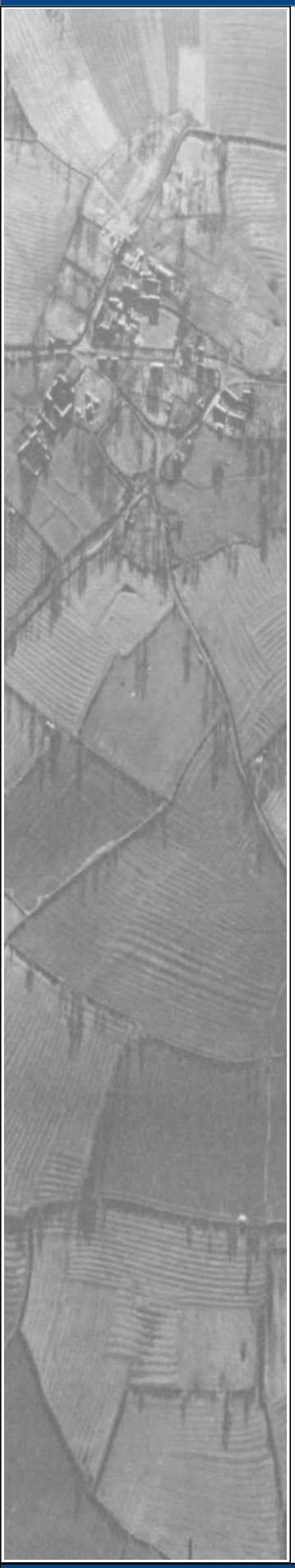

Land to the north of Station Road
Crewkerne
Somerset

MAGNETOMETER SURVEY REPORT

for

Cotswold Archaeology

Kerry Donaldson & David Sabin

January 2021

Ref. no. J836

ARCHAEOLOGICAL SURVEYS LTD

Land to the north of Station Road
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Somerset

MAGNETOMETER SURVEY REPORT

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Cotswold Archaeology

Fieldwork by David Sabin BSc (Hons) MCIfA
Report by Kerry Donaldson BSc (Hons)
Report checked by David Sabin
Primary archive location - Archaeological Surveys Ltd, Yatesbury, Wiltshire

Survey dates – 14th to 16th December 2020
Ordnance Survey Grid Reference – **ST 45230 09305**

Somerset HER event no: 42835

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SUMMARY

A geophysical survey comprising detailed magnetometry was carried out by Archaeological Surveys Ltd over 9ha on the eastern edge of Crewkerne. The results indicate the presence of three ring ditch features, former land boundaries and a possible trackway. The parallel linear anomalies appear to relate to an early field system, but they are also parallel with former ridge and furrow in the southern part of the site and an association is possible. A zone of magnetic debris is associated with a number of positive linear and rectilinear responses, which could be associated with a demolished building or industrial activity. Within an area to the north east, the majority of the anomalies are associated with land drainage and agricultural activity; however, there are some fragmented linear anomalies and a positive curvilinear and a patch of magnetic enhancement that appear to be associated with two low mounds. The entire western land parcel contains magnetic debris and has been subject to ground make-up and dumping.

1 INTRODUCTION

1.1 Survey background

1.1.1 Archaeological Surveys Ltd was commissioned by Cotswold Archaeology to undertake a magnetometer survey of an area of land to the north of Station Road, Crewkerne, Somerset. The site has been outlined for a proposed mixed use development and the survey forms part of an archaeological assessment. This is being carried out for Taylor Wimpey as the southern phase of Crewkerne key site under a reserved matters planning application 20/00149/REM following outline approval 14/02141/OUT and amended under 19/03483/S73 for up to 110 residential dwellings.

1.1.2 The geophysical survey was carried out in accordance with a Written Scheme of Investigation (WSI) produced by Archaeological Surveys (2020) and approved by Steven Membery, Senior Historic Environment Officer for Somerset County Council, prior to commencing the fieldwork. The fieldwork has also been issued Somerset HER event no: 42835.

1.2 Survey objectives and techniques

1.2.1 The objective of the survey was to use magnetometry to locate geophysical anomalies that may be archaeological in origin so that they may be assessed prior to development of the site. The methodology is considered an efficient and effective approach to archaeological prospection.

1.2.2 Geophysical survey can provide useful information on the archaeological potential of a site; however, the outcome of any survey relies on a number of factors and as a consequence results can vary. The success in meeting the aims and objectives of a survey is, therefore, often impossible to

predetermine.

1.3 Standards, guidance and recommendations for the use of this report

1.3.1 The survey and report follow the recommendations set out by: European Archaeological Council (2015) *Guidelines for the Use of Geophysics in Archaeology;* Institute for Archaeologists (2002) *The use of Geophysical Techniques in Archaeological Evaluations.* The work has been carried out to the Chartered Institute for Archaeologists (2014) *Standard and Guidance for Archaeological Geophysical Survey.*

1.3.2 Archaeological Surveys Ltd provide a detailed geophysical survey report and it is recommended that where possible the contents should be considered in full. The Summary provides a brief overview of the results with more detail available in the Discussion and/or Conclusion. The *List of anomalies* within the Results provides a detailed assessment of the anomalies within separate categories which can be useful in inferring a level of confidence to the interpretation. Quality and factors influencing the interpretation of anomalies is also set out within the results.

1.3.3 It is recommended that the full report should always be considered when using data and interpretation plots; where this is not possible, in the field for example, the abstraction and interpretation plots should retain their colour coding and be used with a corresponding legend.

1.3.4 Where targeting of anomalies by excavation is to be carried out, care should be taken to place trenches over solid lines or features visible on the abstraction and interpretation plots. Archaeological Surveys abstraction and interpretation avoids the use of dashed or dotted line formats, and broken or fragmented lines used in interpretive plots may well correspond closely with truncation of archaeological features.

1.4 Site location, description and survey conditions

1.4.1 The site is located to the north of Station Road, on the eastern edge of Crewkerne in Somerset. It is centred on Ordnance Survey National Grid Reference (OS NGR) ST 45230 09305, see Figs 01 and 02.

1.4.2 The geophysical survey covers approximately 9ha within four land parcels, three of which were surveyed in entirety (Areas 1, 2 & 4) and are outlined for mixed use development and a separate area to the north east (Area 3) is outlined for a detention basin/attenuation pond.

1.4.3 Area 1 is a pasture field located to the east and north of an industrial site. The southern part of the field slopes down towards the north, the northern part is generally flat although the north western side slopes down into a narrow valley where there is a small stream. The northern, eastern and southern field boundaries are hedgerows; however, tall steel fencing bounds the industrial

site to the west and is associated with considerable magnetic disturbance that extends several metres into the survey area. The narrow valley to the west is very overgrown with brambles with woodland located to the north west of the area.

1.4.4 Area 2 is also pasture enclosed mainly be hedgerows with industrial sites to the west and north west, the area lies north north east of Area 1. The field is generally flat though a slightly raised area was noted close to the southern boundary.

1.4.5 Area 3 is grassland that lies to the north east of Area 2. The area slopes down gently towards the north. Several linear depressions and two low mounds were noted within the area during the course of the survey.

1.4.6 Area 4 is located to the west of the north western part of Area 1 and is bounded to the south by residential dwellings with industrial sites to the east and west, and thick scrubby vegetation to the north. A shallow valley with stream is located immediately to the east. The area had been mown prior to survey but the surface was very uneven in places due to ground make-up and dumping and areas of scrubby growth, brambles and boggy ground prevented survey in places, particularly the south eastern part of the field. Numerous modern ferrous objects within the area were associated with magnetic disturbance.

Plate 1: Area 1 with Area 2 beyond - looking north north east

1.4.7 The ground conditions across the site were generally considered to be favourable for the collection of magnetometry data across most of the site. Heavy rain prior to the survey had produced very waterlogged soil and shallow

flooding within Areas 1, 2 & 4. Weather conditions during the survey were variable with periods of heavy rain and hail.

1.5 Site history and archaeological potential

1.5.1 The Somerset HER indicates that the site has previously undergone geophysical survey in the form of magnetic susceptibility reconnaissance survey (HER no. 37567) at a course resolution followed up with some targeted detailed magnetometry (HER no. 37566) over c1.3ha within the south eastern part of the site (Stratascan, 2005), which is within Area 1 of the current survey area. Within this part of the site there were a number of linear and curvilinear anomalies that could relate to cut features, as well as a large patch of magnetic debris and a service. Further geophysical anomalies relating to Iron Age and Romano-British settlement were also located approximately 500m to the north during the earlier survey and subsequently evaluated and excavated. A former watching brief ahead of construction of a water pipe in the north eastern section of the current survey area recorded several sherds of pottery dating from the 10th century to the later medieval period (HER no. 57066) and two Roman coins dating to the 1st and 3rd centuries were recorded 100m to the north west (HER no. 53792).

1.5.2 First Edition Ordnance Survey mapping records a bleaching house and associated pond in the westernmost field (Area 4) along with a bleaching ground in the north western corner. The Bleaching House is situated 100m north of Viney Bridge Mills to the south of Station Road, which was established as a webbing factory by Sparks and Gidley in 1789 and which included a bleaching ground to the rear of the mill. Another webbing factory and Bleaching ground is recorded on the OS map 500m to the west.

1.5.3 During the course of the survey two low mounds were noted within Area 3 and a slightly raised zone at the southern end of Area 4. The pond associated with a bleaching house was also noted in Area 4 but this part of the site is overgrown and there is evidence of modern dumping.

1.6 Geology and soils

1.6.1 The underlying solid geology across the site is mudstone from the Fuller's Earth Formation (BGS, 2017)

1.6.2 The overlying soil across the survey area is from the Denchworth association and is a pelo-stagnogley soil. It consists of a slowly permeable, seasonally waterlogged, clayey soil (Soil Survey of England and Wales, 1983).

1.6.3 Magnetometry survey carried out across similar soils has produced variable results, with very low levels of magnetic susceptibility encountered with mudstone geologies and stagnogley soils. However, the previous geophysical survey in the south eastern part of the site located a number of geophysical anomalies and the underlying geology and soils are, therefore, considered

acceptable for magnetic survey.

2 METHODOLOGY

2.1 Technical synopsis

2.1.1 Magnetometry survey records localised magnetic fields that can be associated with features formed by human activity. Magnetic susceptibility and magnetic thermoremnance (also known as thermoremanence) are factors associated with the formation of localised fields.

