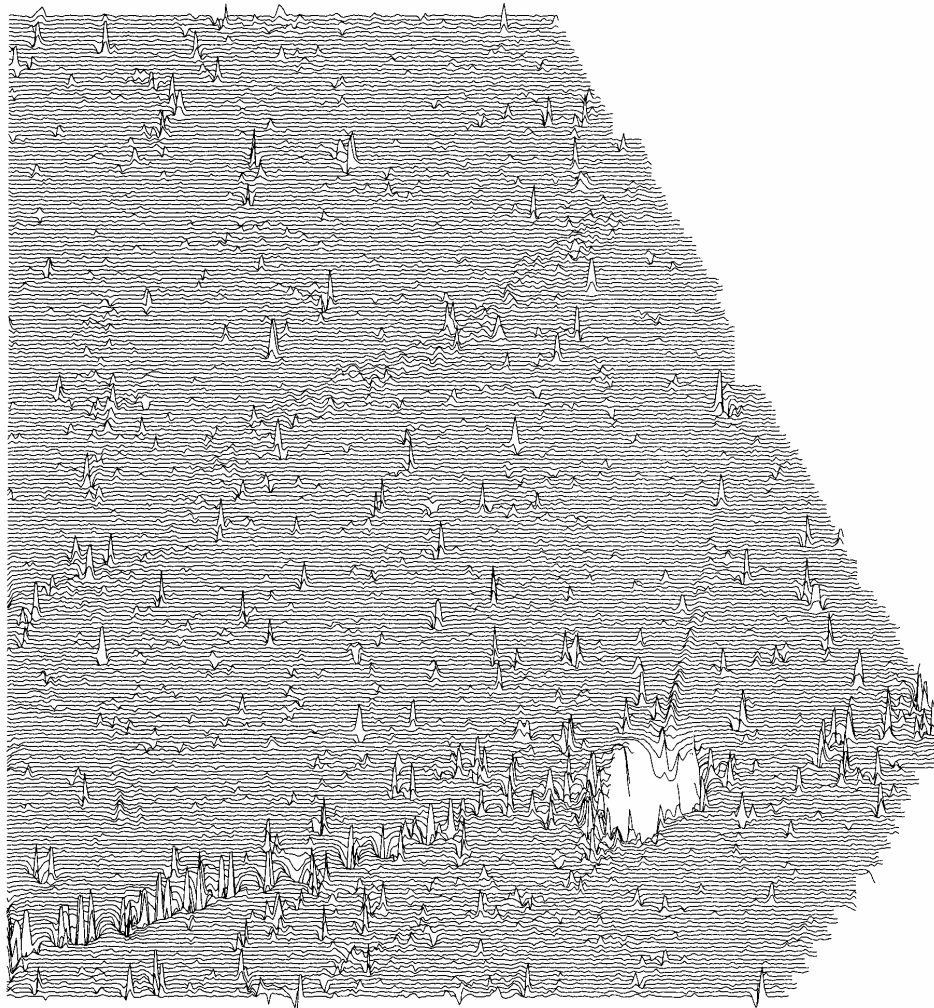
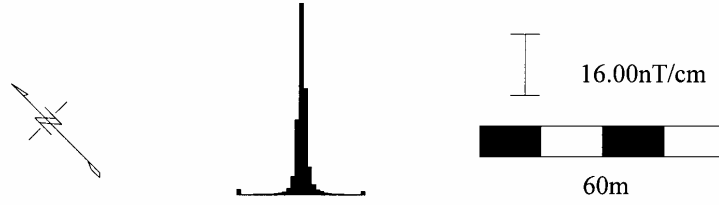
Trace plot

