



Stroudwater Navigation Missing Mile South of A38 & A419, Fromebridge South Gloucestershire

Detailed Gradiometer Survey Report



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Summary

A detailed gradiometer survey was conducted over land south of A38 & A419, Fromebridge, South Gloucestershire (centred on NGR 377340 207055). The project was commissioned by LUC with the aim of establishing the presence, or otherwise, and nature of detectable archaeological features in support of a planning application for the development of the site.

The site comprises of five arable fields located south of A38 and A419 at Fromebridge, covering an area of 14.5 ha. The detailed gradiometer survey was undertaken between 19th and 21st September 2017. The survey has demonstrated the presence of several anomalies of archaeological interest, primarily in the north of the survey area, with several more discrete areas of possible archaeology throughout the site.

The anomalies identified as being of archaeological interest are thought to be ditch-like features that may be associated with an enclosure. Given the propensity of Romano-British activity in the area, it is possible that this may date to a similar period. However, this cannot be determined conclusively from the results of the geophysical survey. The precise layout of these features has been obscured by later medieval cultivation in the form of ridge and furrow ploughing. The notably increased magnetic background surrounding these anomalies could also indicate that further features, which may be heavily truncated, are present in this area.

Part of the Stroudwater Navigation canal has been identified in the north-eastern corner of the Site and a broad area of increased magnetic response has been interpreted as the remains of a possible towpath. In addition, several other ditches and pit-like anomalies have been identified across the site, along with several former field boundaries.

In the south-eastern corner, evidence for superficial geological deposits has been identified and several modern services and underground field drains can be seen traversing the site.

Acknowledgements

Wessex Archaeology would like to thank LUC for commissioning the geophysical survey. The assistance of Melissa Conway is gratefully acknowledged in this regard.

The fieldwork was undertaken by Rok Plesnicar, Jen Smith and Matt Tooke. The data were processed by Nicholas Crabb and interpreted by Patricia Voke and Alexander Schmidt. The graphics and this report were prepared by Alexander Schmidt. The project was managed on behalf of Wessex Archaeology by Ben Urmston.



Stroudwater Navigation Missing Mile South of A38 & A419, Fromebridge, South Gloucestershire

Detailed Gradiometer Survey Report

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology was commissioned by Land Use Consultants Ltd. to carry out a geophysical survey at south of A38 & A419, Fromebridge, South Gloucestershire (centred on NGR 377340 207055) (**Fig. 1**). The survey forms part of a programme of archaeological works being undertaken in support of a planning application for the restoration of the former Stroudwater Navigation canal.

1.2 Scope of document

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

1.3 The Site

1.3.1 The Site is located just east of Fromebridge and 1.1 km south-southwest of the village of Whitminster, approximately 13 km south-west of Gloucester, in the county of South Gloucestershire.

1.3.2 The survey consists of an area of 14.5 ha of land currently under pasture. The Site is bounded by the A38 to the west, the A419 to the north, the River Frome to the south and a depot to the southeast. The site is portioned into five fields separated by hedgerow boundaries as well as a stream, which joins the River Frome to the north-west.

1.3.3 The Site is broadly flat, with a slight gradient sloping down from approximately 13 m above Ordnance Datum (aOD) at the northern-eastern boundary to approximately 11 m aOD at the southern edge at the River Frome.

1.3.4 The solid geology comprises Mudstone of the Blue Lias Formation and Charmouth Formation (undifferentiated) with overlying superficial geological deposits of Alluvium (BGS 2015).

1.3.5 The soils underlying the Site are likely to consist of pelo-alluvial gley soils of the 813b (Fladbury 1) association (SSEW SE Sheet 3-1 1983). Soils derived from such geological parent material can produce magnetic contrasts acceptable for the detection of archaeological remains. However, alluvial soils can overly archaeological remains and if the depth of this cover is >1 m, it is possible that small or weakly magnetised features may not be detected by gradiometer survey.



2 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

2.1.1 The archaeological and historical background has been addressed by the information currently available from the draft Historic Environment chapter for the forthcoming Environmental Statement (LUC 2017). This examined the potential for the survival of buried archaeological remains within the development area and a 1 km area surrounding the Site and using information provided by the Gloucestershire Historic Environment Record (GHER) and the National Heritage List for England (NHLE). The following background is summarised from the Environmental Statement.

2.2 Summary of the known archaeological resource

2.2.1 There are no World Heritage Sites, Scheduled Monuments, Registered Parks and Gardens, or Historic Battlefields identified within the 1 km Study Area. However, the site lies within the Industrial Heritage Conservation Area, which includes areas of settlement and industrial buildings that have been influenced by the cloth industry and its supporting infrastructure.