2.1.2 Iron minerals within the soil may become altered by burning and the break down of biological material; effectively the magnetic susceptibility of the soil is increased, and the iron minerals become magnetic in the presence of the Earth's magnetic field. Accumulations of magnetically enhanced soils within features, such as pits and ditches, may produce magnetic anomalies that can be mapped by magnetic prospection.

2.1.3 Magnetic thermoremnance can occur when ferrous minerals have been heated to high temperatures such as in a kiln, hearth, oven etc. On cooling, a permanent magnetisation may be acquired due to the presence of the Earth's magnetic field. Certain natural processes associated with the formation of some igneous and metamorphic rock may also result in magnetic thermoremnance.

2.1.4 The localised variations in magnetism are measured as sub-units of the Tesla, which is a SI unit of magnetic flux density. These sub-units are nano Teslas (nT), which are equivalent to 10^{-9} Tesla (T). Additional details are set out in 2.2 below and within Appendix A.

2.2 Equipment configuration, data collection and survey detail

2.2.1 The detailed magnetic survey was carried out using a SENSYS MAGNETO®MXPDA 5 channel cart-based system. The instrument has 5 fluxgate gradiometers (FGM650) spaced 0.5m apart with readings recorded at 20Hz. The cart is pushed at walking speed and not towed. Each sensor is not zeroed in the field as the vertical axis alignment is precisely fixed leaving sensor offsets that are removed during data processing. The fixing of the vertical alignment ensures the sensors are not unduly influenced by localised magnetic fields and that the vertical component of a magnetic anomaly is measured. The gradiometers have a measurement range of ±8000nT, although the recorded range is ±3000nT, and resolution is around 0.1nT. They are linked to a Leica GS10 RTK GNSS with data recorded by SENSYS MAGNETO®MXPDA software on a rugged PDA computer system.

2.2.2 Due to the fixed offsets within the fluxgate sensors, as a result of the manufacturing and tensioning process, the survey data do not provide a visually useful dataset until a zero median traverse algorithm is applied. It is recognised that this has the

potential to affect some anomalies detrimentally by removing linear features orientated parallel to survey transects. However, this has not been noted as a particular problem with the system due to the high resolution data collection, generally long length of traverses and variability within the magnetic characteristics of a linear anomaly.

2.2.3 Data are collected along a series of parallel survey transects to achieve 100% coverage of the surveyable land. The length of each transect is variable and relates to the size of the survey area and other factors including ground conditions. A visual display allows accurate placing of transects and helps maintain the correct separation between adjacent traverses. Data are not collected within fixed grids and data points are considered to be random even though the data are collected in a systematic manner covering all accessible areas (Aspinall, Gaffney and Schmidt, 2009).

2.2.4 Fluxgate sensors are highly sensitive to temperature change and this manifests as drift during the course of a survey. This can be particularly noticeable during the morning as temperatures rise and the equipment warms or cools. Sensor drift within the course of a traverse will appear as a line trending from negative to positive after processing with a zero median traverse algorithm. To remove the potential for temperature drift, data were collected after a 20 minute stabilisation period and traverses were limited to a time of generally <100s.

2.3 Data processing and presentation

2.3.1 Magnetic data collected by the MAGNETO®MXPDA cart-based system are initially prepared using SENSYS MAGNETO®DLMGPS software. The software effectively allocates a geographic position for each data point and can compensate for fixed offsets present within the FGM650 sensors. The offsets are positive or negative values present on all fluxgate gradiometer sensors. Some systems use manual or electronic balancing to effectively zero the sensors; however, this is a short term measure that is prone to drift through temperature changes and vibration and can easily be incorrectly set due to localised magnetic fields. The FGM650 sensors are very accurately aligned to the vertical magnetic gradient and are highly stable showing negligible drift on long traverses. The offset values are removed using TerraSurveyor software.

2.3.2 Survey tracks are analysed and georeferenced raw data (UTM Z30N) are then exported in ASCII format for further analysis and display within TerraSurveyor. The removal of the offset values (compensation) of the sensors is also carried out in TerraSurveyor using a zero median traverse function. Data are then considered to be minimally processed. Note: without the zero median traverse function it is not possible to create a meaningful data plot as all sensors have a different offset value. Although a zero median traverse algorithm can remove anomalies aligned with the survey tracks, in practice this rarely occurs due to the use of long traverses, high resolution measurement and variability within the magnetic susceptibility of long linear features.

2.3.3 The minimally processed data are collected between limits of ±3000nT and clipped for display between ±100nT and ±2nT. Data are interpolated to a resolution of effectively 0.5m between tracks and 0.15m along each survey track.

2.3.4 Additional data processing has been carried out for Areas 1 & 2 in the form of high pass filtering. This effectively removes low frequency variation along a traverse that has been caused by large magnetic bodies, cultivation or rapid temperature change. Additional data processing has been carried out for Area 3 in the form of low pass filtering. This effectively removes high frequency variation along a traverse that has been caused by uneven ground and associated vibration. Data treated to additional processing have been compared to unprocessed data to ensure that no significant anomalies have been removed.

2.3.5 Appendix C contains metadata concerning the survey and data attributes and is derived directly from TerraSurveyor. Reference should be made to Appendix B for further information on processing.

2.3.6 A TIF file is produced by TerraSurveyor software along with an associated world file (.TFW) that allows automatic georeferencing (OSGB36 datum) when using GIS or CAD software. The main form of data display used in the report is the minimally processed greyscale plot. With regard to the Sensys MXPDA, minimally processed data are considered by the manufacturer to be data that are compensated by SENSYS MAGNETO DLMGPS software, see 2.3.1 and 2.3.2. Note: traceplots are not considered to be appropriate as they do not provide an accurate or useful assessment of the magnetic anomalies due to the very high density of data collection. In addition, traceplots cannot be meaningfully plotted against base mapping and in areas of complexity traces may be lost or highly confused. Traceplots may be used to demonstrate characteristic magnetic profiles across discrete features where it is considered beneficial.

2.3.7 The raster images are combined with base mapping using ProgeCAD Professional 2020, creating DWG (2018) file formats. All images are externally referenced to the CAD drawing in order to maintain good graphical quality. The CAD plots are effectively georeferenced facilitating relocation of features using GNSS, resection method, etc.

2.3.8 An abstraction and interpretation is drawn and plotted for all geophysical anomalies located by the survey. Anomalies are abstracted using colour coded points, lines and polygons. All plots are scaled to landscape A3 for paper printing. Appendix E sets out CAD layer names with colour and graphic content for each interpretation category, see 3.3.

2.3.9 A brief summary of each anomaly, with an appropriate reference number, is set out in list form within the results (Section 3) to allow a rapid and objective assessment of features within each survey area.

2.3.10 A digital archive is produced with this report, see Appendix D below. The main archive is held at the offices of Archaeological Surveys Ltd.

3 RESULTS

3.1 General assessment of survey results

3.1.1 The detailed magnetic survey was carried out over a total of four survey areas covering approximately 9ha.

3.1.2 Magnetic anomalies located can be generally classified as positive and negative responses of archaeological potential, positive and negative anomalies of an uncertain origin, anomalies associated with agricultural activity and land drainage, anomalies of a natural origin, areas of magnetic debris and disturbance, strong discrete dipolar anomalies relating to ferrous objects and strong multiple dipolar linear anomalies relating to buried services or pipelines. Anomalies located within each survey area have been numbered and are described in 3.4 to 3.7 below.

3.2 Statement of data quality and factors influencing the interpretation of anomalies

3.2.1 Data are considered representative of the magnetic anomalies present within the site. There are no significant defects within the dataset.

3.2.2 Localised zones of magnetic disturbance have been caused by modern ferrous material used in fencing, services and large steel objects stored outside of, but immediately adjacent to, the survey areas. The high magnitude magnetic fields caused by this material has the potential to obscure weak anomalies of archaeological potential should they exist within those zones. Similarly, widespread magnetic debris within Area 4 may also obscure weak anomalies.

3.2.3 High and low pass filtering was used to improve the data clarity within some of the areas (see 2.3.4). Although this additional processing has the potential to remove more significant anomalies, both filtered and unfiltered data are analysed to ensure no anomalies have been detrimentally affected.

3.2.4 The data appear to indicate some natural variation in magnetic susceptibility and this may relate to the properties of the soil and underlying geology or the degree and duration of waterlogging. Clear anomalies are located on slightly higher ground in the southern part of the site with much weaker anomalies on lower lying land further to the north. It is known that magnetic susceptibility may be suppressed by a high water table and frequent waterlogging and this may be the main factor within the site. Linear anomalies within Area 2 appear to weaken as they cross more waterlogged ground in the northern part of the field. It is possible that there is also a ‘habitation effect’ where anomalies

demonstrate stronger magnetic contrast closer to more intensive anthropogenic activity or occupation. Any assessment of the location and distribution of anomalies with archaeological potential across the site should bare these factors in mind, as it cannot be confidently determined whether the lack of clear anomalies within the northern part of Area 2 and Area 3 actually represent a lack of features or natural suppression of soil magnetic susceptibility.

3.2.5 Clear negative anomalies were located within Areas 1 and 2 and these have been caused by material of comparatively low magnetic susceptibility such as clay, sand or stone. Where parallel positive and negative linear anomalies lie immediately adjacent it is likely that the former indicate a magnetically enhanced ditch fill and the latter remnants of an adjacent bank formed by material of low magnetic susceptibility, such as subsoil removed during construction of the adjacent ditch. However, where negative linear anomalies are not associated with positive responses, this may indicate backfilling of former cut features with subsoil or remnants of former banks or other structures. Long linear anomalies with a negative response can form through agricultural activity also.

3.3 Data interpretation

3.3.1 The list of sub-headings below attempts to define a number of separate categories that reflect the range and type of features located during the survey. A general explanation of the characteristics of the magnetic anomalies is set out for each category in order to justify interpretation, see Table 1.

