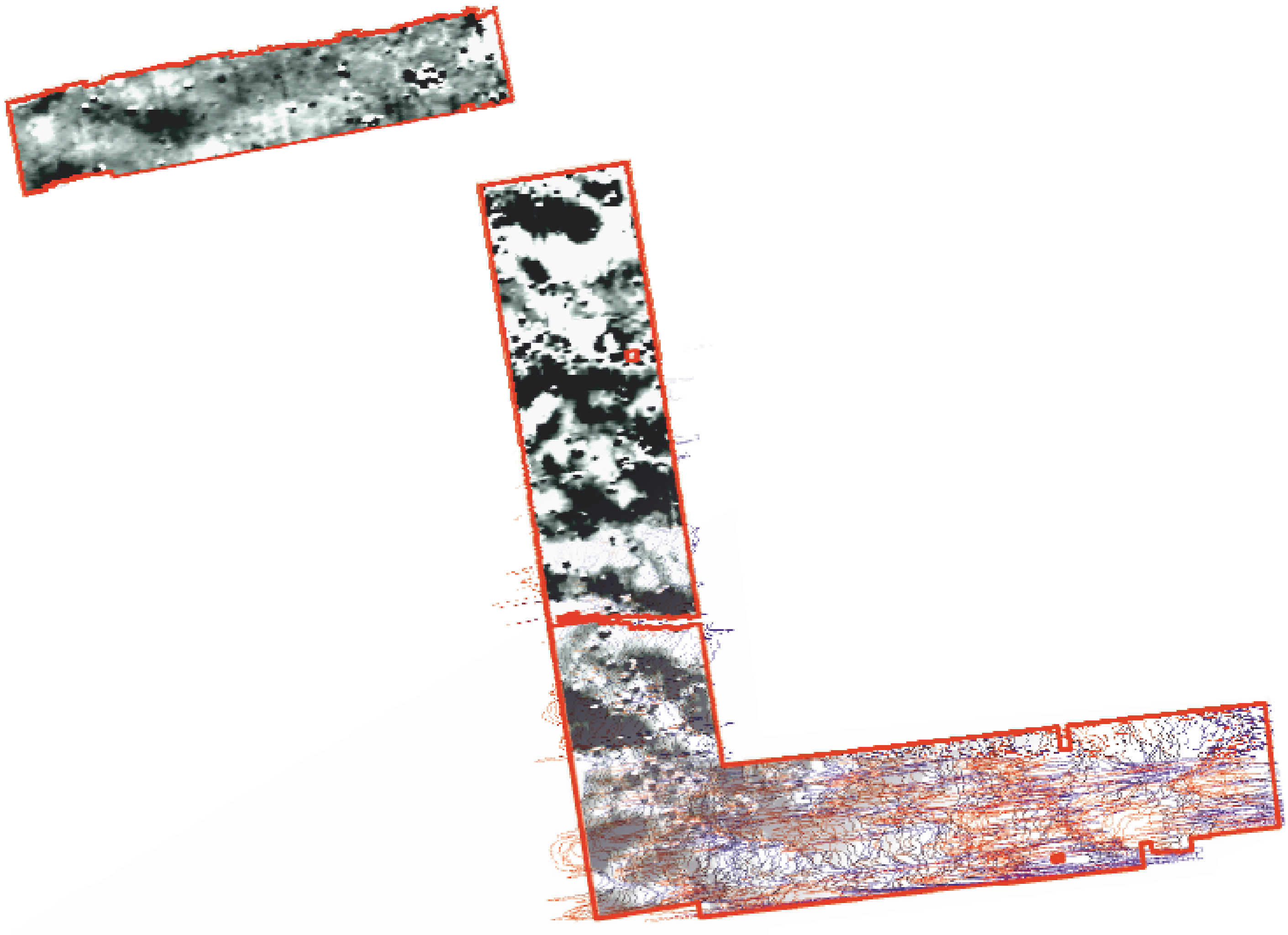
Wessex Archaeology

Den Brook
North Tawton, Devon

Detailed Gradiometer Survey Report



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November 2012

DEN BROOK
NORTH TAWTON
DEVON

Detailed Gradiometer Survey Report

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Detailed Gradiometer Survey Report

Summary

A detailed gradiometer survey was conducted over land southeast of North Tawton close to Crooke Burnell Farm, Devon. The project was commissioned by AMEC on behalf of RES with the aim of establishing the presence, or otherwise, and nature of detectable archaeological features on the site ahead of the proposed development of a wind farm.

The site comprises a number of pasture and arable fields some 15.5km west of Crediton. The site stretches across two small valleys with the land undulating gently across the full length of the site. The gradiometer survey covered 12.3ha and has demonstrated the presence of anomalies of definite, probable and possible archaeological interest within the survey area, along with regions of increased magnetic response and linear trends.

The densest concentration of archaeological remains lies in the centre and to a lesser degree in the southern region of the site although this is at least partly due to the strong geology further north obscuring potential archaeological features there. Numerous linear and pit-like anomalies of probable and possible archaeological interest have been identified. It is possible that some of these anomalies will be associated with agricultural activity and near-surface geology. One possible ring ditch has been identified which is considered to be of definite archaeological interest.

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Detailed Gradiometer Survey Report

Acknowledgements

The detailed gradiometer survey was commissioned by AMEC on behalf of RES. The assistance of Rob Johns is gratefully acknowledged in this regard.

The fieldwork was directed by Ross Lefort and assisted by Alistair Black, Rachel Chester, Laura Andrews, Genevieve Shaw and Patrick Dresch. Ben Urmston processed and interpreted the geophysical data and Ross Lefort wrote this report. The geophysical work was quality controlled by Dr. Paul Baggaley. Illustrations were prepared by Kitty Foster. The project was managed on behalf of Wessex Archaeology by Dr. Paul Baggaley.

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Detailed Gradiometer Survey Report

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology was commissioned by AMEC on behalf of RES to carry out a geophysical survey of land some 2.5km south east of North Tawton, Devon (**Figure 1**), hereafter "the Site" (centred on NGR 268700 100250). The survey forms part of an ongoing programme of archaeological works being undertaken ahead of proposed development of a wind farm and associated access roads.

1.1.2 The aim of the geophysical survey was to establish the presence/absence, extent and character of detectable archaeological remains within the survey area.

1.1.3 This report presents a brief description of the methodology followed, the detailed survey results and the archaeological interpretation of the geophysical data.

1.2 The Site

1.2.1 The survey area comprises a series of linear survey areas that cross a series of pasture and arable fields. The scheme runs from the north at the A3072 (close to Crooke Lane) and finishes around 380m south of the Okehampton to Exeter railway (**Figure 1**). The Site was defined as a linear scheme by the client that covers the route of a proposed network of roads to link the proposed wind turbines. Detailed gradiometer survey was undertaken over all accessible parts of the Site within 13 areas, totalling 12.3ha. Two areas were not accessible at the time of survey; both areas were under crop during the initial phase of work and were being ploughed during the second attempt to survey. The decision was taken to abandon these survey areas entirely.

1.2.2 The Site runs across two valleys of tributaries of the River Yeo; a stream that passes through Crooke Burnell and Den Brook (both aligned east to west). The highest point of the site, just to the south of Crooke Burnell Farm, lies approximately 150m above Ordnance Datum (aOD) and the lowest point lies between 125m and 130m (aOD) at Den Brook.

1.2.3 The bedrock geology on site varies across the Site with three bedrock geological formations dominating. The sedimentary Bow Breccia Formation (Permian) spans the northern section of the site with igneous basalts of the same formation spanning the central region of the site. The south of the site lies over bedrock of the Ashton Mudstone Member and Crackington Formation (undifferentiated) – sedimentary mudstone and siltstone (Carboniferous). There are no superficial deposits recorded over the majority of the site but superficial deposits are recorded for the stream valleys. These deposits include Taw river terrace deposits and alluvium composed of clay, silt, sand and gravel. The sedimentary bedrock has been shown to produce magnetic contrasts acceptable for the detection of archaeological remains through magnetometer survey but the basalts spanning the central region of the Site proved to be problematic. This type of geology is deemed by English Heritage to be unsuitable for a gradiometer survey due to the high thermoremanent magnetisation effect masking weaker archaeological anomalies (English Heritage 2008: 14-15).

1.2.4 Two different soil types are recorded as underlying the Site. These are likely to be typical brown earths of the 541e (Crediton) association to the north and the soils change to pelo-stagnogley soils of the 712d (Hallsworth 1) association towards the south (SSEW 1983). Soils derived from such geological parent material have been shown to produce magnetic contrasts acceptable for the detection of archaeological remains through magnetometer survey.

2 METHODOLOGY

2.1 Introduction

2.1.1 The detailed magnetometer survey was conducted using Bartington Grad601-2 dual fluxgate gradiometer systems. The survey was conducted in accordance with English Heritage guidelines (2008).

2.1.2 The geophysical survey was undertaken by Wessex Archaeology's in-house geophysics team between 14th and 24th August 2012. Field conditions at the time of the survey were variable with some fields overgrown, some partly waterlogged and others under young crop high enough to obscure survey markers. These issues did not have a significant effect upon data quality.

2.2 Method

2.2.1 Individual survey grid nodes were established at 30m x 30m intervals using a Leica Viva RTK GNSS system, which is precise to approximately 0.02m and therefore exceeds English Heritage recommendations (2008).

2.2.2 The magnetometer survey was conducted using a Bartington Grad601-2 fluxgate gradiometer instrument, which has a vertical separation of 1m between sensors. Data were collected at 0.25m intervals along transects spaced 1m apart with an effective sensitivity of 0.03nT, in accordance with EH guidelines (2008). Data were collected in the zigzag manner.

2.2.3 Data from the survey were subject to minimal data correction processes. These comprise a zero mean traverse function (±5nT thresholds with wider thresholds applied in areas of strong geology) applied to correct for any variation between the two Bartington sensors used, and a de-step function to account for variations in traverse position due to varying ground cover and topography. These two steps were applied to all survey areas, with no filtering or interpolation applied.

2.2.4 Further details of the geophysical and survey equipment, methods and processing are described in **Appendix 1**.

3 GEOPHYSICAL SURVEY RESULTS AND INTERPRETATION

3.1 Introduction

3.1.1 The gradiometer survey has been successful in identifying anomalies of definite, probable and possible archaeological interest across the Site, along with many ploughing trends and areas of increased magnetic response.

Results are presented as a series of greyscale and XY plots, and archaeological interpretations, at a scale of 1:1250 (**Figures 2** to **31**). The data are displayed at -2nT (white) to +3nT (black) for the greyscale image and ±25nT at 25nT per cm for the XY trace plots.

3.1.2 The interpretation of the datasets highlights the presence of potential archaeological anomalies, ferrous/burnt or fired objects, and magnetic trends (**Figures 3** to **31**). Full definitions of the interpretation terms used in this report are provided in **Appendix 2**.

3.1.3 Numerous ferrous anomalies are visible throughout the detailed survey dataset. These are presumed to be modern in provenance and are not referred to, unless considered relevant to the archaeological interpretation.

3.2 Gradiometer Survey Results and Interpretation

3.2.1 The areas at **4000**, **4001**, **4002** and **4003** are obscured by the strong bipolar geological anomalies produced by the underlying basalt geology. The only anomalies strong enough to show through this are ferrous anomalies.

3.2.2 Two fairly strong positive anomalies are present in the next survey area at **4004** and **4005** with values around 2-3nT; these may be short sections of ditch. The remaining anomalies nearby are faint positive trends with values around 1nT and these may be ploughing trends.

3.2.3 There are a number of interesting anomalies concentrated towards the west of the site. A small group of positive anomalies present at **4006** are thought to be possible archaeology representing cut features such as pits and postholes. The area further north of **4007** suddenly becomes concentrated with positive anomalies. The many irregular and sub-oval shaped positive anomalies around **4008** are classed as possible archaeology whereas the linear positive anomalies at **4007**, **4009**, **4010** and **4011** are classed as probable archaeology due to their regular form in plan. It is unclear whether this area is a concentrated area of human activity or is a change in geology; without a wider area of data to examine it is difficult to establish. The only anomaly classed as archaeology is a couple of arcs at **4013** that appear to form a circle; this may be a feature such as a ring ditch/gully.

3.2.4 In the next field to the east are some more linear positive anomalies classed as probable and definite archaeology at **4014**, **4015** and **4016**. Given their orientation with current field boundaries it is likely that they are former land division ditches. The geology seems to change to the south with the area around **4018** dominated by a concentration of small bipolar and dipolar (black and white) anomalies. Within this area some regular shaped positive anomalies can be observed at **4017** and have been interpreted as possible archaeology. The remaining anomalies in this area are a series of criss-crossing faint positive linear and curvilinear trends (**4019**); these may represent ploughing trends.

3.2.5 These trends continue into the next field at **4020** and **4031** with some negative trends present along with the positive ones. A linear positive anomaly is located to the west of **4021** that has been classed as possible archaeology; this may be a ditch relating to an earlier field boundary. West of this feature is an area of increased magnetic response at **4022** with numerous small bipolar and dipolar anomalies. This may be archaeological representing a spread of magnetically enhanced debris (e.g. ceramic) but could equally be geological like the spread at **4018**. Another linear positive anomaly similar to **4021** is present at **4023** and may be part of the same feature. The remaining anomalies are small positive anomalies like the example at **4030** or are a series of parallel positive linear anomalies like those at **4032**. Little can be said about these features given the limited amount of data available but they are suspected as agricultural features which is why they are classed as possible archaeology.

3.2.6 Further south at **4033**, **4037**, **4038** and **4039** are several positive linear and curvilinear anomalies. These vary from clearly defined anomalies with values over 4nT (**4038**) to much fainter anomalies with values of only 2nT such as at **4037**. These anomalies are thought to represent cut features such as ditches and are considered to be agricultural in function. There are some smaller sub-oval shaped anomalies at **4035** and **4036** that may be small cut features such as pits or postholes; they have been classed as possible archaeology as there is no clear patterning in their distribution. To the far east of the survey area at **4040** is a region of strong bipolar anomalies that have been interpreted as geology, this will obscure any weaker anomalies located in this area. The remaining anomalies in this area are a series of linear and curvilinear trends such as those at **4034**; these faint positive anomalies may relate to agricultural activity.

3.2.7 Further to the east at **4025**, **4026** and **4027** are more of these faint trends although some here form very tight curves; these may prove to be archaeological. There is an area of increased magnetic response at **4024** which is similar to a nearby example at **4022** (discussed above); like **4022** it is unclear whether this is archaeological or geological. The majority of potential archaeological anomalies are concentrated to the east of this area at **4028** and **4029** and are likely to be agricultural accounting for their classification as possible archaeology.

3.2.8 The survey area south of the railway contains fewer archaeological anomalies than the area to the north of it. The first field south of the track contains trends and small positive anomalies of possible archaeological interest only (**4041**, **4042** and **4043**). The next field to the east of this contains more linear positive anomalies such as at **4044** and these are considered to be former agricultural divisions. Further west some geological responses similar to **4040** are present at **4045**, **4046** and **4048**. They are bipolar like **4040** but have regular parallel linear trends cutting through them that are aligned to the eastern boundary and are considered to be ploughing scars that have disturbed the underlying geology. Some other areas of increased magnetic response at **4050** are considered to be possibly geological. The faint trends running through this area at **4045**, **4046**, **4049**, **4051** and **4052** are considered to be agricultural also. There are some more linear anomalies suspected as former land divisions at **4053** and **4054**; the former is aligned with the southern field boundary and the latter is aligned with the eastern field boundary. **4054** has negative values running down the centre with positive linear anomalies flanking on either side; this form is typical of the response gained from former field boundaries in this part of the country. The linear at **4053** is aligned parallel to the marked course of a Roman road and this feature may be related. Close to **4054** are a number of small sub-oval and irregular shaped positive anomalies and these have been classed as possible archaeology.

3.2.9 In the southernmost area that lies just south of the course of a Roman road are a number of linear positive and negative anomalies, most of these are considered to be agricultural such as at **4057** and **4058**. Anomaly **4055** is aligned with the Roman road and this may be significant. Some smaller positive anomalies are present such as **4056** but as it forms no clear pattern has been classed as possible archaeology. The south east of this area is dominated by geological responses with linear trends cutting through them at **4059** and **4060**. These areas are similar to others encountered above and are suspected as ploughing scars that have disturbed the underlying geology.

4 CONCLUSION

4.1.1 The detailed gradiometer survey has been successful in detecting anomalies of definite, probable and possible archaeological interest within the Site, in addition to regions of increased magnetic response, geological responses and numerous former field boundaries. There have been some areas in the centre of the survey and towards the north that were not very successful due to strong magnetic anomalies created by the basalt obscuring any potential archaeology in these areas.

4.1.2 The majority of anomalies of definite and probable archaeological interest are concentrated towards the southern half of the site (central band in particular) in large part because of the strong geology towards the north obscuring any potential archaeological features. Many of these anomalies are related to past settlement and earlier agricultural landscape divisions, although no period can be ascribed.

4.1.3 Numerous trends have been identified, some of which clearly represent ploughing trends. The remaining trends identified in the dataset (non-ploughing) are likely to be the result of agricultural activity.

4.1.4 The interpretation has been hampered in places by the small amount of data available for study due to the narrow width of the survey corridor. If anomalies such as **4007-4011** and **4013** were set in a wider context then their nature and function may be easier to understand.

4.1.5 It should be noted that small, weakly magnetised features may produce responses that are below the detection threshold of magnetometers. It may therefore be the case that more archaeological features may be encountered than have been identified through geophysical survey particularly in areas of strongly magnetised geology.

5 REFERENCES

English Heritage, 2008. *Geophysical Survey in Archaeological Field Evaluation*. Research and Professional Service Guideline No 1, 2nd edition.

Soil Survey of England and Wales, 1983. *Sheet 5, South West England*. Ordnance Survey, Southampton.

6 APPENDIX 1: SURVEY EQUIPMENT AND DATA PROCESSING

Survey Methods and Equipment

The magnetic data for this project was acquired using a Bartington 601-2 dual magnetic gradiometer system. This instrument has two sensor assemblies fixed horizontally 1m apart allowing two traverses to be recorded simultaneously. Each sensor contains two fluxgate magnetometers arranged vertically with a 1m separation, and measures the difference between the vertical components of the total magnetic field within each sensor array. This arrangement of magnetometers suppresses any diurnal or low frequency effects.

The gradiometers have an effective resolution of 0.03nT over a ±100nT range, and measurements from each sensor are logged at intervals of 0.25m. All of the data are stored on an integrated data logger for subsequent post-processing and analysis.

Wessex Archaeology undertakes two types of magnetic surveys: scanning and detail. Both types depend upon the establishment of an accurate 20m or 30m site grid, which is achieved using a Leica Viva RTK GNSS instrument and then extended using tapes. The Leica Viva system receives corrections from a network of reference stations operated by the Ordnance Survey and Leica Geosystems, allowing positions to be determined with a precision of 0.02m in real-time and therefore exceed the level of accuracy recommended by English Heritage (2008) for geophysical surveys.

Scanning surveys consist of recording data at 0.25m intervals along transects spaced 10m apart, acquiring a minimum of 80 data points per transect. Due to the relatively coarse transect interval, scanning surveys should only be expected to detect extended regions of archaeological anomalies, when there is a greater likelihood of distinguishing such responses from the background magnetic field.

The detailed surveys consist of 20m x 20m or 30m x 30m grids, and data are collected at 0.25m intervals along traverses spaced 1m apart. These strategies give 1600 or 3600 measurements per 20m or 30m grid respectively, and are the recommended methodologies for archaeological surveys of this type (EH, 2008).

Data may be collected with a higher sample density where complex archaeological anomalies are encountered, to aid the detection and characterisation of small and ephemeral features. Data may be collected at up to 0.125m intervals along traverses spaced up to 0.25m apart, resulting in a maximum of 28800 readings per 30m grid, exceeding that recommended by English Heritage (2008) for characterisation surveys.

