Land Southwest of Clifton Upon Dunsmore, Warwickshire: Geophysical Survey Report

Richborough

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Executive Summary

Cura Terrae were instructed by Marrons Planning on behalf of Richborough to undertake an archaeological geophysical survey on land southwest of Clifton Upon Dunsmore, Warwickshire.

The survey was conducted in September 2025 and produced good data throughout, and revealed multiple anomalies of a probable archaeological origin. A series of anomalies present in the northeast of Field 1 has been interpreted as representing a likely multi-phase network of interconnected linear ditches, enclosures, and ring-ditch features of likely Iron Age/Romano-British origin.

A small number of further anomalies of potential archaeological origin have also been highlighted, again within Field 1. These anomalies relate to a possible pit alignment, a potential former boundary ditch feature, and an additional proposed albeit more tentative ring-ditch feature, as well as a small number of further anomalies labelled as uncertain trends.

A former boundary visible on 19th century Ordnance Survey (OS) maps of the Site is present within Field 1. Extensive historical cultivation has been identified which has been interpreted as evidence of ridge and furrow based on the morphology of the trends.

Other anomalies present within the dataset indicate localised geological variation and varying quantities of modern ferrous material debris dispersed across the Site that is likely to be associated with recent and modern agricultural activity.

1. Introduction

1.1 Project Background

1.1.1 Cura Terrae were instructed by Marrons Planning on behalf of Richborough to conduct an archaeological geophysical survey ahead of a forthcoming planning application for development of land southwest of Clifton Upon Dunsmore, Warwickshire (hereafter 'the Site').

1.1.2 The Site is centred on National Grid Reference (NGR) 452657 275977 (SP 52657 75977) (Figure 1).

1.2 Site Description

1.2.1 The Site is c. 9.7 ha in size, comprised of three fields, and is situated approximately 1 km south of the village of Clifton Upon Dunsmore, and approximately 4 km northeast of Rugby, in the County of Warwickshire.

1.2.2 The survey area is bounded by trees, hedgerows and fencing on all sides. A residential area is located beyond the Sites western border, with further arable land present to the south and east.

1.2.3 The Site has a gentle south facing slope and is recorded at approximately 114 m above Ordnance Datum (aOD) to the north, and slopes down from approximately 104 m aOD in the south.

1.2.4 The underlying geology of the site is recorded to consist of Charmouth Mudstone formation. Superficial deposits are recorded as Dunsmore Gravel (British Geological Survey 2025).

2. Archaeological and Historical Background

2.1 Introduction

2.1.1 Below is a summary of archaeological and heritage data compiled from publicly available (online) Historic Environment Records within an approximate 1 km search radius of the Site. While not exhaustive, this section aims to present a summary of findings considered relevant to the interpretation of the geophysical survey data collected.

2.2 Summary

Medieval

2.2.1 A possible watermill which is suggested by documentary evidence is located c. 182 m east of the survey area (HHER MWA4155).

2.2.2 An Ordnance survey map of 1887 showed a medieval settlement, located c. 570 M northeast of the Site (HHER MWA9507).

Post-Medieval/Modern

2.2.3 The site of the Rugby Loop line and viaduct which was built in the late 19th century. The viaduct was marked on an Ordnance survey map of 1886 and is located c. 126 m south of the Site (HHER MWA6917).

Unknown

2.2.4 An undated small round earthwork located c. 326 m south of the survey area was recorded during an archaeological excavation of a Radio Mast site (HHER MWA12406).

3. Geophysical Survey Methodology

3.1.1 All survey work was completed to appropriate standards, as outlined by existing guidance (CIfA 2020a; 2020b; 2020c, 2022; and Schmidt *et al*. 2015).

3.1.2 This geophysical survey was completed using a SENSYS FGM650 sensors with data logger. Readings will be recorded at a resolution of 0.01nT and data collected with a traverse interval of 1 m and a sample interval of 0.16 - 0.25 m using a quad-towed and/or hand-pushed non-magnetic cart-based configuration (further details are available in Appendix A).

3.1.3 Data was collected by traversing the survey area 4 m increments using a quad-towed non-magnetic cart system to achieve the best possible results.

3.1.4 Real Time Kinematic (RTK) differential GPS equipment (Carlson BRX7 GNSS Smart Antenna) was used to accurately determine the position of the survey equipment and survey monitor data.

3.1.5 The data processing was undertaken using TerraSurveyor64 software and consisted of a 'DeStripe' process. This process determines the average of the datapoints in each track and subtracts that value from all the datapoints along each survey track.

3.1.6 Illustrations were created using QGIS software. Interpretation of identified anomalies was achieved through analysis of anomaly patterning and increases in magnetic response and was aided by examining the available supporting information, including but not limited to Greyscale plots, Colourscale plots and XY Trace plots. The interpretations follow Cura Terrae colour coding and categorisations of anomalies and attempt, where possible, to suggest the nature of buried features.

3.1.7 Further details of geophysical survey methodology can be found in Appendix A.

4. Mitigating Factors

4.1.1 The results of geophysical survey may not reveal all potential archaeology within a survey area, and geological, agricultural, and modern features may limit the detection of weaker archaeological responses.

4.1.2 At the time of survey, the Site conditions were dry and firm underfoot with harvested crop stubble covering the entire survey area. Two sections of the southern portion of Field 1 were too heavily rutted after what appeared to be a potato crop harvest and so were omitted from survey.

4.1.3 Overhead cables traverse the western portion of the northern-most survey area from northeast to southwest. These have had minimal effect on the detection of anomalies beneath.