Interpretation category	Description and origin of anomalies
Anomalies with archaeological potential	Anomalies have the characteristics (mainly morphological) of a range of archaeological features such as pits, ring ditches, enclosures, field systems etc. The category is used where there is a high level of confidence which may be due to additional supporting information where morphology is unclear or uncharacteristic.
Anomalies with an uncertain origin	The category applies to a range of anomalies where there is not enough evidence to confidently suggest an origin. Anomalies in this category may well be related to archaeologically significant features, but equally relatively modern features, geological/pedological features and agricultural features should be considered. Morphology may be unclear or uncharacteristic and there may be a lack of additional supporting information. Positive anomalies are indicative of magnetically enhanced soils that may form the fill of 'cut' features or may be produced by accumulation within layers or 'earthwork' features; soils subject to burning may also produce positive anomalies. Negative anomalies are produced by material of comparatively low magnetic susceptibility such as stone and subsoil.
Anomalies relating to land management	Land drains can appear in a classic herringbone pattern of interconnected multiple dipolar linear anomalies, or as parallel linear anomalies. The multiple dipolar response indicates ceramic land drains.
Anomalies with an agricultural origin	The anomalies are often linear and form a series of parallel responses or are parallel to extant land boundaries. Where the response is broad, former ridge and furrow is likely; narrow response is often related to modern ploughing. This category does not include agricultural features of early date or considered to be of archaeological potential (e.g. animal stockades, enclosures, farmsteads, etc).
Anomalies associated with magnetic debris	Magnetic debris often appears as areas containing many small dipolar anomalies that may range from weak to very strong in magnitude. They often occur where there has been dumping or ground make-up and are related to magnetically thermoremnant materials such as brick or tile or other small fragments of ferrous material. This type of response is occasionally associated with kilns, furnace structures, hearths and nail spreads from former wooden structures or rooves and may, therefore, be archaeologically significant. It is also possible that the response may be caused by natural material such as certain gravels and fragments of igneous or metamorphic

	rock. Strong discrete dipolar anomalies are responses to ferrous objects within the topsoil.
Anomalies with a modern origin	The magnetic response is often strong and dipolar indicative of ferrous material and may be associated with extant above surface features such as wire fencing, cables, pylons etc. Often a significant area around these features has a strong magnetic flux which may create magnetic disturbance; such disturbance can effectively obscure low magnitude anomalies if they are present. Fluxgate sensors may respond erratically adjacent to strong magnetic sources. Buried services may produce characteristic multiple dipolar anomalies dependant upon their construction.
Anomalies with a natural origin	Naturally formed magnetic anomalies are caused by localised variability in the magnetic susceptibility of soils, subsoils and other drift or solid geologies. Anomalies may be amorphous, linear or curvilinear and may appear 'fluvial' or discrete; the latter are almost impossible to distinguish from pit-like anomalies with an anthropogenic origin. Fluvial, glacial and periglacial processes may be responsible for their formation within drift material and subsoil. Igneous and metamorphic activity can lead to anomalies within more solid geology.

Table 1: List and description of interpretation categories

3.4 List of anomalies - Area 1

Area centred on OS NGR 345130 109240, see Figs 06 – 08.

Anomalies of archaeological potential

(1) – Area 1 appears to contain three positive curvilinear anomalies in a line oriented north east to south west. They are generally partial anomalies, but the outer diameter is between 9.5m and 12.5m. This type of response could relate to late prehistoric round houses; however, a similar feature with a 12m diameter was located through earlier geophysical survey 730m to the north and upon excavation was revealed to relate to a Bronze Age round barrow.

(2) – A negative and adjacent positive linear anomaly relate to a linear boundary feature which extends north eastwards into Area 2. The responses could suggest a former boundary ditch with a bank on the northern side.

(3) – A T-shaped anomaly can be seen in the southern part of the survey area. The outer positive responses appear to relate to boundary ditches that flank an internal negative anomaly which could relate to a former trackway. Anomalies (22) have similar characteristics which may indicate elements of an early field system across the site.

(4 & 5) – The survey area contains a number of positive (4) and negative (5) linear anomalies that are oriented north to south. Anomaly (5) appears to be a continuation of negative rectilinear anomaly (19) within Area 2 to the north. The responses relate to a series of former land boundaries forming a field system; however, they are parallel with former ridge and furrow.

Anomalies with an uncertain origin

(6) – A number of positive linear and rectilinear anomalies are situated in the southern part of the survey area. It is not clear if they relate to cut features or former agricultural activity.

(7) – A number of positive linear and possible rectilinear anomalies are associated with a large zone of magnetic debris (15) in the north eastern part of the survey area. It is possible that they are a response to brick, possibly former structural remains or a series of drains but there is no coherent morphology.

(8) – A number of linear and curvilinear anomalies are located in the north eastern corner of the survey area, immediately south of a ring ditch feature. It is possible that they relate to associated cut features.

(9) – Located at the southern end of the survey area are a number of positive and negative anomalies. It is not clear if they relate to features with an anthropogenic/ archaeological origin, or if they are associated with naturally formed features.

(10) – A number of positive linear and discrete anomalies are located in the north western part of the survey area. Some of these anomalies could relate to former agricultural activity, but the majority lack a clear morphology and may be associated with the underlying geology/soils.

(11) – Situated within and adjacent to anomalies (3) are two discrete negative anomalies, two similar responses are located to the north in Area 2. The negative anomaly is a response to material with less magnetic susceptibility than the surrounding soil, such as subsoil or rock. The anomalies are oval in shape 2.5-3m long and 1.5m wide.

Anomalies with an agricultural origin

(12) – A series of parallel linear anomalies, spaced 6m apart and oriented almost north to south relate to former ridge and furrow.

(13) – A series of parallel linear anomalies, spaced 2-3m apart and oriented north east to south west relate to a series of relatively modern cultivation.

Anomalies with a natural origin

(14) - A zone of magnetically variable responses in the southern part of the site is likely to relate to naturally formed features.

Anomalies associated with magnetic debris

(15) – A large patch of magnetic debris is associated with positive linear responses (7). It is possible that it relates to a demolished building, or industrial activity and could, therefore, have archaeological potential.

Anomalies with a modern origin

(16 & 17) – A very strongly magnetic anomaly (16) extending through the survey area relates to a buried service. A negative linear anomaly (17) crosses the centre of the survey area and relates to a foul water sewer.

3.5 List of anomalies - Area 2

Area centred on OS NGR 345265 109400, see Figs 09 – 11.

Anomalies of archaeological potential

(18) – A rectilinear anomaly appears to be located on a slightly raised area visible on the ground surface, although it is unclear whether this is natural or man-made. It does not appear to extend further southwards than the current field boundary into Area 1. It is associated with a discrete negative response as an extension on the eastern side, similar to anomaly (23) to the north and anomalies (11) in Area 1 to the south. It is uncertain as to whether the negative magnetic responses indicate former ditch-like features filled with material of very low magnetic susceptibility, such as clay, stone or sand, or whether they represent remnants of banks.

(19) – A negative rectilinear anomaly continues southwards as anomaly (5) in Area 1 and relates to a former boundary feature associated with the field system.

(20) – A negative rectilinear anomaly appears to truncate anomalies (22) and although it is not parallel with the field system boundaries it could relate to a boundary feature.

(21) – Positive linear anomaly with some associated negative response appears to relate to a linear boundary ditch (2) that extends within Areas 1 and 2 for over 300m, although it is fragmented. Although not generally parallel with the field system boundaries, they do appear to extend towards, but not beyond it.

(22) – Anomalies with similar characteristics to (3) but weaker and appears to relate to the early field system.

Anomalies with an uncertain origin

(23) – A discrete negative response, similar to those seen to the south (11).

(24) – A cluster of discrete, pit-like anomalies is located in the central eastern part of the survey area. Other discrete anomalies are associated to the east and west. While this type of response can relate to a naturally formed feature, such as a tree throw pit, an archaeological origin is possible.

(25) – The survey area contains a number of weakly positive linear anomalies that lack a coherent morphology. While it is possible that they relate to cut, ditch-like features, this is uncertain.

Anomalies associated with land management

(26) – The survey area contains a series of land drains that appears to run into a collector parallel with the eastern land boundary.

3.6 List of anomalies - Area 3

Area centred on OS NGR 345500 109500, see Figs 12 – 14.

Anomalies with an uncertain origin

(27 & 28) – A positive curvilinear anomaly (27) appears to relate to a ditch-like feature surrounding a low circular mound visible on the ground surface. A small patch of magnetic enhancement (28) also corresponds with another low mound within the field.

(29) – The survey area contains a number of weakly positive linear anomalies. While some could be associated with land drainage and agricultural activity, they generally lack a coherent morphology.

Anomalies associated with land management

(30) – Land drains are evident in the south eastern part of the survey area.

Anomalies with an agricultural origin

(31) – The survey area has two series of parallel linear anomalies that appear to relate to former ridge and furrow; however, an association with land drainage is also possible.

3.7 List of anomalies - Area 4

Area centred on OS NGR 344913 109315, see Figs 15 – 17.

Anomalies with an uncertain origin

(31) – The survey area appears to contain a small number of positive and negative linear anomalies. It is possible that these relate to drains extending towards the pond to the south east.

Anomalies associated with magnetic debris

(32 & 33) – The entire survey area contains widespread magnetic debris (32) including some very large and strongly magnetic responses likely to relate to ferrous material of modern origin.

4 CONCLUSION

4.1.1 The geophysical survey has located a number of anomalies with archaeological potential within the site. These include three ring ditch features, a possible trackway and former boundary features within Area 1 and rectilinear and linear features that extend into Area 2. A small number of discrete negative responses have been located, which relate to material such as stone or subsoil within or covering discrete features.

4.1.2 Area 3 has been outlined for a storm water attenuation pond, and although the majority of the anomalies in this area are related to agricultural activity and land drainage, two anomalies correspond to low mounds in the field. The origin of the mounds and the responses is uncertain.

4.1.3 Area 4 in the western part of the site contains widespread strongly magnetic debris which indicates that this has been subject to modern ground make-up and dumping.

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Appendix A – basic principles of magnetic survey

Iron minerals are always present to some degree within the topsoil and enhancement associated with human activity is related to increases in the level of magnetic susceptibility and thermoremnant material. Magnetic susceptibility is an induced magnetism within a material when it is in the presence of a magnetic field. This can be thought of as effectively permanent due to the presence of the Earth's magnetic field. Thermoremnant magnetism occurs when ferrous material is heated beyond a specific temperature known as the Curie Point. Demagnetisation occurs at this temperature with re-magnetisation by the Earth's magnetic field upon cooling.