Post-Processing

The magnetic data collected during the detail survey are downloaded from the Bartington system for processing and analysis using both commercial and in-house software. This software allows for both the data and the images to be processed in order to enhance the results for analysis; however, it should be noted that minimal data processing is conducted so as not to distort the anomalies.

As the scanning data are not as closely distributed as with detailed survey, they are georeferenced using the GPS information and interpolated to highlight similar anomalies in adjacent transects. Directional trends may be removed before interpolation to produce more easily understood images.

Typical data and image processing steps may include:

- Destripe – Applying a zero mean traverse in order to remove differences caused by directional effects inherent in the magnetometer;
- Destagger – Shifting each traverse longitudinally by a number of readings. This corrects for operator errors and is used to enhance linear features;
- Despike – Filtering isolated data points that exceed the mean by a specified amount to reduce the appearance of dominant anomalous readings (generally only used for earth resistance data)

Typical displays of the data used during processing and analysis:

- XY Plot – Presents the data as a trace or graph line for each traverse. Each traverse is displaced down the image to produce a stacked profile effect. This type of image is useful as it shows the full range of individual anomalies.
- Greyscale – Presents the data in plan view using a greyscale to indicate the relative strength of the signal at each measurement point. These plots can be produced in colour to highlight certain features but generally greyscale plots are used during analysis of the data.

7 APPENDIX 2: GEOPHYSICAL INTERPRETATION

The interpretation methodology used by Wessex Archaeology separates the anomalies into two main categories: archaeological and unidentified responses.

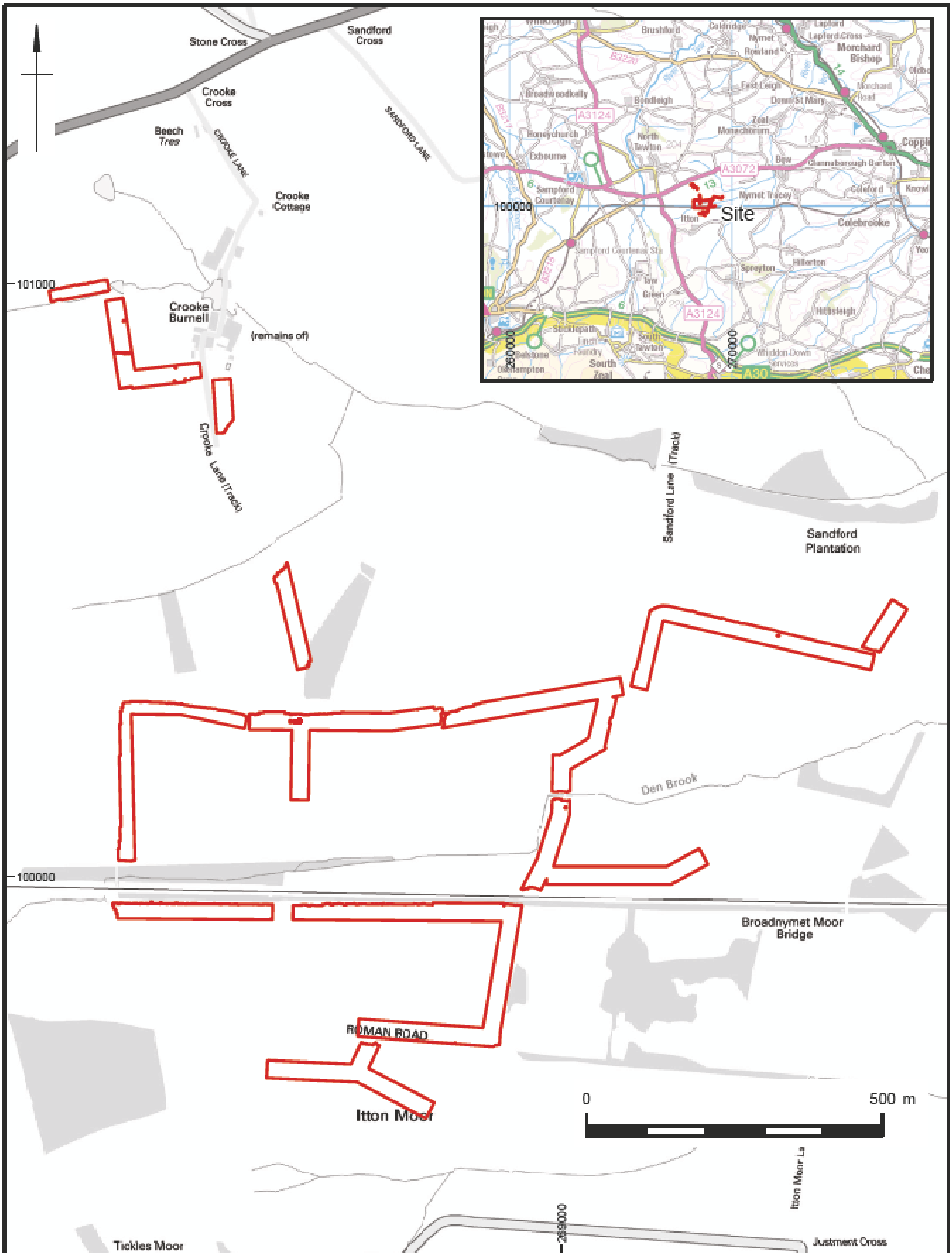
The archaeological category is used for features when the form, nature and pattern of the anomaly are indicative of archaeological material. Further sources of information such as aerial photographs may also have been incorporated in providing the final interpretation. This category is further sub-divided into three groups, implying a decreasing level of confidence:

- Archaeology – used when there is a clear geophysical response and anthropogenic pattern.
- Probable archaeology – used for features which give a clear response but which form incomplete patterns.
- Possible archaeology – used for features which give a response but which form no discernable pattern or trend.

The unidentified category is used for features when the form, nature and pattern of the anomaly are not sufficient to warrant a classification as an archaeological feature. This category is further sub-divided into:

- Increased magnetic response – used for areas dominated by indistinct anomalies which may have some archaeological potential.
- Trend – used for low amplitude or indistinct linear anomalies.
- Ferrous – used for responses caused by ferrous material. These anomalies are likely to be of modern origin.

Finally, services such as water pipes are marked where they have been identified.



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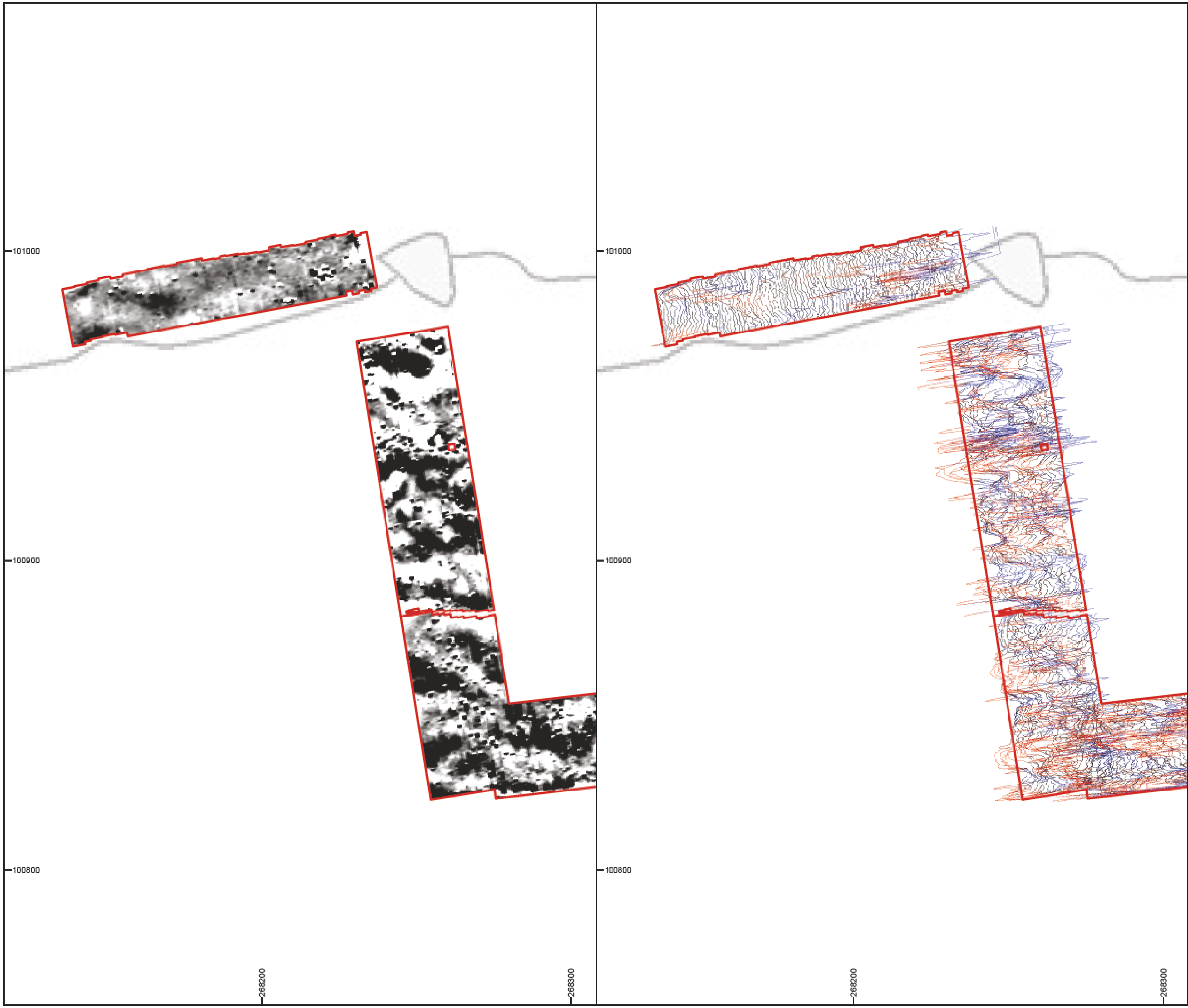
Wessex Archaeology

Site location

Figure 1



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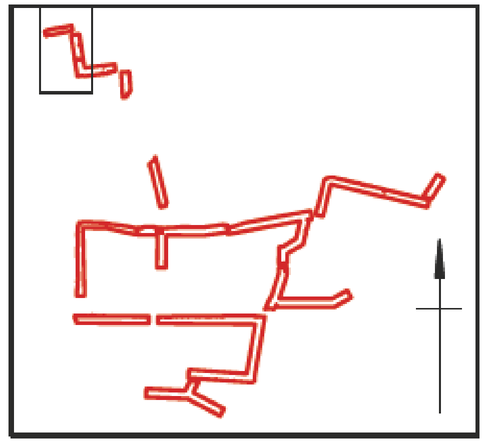

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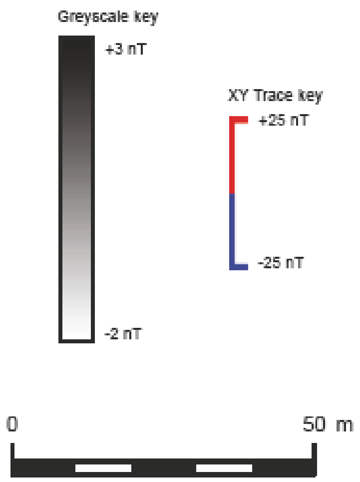

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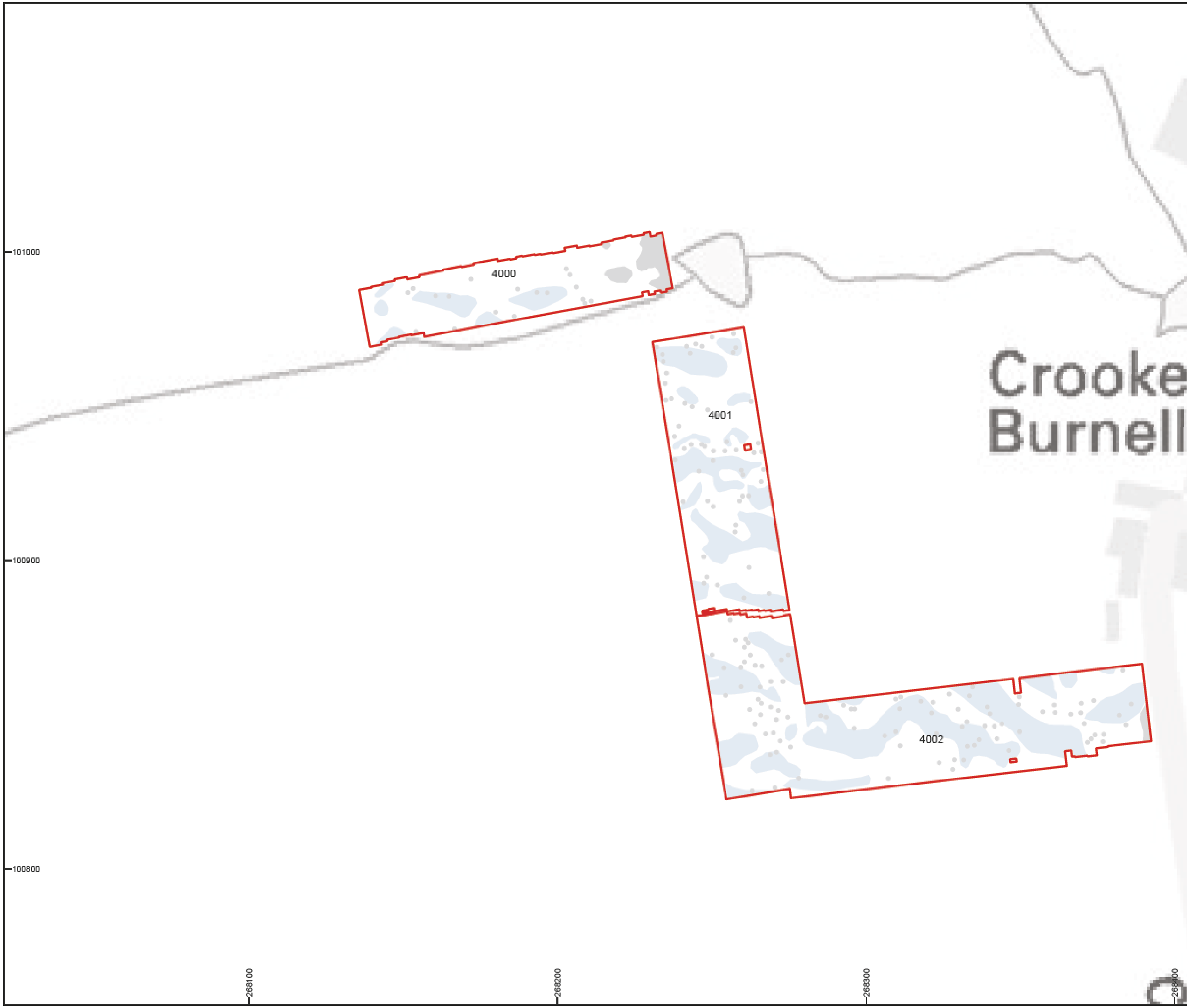
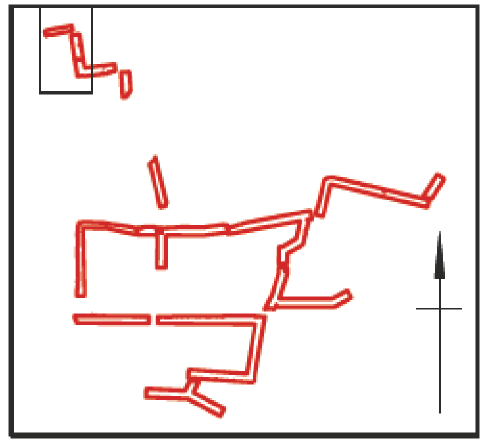
Greyscale plot and XY trace

Figure 2



Wessex Archaeology



Detailed Survey Extents
Archaeology
Probable archaeology
Possible archaeology
Ferrous
Increased magnetic response
Superficial geology
Trend

Greyscale key
+3 nT
-2 nT

XY Trace key
+25 nT
-25 nT

0 50 m

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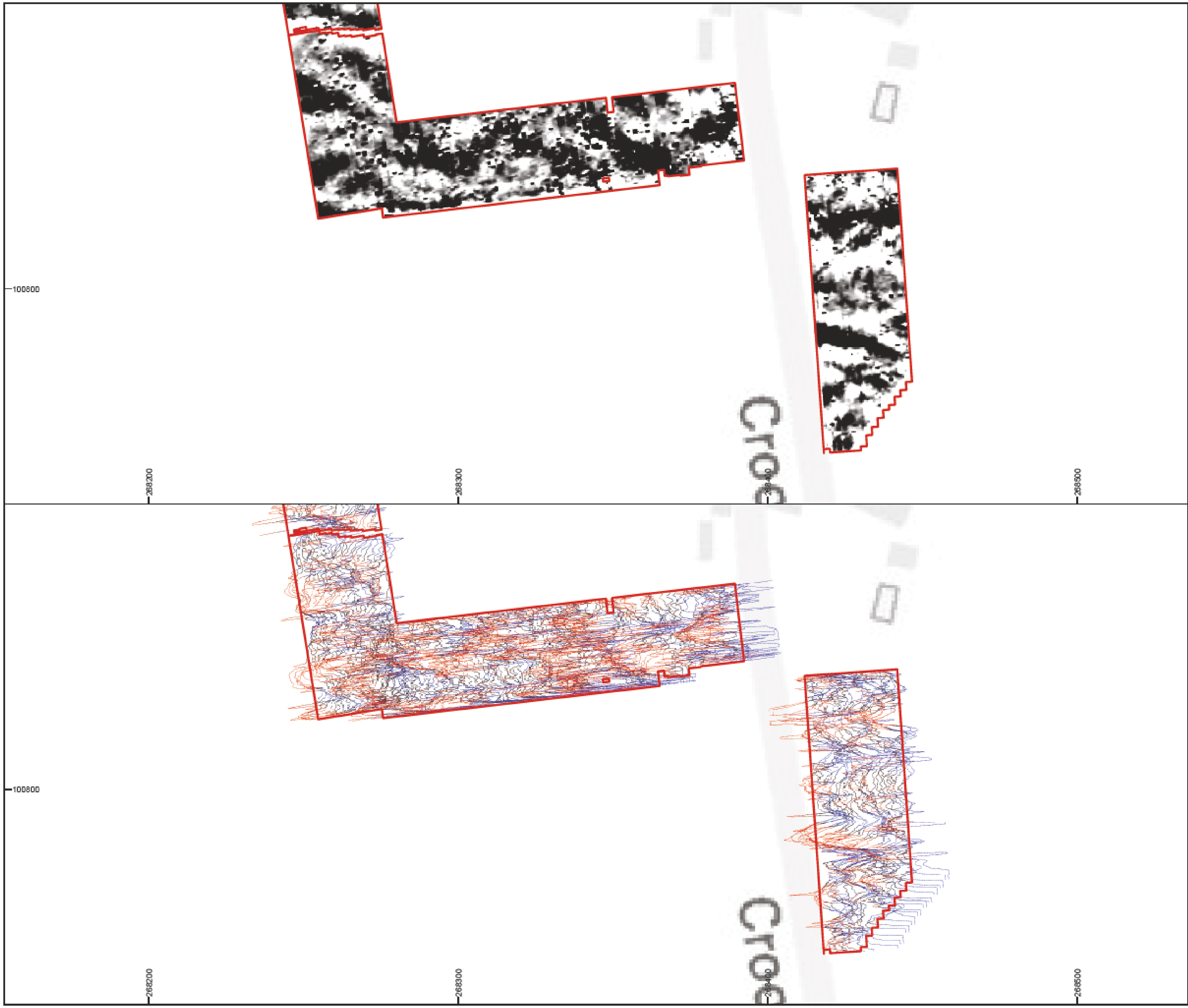
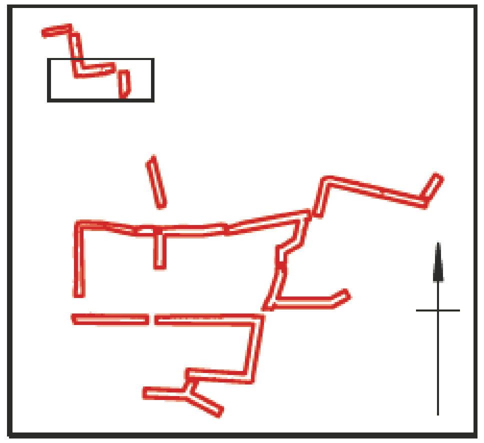
Interptetation