Area I



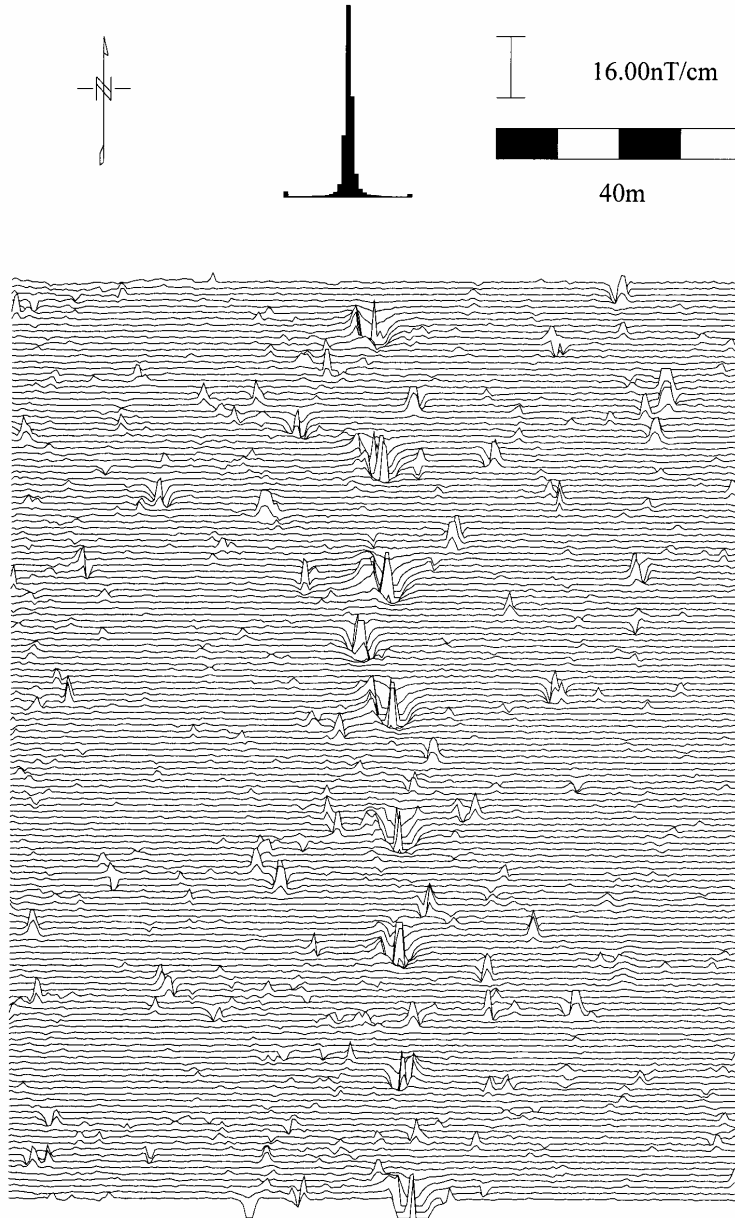
Trace plot

Area J



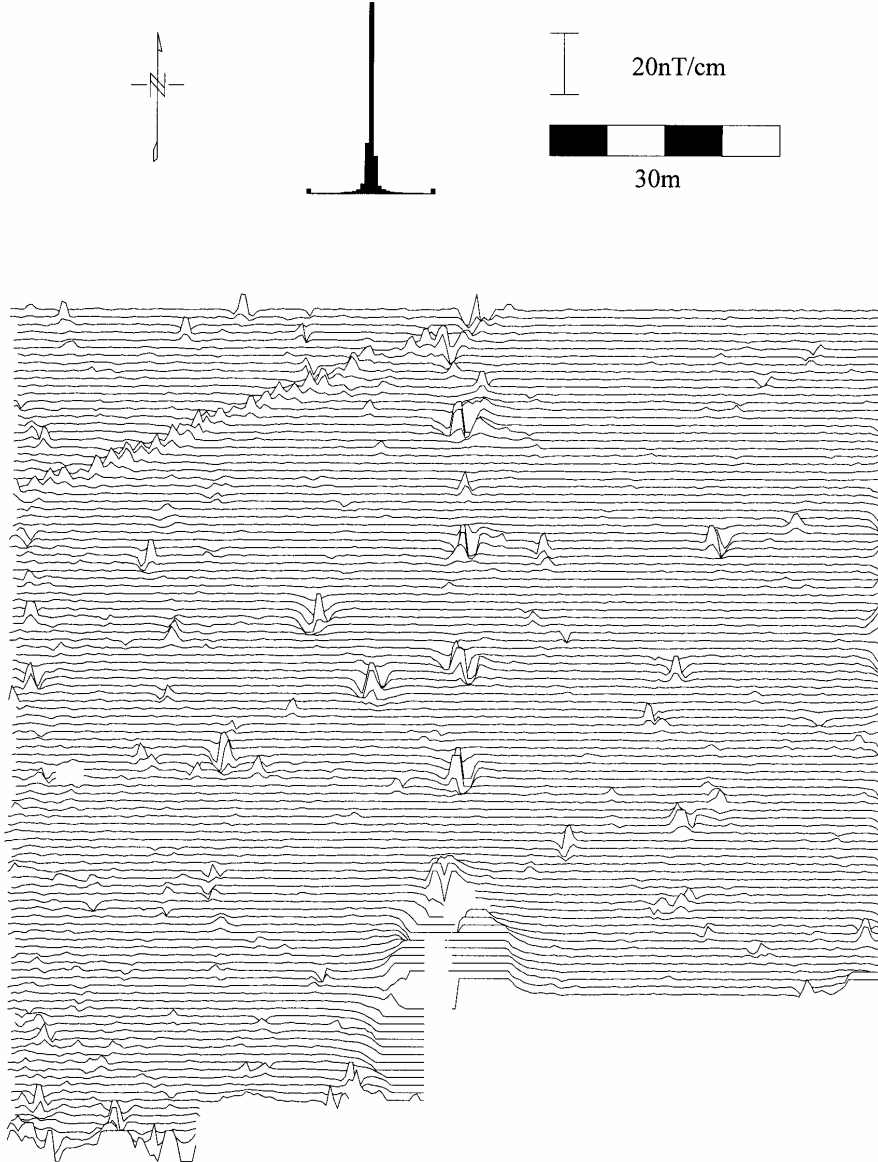