Enhancement of magnetic susceptibility can occur in areas subject to burning and complex fermentation processes on biological material; these are frequently associated with human settlement. Thermoremnant features include ovens, hearths, and kilns. In addition thermoremnant material such as tile and brick may also be associated with human activity and settlement.

Silting and deliberate infilling of ditches and pits with magnetically enhanced soil can create an area of enhancement compared with surrounding soils and subsoils into which the feature is cut. Mapping enhanced areas will produce linear and discrete anomalies allowing an assessment and characterisation of hidden subsurface features.

It should be noted that areas of negative enhancement can be produced from material having lower magnetic properties compared to the topsoil. This is common for many sedimentary bedrocks and subsoils which were often used in the construction of banks and walls etc. Mapping these 'negative' anomalies may also reveal archaeological features.

Magnetic survey or magnetometry can be carried out using a fluxgate gradiometer and may be referred to as gradiometry. The SENSYS gradiometer is a passive instrument consisting of two fluxgate sensors mounted vertically 65cm apart. The instrument is carried about 10-20cm above the ground surface and the upper sensor measures the Earth's magnetic field as does the lower sensor but this is influenced to a greater degree by any localised buried magnetic field. The difference between the two sensors will relate to the strength of the magnetic field created by the buried feature.

There are a number of factors that may affect the magnetic survey and these include soil type, local geology and previous human activity. Situations arise where magnetic disturbance associated with modern services, metal fencing, dumped waste material etc., obscures low magnitude fields associated with archaeological features.

Appendix B – data processing notes

Clipping

Minimum and maximum values are set and replace data outside of the range with those values. Extreme values are removed improving colour or greyscale contrast associated with data values that may be archaeologically significant. Different ranges are applied to data in order to determine the most suitable for anomaly abstraction and display.

Despike

Removal of data points that exceed the mean/median/threshold by selecting a window size of data points and replace by mean/median/threshold. Magnetic spikes can be caused iron objects on the surface or within the topsoil. Despike can improve the appearance of data and remove extreme readings that may affect further processing.

High Pass Filter

Removes low frequency anomalies within the data that are not considered to be archaeologically significant and may be natural in origin. A window passes over the data, the mean of all the data within the window is subtracted from the centre value. The size of the window is adjusted as is the weighting which may be uniform or Gaussian. The process is used to improve the visibility of anomalies of interest.

Low Pass Filter

Removes high frequency anomalies or 'noise' within datasets and provides a smoother output. A window passes over the data, the mean of all the data within the window is used to replace the centre value. The size of the window is adjusted as is the weighting. The process is used to improve the visibility of anomalies of interest.

Zero Median/Mean Traverse

The median (or mean) of data from each traverse is calculated ignoring data outside a threshold value, the median (or mean) is then subtracted from the traverse. The process is used to equalise differences between the offset values of the gradiometer sensors. The process can remove archaeological features that run along a traverse but with the high resolution datasets created by the Sensys FGM650 sensors and the method of data collection this has not been a notable problem. In fact, the removal of offsets using software avoids carrying out a balancing procedure on site, which inevitably can never be done in magnetically clean conditions and results in improperly aligned fluxgate sensors and/or electronic adjustment values.

Appendix C – survey and data information

Area 1 minimally processed data
Filename: J836-mag-Area1-proc.xcp
Description: Imported as Composite from: J836-mag-Area1.asc
Instrument Type: Sensys DLMGPS
Units: nT
UTM Zone: 30U
Survey corner coordinates (X/Y):OSGB36
Northwest corner: 344991.99, 109367.30 m
Southeast corner: 345251.19, 109069.10 m
Collection Method: Randomised
Sensors: 5
Dummy Value: 32702
Source GPS Points: 1011400
Dimensions
Composite Size (readings): 1728 x 1988
Survey Size (meters): 259 m x 298 m
Grid Size: 259 m x 298 m
X Interval: 0.15 m
Y Interval: 0.15 m
Stats
Max: 11.05
Min: -11.00
Std Dev: 3.91
Mean: -0.03
Median: 0.03
Composite Area: 7.7293 ha
Surveyed Area: 3.3997 ha
PROGRAM
Name: TerraSurveyor
Version: 3.0.23.0
GPS based Proce4
1 Base Layer.
2 Unit Conversion Layer (to OSGB36).
3 DeStripe Median Traverse:
4 Clip from -10.00 to 10.00 nT

Area 1 filtered data
Filename: J836-mag-Area1-proc-hpf.xcp
Stats
Max: 5.53
Min: -5.50
Std Dev: 1.70
Mean: 0.01
Median: 0.00
1 Base Layer.
2 Unit Conversion Layer (Lat/Long to OSGB36).
3 DeStripe Median Traverse:
4 Clip from -5.00 to 5.00 nT
5 High pass Uniform (median) filter: Window dia: 250
6 Clip from -5.00 to 5.00 nT

Area 2 minimally processed data
Filename: J836-mag-Area2-proc.xcp
Description: Imported as Composite from: J836-mag-Area2.asc
Northwest corner: 345170.33, 109513.07 m
Southeast corner: 345374.63, 109273.67 m
Source GPS Points: 970100
Dimensions
Composite Size (readings): 1362 x 1596
Survey Size (meters): 204 m x 239 m
Grid Size: 204 m x 239 m
X Interval: 0.15 m
Y Interval: 0.15 m
Stats
Max: 11.05
Min: -11.00
Std Dev: 2.80
Mean: 0.01
Median: 0.00
Composite Area: 4.8909 ha
Surveyed Area: 3.1591 ha
GPS based Proce4
1 Base Layer.
2 Unit Conversion Layer (Lat/Long to OSGB36).
3 DeStripe Median Traverse:
4 Clip from -10.00 to 10.00 nT

Area 2 filtered data
Filename: J836-mag-Area2-proc-hpf.xcp
Stats
Max: 3.32
Min: -3.30
Std Dev: 0.91
Mean: 0.01
Median: 0.00
Composite Area: 4.8909 ha
Surveyed Area: 3.1591 ha

Area 3 minimally processed data

Filename: J836-mag-Area3-proc.xcp
Description: Imported as Composite from: J836-mag-Area3.asc
Northwest corner: 345414.15, 109550.03 m
Southeast corner: 345577.65, 109448.63 m
Source GPS Points: 367700
Dimensions
Composite Size (readings): 1090 x 676
Survey Size (meters): 164 m x 101 m
Grid Size: 164 m x 101 m
X Interval: 0.15 m
Y Interval: 0.15 m
Stats
Max: 5.53
Min: -5.50
Std Dev: 0.82
Mean: 0.02
Median: 0.00
Composite Area: 1.6579 ha
Surveyed Area: 1.2521 ha
GPS based Proce4
1 Base Layer.
2 Unit Conversion Layer (Lat/Long to OSGB36).
3 DeStripe Median Traverse:
4 Clip from -5.00 to 5.00 nT

Area 3 filtered data

Filename: J836-mag-Area3-proc-lpf.xcp
Stats
Max: 2.21
Min: -2.20
Std Dev: 0.52
Mean: 0.01
Median: 0.01
GPS based Proce5
1 Base Layer.
2 Unit Conversion Layer (Lat/Long to OSGB36).
3 DeStripe Median Traverse:
4 Lo pass Uniform (median) filter: Window dia: 13
5 Clip from -2.00 to 2.00 nT

Area 4 minimally processed data

Filename: J836-mag-Area4-proc.xcp
Description: Imported as Composite from: J836-mag-Area4.asc
Northwest corner: 344854.75, 109380.61 m
Southeast corner: 344977.75, 10 m
Source GPS Points: 242100
Dimensions
Composite Size (readings): 820 x 762
Survey Size (meters): 123 m x 114 m
Grid Size: 123 m x 114 m
X Interval: 0.15 m
Y Interval: 0.15 m
Stats
Max: 110.50
Min: -110.00
Std Dev: 43.87
Mean: -0.50
Median: -0.02
Composite Area: 1.4059 ha
Surveyed Area: 0.80944 ha
GPS based Proce4
1 Base Layer.
2 Unit Conversion Layer (Lat/Long to OSGB36).
3 DeStripe Median Traverse:
4 Clip from -100.00 to 100.00 nT
Stats
Max: 11.05
Min: -11.00
Std Dev: 7.75
Mean: -0.16
Median: -0.09
GPS based Proce5
1 Base Layer.
2 Unit Conversion Layer (Lat/Long to OSGB36).
3 DeStripe Median Traverse:
4 Clip from -100.00 to 100.00 nT
5 Clip from -10.00 to 10.00 nT

Appendix D – digital archive

Archaeological Surveys Ltd hold the primary digital archive at their offices in Wiltshire. Data are backed-up onto an on-site data storage drive and at the earliest opportunity data are copied to CD ROM for storage on-site and off-site.

A PDF copy will be supplied to the Somerset Historic Environment Record with greyscale images and abstraction layers made available on request. The report will also be uploaded to the Online AccesS to the Index of archaeological investigationS (OASIS) and a summary of the results will be placed in the Somerset Archaeology 2021 section of the forthcoming Proceedings of the Somerset Archaeological and Natural History Society.

Archive contents:

File type	Naming scheme	Description
Data	J836-mag-**[area number/name]**.asc J836-mag-**[area number/name]**.xcp J836-mag-**[area number/name]**-proc.xcp	Raw data as ASCII CSV TerraSurveyor raw data TerraSurveyor minimally processed data
Graphics	J836-mag-**[area number/name]**-proc.tif	Image in TIF format
Drawing	J836-**[version number]**.dwg	CAD file in 2010 dwg format
Report	J836 report.odt	Report text in Open Office odt format

Table 2: Archive metadata

Appendix E – CAD layers for abstraction and interpretation plots

The table below sets out Archaeological Surveys Ltd CAD layer names with associated colours and graphical content. Where CAD files are available layers may be extracted for further CAD/GIS use. Note: hatched polygon boundaries are contained within layers with the RGB colour code 254, 255, 255 (near white) in order to prevent their visibility.