Figure 3



Wessex Archaeology



Detailed Survey Extents

Greyscale key
+3 nT
-2 nT

XY Trace key
+25 nT
-25 nT

0 50 m

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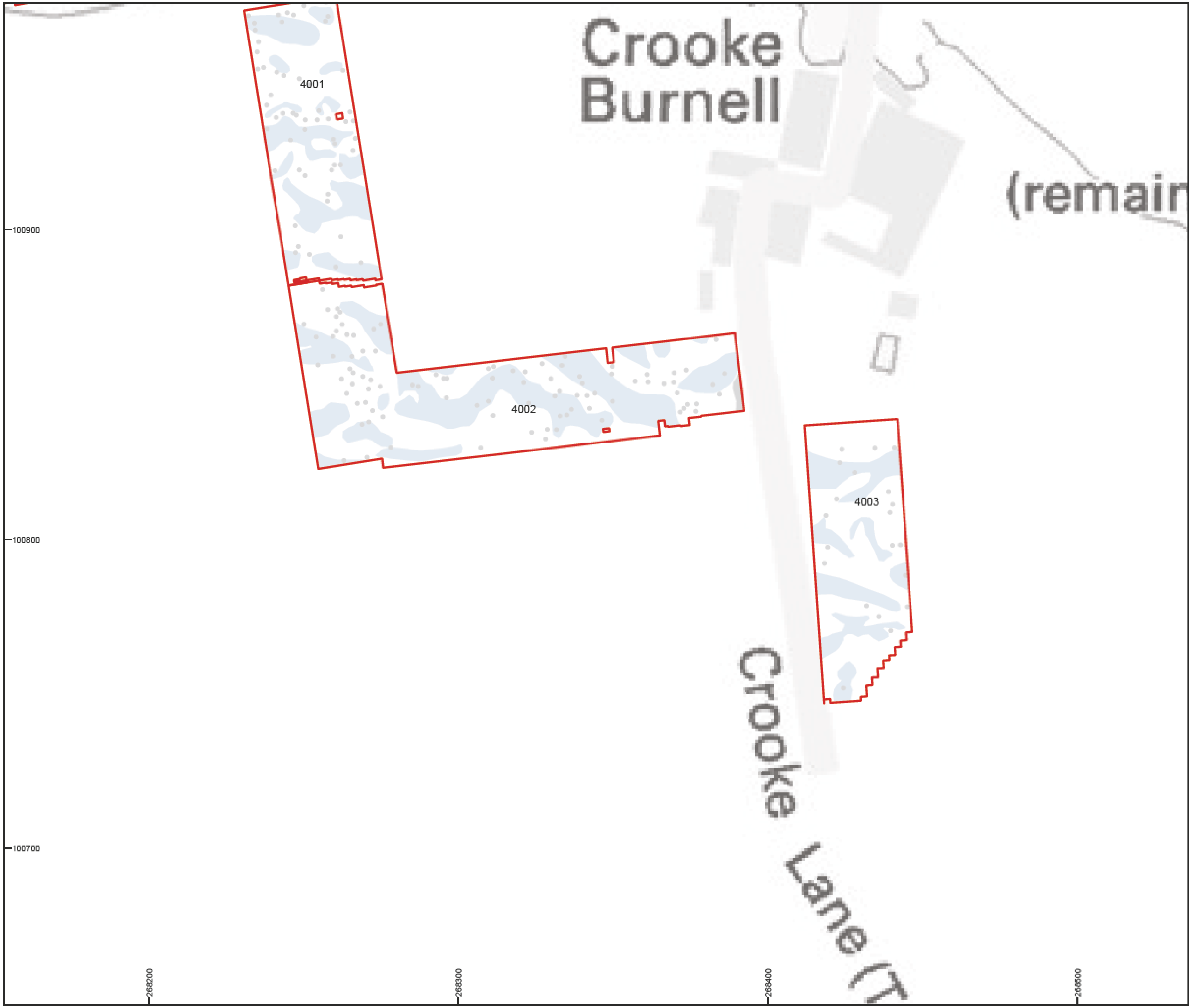
Greyscale plot and XY trace

Figure 4



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Detailed Survey Extents
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Probable archaeology
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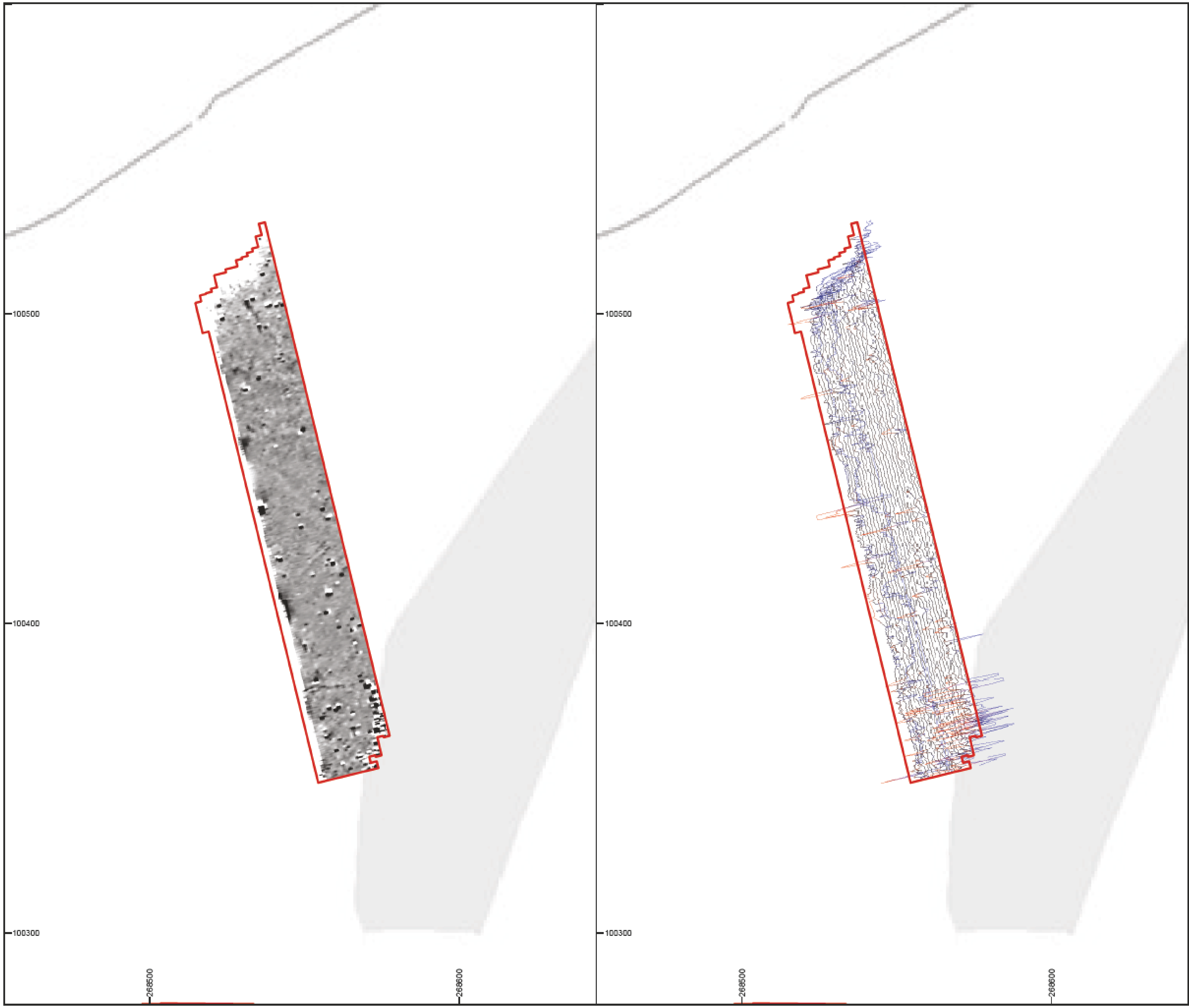
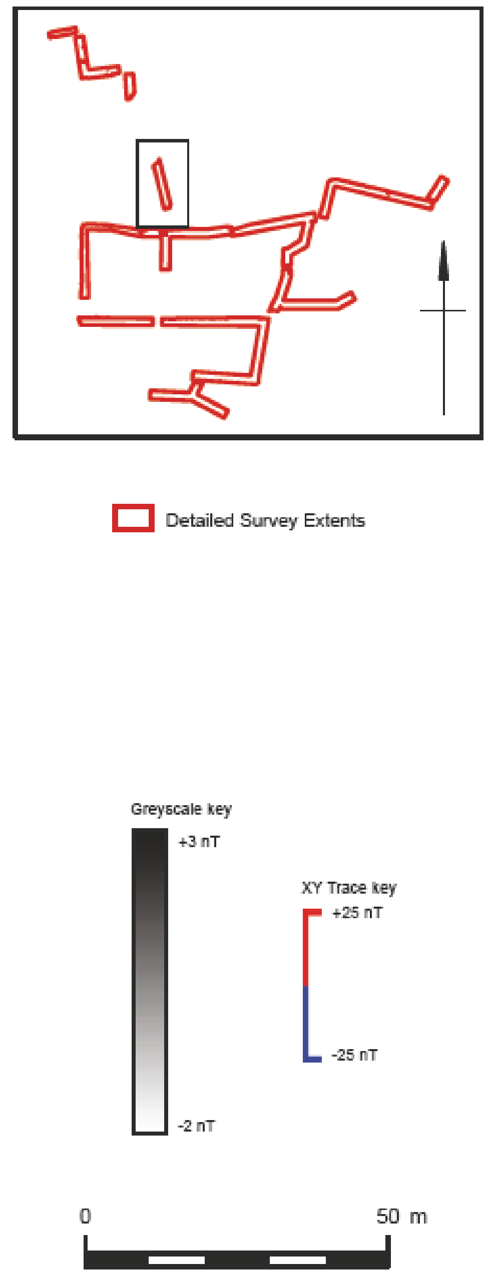
Interpretation

Figure 5





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Greyscale plot and XY trace

Figure 6

Wessex Archaeology

Detailed Survey Extents
Archaeology
Probable archaeology
Possible archaeology
Ferrous
Increased magnetic response
Superficial geology
Trend

Greyscale key
+3 nT
-2 nT

XY Trace key
+25 nT
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0 50 m

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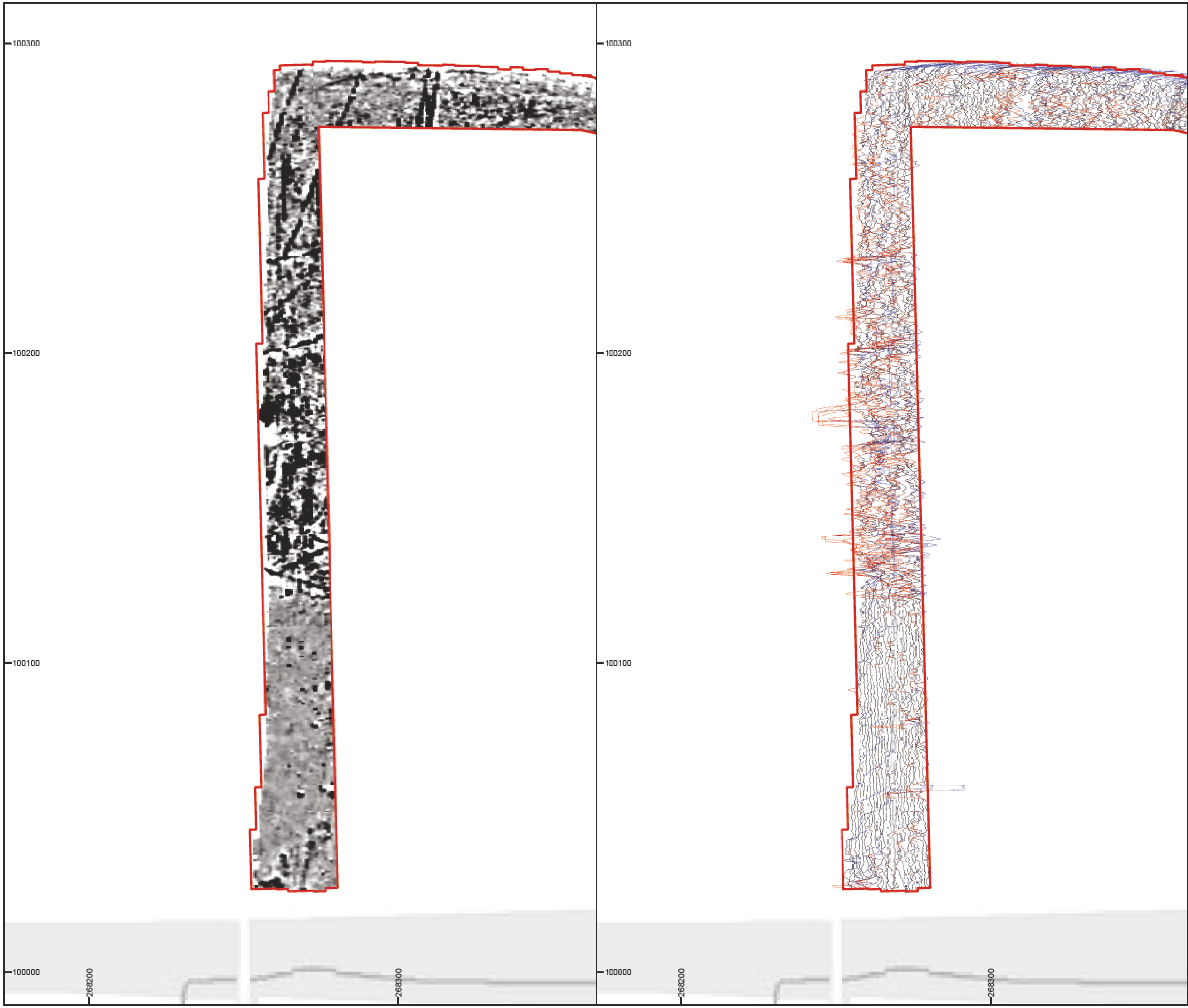
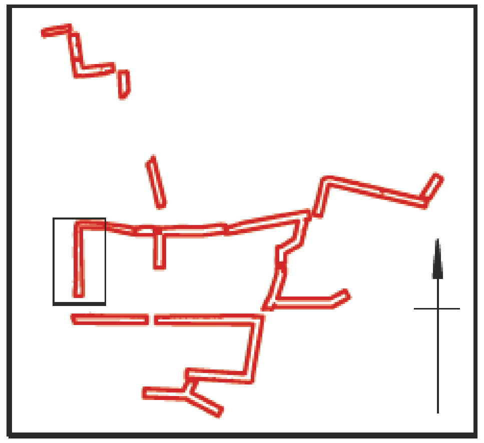
Interptetation

Figure 7



Wessex Archaeology



Detailed Survey Extents

Greyscale key
+3 nT
-2 nT

XY Trace key
+25 nT
-25 nT

0 50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
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Geophys\12_09_10\GIS\FigsMXD

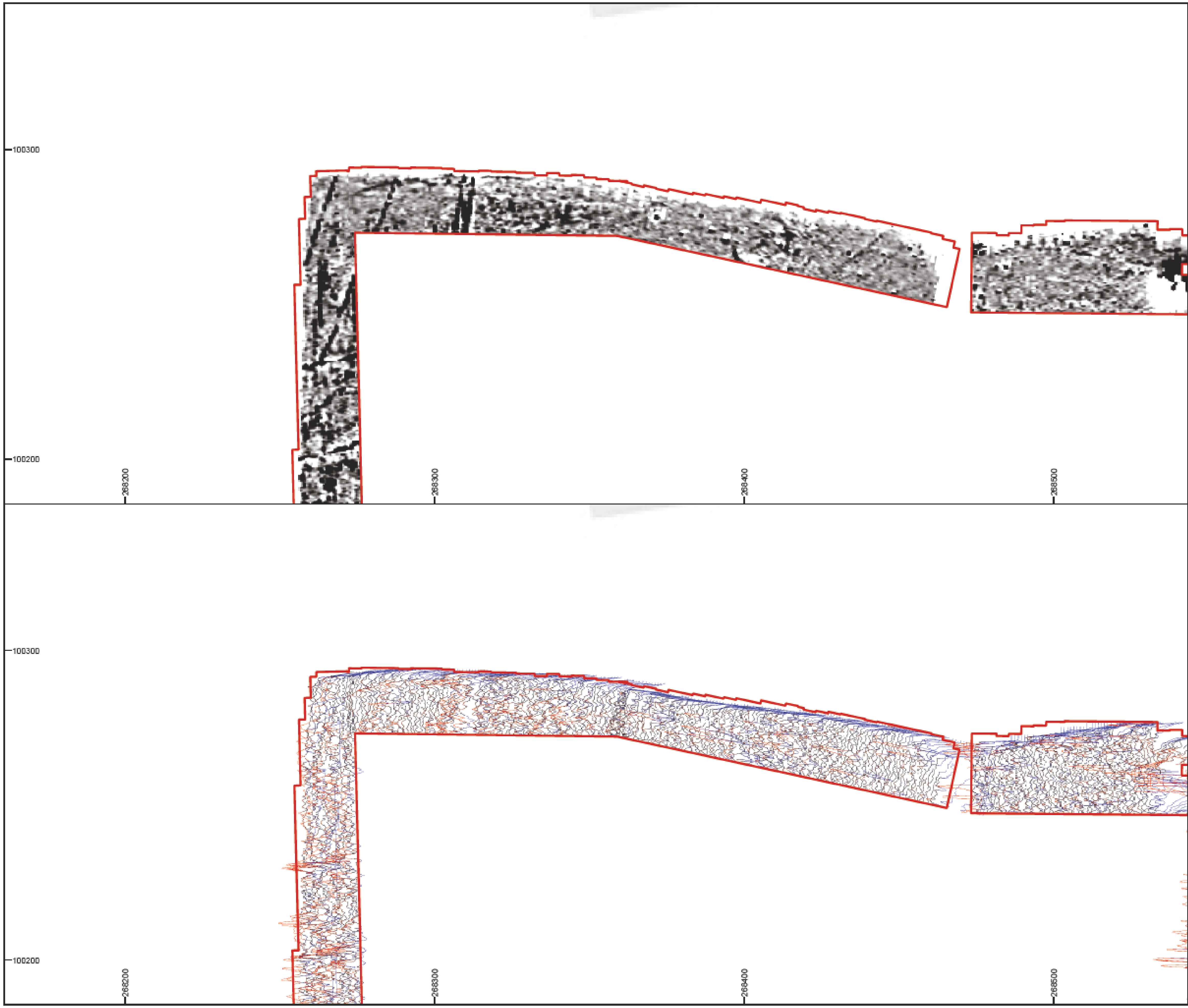
Greyscale plot and XY trace

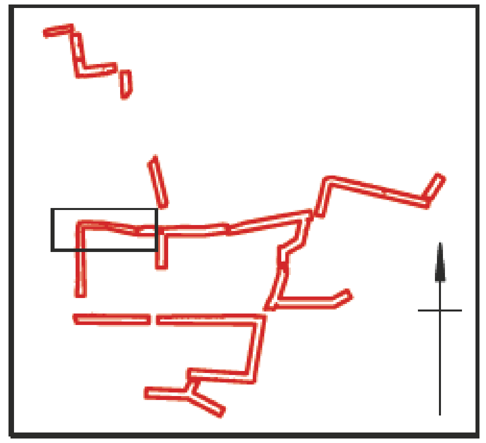
Figure 8

Interptetation

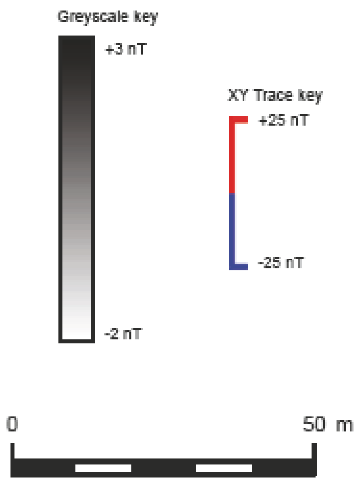
Figure 9

Wessex Archaeology





Detailed Survey Extents



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Illustrator:	KJF
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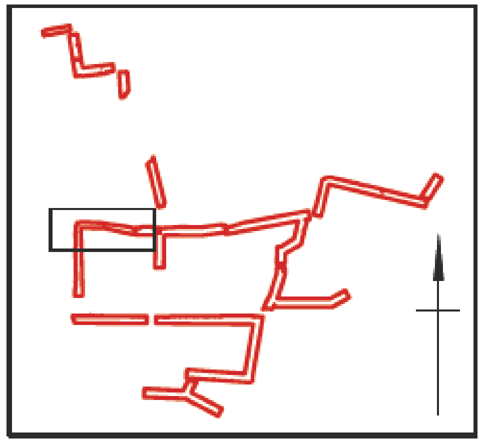
Greyscale plot and XY trace