2.2.2 A group of three Grade II listed buildings lies c. 340 m west of the northern end of the site. This includes Fromebridge Mill (NHLE No. 1090532i), Millowner's House (NHLE No. 1340725), and Nether Mills Farmhouse (NHLE No. 1153894), all of which date from the 17th to 19th centuries.

2.2.3 There are few records of early prehistoric activity in the study area. However, several Palaeolithic flint artefacts have been recovered 500 m south of the survey area.

2.2.4 There are no known Neolithic remains within the study area, but activity during this period is clearly attested by the presence of several long barrows in the wider area. A Bronze Age barrow cemetery lies approximately 220 m to the south-west of the western extent of the Site.

2.2.5 The remains of an Iron Age to Romano-British settlement were found 400 m south of the site during gravel extraction in the 1930s. A putative Roman villa was also identified approximately 500 m to the south-east of the site. An archaeological evaluation showed that this was heavily robbed-out, but also identified contemporary and apparently related structures (a possible corn-drier), quarrying and ditched field system (Cotswold Archaeology 2015). A geophysical survey undertaken to the south-east of the site (GSB 2015) identified a series of anomalies lying immediately west of the M5, which appeared to be of archaeological origin and similar to field systems of later prehistoric to Romano-British date. Evaluation of these anomalies indicated that they are of more recent date and likely to be associated with post-medieval water management (Cotswold Archaeology 2015).

2.2.6 The Roman influence on the landscape is clear through the presence of Roman roads, the closest of which is the present A38, which forms the western boundary of the site and is on the line of the Roman road from Gloucester, *Glevum Colonia*, to Sea Mills, *Portus Abonae*. A postulated route linking Arlingham to the Fosse Way via Kinsgcote also crosses the A38, 465 m to the south of the site. The known activity during these periods, and the presence of the site between two known foci of Roman-British activity, suggest that the site may have been used for settlement and agriculture during this period.

2.2.7 During the medieval period, the site is likely to have likely functioned as part of the hinterland to larger settlements in the wider area. Whilst the site itself appears to have remained rural, its wider environs became an early centre of the cloth industry. The industry had a profound influence on the landscape through the growth of industrial settlements and improvements to the area's transport networks. One of the earliest manifestations of this was the improvement of the River Frome to make it navigable in the 18th century. This included the Stroudwater Navigation canal, which was built between 1763 and 1779 and is known to have extended through the site.

2.2.8 During the 20th century, the importance of the Stroudwater Navigation as a commercial waterway was reduced, but it remained an important feature of the landscape in the early- to mid- 20th century. This is reflected by its utilisation in the GHQ stop lines during the early part of World War II. Pillboxes are also known to have been sited on the stop line immediately outside the site to cover the crossing of the A38 over the River Frome. The pillboxes appear to be no longer extant and may have been removed in works to widen the A38 in the later 20th century.

2.3 Introduction

2.3.1 The geophysical survey was undertaken by Wessex Archaeology's in-house geophysics team between 19th and 21st September 2017. Field conditions at the time of the survey were good throughout the fieldwork. An overall coverage of 13.1 ha was achieved, with the reduction largely the result of overgrowing hedgerows and boundaries protruding into the survey area. These were predominantly at the eastern and western edges but occurrences are noted throughout the survey area, amounting to approximately 1.4 ha of the proposed survey area being unsurveyable.

2.4 Aims and objectives

2.4.1 The aims of the survey comprise the following:

- to conduct a detailed survey covering as much of the specified area as possible, allowing for artificial obstructions;
- to clarify the presence/absence and extent of any buried archaeological remains within the site; and
- to determine the general nature of the remains present.

2.5 Fieldwork methodology

2.5.1 The cart-based gradiometer system used a Leica Captivate RTK GNSS instrument, which receives corrections from a network of reference stations operated by the Ordnance Survey (OS) and Leica Geosystems. These instruments allow positions to be determined with a precision of 0.02 m in real-time and therefore exceed current Historic England recommendations (2008).

2.5.2 The detailed gradiometer survey was undertaken using four Bartington Grad-01-1000L gradiometers spaced horizontally at 1 m intervals and mounted on a non-magnetic cart with an effective sensitivity of 0.03 n. Data were collected at a rate of 10 Hz, producing intervals of c. 0.15 m along transects spaced 3.5 m apart, therefore exceeding Historic England guidelines.