4.1.4 Field boundaries comprised hedgerows, trees, and drainage ditches. Where necessary, a 2 m buffer was observed along metal fences although some interference is still noted at the survey periphery. The buffer was observed to minimise the effects or magnetic interference on the survey and to help to reduce as far as is reasonably practicable any non-detection of potential buried features.

5. Results and Interpretation

5.1.1 Anomalies found within the survey data are listed in Table 1 and illustrated on Figures 3 and 5.

Table 1: Survey Anomalies

Anomaly number	Anomaly Type	Description	Interpretation
1. (Field 1, Figure 3)	Archaeology	Positive, curvilinear anomaly 128 m in length running on a broadly east to west orientation in the northeast of Field 1.	This anomaly likely represents a boundary ditch feature that once formed part of an earlier regime of land division at the site.
2. (Field 1, Figure 3)	Archaeology	Two positive, linear anomalies aligned parallel to each other on a northwest to southeast orientation in the northeast corner of Field 1.	These anomalies likely represent two ditch features that demarcated a trackway running through the area.
3a. (Field 1, Figure 3)	Archaeology	Positive, linear anomaly running from the northern boundary of Field 1 and forming an L shaped feature.	This anomaly represents the northwesternmost example in a group of several complete and partial enclosures present in the east of Field 1.
3b. (Field 1, Figure 3)	Archaeology	Positive, linear anomaly associated with 3a, forming a partial, irregular rectangular feature to its south.	This anomaly represents a large, partial enclosure which makes up much of the south of the proposed settlement area in the east of Field 1.

Anomaly number	Anomaly Type	Description	Interpretation
3c. (Field 1, Figure 3)	Archaeology	Positive, rectilinear anomaly that forms a small offshoot from the northern boundary of enclosure 3b.	This anomaly likely represents a small, complete enclosure feature situated between additional enclosures 3a and 3b.
3d. (Field 1, Figure 3)	Archaeology	Weak positive, circular, and semicircular anomalies located directly adjacent to the northern boundary of enclosure 3b.	These anomalies are highly characteristic of ring-ditches of Iron Age or Romano-British provenance.
3e. (Field 1, Figure 3)	Archaeology	Positive, rectangular anomaly that forms a small offshoot from the eastern boundary of the enclosure complex.	This anomaly likely represents a small, complete enclosure feature.
3f. (Field 1, Figure 3)	Archaeology	Series of weakly positive, interconnected linear, curvilinear, and circular anomalies present in the southeast of the enclosure complex, although they are separate from its main body.	These anomalies represent various archaeological features including a ring-ditch, small, irregular enclosure and ditch boundary features all associated with one another.
4. (Field 1, Figure 3)	Possible Archaeology	Series of small, positive circular anomalies located in a curved, broadly east to west oriented line across the northeast of Field 1.	These anomalies may form a pit alignment of anthropogenic origin but may equally be the product of localised geological variation.

Anomaly number	Anomaly Type	Description	Interpretation
5. (Field 1, Figure 3)	Possible Archaeology	Weakly positive, northwest to southeast oriented linear anomaly 143 m in length running across the centre of Field 1.	This anomaly may represent a former ditch boundary feature, although its weak magnetic signature means a modern agricultural or geological origin is equally plausible.
6. (Field 1, Figure 3)	Possible Archaeology	Weakly positive circular anomaly 13.5 m in diameter, located in the centre of Field 1.	The morphology of this anomaly is characteristic of a ring ditch of Iron-Age to Romano-British origin. However, its isolation, as well as its weak and diffuse nature, precludes a definitive interpretation.
7 (Field 1, Figure 3)	Former Boundary	Positive, north to south oriented linear anomaly 70 m in length, located in the north of Field 1.	This anomaly corresponds to the location of a former boundary visible on 19th century OS maps of the Site.
8 (Field 1, Figure 3)	Uncertain Trend	Very weakly positive, northwest to southeast linear anomaly 41 m in length located in the east of Field 1, within the proposed enclosure complex.	This anomaly may represent an additional linear boundary feature, although its weak nature makes a geological or modern agricultural origin equally, if not more, likely.

Anomaly number	Anomaly Type	Description	Interpretation
9 (Field 1, Figure 3)	Uncertain Trend	Pair of weakly positive linear anomalies located in the centre of Field 1, either side of enclosure 3b.	These anomalies may represent additional linear boundary features associated with enclosure 3b, although their weak and diffuse nature make a modern agricultural or geological origin equally, if not more likely.
10 (Field 1, Figure 3)	Uncertain Trend	Weakly positive, curvilinear anomaly 23.5 m in length, located towards the south of Field 1.	This anomaly may represent a partial former boundary feature, although its weak and diffuse nature make a modern agricultural or geological origin equally, if not more likely.
N/A (Field 3, Figure 5)	Geology	Amorphous positively enhanced area located in the north of Field 3.	This anomaly likely results from changes in the subsurface geology resulting from the erosion and deposition of geological material.
N/A All Fields (Field 3, Figure 5)	Ridge and Furrow	Weak, positive, linear anomalies that are evenly spaced and present across the Site.	These anomalies are characteristic of ridge and furrow cultivation, primarily used in the Medieval and Post-Medieval periods.
N/A (All Fields, All Figures)	Ferrous Disturbance	Several, amorphous, dipolar anomalies predominantly located along the survey boundaries.	These anomalies result from proximity to metal fencing along the boundaries of the survey areas, as well as overhead cables running across the Site.

Anomaly number	Anomaly Type	Description	Interpretation
N/A (All Fields, All Figures)	Ferrous Spikes	Numerous dipolar anomalies located across the Site.	These anomalies represent ferrous objects deposited within the topsoil.