Figure 10

Wessex Archaeology

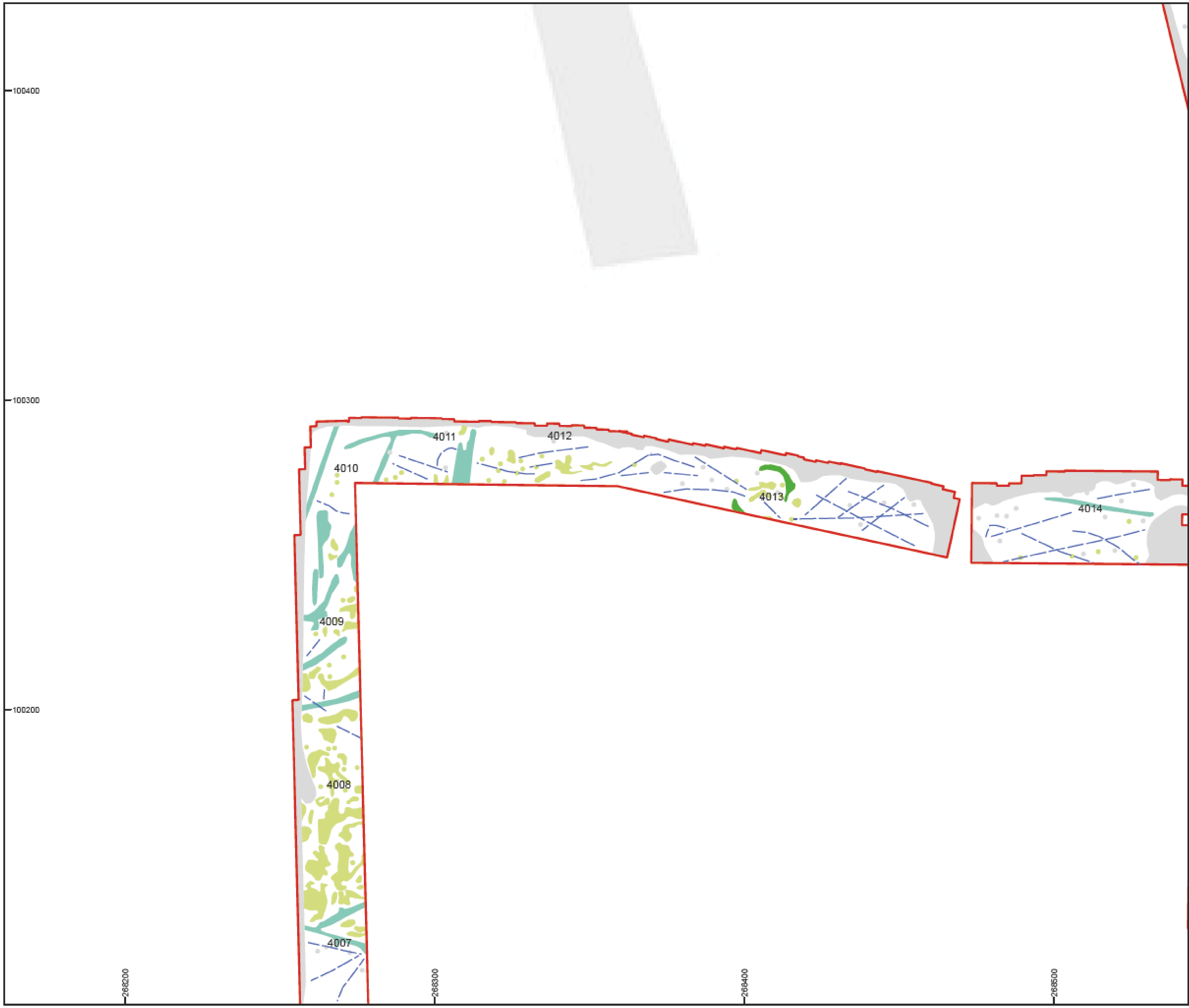


- Detailed Survey Extents
- Archaeology
- Probable archaeology
- Possible archaeology
- Ferrous
- Increased magnetic response
- Superficial geology
- Trend

Greyscale key: +3 nT, -2 nT

XY Trace key: +25 nT, -25 nT

0 50 m



Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
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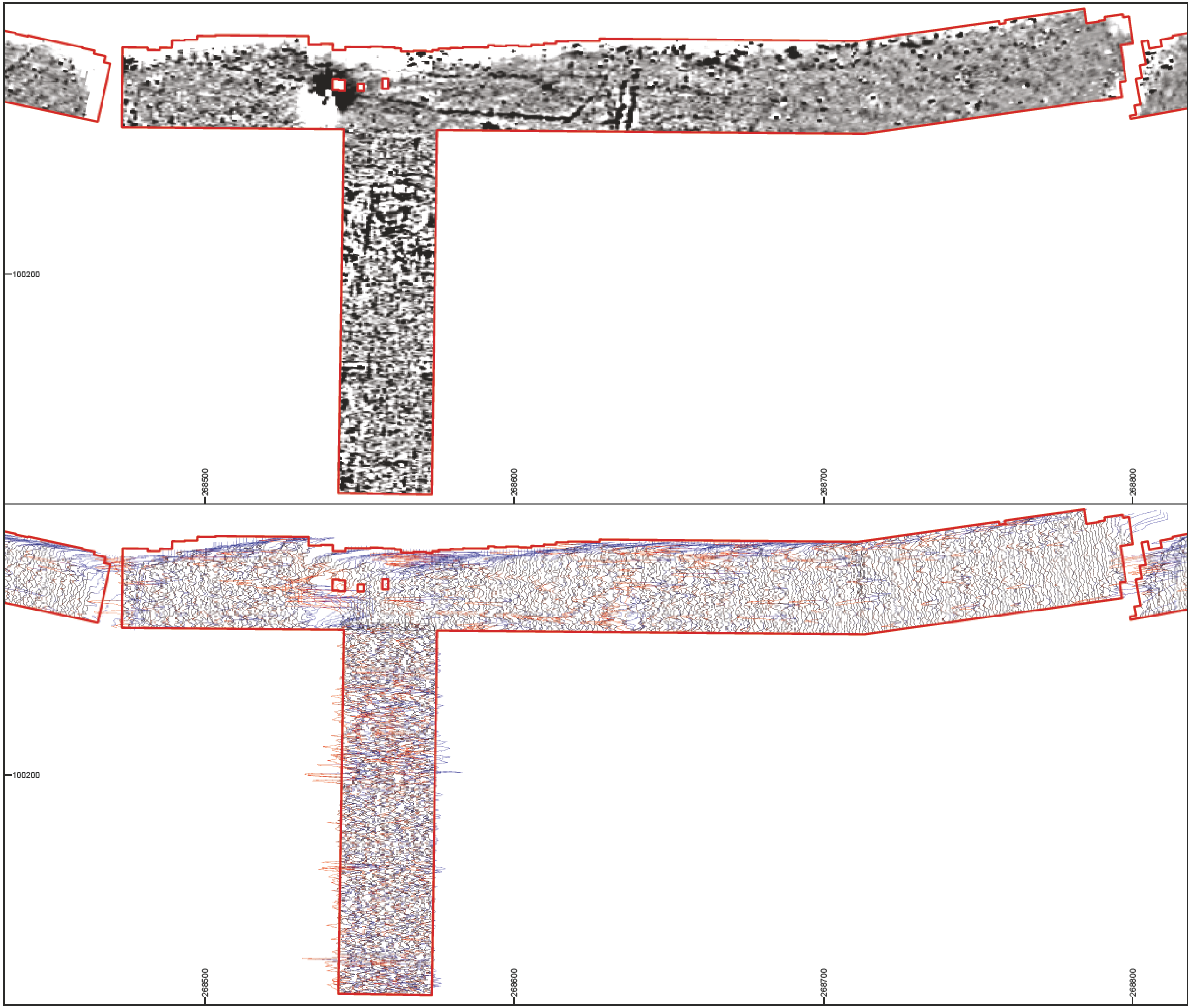
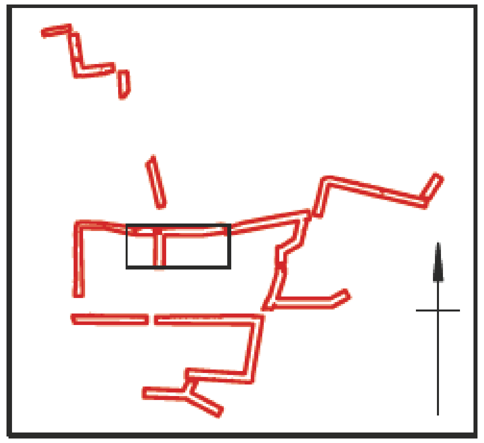
Interpretation

Figure 11



Wessex Archaeology



Detailed Survey Extents

Greyscale key

+3 nT

-2 nT

XY Trace key

+25 nT

-25 nT

0 50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
Scale:	1:1250 at A3
Path:	Y:\PROJECTS\86780\DO\

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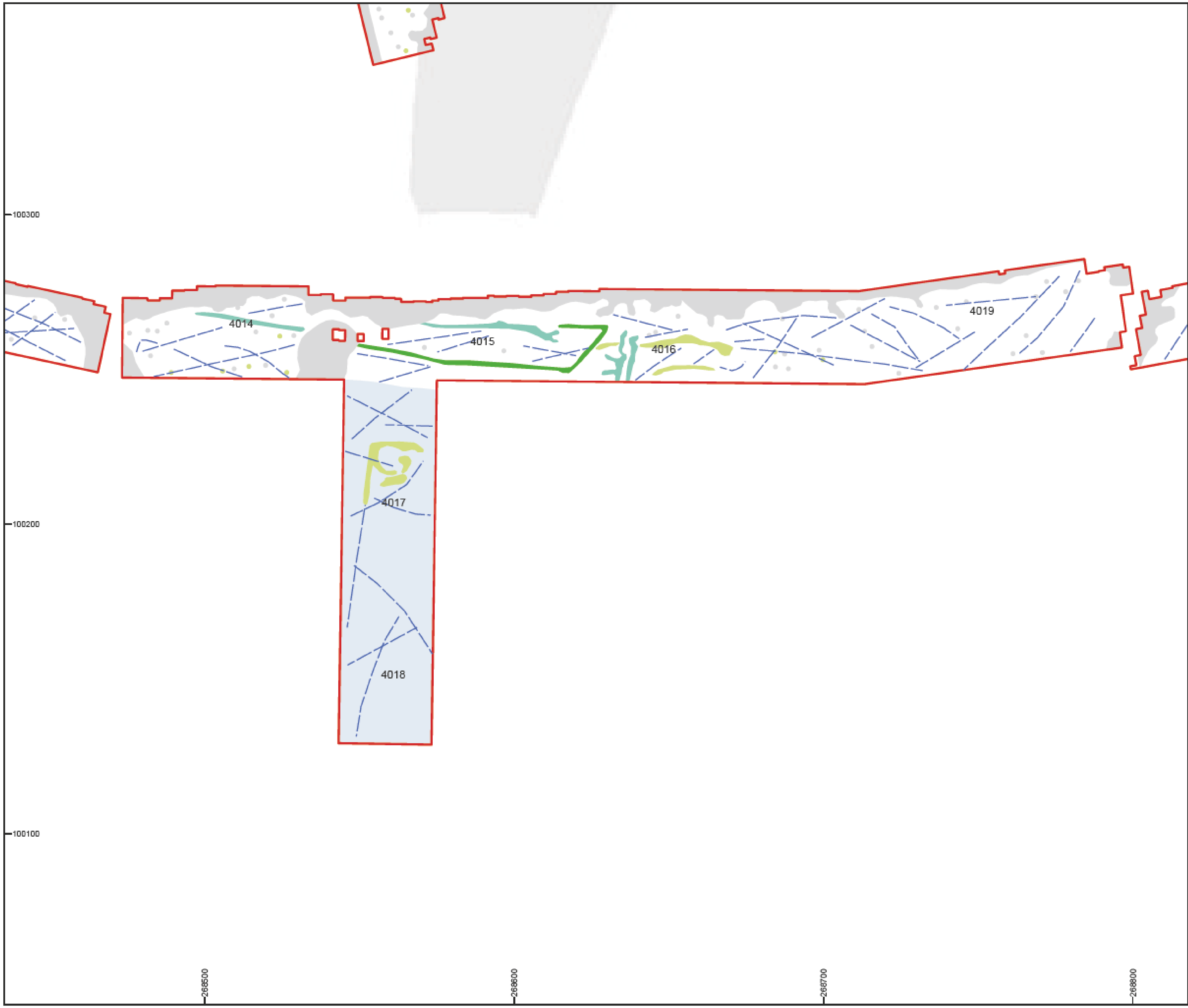
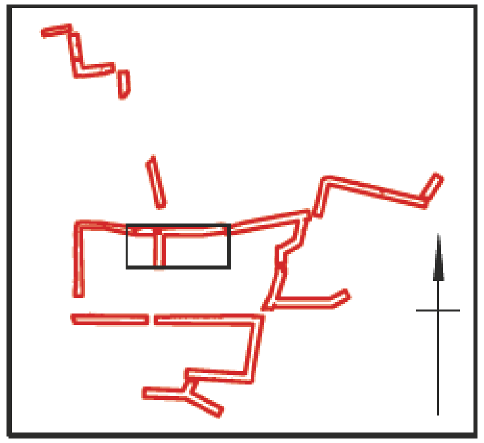
Greyscale plot and XY trace

Figure 12



Wessex Archaeology



- Detailed Survey Extents
- Archaeology
- Probable archaeology
- Possible archaeology
- Ferrous
- Increased magnetic response
- Superficial geology
- Trend

Greyscale key: +3 nT / -2 nT

XY Trace key: +25 nT / -25 nT

0 — 50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
Scale:	1:1250 at A3
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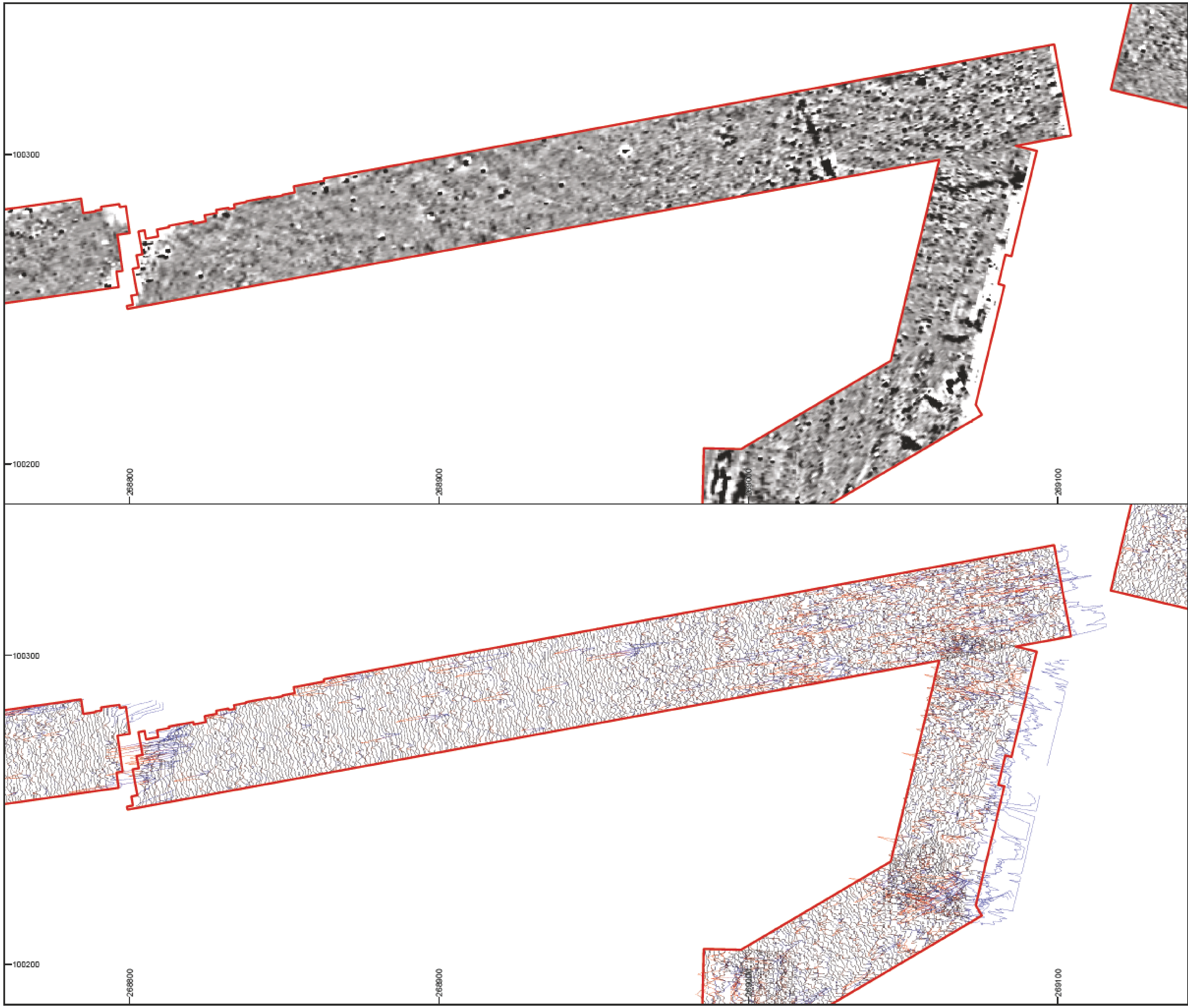
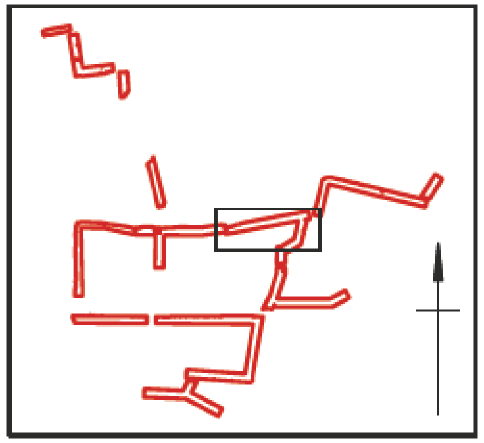
Interpretation