Trace plot

Area L



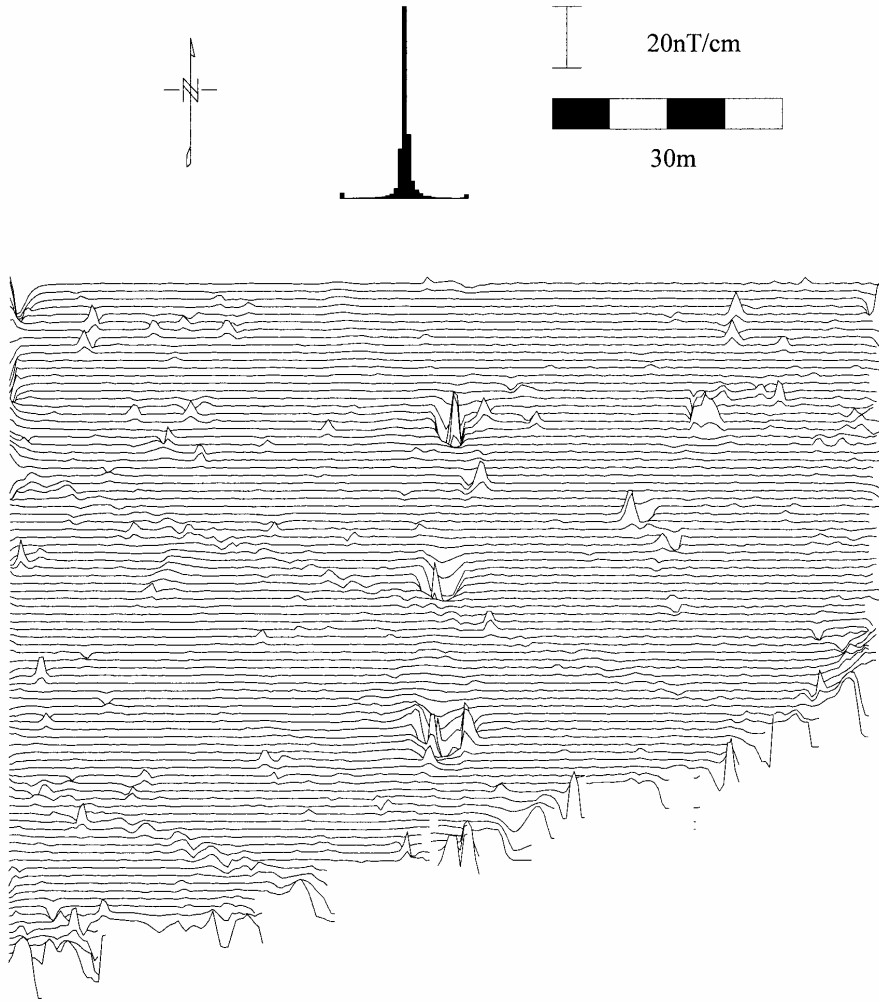
Trace plot

Area M1