6. Discussion

6.1.1 The survey produced good data throughout and has identified numerous anomalies of archaeological origin, all of which are located in Field 1. Most notably, a series of intersecting linear, curvilinear, and circular anomalies sited in the northeast of the field appear to indicate the presence of a small agricultural settlement, potentially of Iron Age or Romano-British origin.

6.1.2 At the northern tip of this area is a positive, broadly east to west oriented curvilinear anomaly (1) that has been interpreted as representing a former ditch boundary feature. This anomaly is intersected by a pair of weaker, northwest to southeast aligned anomalies (2) which are characteristic of a double ditch bounded trackway or droveway. Notably, the varying orientations and strength of these anomalies, as well as their intersection, suggests they refer to two distinct phases of settlement activity. Given its much fainter magnetic signature, it would seem likely that the proposed trackway (2) predates the proposed ditch boundary (1).

6.1.3 Directly to the south of these features lies a series of positive, interconnecting linear, curvilinear, and circular anomalies (3) that form the bulk of the proposed settlement area. The contents of this area has been interpreted as consisting of two larger, partial enclosures (3a, 3b), two much smaller, complete enclosures (3c, 3e), as well as semi-circular and circular features (3d) located within enclosure (3a). These latter features are characteristic of ring ditches associated with Iron Age/Romano-British roundhouses, suggesting a date for the settlement area. All of these features are on a broadly east to west alignment, suggesting they date to the same phase of activity as (1). An additional area of the enclosure complex (3f), which does not appear to be physically related to any of the aforementioned features, is present to the southeast. This offshoot consists of an outer L-shaped linear boundary feature paired with an inner area populated by a curvilinear and circular feature which again bears the hallmarks of a ring-ditch. It differs from the previously described areas of (3) in its orientation, which is similar to that of potential trackway (2). This suggests that it may belong to the same, older phase of settlement activity, a hypothesis strengthened by the weaker nature of its anomalies.

6.1.4 Within the same general area is a series of small, positive circular anomalies (4) that form a loose east to west alignment that crosses the proposed settlement area. It is possible that this represents a pit alignment of anthropogenic origin, perhaps associated with waste disposal or mineral extraction. However, the loose nature of this proposed alignment makes it equally likely that these anomalies are the result of localised geological variation.

6.1.5 Two other anomalies of a possible archaeological nature have additionally been located within Field 1. The first, a large but weakly positive linear (5), traverses much of the field on a northwest to southeast alignment and may represent an unrecorded former boundary feature. However, its weak magnetic signature makes it equally likely to be the product of modern agricultural activity. Similarly, a weakly positive circular anomaly (6) located in the centre of Field one may represent

an additional large ring ditch feature, but its isolation and weak, diffuse nature means a geological origin cannot be excluded as an alternative cause.

6.1.6 A positive, linear anomaly located at the northern boundary of Field 1 (7) corresponds to the location of a former boundary visible on 19th century OS maps of the Site. Further evidence of medieval/post-medieval agricultural activity is present in the form of ridge and furrow, which is found across the Site.

6.1.7 A small number of anomalies have been labelled as uncertain trends. Two of these, a faint linear (8) and pair of linear anomalies (9), may form additional sections of enclosure within the settlement area. The third, a curvilinear present towards the south of Field 1 (10), is again characteristic of a partial boundary feature. All of these anomalies are however extremely weak and diffuse, and are therefore equally, if not more, likely to be of a geological or modern agricultural origin.

6.1.8 Other anomalies within the dataset are caused by a small area of geological variation and the presence of various quantities of modern ferrous material.

7. Curation and Storage

7.1.1 The archive will be prepared in accordance with national guidelines (CIfA 2020b). The integrity of the primary field record will be preserved. Security copies will be maintained where appropriate. Digital records of the geophysical survey and its collected data will be held by Cura Terrae

7.1.2 An OASIS form has been created on the results of the works under the following reference number curaterr1-536778. Following approval of the report, a pdf version of the final version will be submitted within three months to the Archaeology Data Service via the OASIS form.