Figure 13

Wessex Archaeology





Detailed Survey Extents

Greyscale key
+3 nT
-2 nT

XY Trace key
+25 nT
-25 nT

0 50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
Scale:	1:1250 at A3
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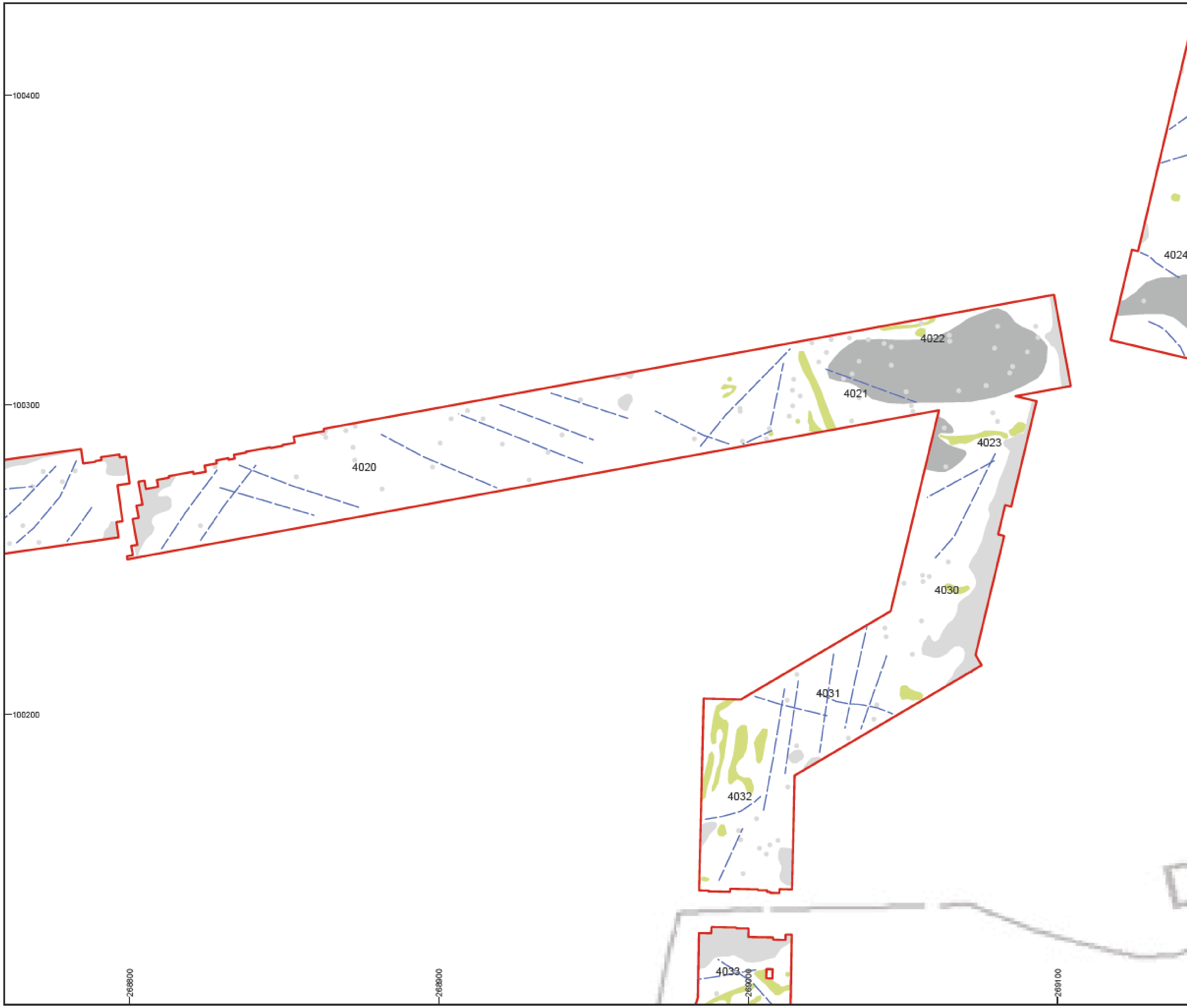
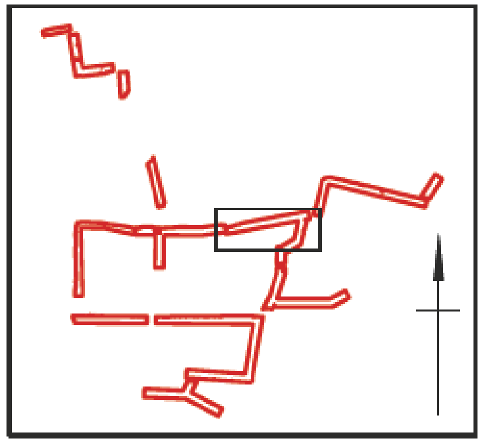
Geophys\12_09_10\GIS\FigsMXD

Greyscale plot and XY trace

Figure 14

Wessex Archaeology





Detailed Survey Extents
Archaeology
Probable archaeology
Possible archaeology
Ferrous
Increased magnetic response
Superficial geology
Trend

Greyscale key
+3 nT
-2 nT

XY Trace key
+25 nT
-25 nT

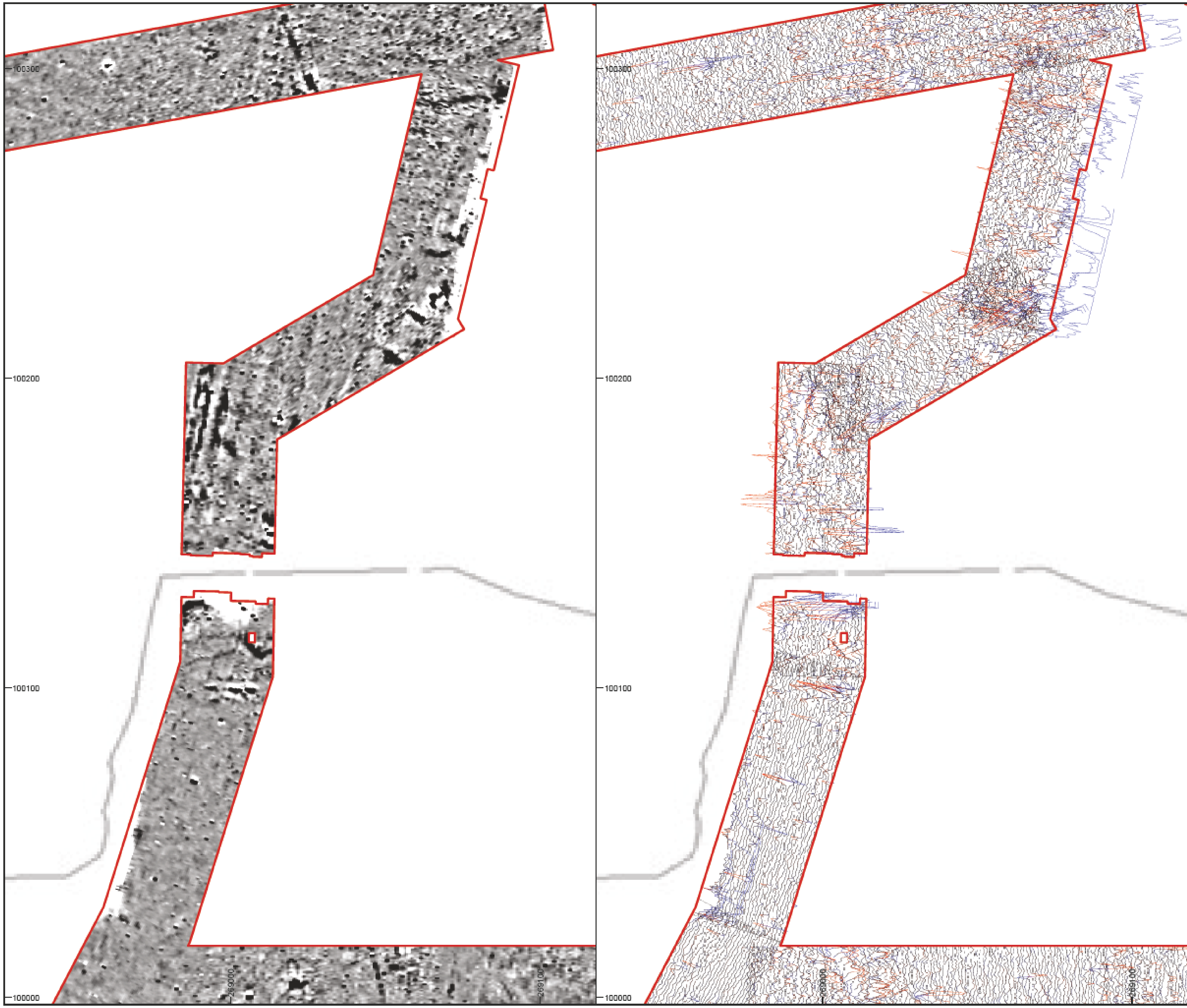
0 50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
Scale:	1:1250 at A3
Path:	Y:\PROJECTS\86780\DO\

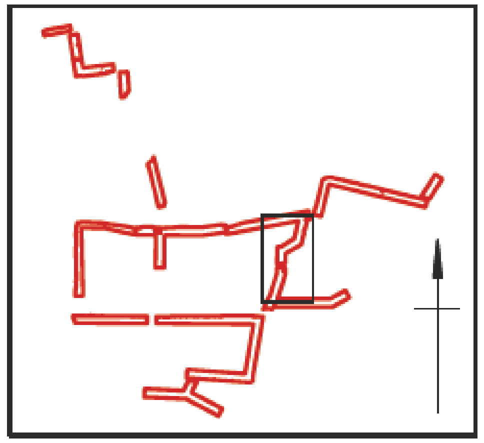
Geophys\12_09_10\GIS\FigsMXD

Interpretation

Figure 15



Wessex Archaeology



Detailed Survey Extents

Greyscale key
+3 nT
-2 nT

XY Trace key
+25 nT
-25 nT

0 50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
Scale:	1:1250 at A3
Path:	Y:\PROJECTS\86780\DO\

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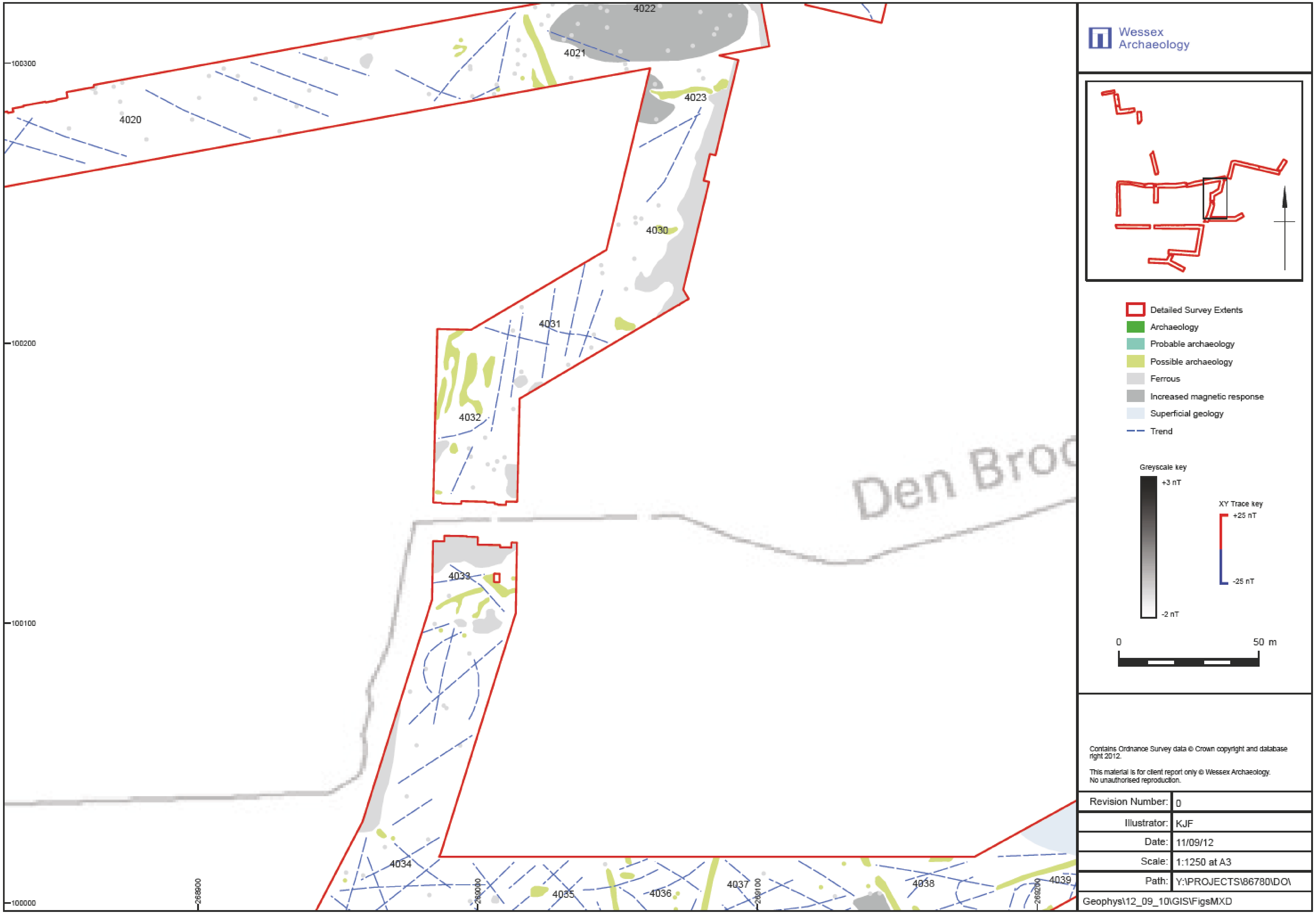
Greyscale plot and XY trace

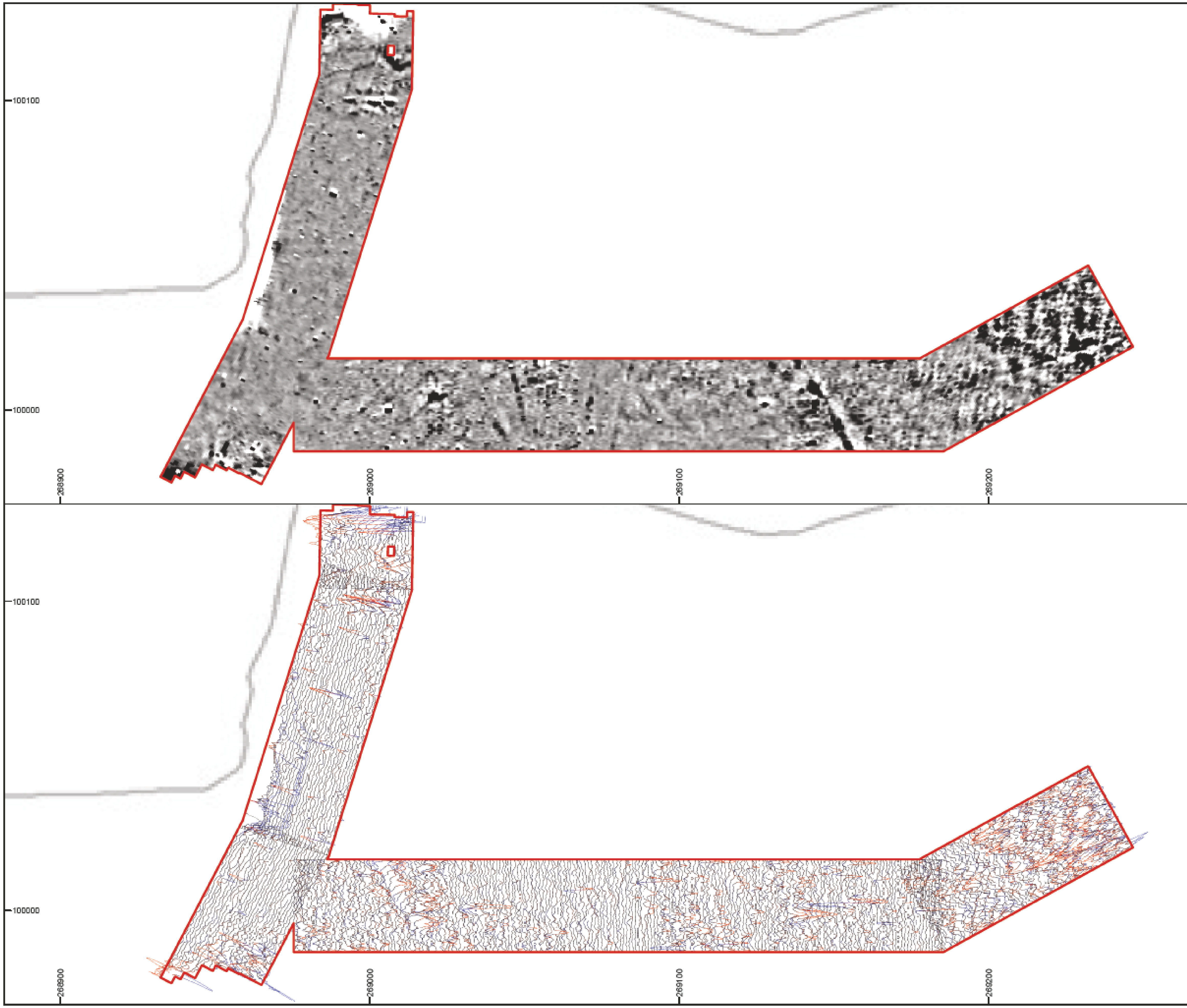
Figure 16

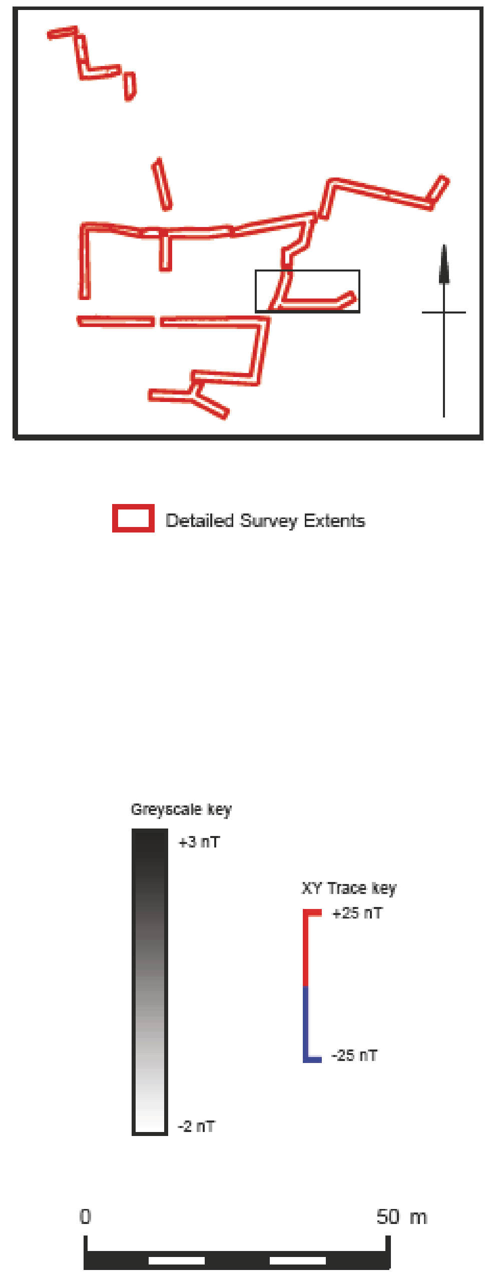


Interptetation

Figure 17

Wessex Archaeology





Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
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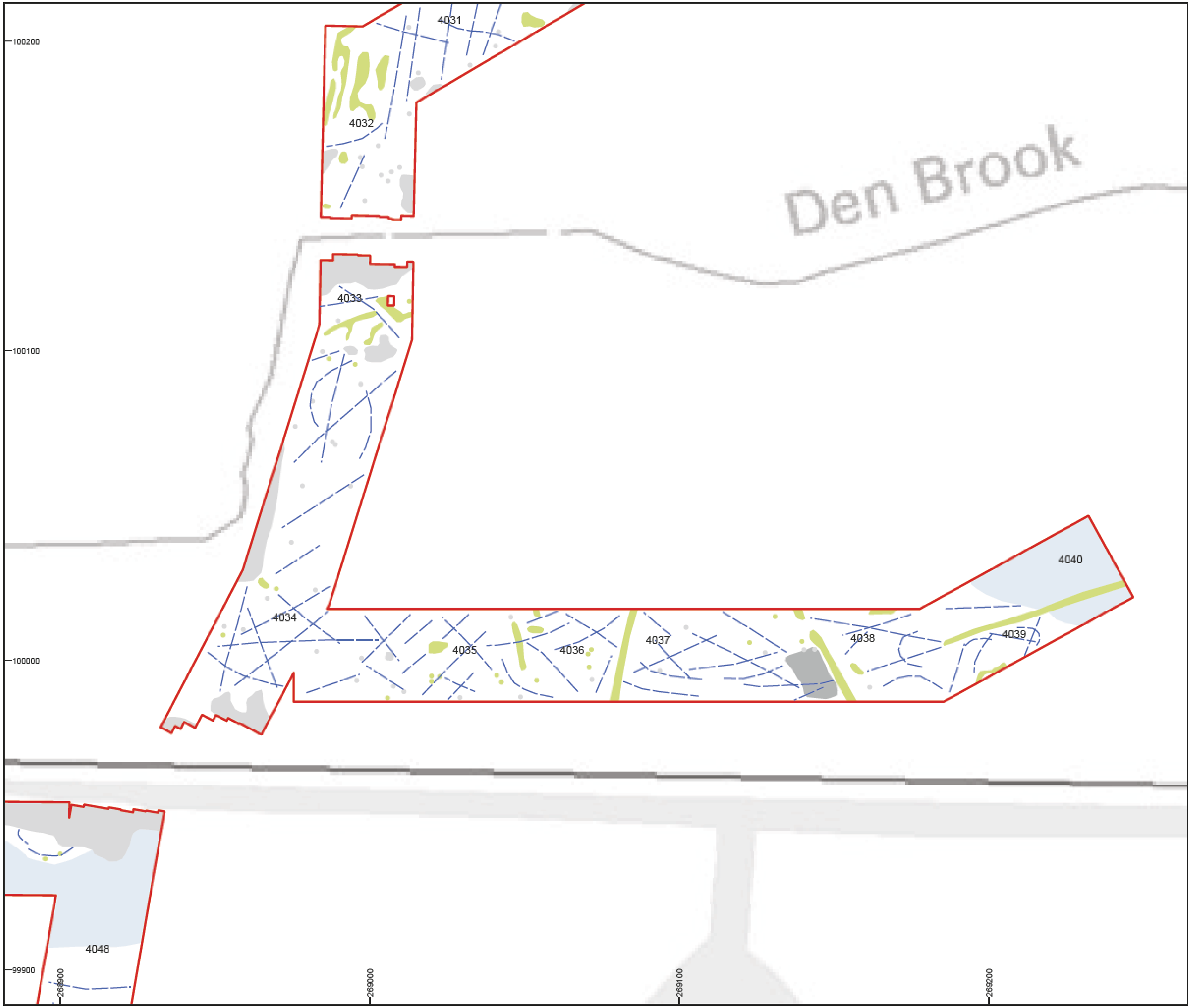
Greyscale plot and XY trace