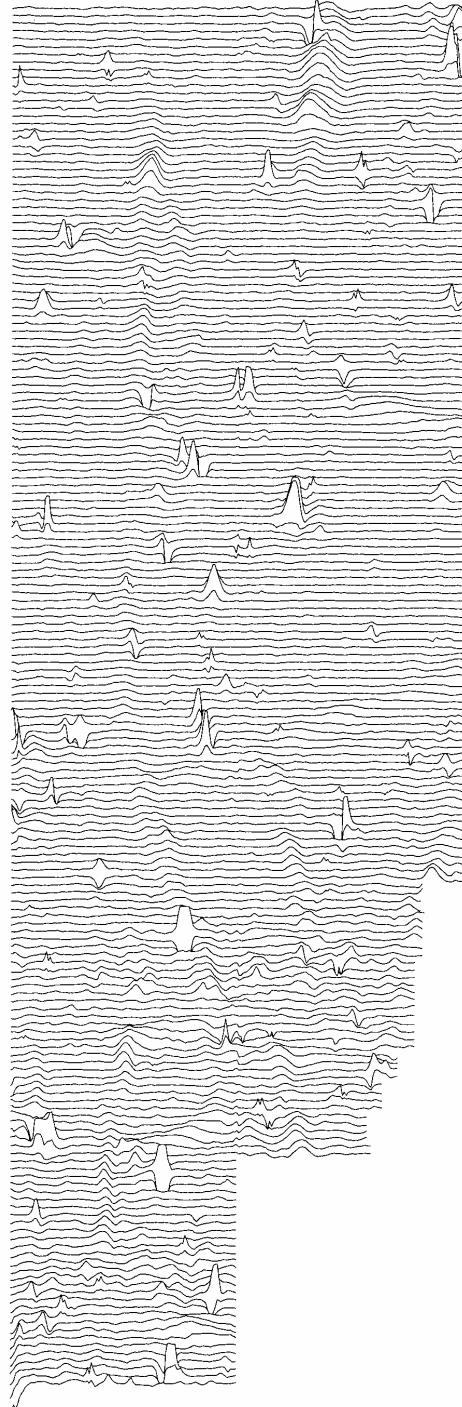
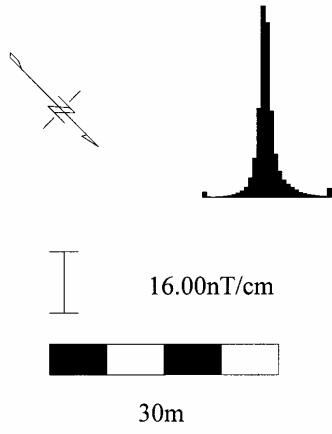
Trace plot