Report sub-heading and associated CAD layer names	Colour with RGB index	Layer content
Anomalies with archaeological potential		
AS-ABST MAG POS DISCRETE ARCHAEOLOGY	Red 255,0,0	Solid donut, point or polygon (solid)
AS-ABST MAG POS ARCHAEOLOGY	Red 255,0,0	Polygon (cross hatched ANSI37)
AS-ABST MAG POS LINEAR ARCHAEOLOGY	Red 255,0,0	Polyline or polygon (solid)
AS-ABST MAG POS CURVILINEAR RING DITCH	Magenta 255,0,255	Polyline or polygon (solid)
AS-ABST MAG BOUNDARY	127,0,0	Line, polyline or polygon (solid or cross hatched ANSI37)
Anomalies with an uncertain origin		
AS-ABST MAG POS LINEAR UNCERTAIN	255,127,0	Line, polyline or polygon (solid)
AS-ABST MAG NEG LINEAR UNCERTAIN	Blue 0,0,255	Line, polyline or polygon (solid)
AS-ABST MAG POS DISCRETE UNCERTAIN	255,127,0	Solid donut, point or polygon (solid)
AS-ABST MAG NEG DISCRETE UNCERTAIN	Blue 0,0,255	Solid donut, point or polygon (solid)
AS-ABST MAG POS UNCERTAIN	255,127,0	Polygon (cross hatched ANSI37)
AS-ABST MAG NEG UNCERTAIN	Blue 0,0,255	Polygon (cross hatched ANSI37)
Anomalies relating to land management		
AS-ABST MAG LAND DRAIN	Cyan 0,255,255	Line or polyline
Anomalies with an agricultural origin		
AS-ABST MAG AGRICULTURAL	Green 0,255,0	Line or polyline

AS-ABST MAG RIDGE AND FURROW		0,127,63	Line, polyline or polygon (cross hatched ANSI37)
Anomalies associated with magnetic debris			
AS-ABST MAG DEBRIS		132, 132, 132	Polygon (cross hatched ANSI37)
AS-ABST MAG STRONG DIPOLAR		132, 132, 132	Solid donut, point or polygon (solid)
Anomalies with a modern origin			
AS-ABST MAG DISTURBANCE		132, 132, 132	Polygon (hatched ANSI31)
AS-ABST MAG SERVICE		132, 132, 132	Line or polyline
Anomalies with a natural origin			
AS-ABST MAG NATURAL FEATURES		Yellow 255,255,0	Polygon (cross hatched ANSI37)

Table 3: CAD layering

Appendix F – copyright and intellectual property

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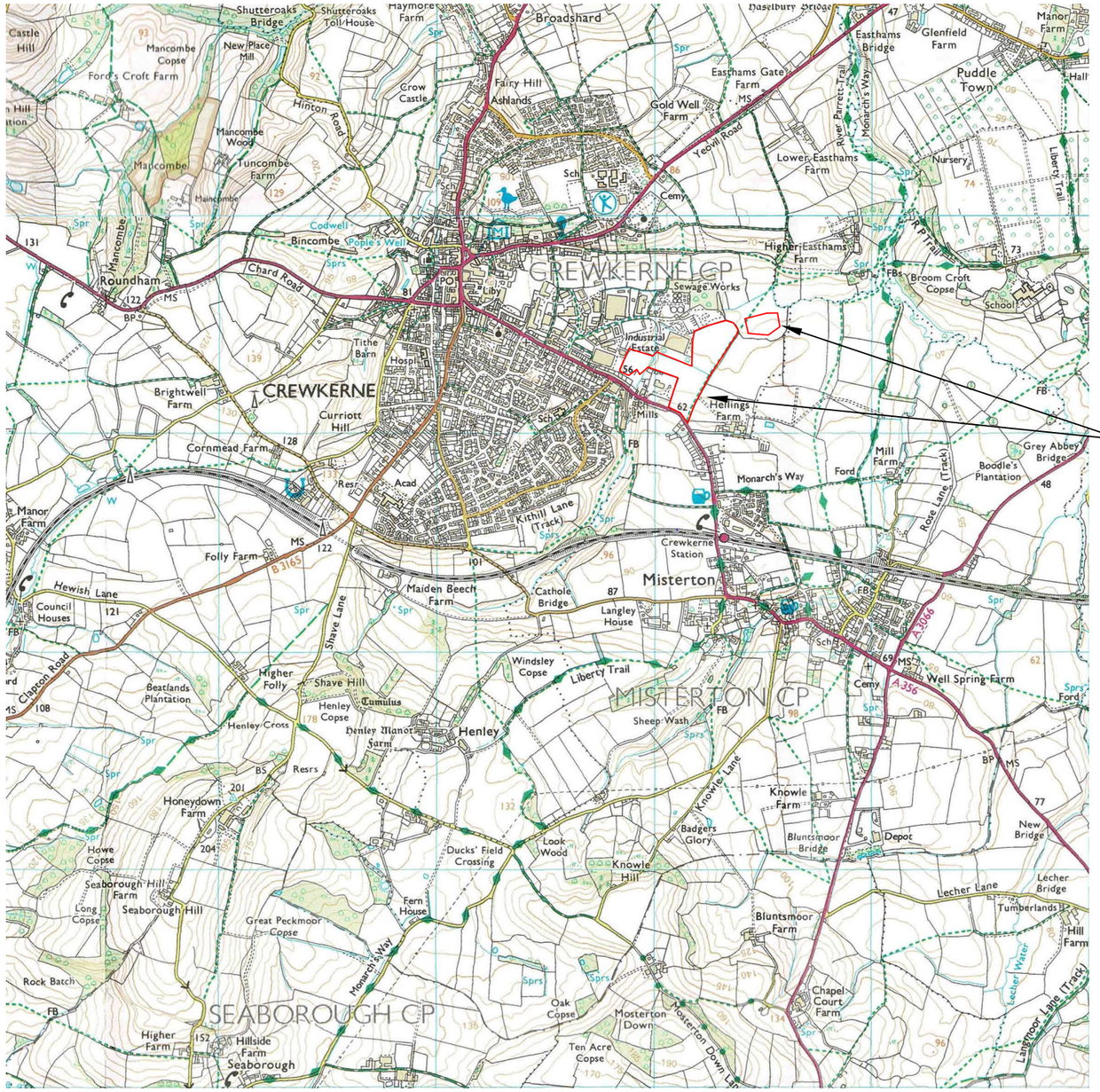
Tel: 01249 814 231



Reproduced from OS Explorer map nos.116 & 129 1:25 000 by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. Licence number 100043739.