Figure 18



Wessex Archaeology

Detailed Survey Extents
Archaeology
Probable archaeology
Possible archaeology
Ferrous
Increased magnetic response
Superficial geology
Trend

Greyscale key
+3 nT
-2 nT

XY Trace key
+25 nT
-25 nT

0 50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
Scale:	1:1250 at A3
Path:	Y:\PROJECTS\86780\DO\

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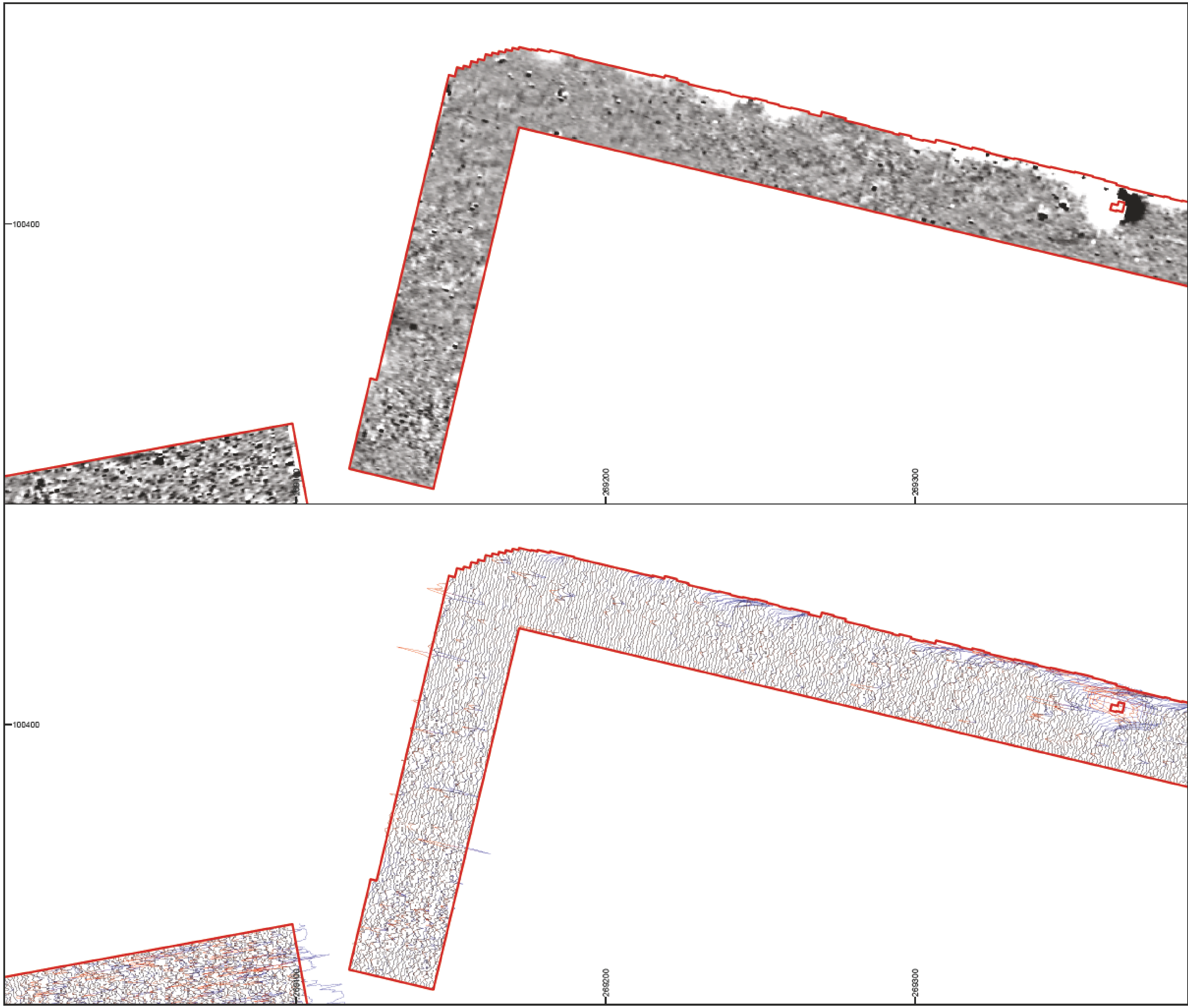
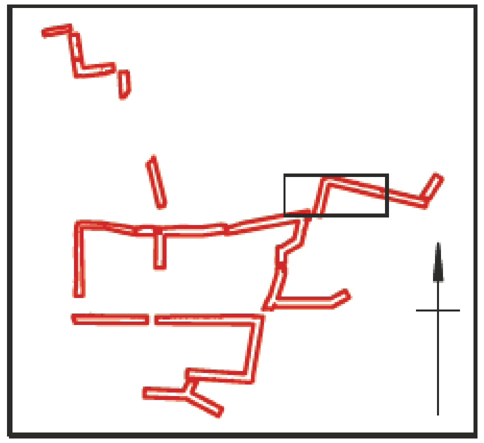
Interpretation

Figure 19



Wessex Archaeology



Detailed Survey Extents

Greyscale key
+3 nT
-2 nT

XY Trace key
+25 nT
-25 nT

0 50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
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Path:	Y:\PROJECTS\86780\DO\

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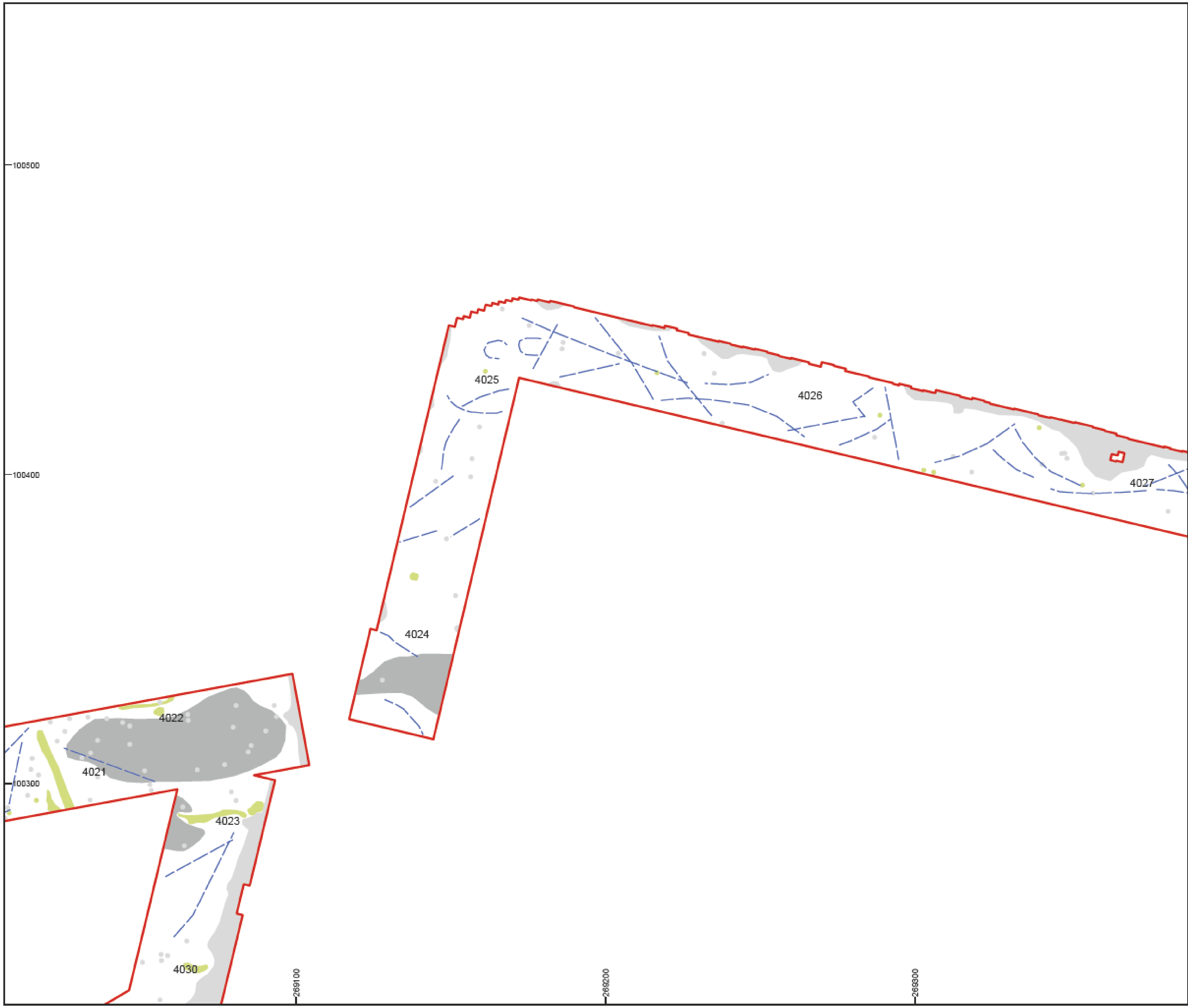
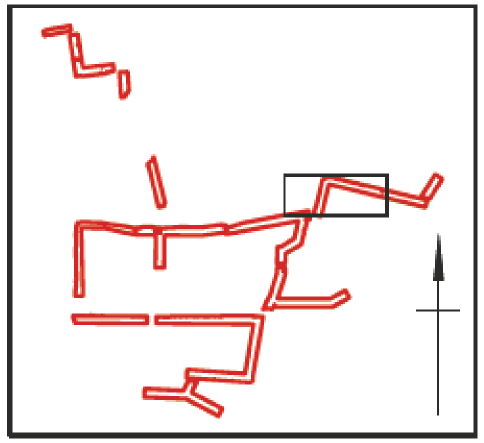
Greyscale plot and XY trace

Figure 20



Wessex Archaeology



- Detailed Survey Extents
- Archaeology
- Probable archaeology
- Possible archaeology
- Ferrous
- Increased magnetic response
- Superficial geology
- Trend

Greyscale key
+3 nT
-2 nT

XY Trace key
+25 nT
-25 nT

0 50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
Scale:	1:1250 at A3
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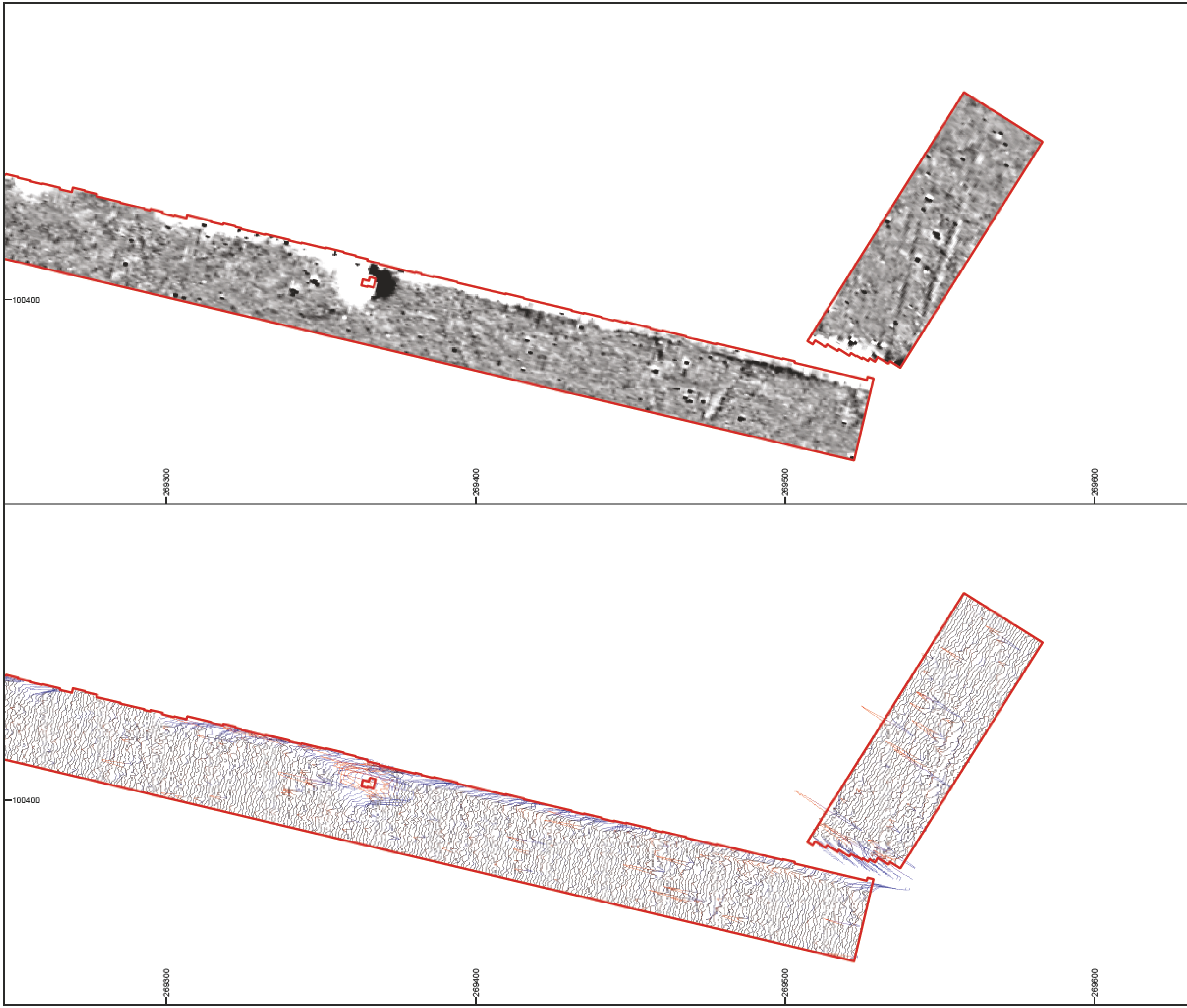
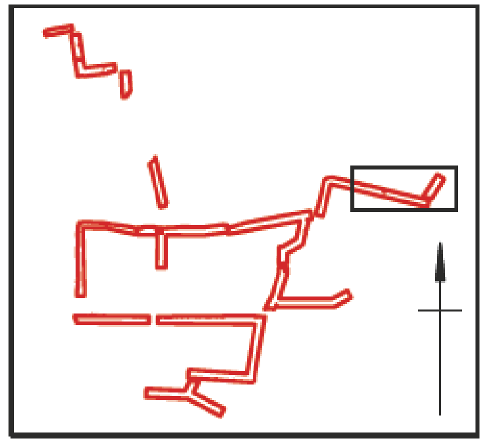
Interpretation



Wessex Archaeology



Detailed Survey Extents

Greyscale key

+3 nT

-2 nT

XY Trace key

+25 nT

-25 nT

0 50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
Scale:	1:1250 at A3
Path:	Y:\PROJECTS\86780\DO\

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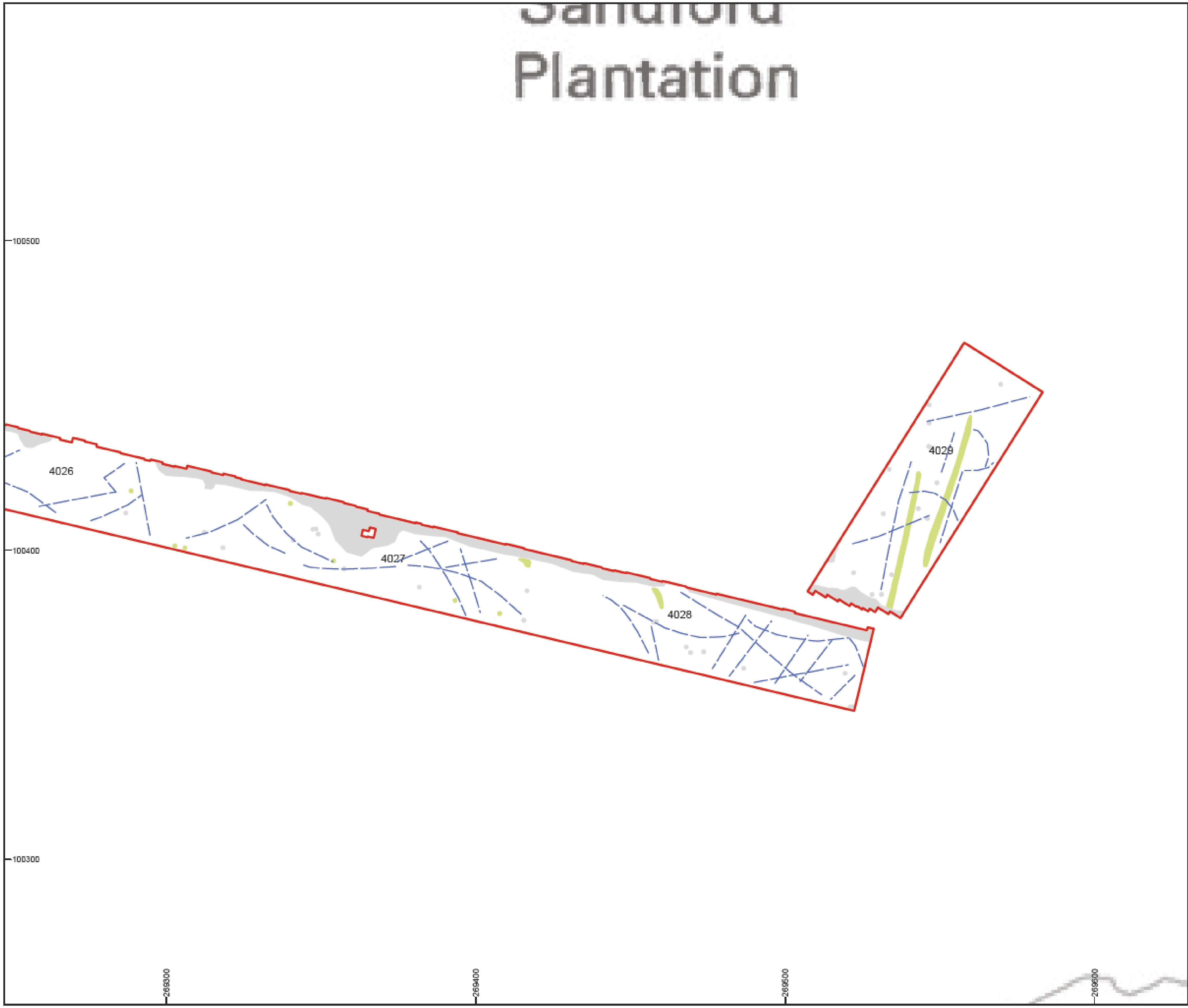
Greyscale plot and XY trace