8. References

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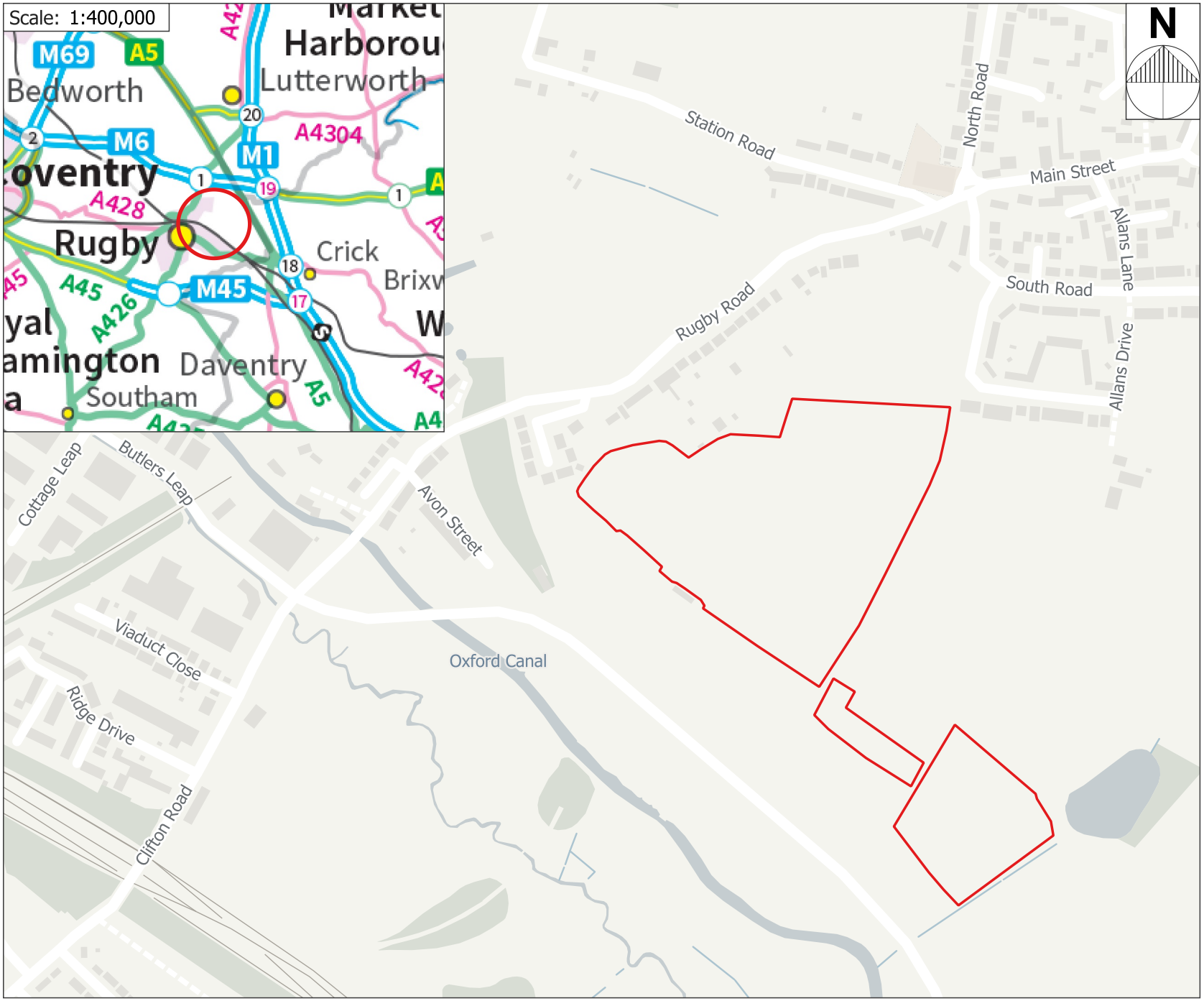


CuraTerrae

Key

Site Boundary

0 60 120 180 240 300 m

Richborough
Clifton Upon Dunsmore, Rugby, Warwickshire

Figure 1
Site Location

A	09.09.25	PFP	-
Rev	Date	Drawn by	Checked by

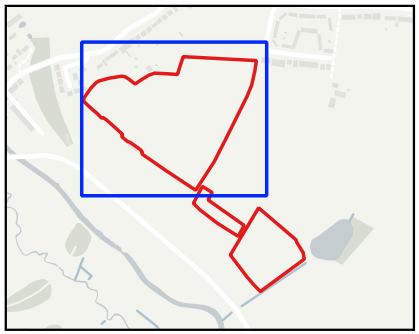
Site centred on:	SP 52654 75962

September 2025 Scale: 1:6,000 @A4 Drg.Ref: 25257 - GEO - 1 - A

CuraTerrae

Key

- Site Boundary
- Survey Extent



0 20 40 60 80 100 m

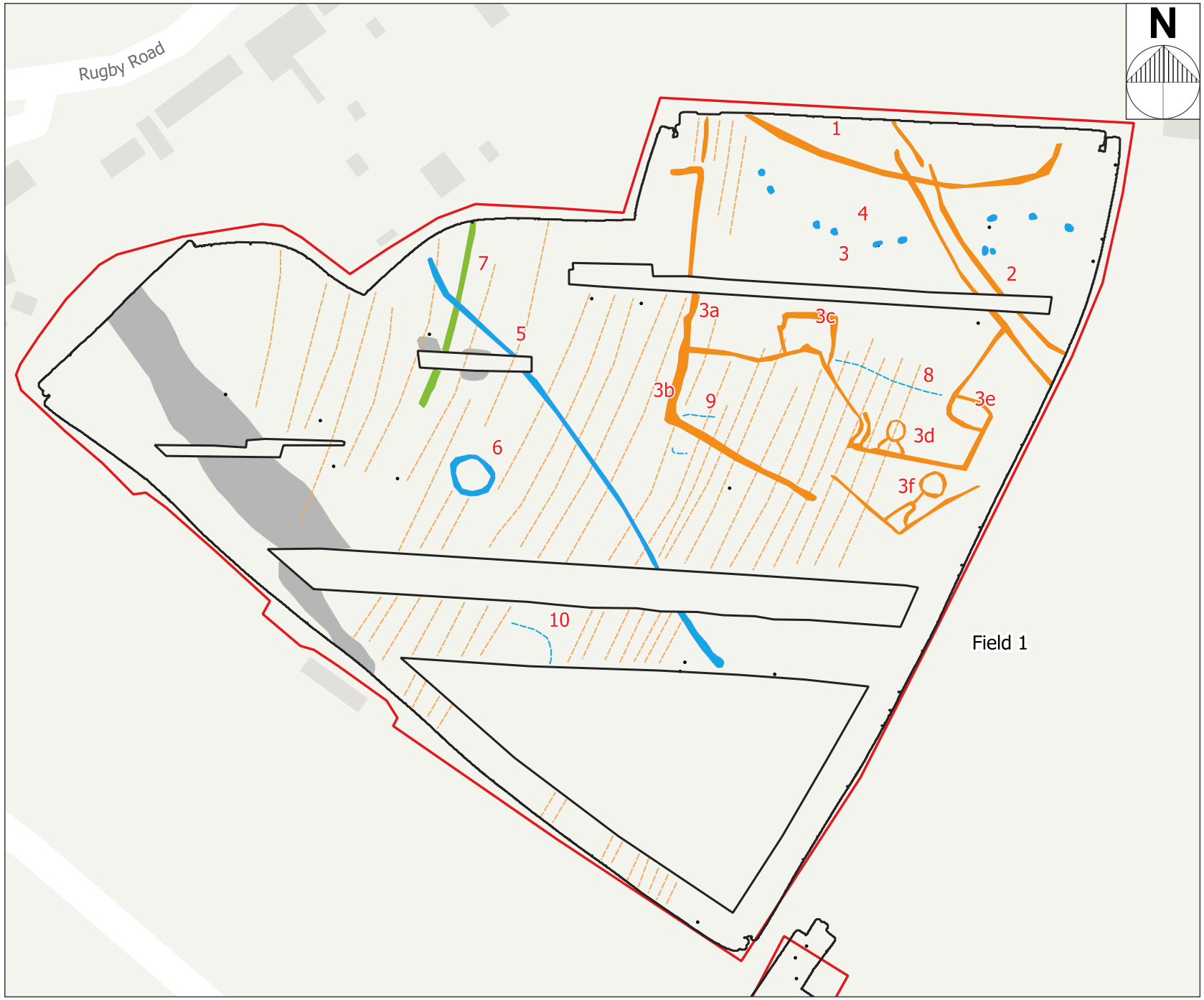
Richborough
Clifton Upon Dunsmore, Rugby,
Warwickshire