Archaeological Surveys
Specialist Geophysical Surveyors

Geophysical Survey
Land to the north of Station Road
Crewkerne
Somerset

Map of survey area

● Survey location

Site centred on OS NGR
ST 45230 09305

SCALE 1:25 000

0m 500m 1000m

SCALE TRUE AT A3

DRAWN BY	CHECKED BY	
KTD	DJS	FIG 01

Archaeological Surveys
Specialist Geophysical Surveyors

Geophysical Survey
Land to the north of Station Road
Crewkerne
Somerset

Referencing information

Referencing grid to OSGB36 datum at 100m intervals

345100 109200

Survey tracks

Survey track start

Survey track stop

Development boundary

SCALE 1:2500

0m 50 100m

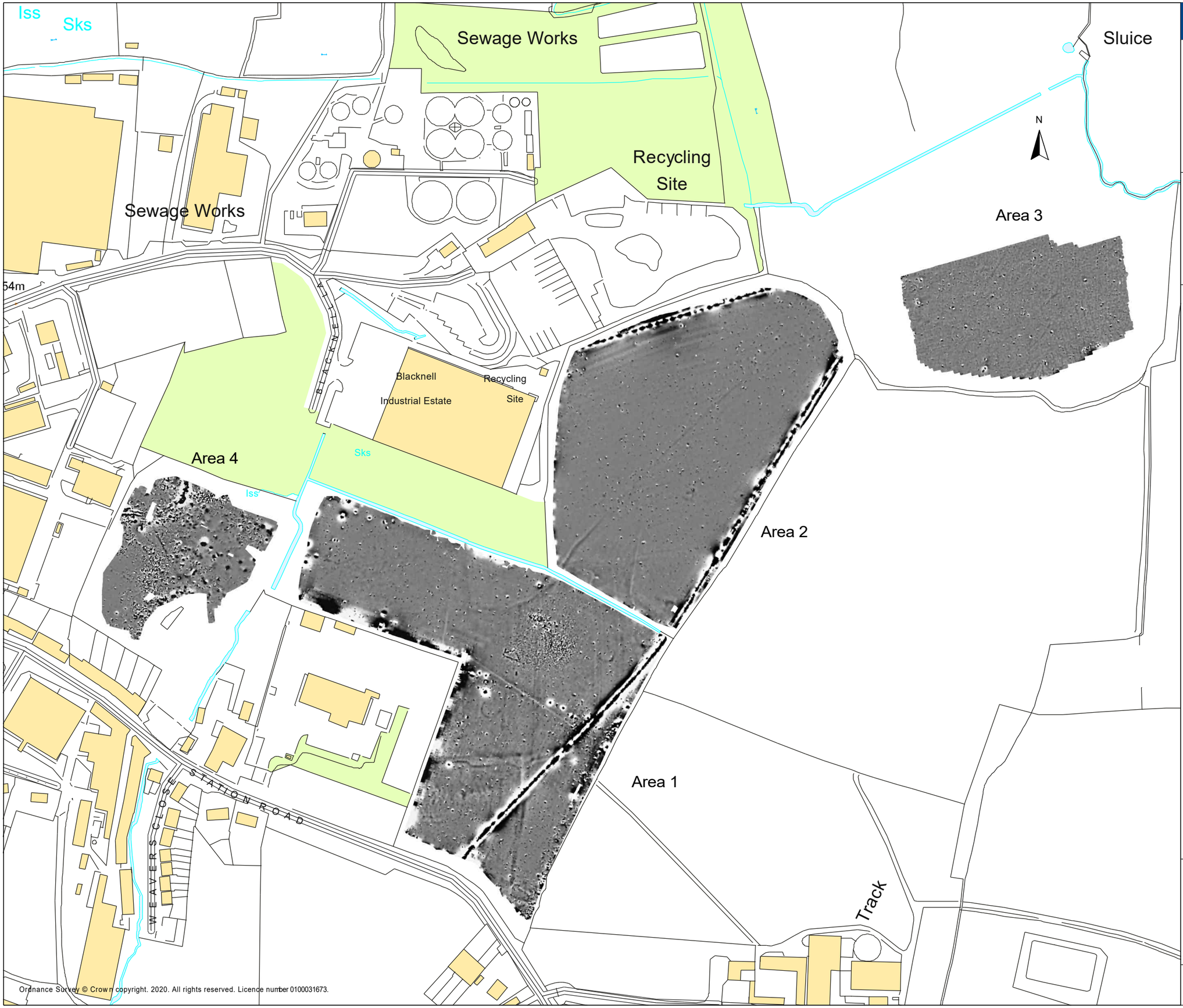
SCALE TRUE AT A3

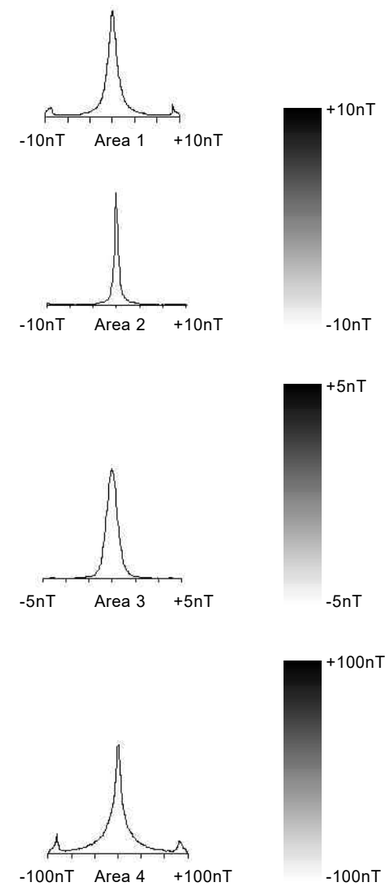
DRAWN BY	CHECKED BY	
KTD	DJS	FIG 02

Archaeological Surveys
Specialist Geophysical Surveyors

Geophysical Survey
Land to the north of Station Road
Crewkerne
Somerset

Greyscale plot of minimally processed magnetometer data





SCALE 1:2500

0m 50 100m

SCALE TRUE AT A3

DRAWN BY	CHECKED BY	
KTD	DJS	FIG 03

Archaeological Surveys
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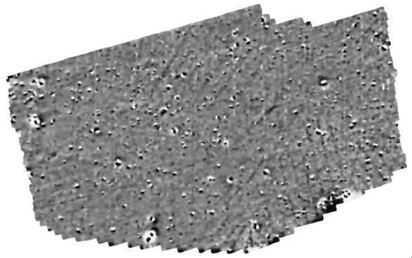
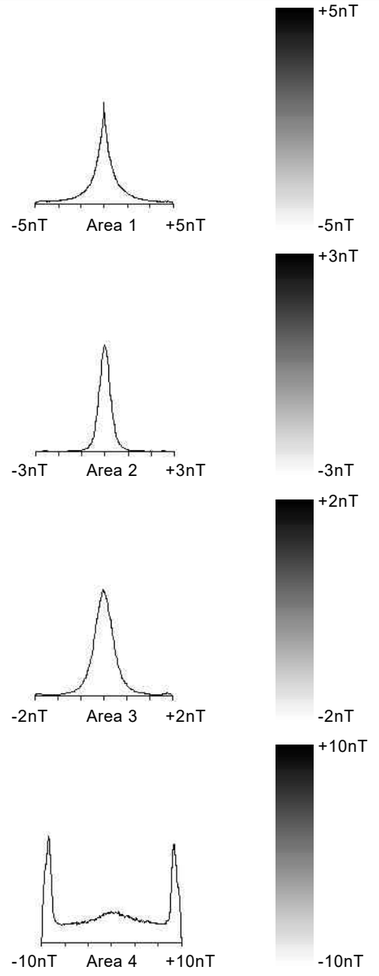
Geophysical Survey
Land to the north of Station Road
Crewkerne
Somerset

Greyscale plot of filtered magnetometer data

Iss
Sks
Sewage Works
Recycling Site
Sewage Works
Sluice
N
Area 3
54m
Blacknell Industrial Estate
Recycling Site
BLACKNELL
Area 4
Sks
Iss
Area 2
Area 1
STATION ROAD
WEAVERS CLOSE
Track





SCALE 1:2500

0m 50 100m

SCALE TRUE AT A3

DRAWN BY	CHECKED BY	
KTD	DJS	FIG 04

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Geophysical Survey
Land to the north of Station Road
Crewkerne
Somerset

Abstraction and interpretation of magnetic anomalies

- Positive linear anomaly - cut feature of archaeological potential
- Positive curvilinear anomaly - ring ditch
- Negative linear anomaly - of archaeological potential
- Linear anomaly - field system boundary
- Positive linear anomaly - possible ditch-like feature
- Linear anomaly - of agricultural origin
- Linear anomaly - ridge and furrow
- Positive/weak multiple dipolar linear anomaly - possible land drain
- Negative linear anomaly - material of low magnetic susceptibility
- Discrete positive response - possible pit-like feature
- Discrete negative response - material of low magnetic susceptibility
- Negative anomaly - archaeological material of low magnetic susceptibility
- Positive anomaly - magnetically enhanced material
- Negative anomaly - material of low magnetic susceptibility of uncertain origin
- Variable magnetic response - of natural origin
- Magnetic debris - spread of magnetically thermoremnant/ferrous material
- Magnetic disturbance from ferrous material
- Strong multiple dipolar linear anomaly - pipeline / cable / service
- Strong dipolar anomaly - ferrous object

SCALE 1:2500

0m 50 100m

SCALE TRUE AT A3

DRAWN BY	CHECKED BY	
KTD	DJS	FIG 05

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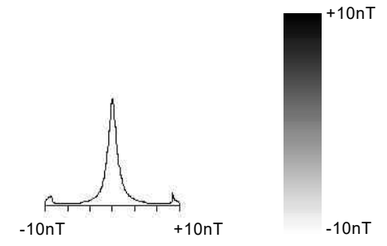
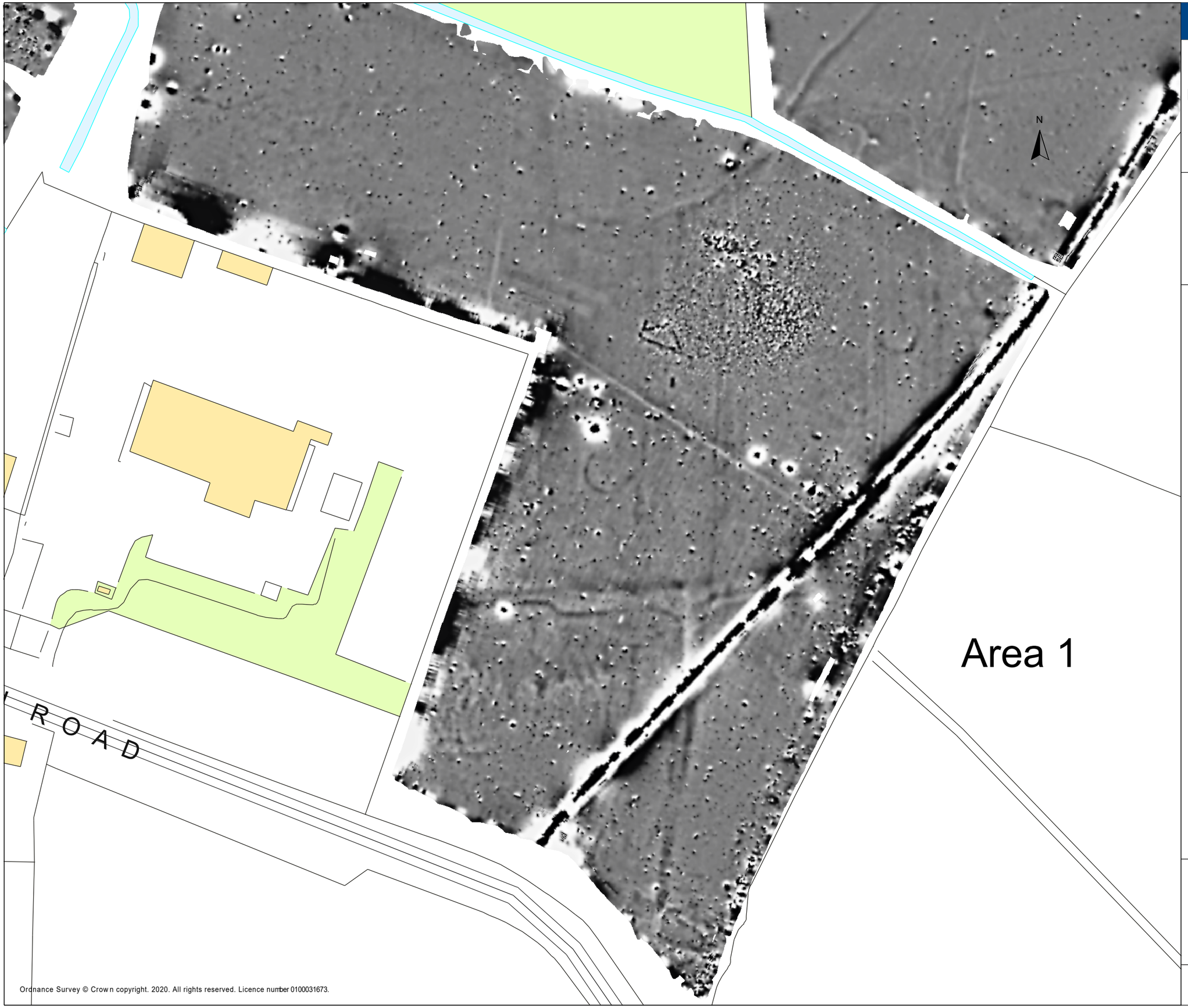
Somerset