Figure 22



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Date:	11/09/12
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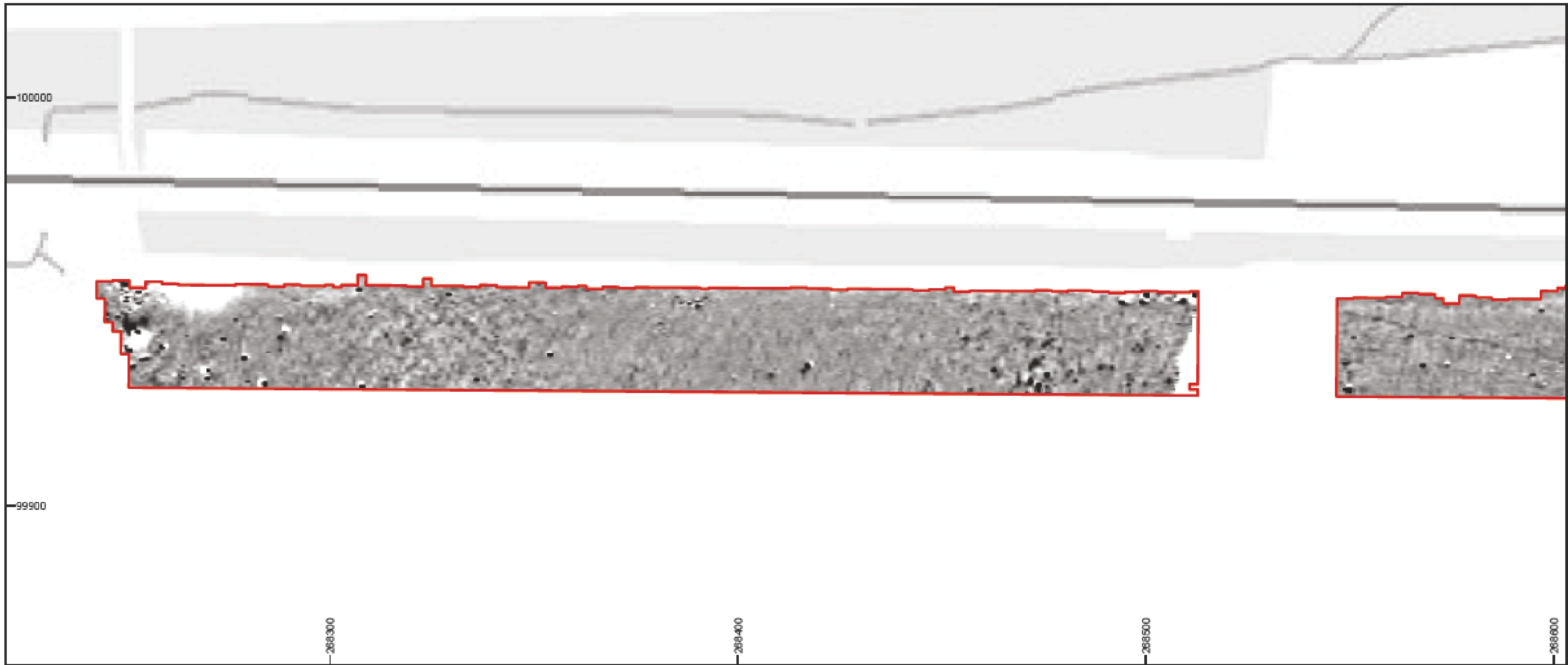
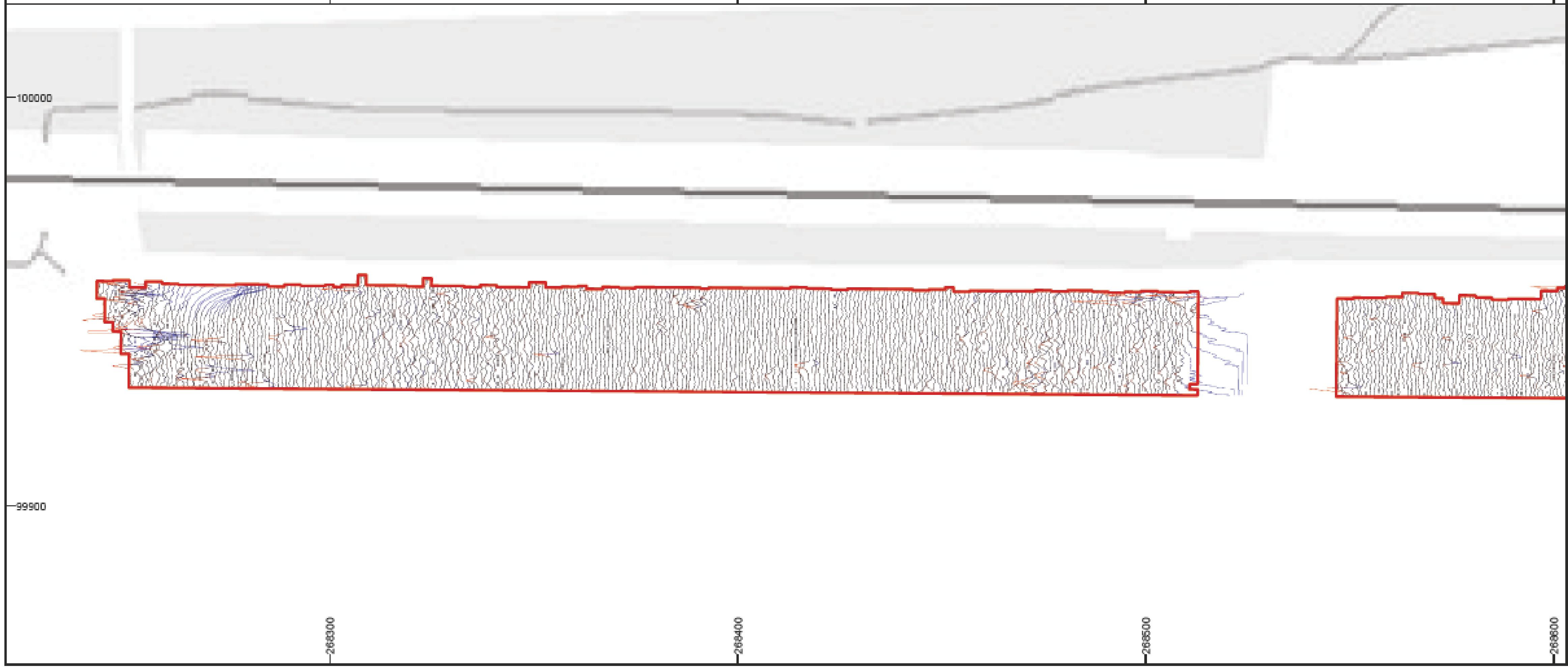
Geophys\12_09_10\GIS\FigsMXD

Interpretation

Figure 23





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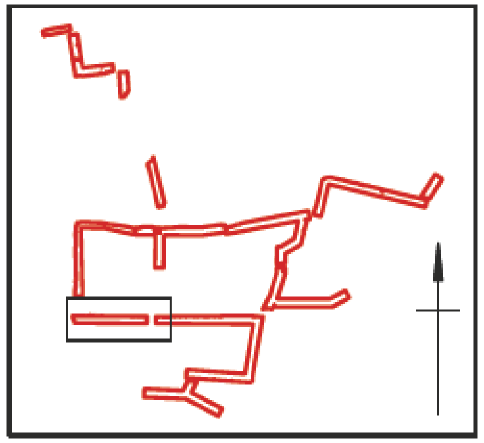

Detailed Survey Extents

Greyscale key
+3 nT
-2 nT

XY Trace key
+25 nT
-25 nT

0 50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
Scale:	1:1250 at A3
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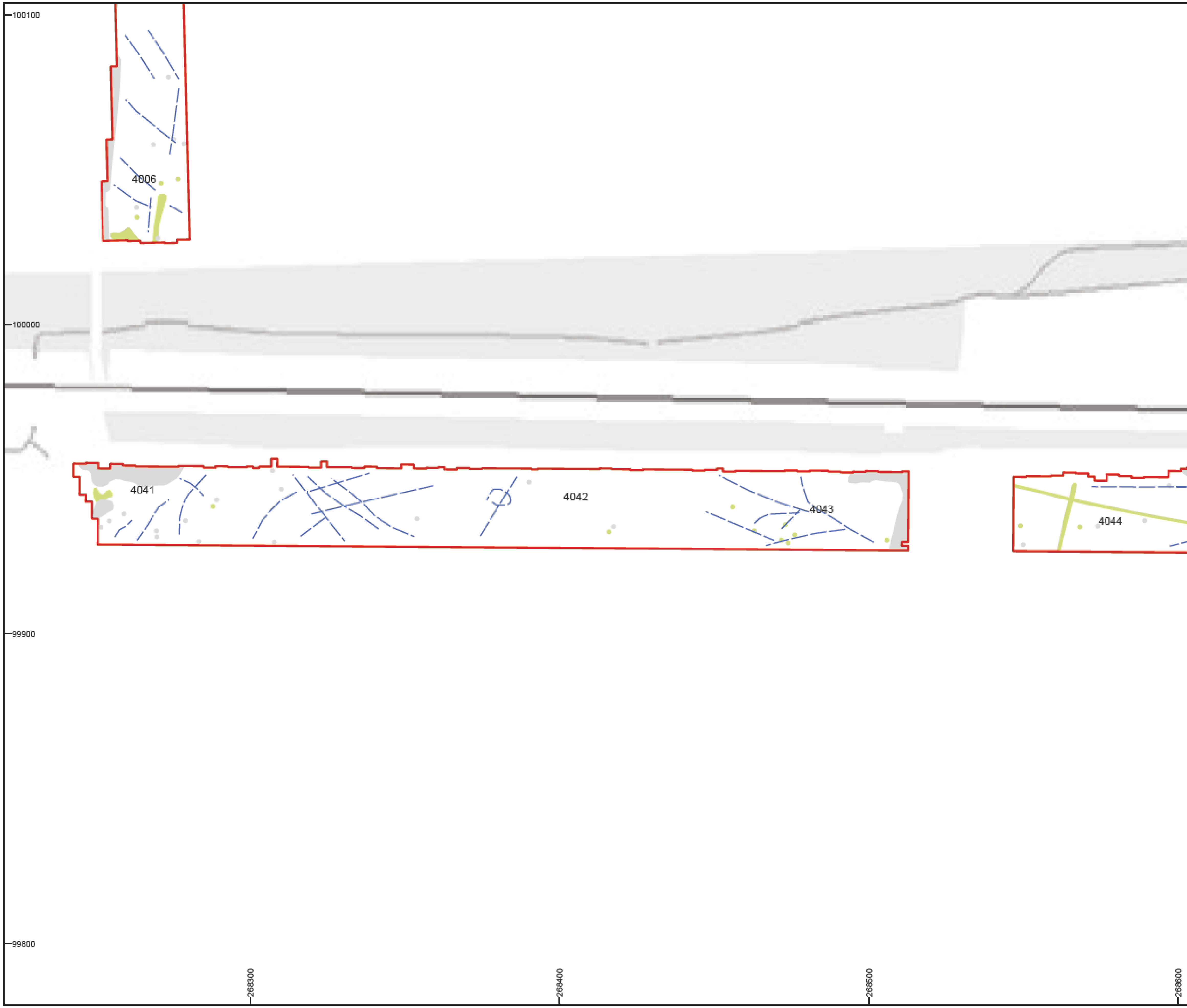
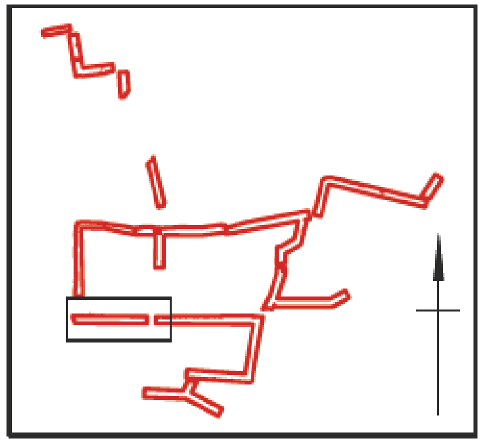
Greyscale plot and XY trace

Figure 24



Wessex Archaeology



Detailed Survey Extents
Archaeology
Probable archaeology
Possible archaeology
Ferrous
Increased magnetic response
Superficial geology
Trend

Greyscale key
+3 nT
-2 nT

XY Trace key
+25 nT
-25 nT

0 50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
Scale:	1:1250 at A3
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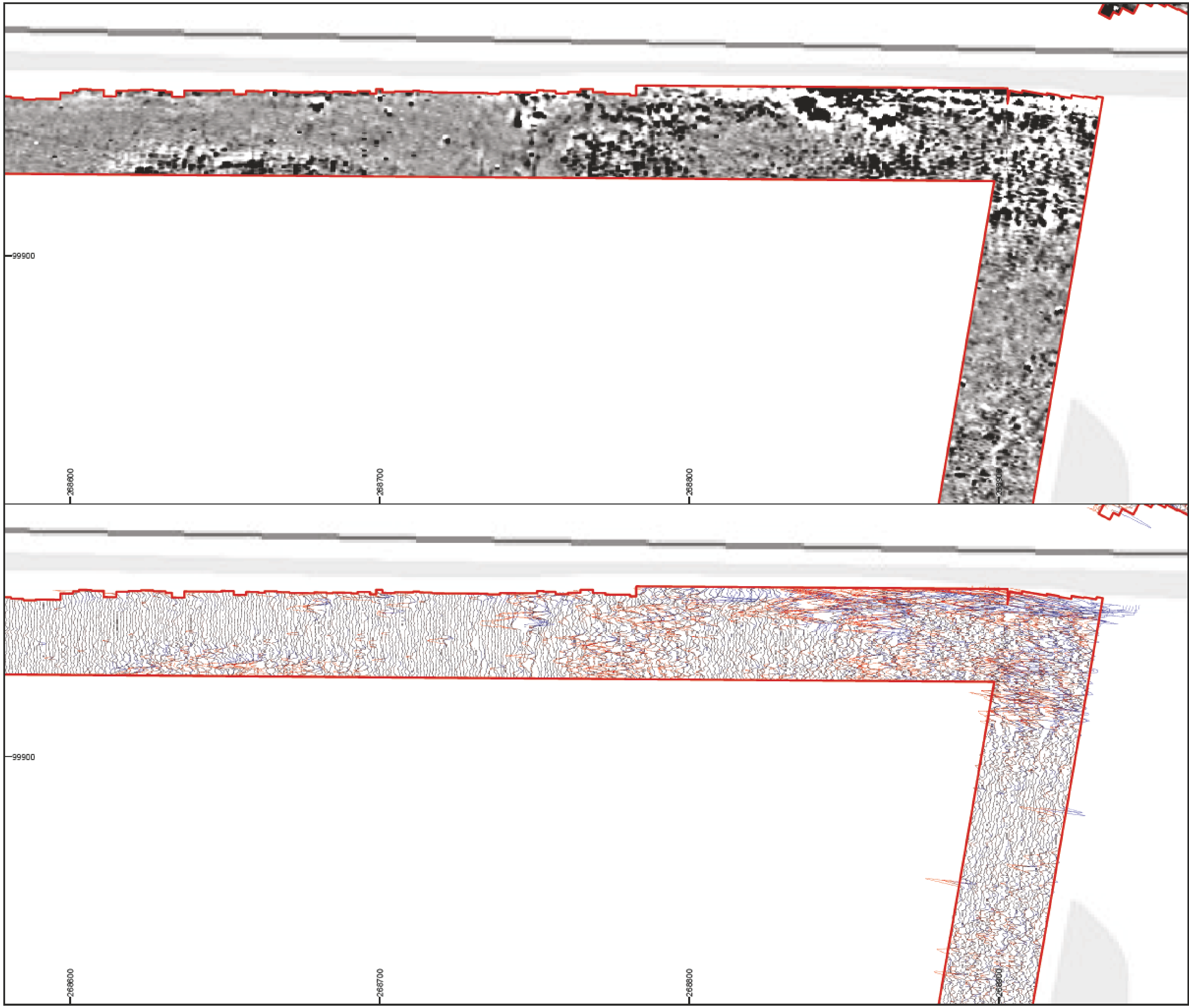
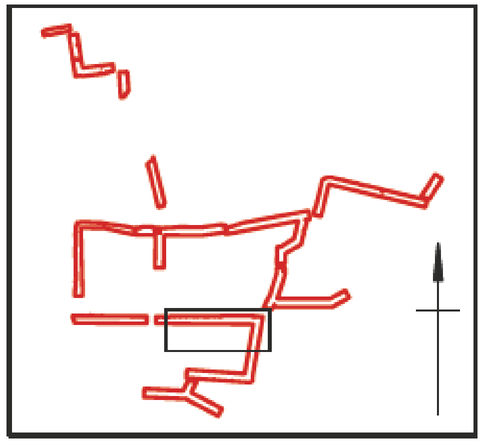
Interpretation