Area M2



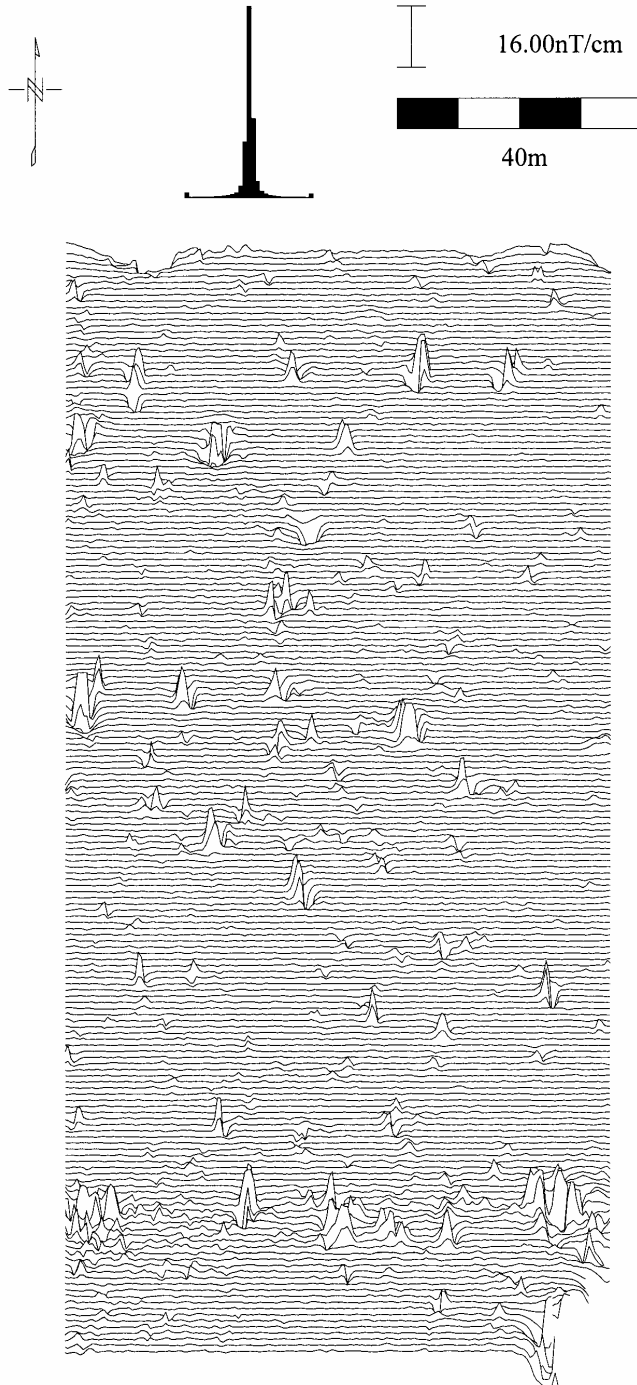
Trace plot

Area N



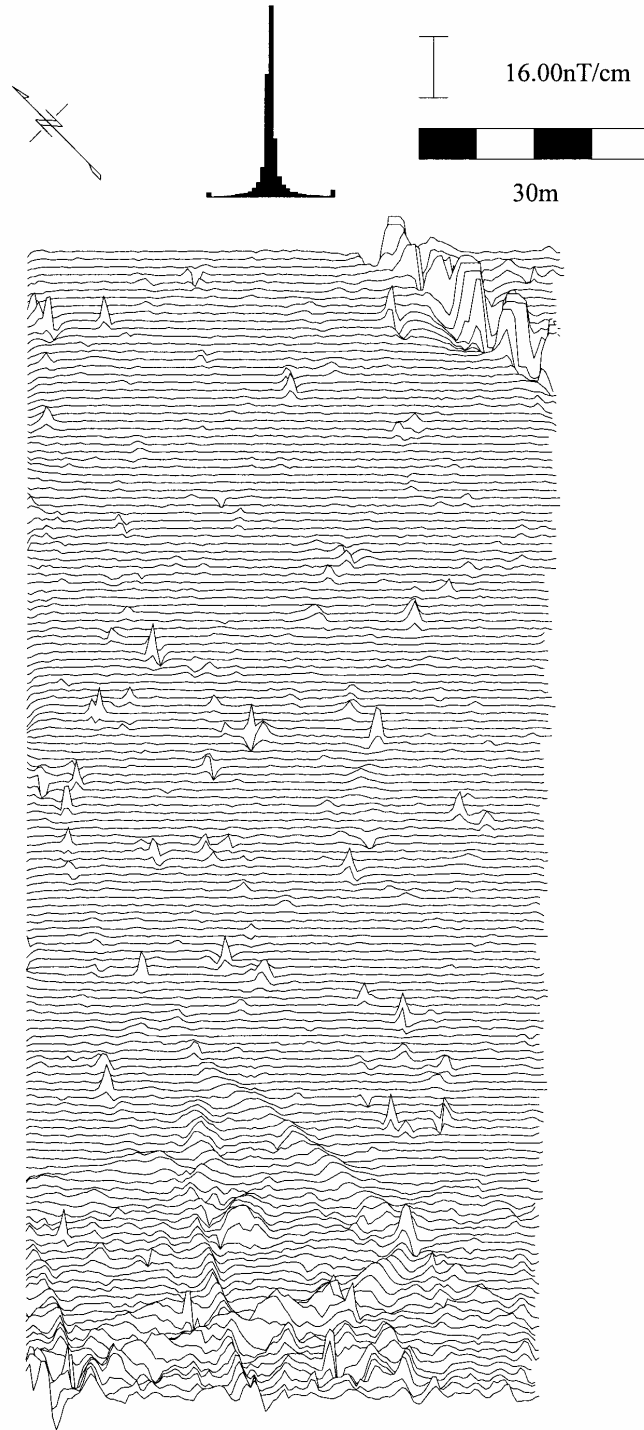