Greyscale plot of minimally processed magnetometer data - Area 1





SCALE 1:1000

0m 10 20 30 40 50m

SCALE TRUE AT A3

DRAWN BY	CHECKED BY	
KTD	DJS	FIG 06

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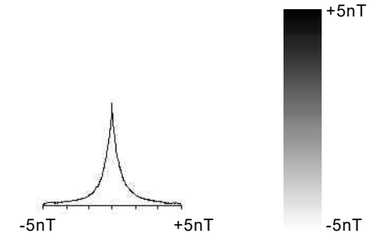
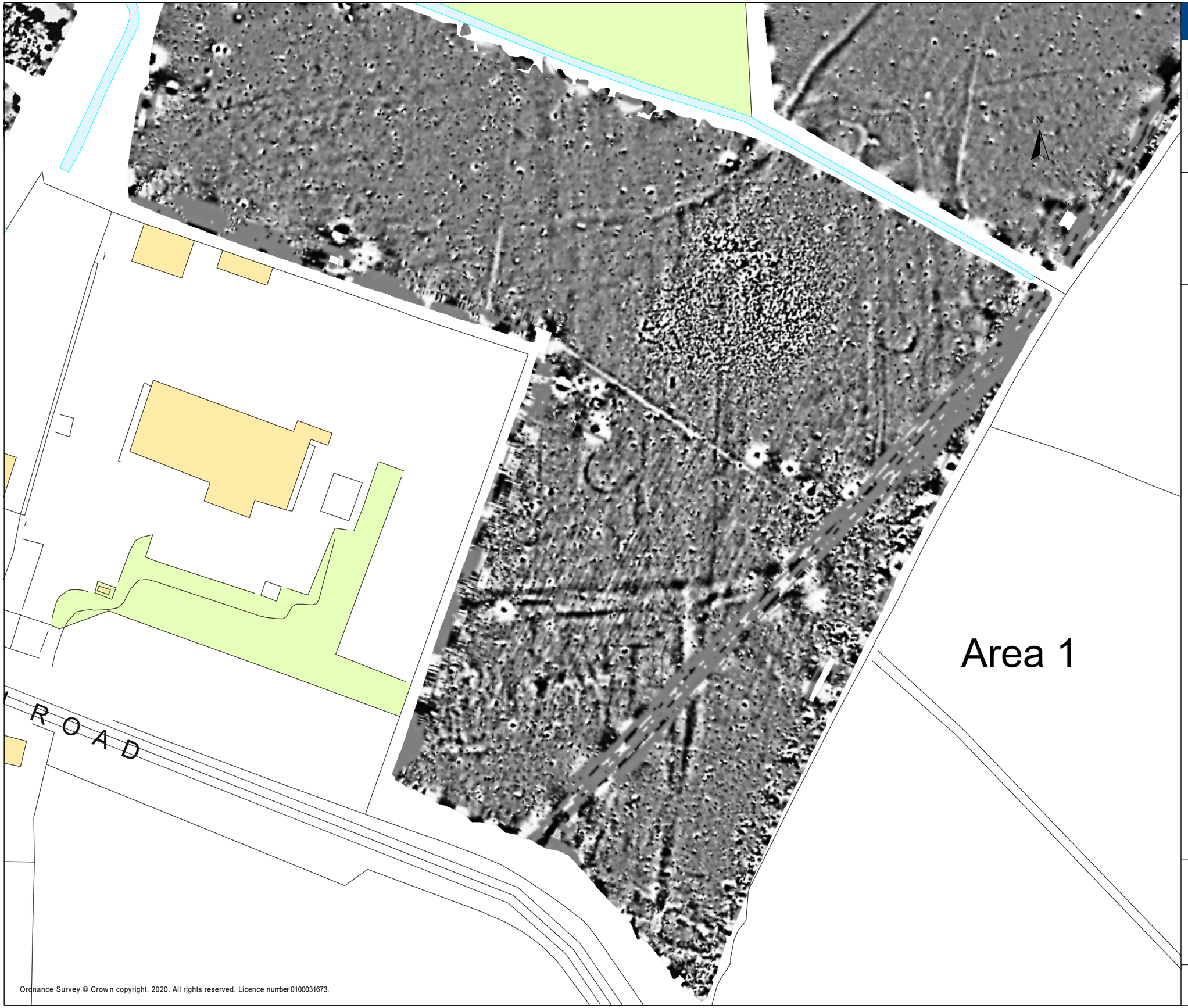
Specialist Geophysical Surveyors

Geophysical Survey
Land to the north of Station Road
Crewkerne
Somerset

Greyscale plot of filtered magnetometer data - Area 1





SCALE 1:1000

0m 10 20 30 40 50m

SCALE TRUE AT A3

DRAWN BY	CHECKED BY	
KTD	DJS	FIG 07

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Geophysical Survey
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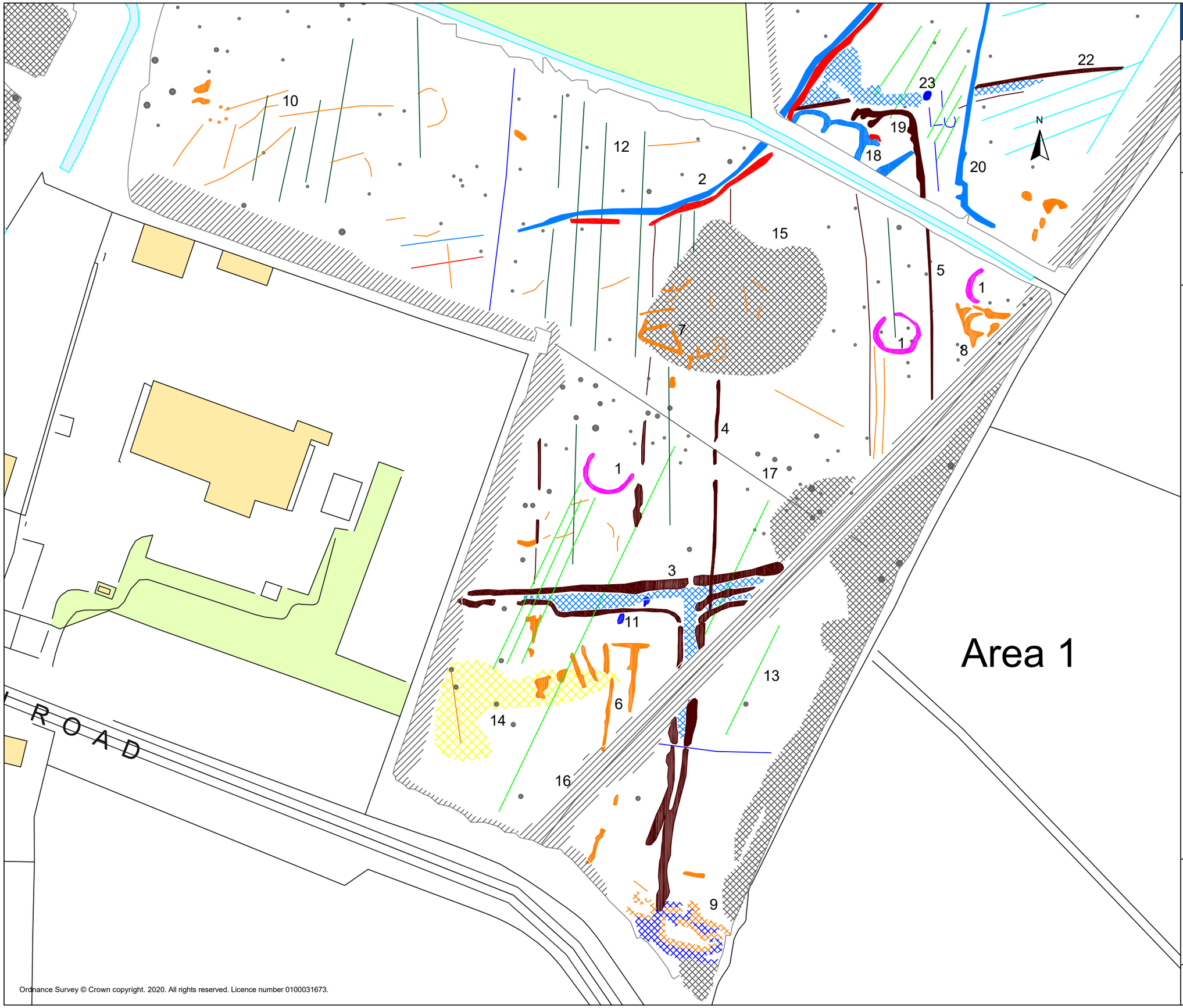
Abstraction and interpretation of magnetic anomalies - Area 1



- Positive linear anomaly - cut feature of archaeological potential
- Positive curvilinear anomaly - ring ditch
- Negative linear anomaly - of archaeological potential
- Linear anomaly - field system boundary
- Positive linear anomaly - possible ditch-like feature
- Linear anomaly - of agricultural origin
- Linear anomaly - ridge and furrow
- Negative linear anomaly - material of low magnetic susceptibility
- Discrete positive response - possible pit-like feature
- Discrete negative response - material of low magnetic susceptibility
- Negative anomaly - material of low magnetic susceptibility of archaeological potential
- Positive anomaly - magnetically enhanced material
- Negative anomaly - material of low magnetic susceptibility of uncertain origin
- Variable magnetic response - of natural origin
- Magnetic debris - spread of magnetically thermoremnant/ferrous material
- Magnetic disturbance from ferrous material
- Strong multiple dipolar linear anomaly - pipeline / cable / service
- Strong dipolar anomaly - ferrous object

SCALE 1:1000

0m 10 20 30 40 50m

SCALE TRUE AT A3

DRAWN BY	CHECKED BY	
KTD	DJS	FIG 08

Archaeological Surveys
Specialist Geophysical Surveyors

Geophysical Survey
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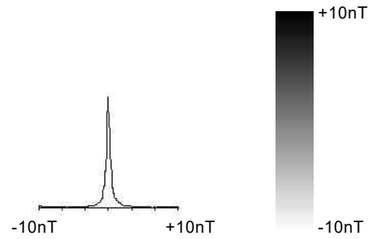
Crewkerne
Somerset

Greyscale plot of minimally processed magnetometer data - Area 2



SCALE 1:1000

0m 10 20 30 40 50m

SCALE TRUE AT A3

DRAWN BY	CHECKED BY	
KTD	DJS	FIG 09

Archaeological Surveys
Specialist Geophysical Surveyors

Geophysical Survey
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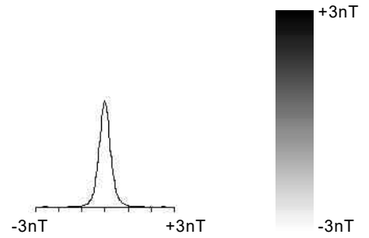
Somerset

Greyscale plot of filtered magnetometer data - Area 2



SCALE 1:1000

0m 10 20 30 40 50m

SCALE TRUE AT A3

DRAWN BY	CHECKED BY	
KTD	DJS	FIG 10

Archaeological Surveys
Specialist Geophysical Surveyors

Geophysical Survey
Land to the north of Station Road
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Abstraction and interpretation of magnetic anomalies - Area 2