Figure 2
Greyscale Plot - Field 1

A	09.09.25	PFP	-
Rev	Date	Drawn by	Checked by

Site centred on:	SP 52654 75962

September 2025 | Scale: 1:2,000 @A4 | Drg.Ref: 25257 - GEO - 2 - A



CuraTerrae

Key

- Site Boundary
- Survey Extent
- Archaeology
- Possible Archaeology
- Former Boundary
- Uncertain Trend
- Ridge & Furrow
- Ferrous spike
- Ferrous Disturbance

0 10 20 30 40 50 m

Richborough
Clifton Upon Dunsmore, Rugby,
Warwickshire

Figure 3
Interpretation Plot - Field 1

A	09.09.25	PFP	-
Rev	Date	Drawn by	Checked by

Site centred on:	SP 52654 75962

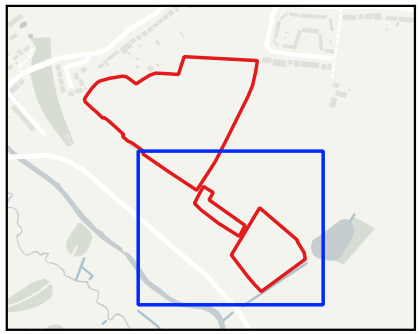
September 2025 | Scale: 1:2,000 @A4 | Drg.Ref: 25257 - GEO - 3 - A

CuraTerrae

Key

Site Boundary

Survey Extent



0 20 40 60 80 100 m

Richborough
Clifton Upon Dunsmore, Rugby,
Warwickshire

Figure 4
Greyscale Plot - Field 1 (South), and Fields 2 and 3

A	09.09.25	PFP	-
Rev	Date	Drawn by	Checked by

Site centred on:	SP 52654 75962

September 2025 | Scale: 1:2,000 @A4 | Drg.Ref: 25257 - GEO - 4 - A

CuraTerrae

Key

- Site Boundary
- Survey Extent
- Ridge & Furrow
- Ferrous spike
- Ferrous Disturbance
- Geology

0 10 20 30 40 50 m

Richborough
Clifton Upon Dunsmore, Rugby,
Warwickshire

Figure 5
Interpretation Plot - Field 1 (South), and Fields 2 and 3

A	09.09.25	PFP	-
Rev	Date	Drawn by	Checked by

Site centred on:	SP 52654 75962

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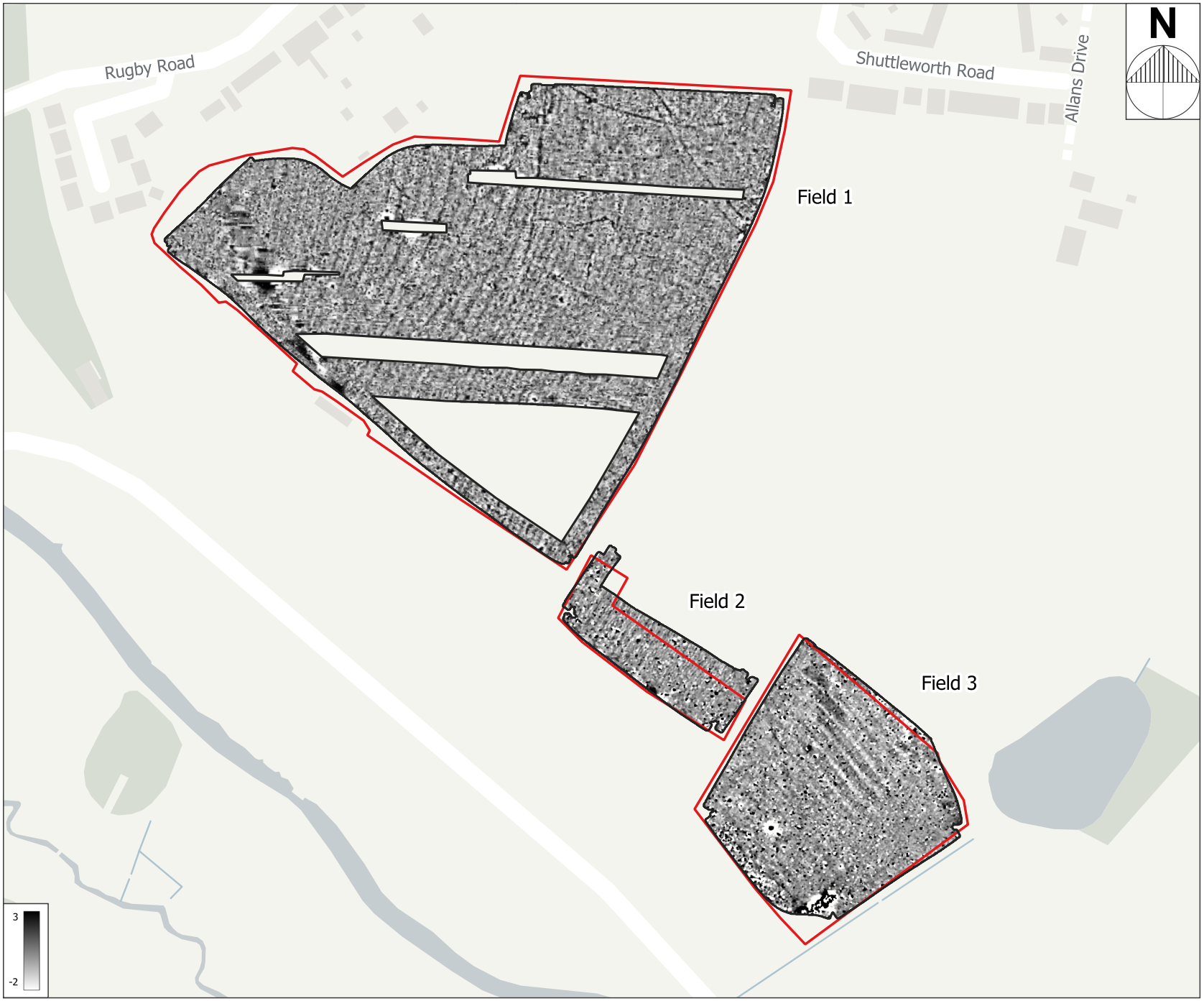