Wessex Archaeology



Detailed Survey Extents

Greyscale key
+3 nT
-2 nT

XY Trace key
+25 nT
-25 nT

0
50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
Scale:	1:1250 at A3
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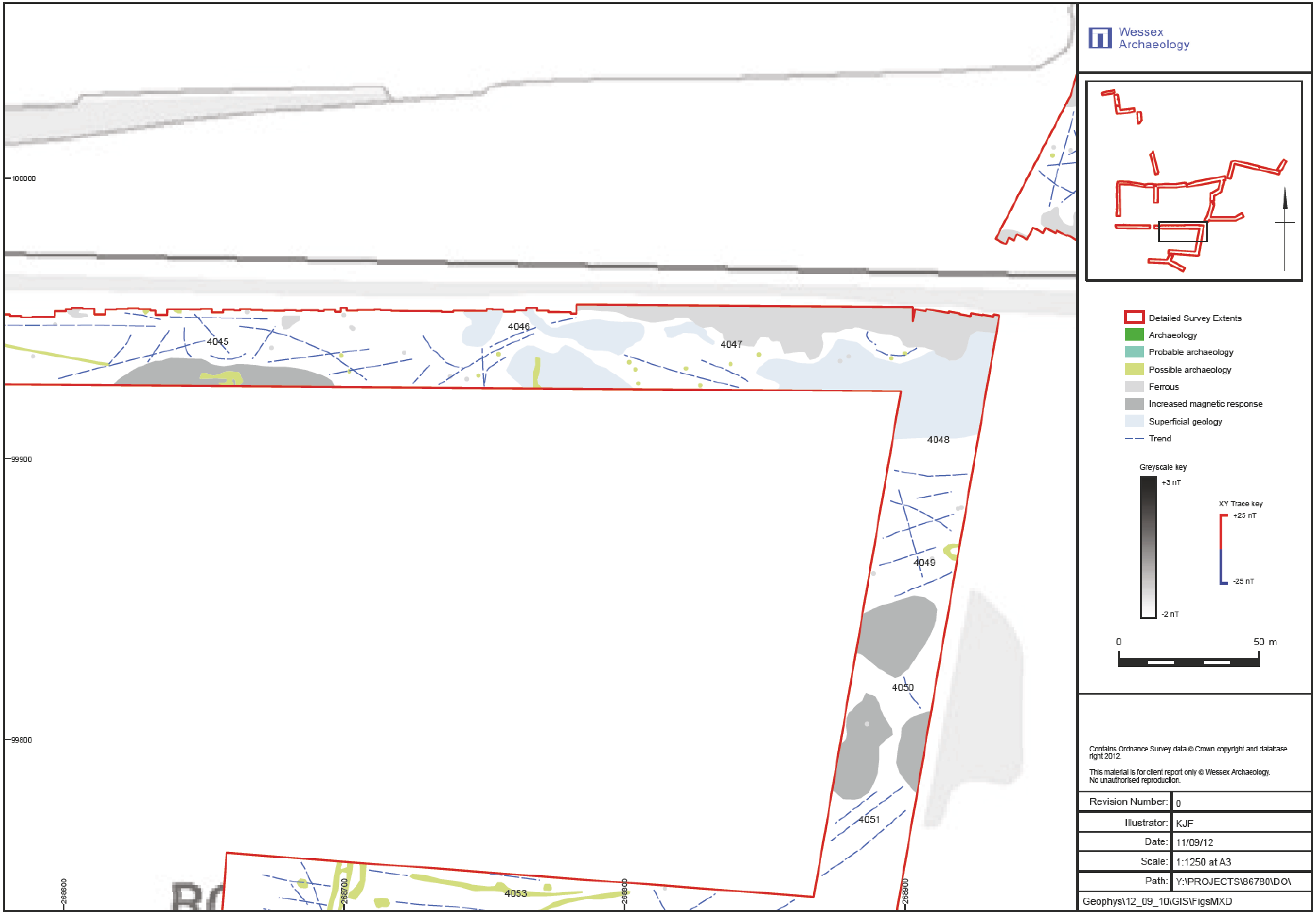
Greyscale plot and XY trace

Figure 26



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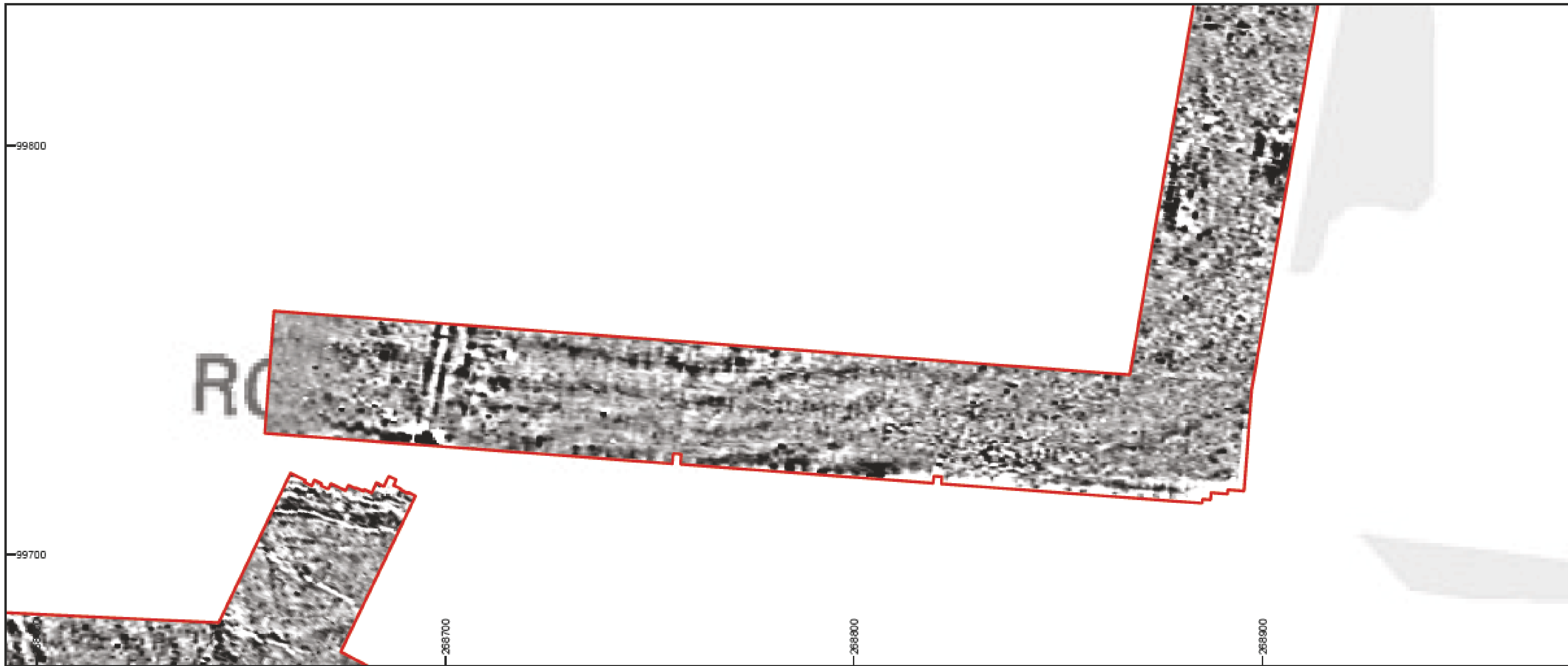
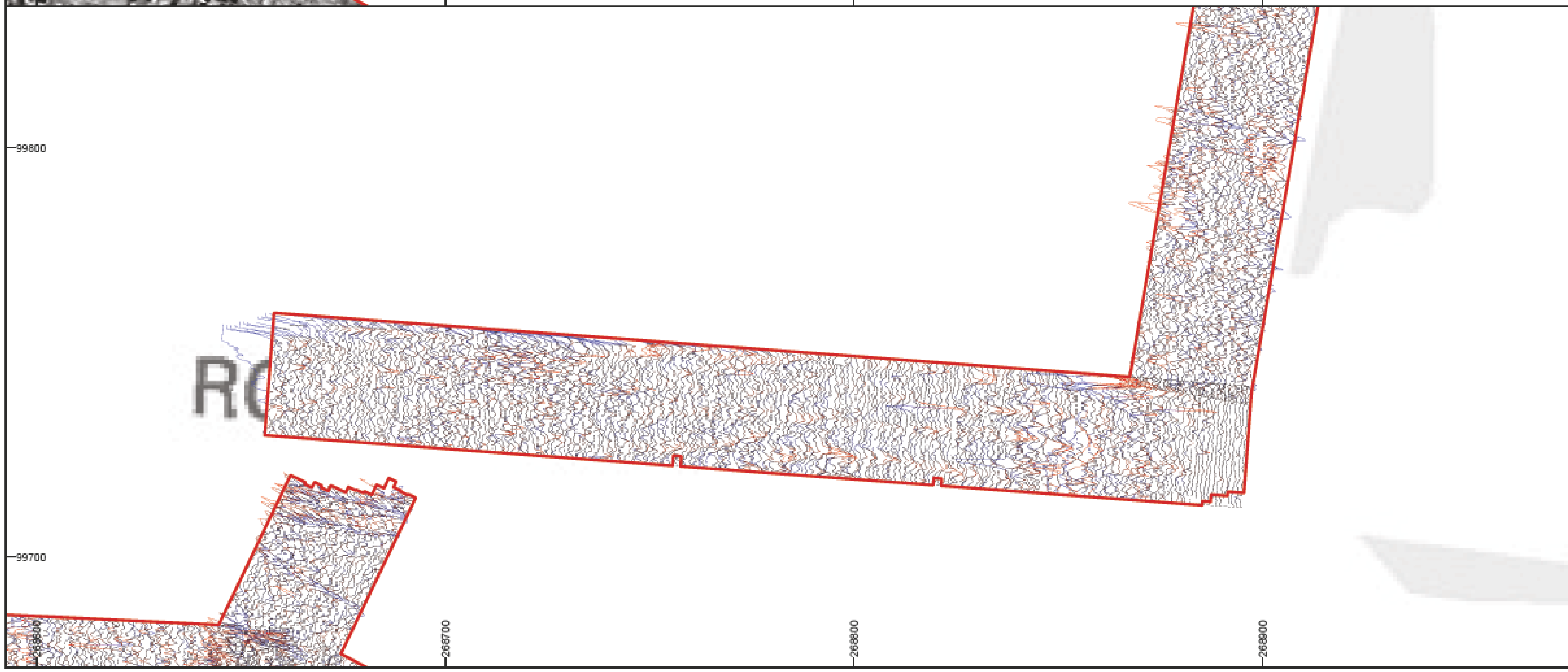
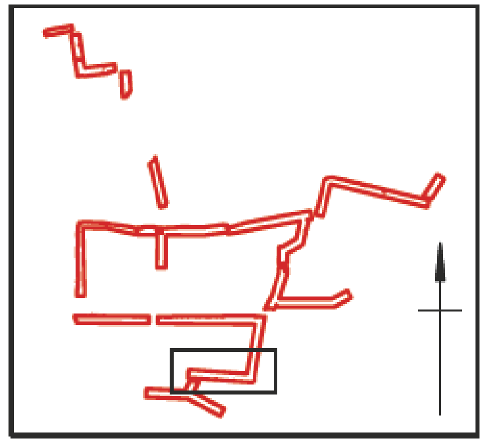
Interpretation

Figure 27





Wessex Archaeology



Detailed Survey Extents

Greyscale key
+3 nT
-2 nT

XY Trace key
+25 nT
-25 nT

0 50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
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Greyscale plot and XY trace

Figure 28

Wessex Archaeology

Detailed Survey Extents
Archaeology
Probable archaeology
Possible archaeology
Ferrous
Increased magnetic response
Superficial geology
Trend

Greyscale key
+3 nT
-2 nT

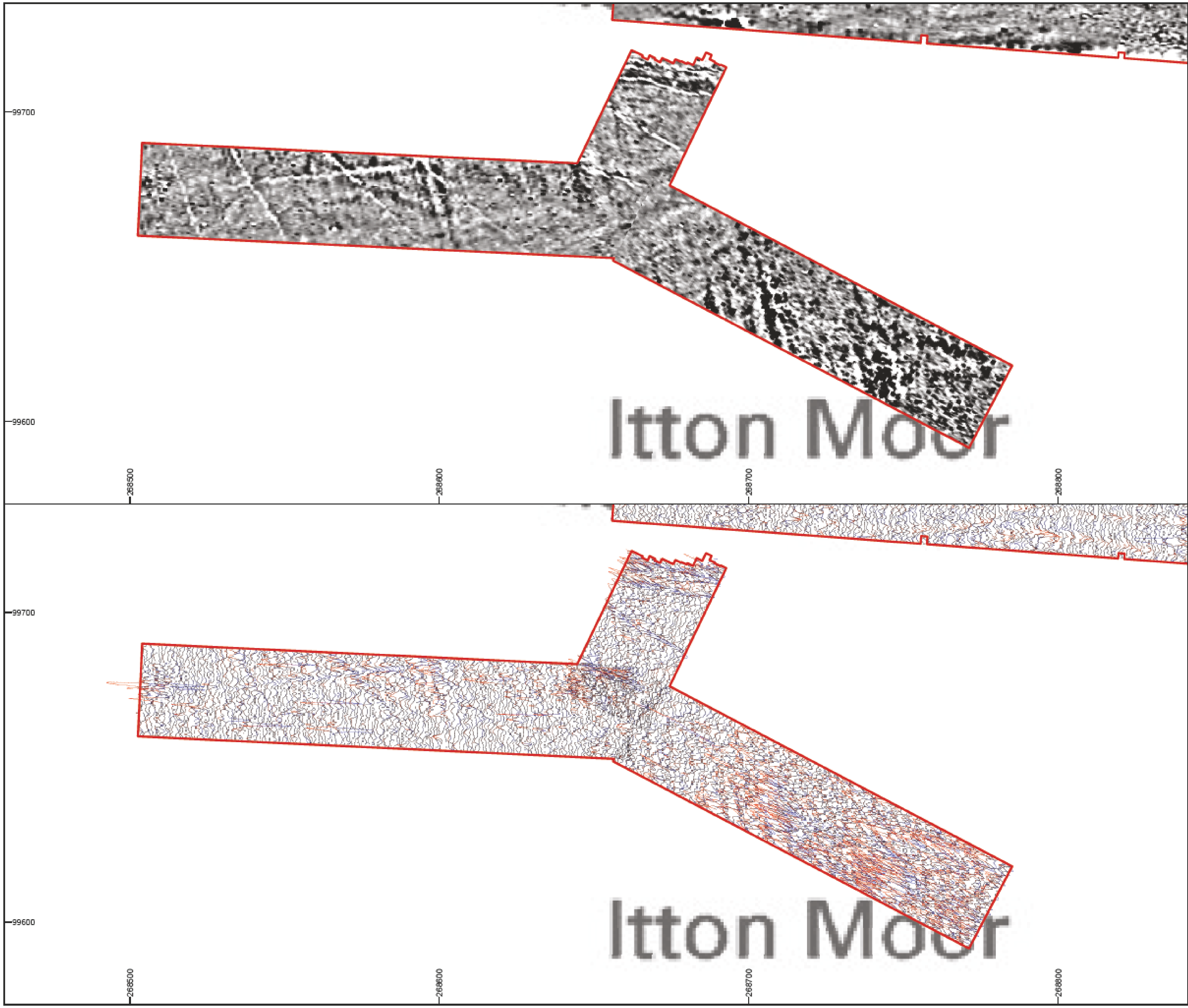
XY Trace key
+25 nT
-25 nT

0 50 m

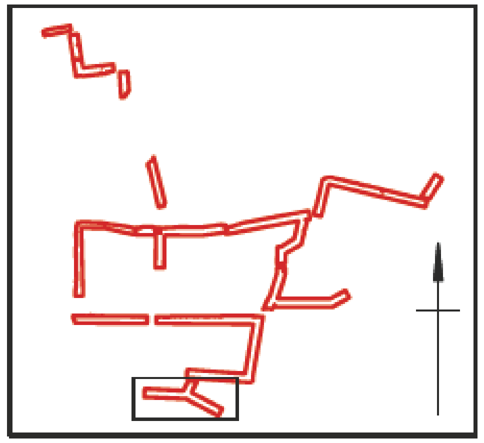
Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
Scale:	1:1250 at A3
Path:	Y:\PROJECTS\86780\DO\Geophys\12_09_10\GIS\FigsMXD

Interpretation

Figure 29



Wessex Archaeology



Detailed Survey Extents

Greyscale key

+3 nT

-2 nT

XY Trace key

+25 nT

-25 nT

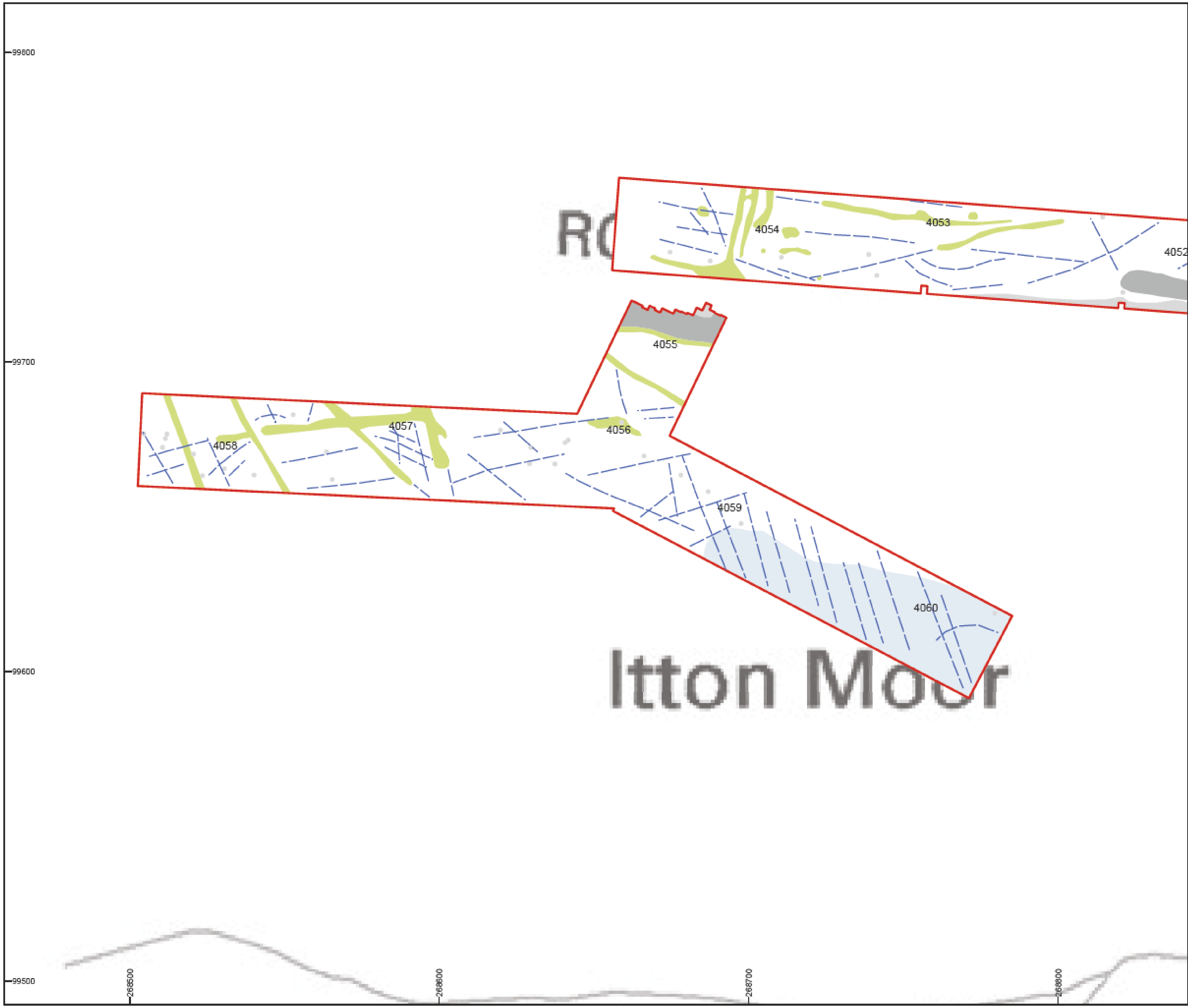
0 50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
Scale:	1:1250 at A3
Path:	Y:\PROJECTS\86780\DO\

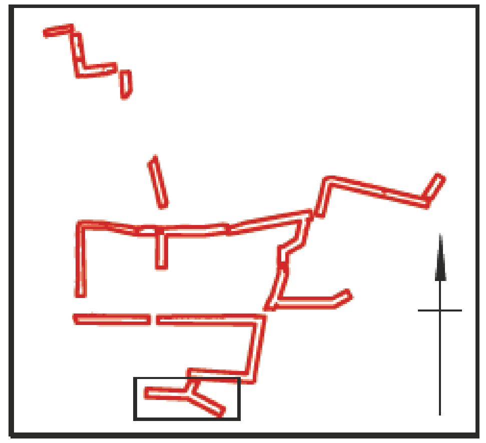
Geophys\12_09_10\GIS\FigsMXD

Greyscale plot and XY trace

Figure 30



Wessex Archaeology



Detailed Survey Extents
Archaeology
Probable archaeology
Possible archaeology
Ferrous
Increased magnetic response
Superficial geology
Trend

Greyscale key
+3 nT
-2 nT

XY Trace key
+25 nT
-25 nT

0 50 m

Revision Number:	0
Illustrator:	KJF
Date:	11/09/12
Scale:	1:1250 at A3
Path:	Y:\PROJECTS\86780\DO\

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Interpretation

Figure 31

WESSEX ARCHAEOLOGY LIMITED.
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