N

Area 2

knell

Recycling

l Estate

Site

25

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24

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5

1

- Positive linear anomaly - cut feature of archaeological potential
- Negative linear anomaly - of archaeological potential
- Linear anomaly - field system boundary
- Positive linear anomaly - possible ditch-like feature
- Linear anomaly - of agricultural origin
- Linear anomaly - ridge and furrow
- Positive/weak multiple dipolar linear anomaly - possible land drain
- Discrete positive response - possible pit-like feature
- Discrete negative response - material of low magnetic susceptibility
- Negative anomaly - material of low magnetic susceptibility of archaeological potential
- Magnetic disturbance from ferrous material
- Strong multiple dipolar linear anomaly - pipeline / cable / service
- Strong dipolar anomaly - ferrous object

SCALE 1:1000

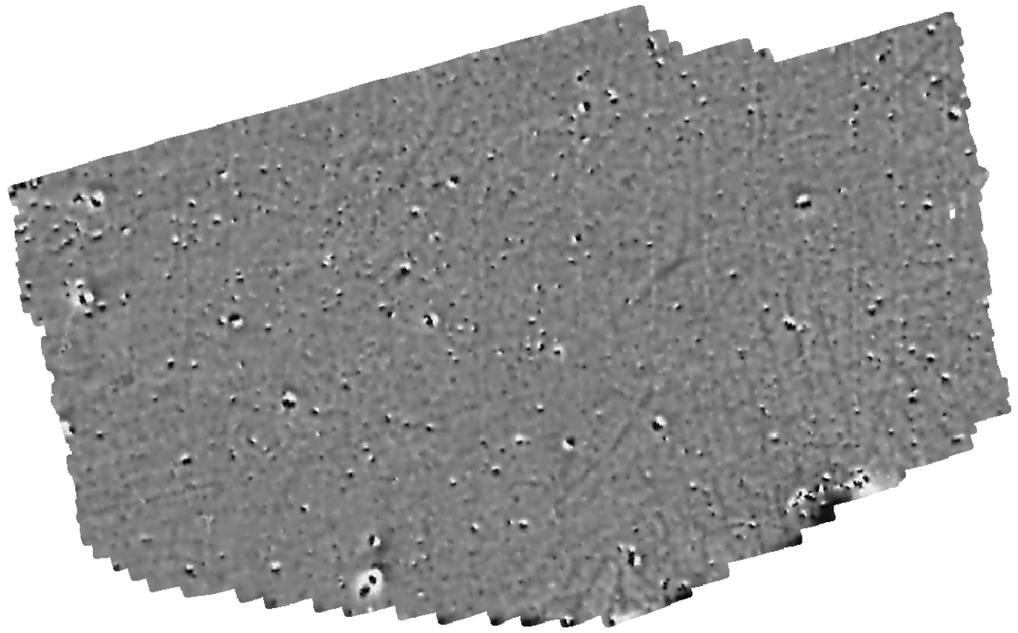
0m 10 20 30 40 50m

SCALE TRUE AT A3

DRAWN BY	CHECKED BY	
KTD	DJS	FIG 11

ing

Area 3



N

Area 2

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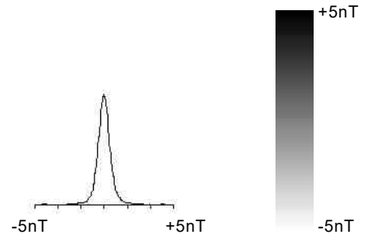
Somerset

Greyscale plot of minimally processed magnetometer data - Area 3



SCALE 1:1000

0m 10 20 30 40 50m

SCALE TRUE AT A3

DRAWN BY	CHECKED BY	
KTD	DJS	FIG 12

ing

Area 3

N

Area 2

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Specialist Geophysical Surveyors

Geophysical Survey
Land to the north of Station Road
Crewkerne
Somerset

Greyscale plot of filtered magnetometer data - Area 3

+2nT
-2nT
+2nT
-2nT

SCALE 1:1000

0m 10 20 30 40 50m

SCALE TRUE AT A3

DRAWN BY	CHECKED BY	
KTD	DJS	FIG 13

ing

Area 3

N

26

31

27

28

30

29

24

Area 2

Archaeological Surveys
Specialist Geophysical Surveyors

Geophysical Survey
Land to the north of Station Road
Crewkerne
Somerset

Abstraction and interpretation of magnetic anomalies - Area 3

- Positive linear anomaly - possible ditch-like feature
- Linear anomaly - ridge and furrow
- Positive/weak multiple dipolar linear anomaly - possible land drain
- Positive anomaly - magnetically enhanced material
- Strong dipolar anomaly - ferrous object

SCALE 1:1000

0m 10 20 30 40 50m

SCALE TRUE AT A3

DRAWN BY	CHECKED BY	
KTD	DJS	FIG 14

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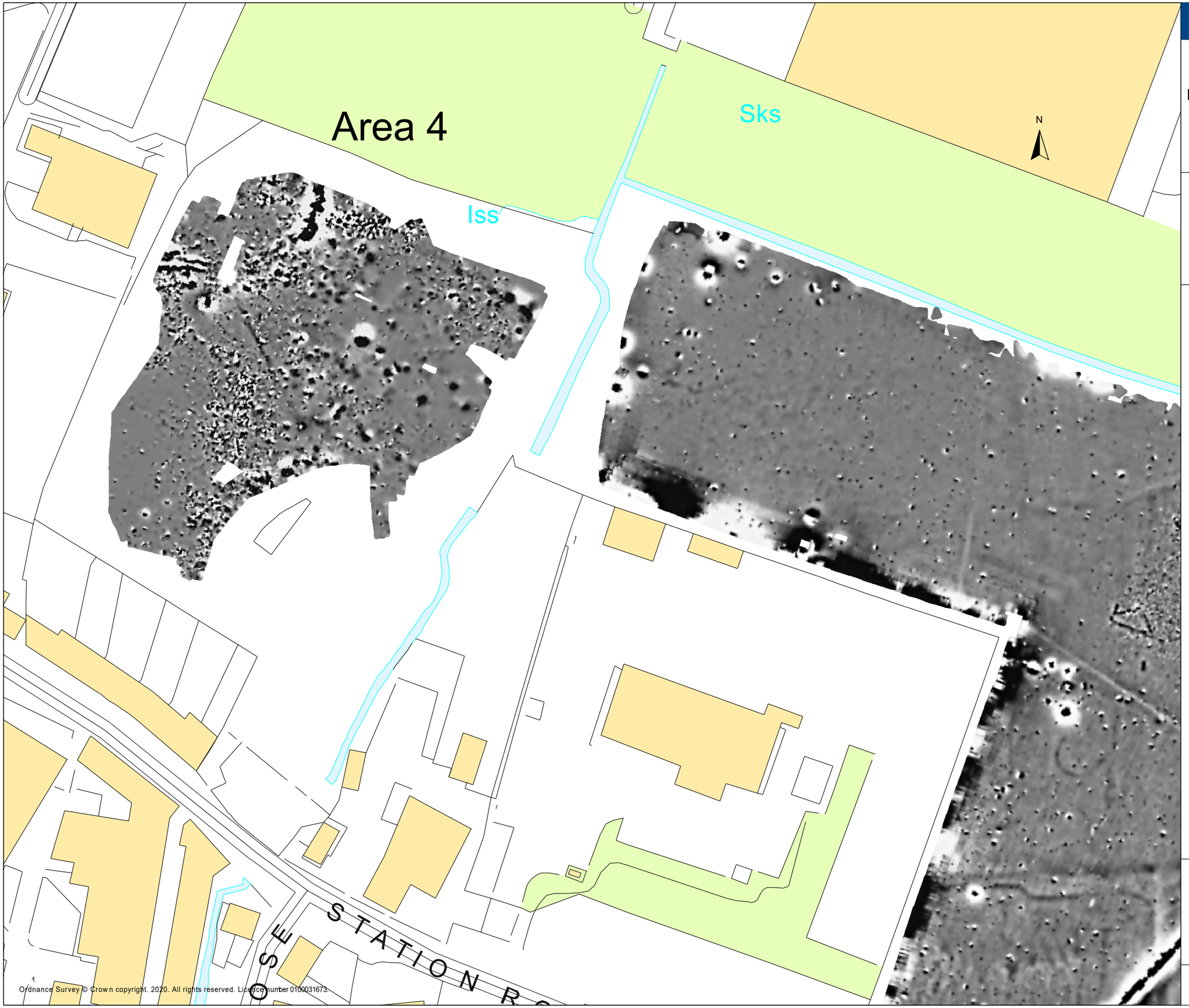
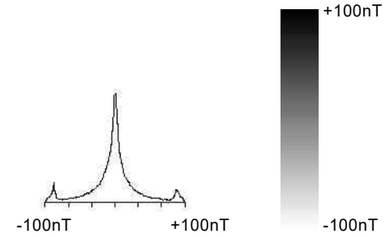
Specialist Geophysical Surveyors

Geophysical Survey
Land to the north of Station Road
Crewkerne
Somerset

Greyscale plot of minimally processed magnetometer data - Area 4





SCALE 1:1000

0m 10 20 30 40 50m

SCALE TRUE AT A3

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KTD	DJS	FIG 15

Area 4

Sks

Iss

N

STATION ROAD

CLOSE

Archaeological Surveys
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Geophysical Survey
Land to the north of Station Road
Crewkerne
Somerset

Greyscale plot of filtered magnetometer data - Area 4

+10nT
-10nT
+10nT
-10nT

SCALE 1:1000

0m 10 20 30 40 50m

SCALE TRUE AT A3

DRAWN BY	CHECKED BY	
KTD	DJS	FIG 16

Archaeological Surveys
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Geophysical Survey
Land to the north of Station Road
Crewkerne
Somerset

Abstraction and interpretation of magnetic anomalies - Area 4

Area 4

Sks

Iss

N

32

31

33

10

12

2

7

1

3

11

6

14

STATION ROAD

- Positive linear anomaly - of uncertain origin
- Negative linear anomaly - of uncertain origin
- Magnetic debris - spread of magnetically thermoremnant/ferrous material
- Strong dipolar anomaly - ferrous object

SCALE 1:1000

0m 10 20 30 40 50m

SCALE TRUE AT A3

DRAWN BY	CHECKED BY	
KTD	DJS	FIG 17