CuraTerrae

Key

- Site Boundary
- Survey Extent

0 30 60 90 120 150 m

Richborough
Clifton Upon Dunsmore, Rugby,
Warwickshire

Figure 6
Greyscale Plot - Overview

A	09.09.25	PFP	-
Rev	Date	Drawn by	Checked by

Site centred on:	SP 52654 75962

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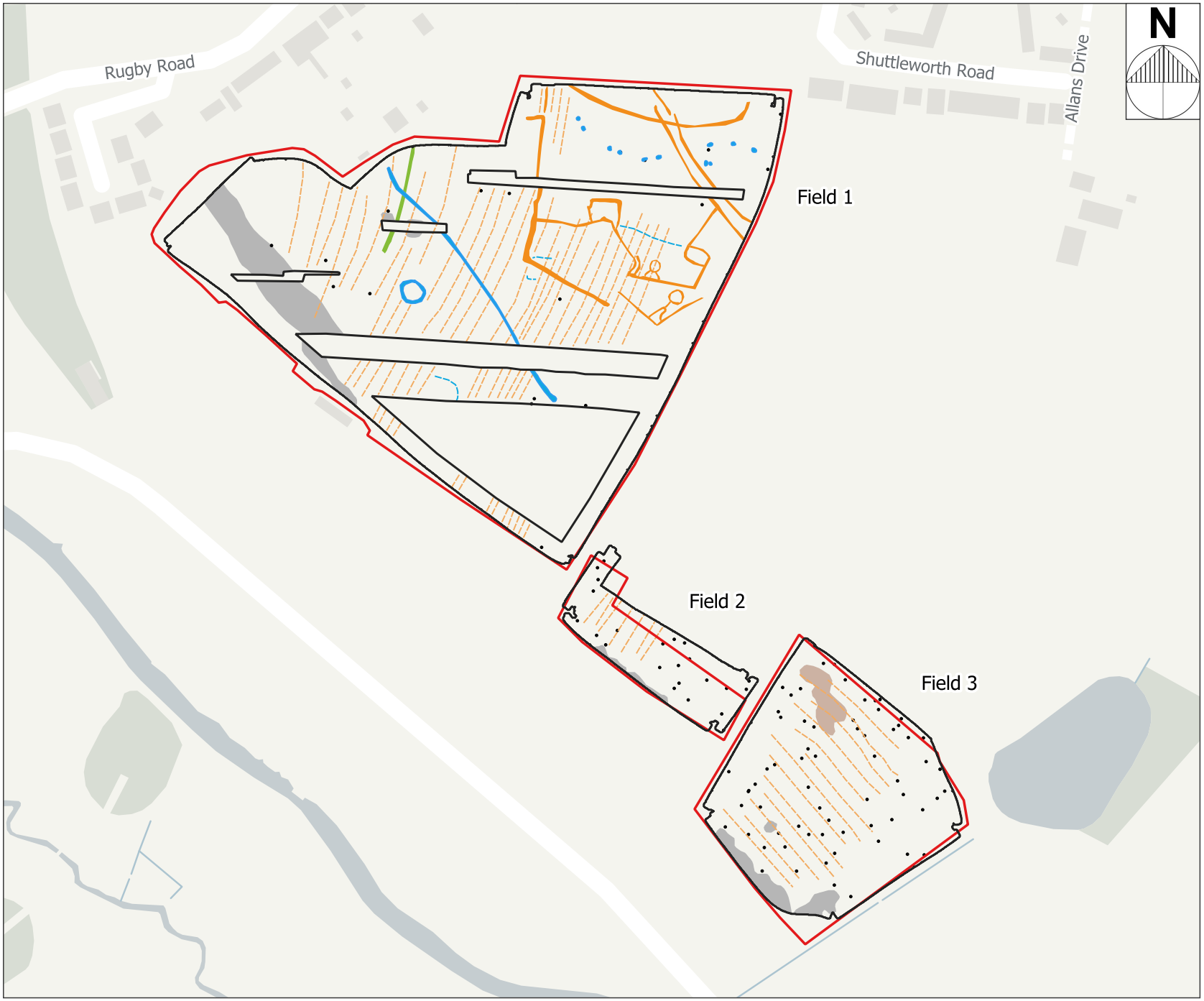