Trace plot

Area O



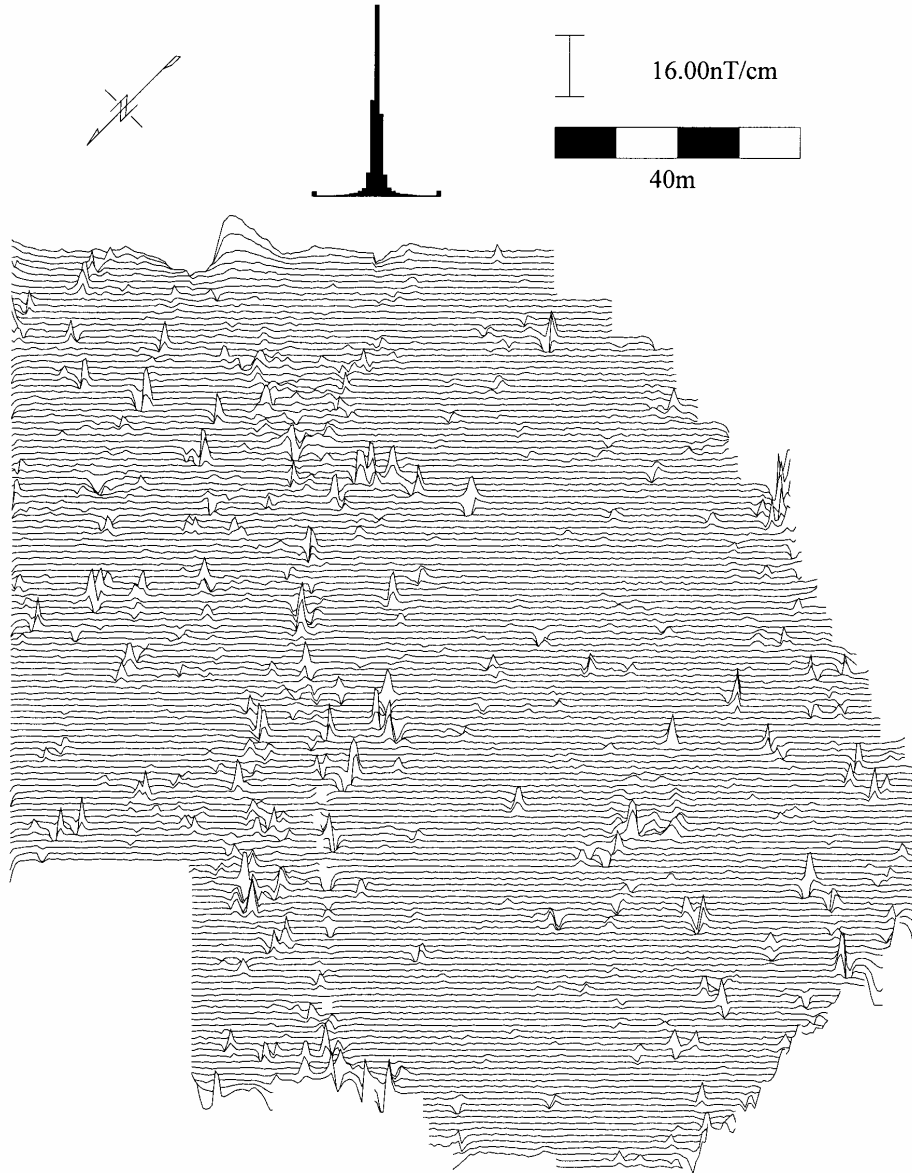
Trace plot

Area P