CuraTerrae

Key

- Site Boundary
- Survey Extent
- Archaeology
- Possible Archaeology
- Former Boundary
- Uncertain Trend
- Ridge & Furrow
- Ferrous spike
- Ferrous Disturbance
- Geology

0 30 60 90 120 150 m

Richborough
Clifton Upon Dunsmore, Rugby,
Warwickshire

Figure 7
Interpretation Plot - Overview

A	09.09.25	PFP	-
Rev	Date	Drawn by	Checked by

Site centred on:	SP 52654 75962

Appendix A: Appendix A: Technical Information

Gradiometer Survey

Magnetic surveys measure distortions of variable strength in the earth's magnetic field caused by magnetic fields associated with buried features (Gaffney and Gater 2003, 36) that have either remnant or induced magnetic properties (Aspinal *et al*. 2008, 21–26). Human activity and inhabitation often alter the magnetic properties of materials (Aspinal *et al*. 2008, 21) resulting in the ability for numerous archaeological features to be detected through magnetic surveys.

Intensive burning or heating can also result in materials attaining a thermoremanent magnetisation; examples of which include kilns, ovens, heaths, and brick structures (Aspinal *et al*. 2008, 27; Gaffney and Gater, 2003, 37). However, there is also no way to always confidently assert from the results of Gradiometer surveys alone, whether burned material is in situ or has been redeposited within, for example, a refuse pit.

When topsoil-rich with iron oxides, fills a man-made depression in the subsoil, it creates an infilled feature, such as a pit or ditch, with a higher magnetic susceptibility compared to the surrounding soil (Aspinal *et al*. 2008, 37–41; Gaffney and Gater 2003, 22– 26). Magnetic surveys can also detect features with a lower magnetically susceptibility than the surrounding soil, an example of which is a stone wall.

Limitations

Poor results can be due to several factors including, but not limited to, short lived archaeological occupation and land use, or sites with minimal cut or built features. Results can also be limited in areas where the natural geology is of a similar composition to the fills of cut archaeological features such as ditches, or where soils are naturally deficient in iron compounds. Poor results can also be caused by areas with soils overlying naturally magnetically enhanced geological deposits, which can produce strong or variable responses limiting the detection of earlier archaeological features.

Overlying layers, such as demolition rubble or layers of made ground such as during landscaping works, can also limit the detection of earlier archaeological features. The presence of above ground structures within, or in the near vicinity of, the survey area as well as underground services containing ferrous material such as pipelines or electricity cables can distort survey results, further limiting the detection of earlier archaeological features.

Particularly uneven or locally variable elevation in topography can increase the data processing required, and/or distort results beyond the capabilities of processing. It is also possible in areas containing dramatic topographical changes that natural weathering, such as hill wash, often in combination with

intensive modern ploughing or other natural geological deposits, will reduce the topsoil on slopes and towards the peaks of hills and possibly destroy or truncate potential archaeological features as a result. Conversely features at the bottom of slopes may be covered by a greater layer of topsoil or other deposits, and so if buried features are present, they appear faint or are entirely limited in their detection.

Over-processing of data can also obscure, remove or artificially enhance or create anomalies, especially if there are on the same orientation as the direction of data collection. Consequently, where possible, attempts are made to ensure data is not collected on the same orientation as known potential features and that data quality is sufficient to minimise the required data processing.

Instrumentation

Sensys FGM650/3

The FGM650/ is a single axis, vertical component fluxgate gradiometer with an analogue output. It outputs a voltage as an equivalent of the magnetic flux density. Each sensor contains two fluxgate sensors with a vertical separation of 0.65 m. Each of the fluxgate sensors has a dynamic range of +/ 75,000 nT and the gradiometer data have a range of +/- 8,000 nT. The sensitivity of the gradiometer is 0.6V/µT, the noise below 40pT.

The analogue data are converted into a digit by a 24 bit digitizer. Practically, a resolution of 0.15 to 0.2 nT can be reached in a moved system. The sensor is calibrated before it leaves the factory, a daily calibration is not needed. Instead, the data will be compensated during the post-processing.

This system records four or five lines of data on each traverse, with traverses walked in a zig-zag pattern until all the survey area is covered.

Appendix B: Data Visualisation and Further Information

Visualisation

The survey data collected was used to produce a series of images to demonstrate the results of surveys. These are outlined below:

- Greyscale plot – This method visualises the survey data as a shaded drawing, with highest readings showing as black, running through different shades to lowest showing as white. Plotting parameters can be adjusted to aid interpretation of geophysical survey data.
- XY Trace plot – This is an alternative method of data visualisation, plotting the magnitude of responses on a scaled XY trace. The stronger the response, the sharper the rise in the trace. This type of plot can be used to differentiate the origin of an anomaly and is best used in conjunction with an alternative method of interpretation.
- Interpretation plot – Through detailed analysis, anomalies have been interpreted and possible features identified. Interpretation drawings are used to show potential features and to reinforce and clarify the written interpretation of the data. Anomalies have been characterised using the terminology detailed in the following section and have been assigned colour coding, which is outlined in keys on figures associated with this report.

Magnetic Anomalies

Different anomalies can represent different features created by human occupation, agricultural or modern activity, or natural pedological and/or geological changes in the substrata.

Anomalies interpreted as 'stronger' are considered more likely to be of the interpreted characterisation; whereas a 'weaker' categorisation represents a more tentative interpretation applied to those anomalies with lesser increases in magnetic response or if the anomaly has incomplete patterning or irregular form. The strength and size of anomalies can vary depending on the magnetic properties of the feature, the magnetic susceptibility of the soil, the depth at which the feature is buried, and the state of preservation.

Terminology

- Anomaly - Any outstanding high or low magnetic response forming a particular shape or covering a specific area within the survey results.
- Feature - A man-made or naturally created object, material or deposit that has been detected through the site investigation works and has sufficient characteristics or supporting evidence for positive identification.
- Magnetic Susceptibility - The ability of a buried feature to be magnetically induced when a magnetic field is applied.
- Magnetic Response - The strength of the changes in magnetic values caused by a buried feature with either a greater or lesser ability to be magnetised compared with the soil around it. Anomalies are considered to either have strong/weak or positive/negative response. The strength of magnetic response (along with patterning) can be essential in determining the nature of a buried feature, but it should be noted that the size or strength of the magnetic response does not always correlate with the size of the buried feature.
- Morphology - The shape or form of an individual anomaly.
- Thermoremanence - The affect caused when a material has been magnetically altered through a process of heating. Thermoremanent magnetisation occurs when an object or material is heated passed the Curie Point and acquires a permanent magnetisation that is associated with the magnetic field that they cooled within (Gaffney and Gater 2003, 37).

Characterisation of Anomalies & Interpretation Categories

Archaeological or Historical Anomalies

- Archaeology – Linear, rectilinear, or curvilinear anomalies with a positive and/or negative magnetic response, composed of a patterning or shape that is suggestive of a buried archaeological feature. These are often indicative of structural remains or infilled cut features such as ditches. The strength of the anomaly signal can be suggestive of the properties of the feature. Negative linear anomalies represent upstanding or infilled features that are less magnetically susceptible than background readings, for example structures such as a ditch-bank, or a cut ditch containing a fill composed of a non-igneous stone material. Bipolar linear anomalies considered to be of an archaeological nature are indicative of material with a high magnetic susceptibility, such as a brick wall. Isolated anomalies or anomalies with a more amorphous form possibly represent infilled features or thermomagnetic features such as areas of heating/burning of an archaeological origin. Unless associated with conclusively identified archaeological remains, such as linear anomalies, absolute identification of positive responses can be problematic as it is often not possible to decipher if they are of an archaeological, modern, or agricultural origin. Consequently, isolated positive responses such as those indicating pit-features, are not always shown within the Interpretation plot(s) unless composed of a broad form or belonging to a series of isolated positive responses. Bipolar responses considered likely to be of an archaeological origin are also interpreted as isolated anomaly (archaeology). These are considered to relate to material with a very strong magnetic susceptibility or thermoremanent magnetisation.

- Possible archaeology – This categorisation is applied where anomalies are weaker or more diffuse in response, resulting in a less certain origin. It is possible that these belong to archaeological features but given their weaker responses or incomplete patterning it is equally plausible that they relate to other sources, such as agricultural features or natural soil formations or geological variations.
- Former Boundary - Linear anomalies, sub/irregular-rectilinear anomalies either with positive or negative magnetic responses, that correspond with the location of former field boundaries, ponds or buildings recorded on historic maps, Aerial photos, and/or LiDAR coverage of the site.
- Ridge and Furrow - Broadly spaced linear anomalies or trends that are likely to be indicative of earlier forms of agricultural practice, such as ridge and furrow. These often correspond with the location of earthworks visible on the ground during the survey, or can be identified on aerial or LiDAR survey imagery.

Strongly Magnetic / Bipolar / Dipolar

- Modern Service – Highly magnetic, typically dipolar linear anomalies with a stronger area of variably decreasing ferrous response depending on the vicinity of the survey instrumentation to the buried or extant feature.
- Increased magnetic response – Isolated bipolar responses of a typically modern nature that are likely to relate to buried ferrous material, building debris, or objects, such as magnetically enhanced agricultural debris. If a trend is noted in the alignment or spacing of isolated bipolar responses, it is possible that they are indicative of ferrous fittings or connectors used on buried non-magnetic buried utilities, although occasionally an archaeological origin cannot be ruled out. Also, areas of increased magnetic response denote areas of disturbance containing a high concentration of dipolar or bipolar responses. These are generally considered to be caused by modern debris in the topsoil, including agricultural 'green waste.' It is also possible that the disturbance is in part also caused by isolated archaeological material or geological or pedological changes in the substrata.
- Ferrous disturbance - Areas of magnetic disturbance, often along the edges of survey areas, or surrounding Modern Services caused by highly ferrous material such as standing metal structures like fencing and buildings. Modern Agricultural Anomalies.

Modern Agricultural

- Agricultural Trend - Ploughing trend tends to be regularly spaced linear anomalies, often with a narrower spacing, that conform with ploughing regime at the time of survey, or a recent regime recorded on aerial photos of the site. The response and distribution of land drains varies depending on the composition of the land drain and associated ditch or channel. Consequently, land drains can be composed of weak / strong positive / negative magnetic responses and are identified as a product of either their variance in magnetic values or positioning compared with regularly spaced linear anomalies considered to relate to modern ploughing. Land drains can be located within former agricultural regimes, such as ridge and furrow.
- Land drain – Weakly positive, and/or dipolar, regularly broadly spaced linear trends in a typically parallel or 'herringbone' formation. These are generally modern in origin, although earlier post-medieval ceramic drains are often plausible but cannot be determined.
- Uncertain Trend – Generally positive, although sometimes negative, isolated, and weak linear or curvilinear trends. This category is applied where multiple origins can be asserted to a barely detected anomaly.