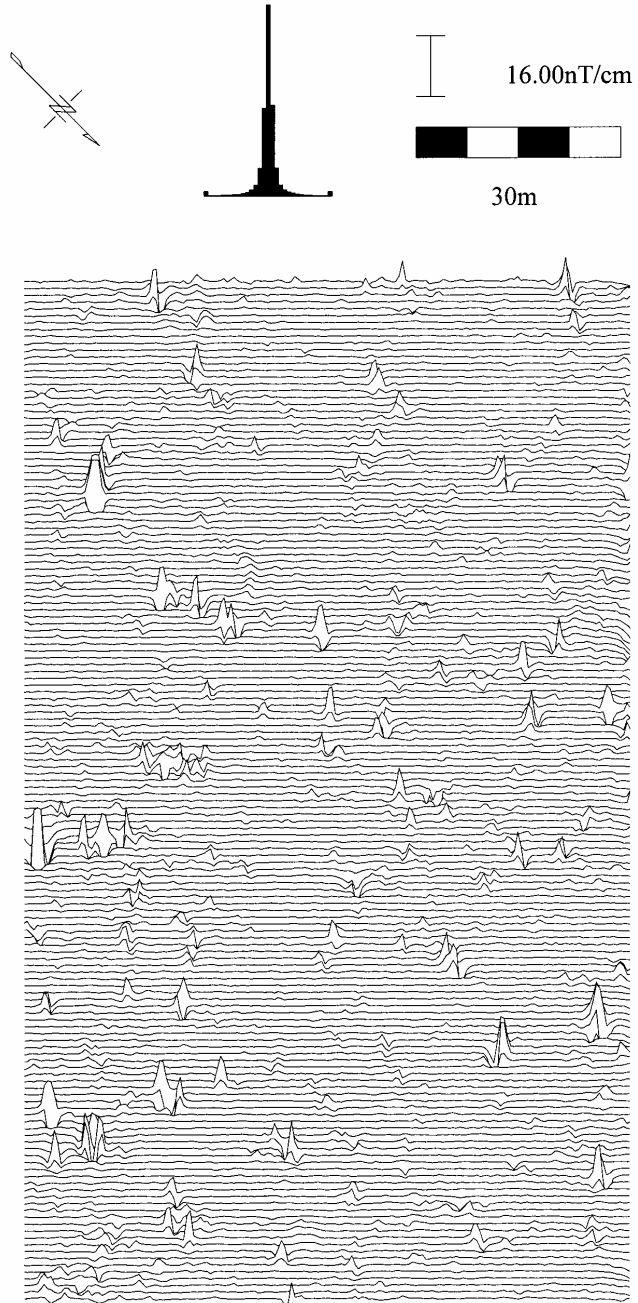
Trace plot

Area Q



Trace plot

Area R



Trace plot

Area S