2.6 Data processing

- 2.6.1 Data from the survey were subjected to minimal data correction processes. These comprise a destripe function (± 1.5 standard deviation), applied to correct for any variation between the sensors, and an interpolation used to grid the data and discard overlaps where transects have been collected too close together. A windowed High Pass Filter has also been applied to remove systematic defects in the survey data.
- 2.6.2 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 detailed gradiometer survey has identified magnetic anomalies across the Site as well as several linear anomalies of archaeological and possible archaeological origin. Results are presented as a series of greyscale plots and archaeological interpretations at a scale of 1:2000 (**Fig. 2** to **3**). The data are displayed at -2 nT (white) to +3 nT (black) for the greyscale image.
- 3.1.2 The interpretation of the datasets highlights the presence of potential archaeological anomalies, ferrous, burnt or fired objects, and magnetic trends (**Fig. 3**). 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 dataset. These are presumed to be modern in provenance and are not referred to, unless considered relevant to the archaeological interpretation.
- 3.1.4 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 present than have been identified through geophysical survey.
- 3.1.5 Gradiometer survey may not detect all services present on Site. This report and accompanying illustrations should not be used as the sole source for service locations and appropriate equipment (e.g. CAT and Genny) should be used to confirm the location of buried services before any trenches are opened on Site.

3.2 Gradiometer survey results and interpretation

- 3.2.1 The geophysical survey has identified several anomalies that are likely to be associated with archaeological remains. These are predominantly located in the north of the survey area, and are thought to be associated with linear and rectilinear ditch-like features.
- 3.2.2 Perhaps the clearest anomalies are located directly south of the northern extent of the survey area (**4000** and **4001**). They are visible as two fragmented rectilinear anomalies and are generally only weakly defined from the magnetic background. At **4000**, there is a roughly rectangular arrangement of three parallel linear anomalies on a south-west to north-east alignment. These cover 23 m x 11 m with each linear measuring approximately 1.75 m wide. The central linear anomaly also turns approximately ninety degrees at its south-western extent and continues south-east for a further 11 m.

- 3.2.3 The south-eastern group of linear anomalies (**4001**) are more fragmented than those identified at **4000**. However, a recti-linear arrangement is clear in the dataset. This covers a 26 m x 16 m area and forms an irregular rectangular feature on an east to west orientation. The group comprises three linear anomalies, with the northern circuit being very indistinct. The south-eastern corner is also markedly curved, and the western part of the feature is somewhat sinuous. Both **4000** and **4001** are characteristic of ditch-like features and may form parts of enclosures. However, it is not clear whether these form part of the same enclosure system due to the strength of the responses in the area between the **4000** and **4001**.
- 3.2.4 There are a series of strong, parallel linear anomalies in an area of increased magnetic response, which covers the area between **4000** and **4001**. These are oriented on a slightly curving south-west to north-east alignment and have strong, well defined positive responses with a corresponding negative response on the western side. They are slightly amorphous in form and are evenly spaced, around 6 m apart. This is characteristic of ridge and furrow ploughing and can also be identified as crop marks in aerial photography of the area. It is probable that the strongly magnetised responses of these anomalies are the result of underlying archaeological deposits being disturbed, such as those at **4000** and **4001**. Several linear trends are noted traversing across the parallel anomalies, suggesting there may be further archaeological features present. However, further investigation would be required to confirm this.
- 3.2.5 Further parallel, linear trend anomalies have been identified in the easternmost portion of the survey area (**4003**). These anomalies are very similar in their shape and magnitude to those at **4002** and a broad spacing of 6 m to 8 m. In addition, they are also aligned on a similar north-east to south-west orientation and there is a corresponding area of increased magnetic response surrounding this. This is also considered likely to be associated with ridge and furrow ploughing. Along the north-eastern edge of this there is a single linear anomaly which is perpendicular to the alignment of **4003**. This most likely represents a headland delimiting the extent of the ridge and furrow, but could also be indicative a former boundary traversing the area.
- 3.2.6 Across the north-eastern corner of the site, there is a strong positive linear anomaly at **4004** on a north-west to south-east alignment. This anomaly measures at least 180 m in length and is c. 25.6 m wide. This is associated with the backfilled route of the Stroudwater Navigation Canal, visible on 1884 OS mapping. Surrounding this there is also an area of increased magnetic response and a parallel linear trend which is also on this north-west to south-east alignment. It is possible that this represents part of a field boundary, as is visible on the historic OS mapping of the area dating to 1884, but it is possible that it represents an embankment or towpath associated with the canal.
- 3.2.7 Weakly positive linear anomaly at **4005** extends south from the northern corner of the site. The anomaly measures 28 m in length and approximately 3 m wide. The response becomes weaker to the south and continues as a weaker trend. This is interpreted as possible archaeology and is most likely associated with a ditch-like feature of an uncertain date. 15 m to the east of this there are also a small number of discrete anomalies which may be associated with pit-like features. It is possible that these could be associated with the features identified at **4000**, 25 m to the east, but this is not clear from the result of this geophysical survey.
- 3.2.8 Directly south-east of **4001**, there is a small group of irregularly shaped positive anomalies at **4006**. These consists of several round and oval anomalies approximately 1.2 to 2.4 m

in diameter as well as a discrete linear response, approximately 6.6 m in length. These are also interpreted as possible archaeology and may be associated with pit-like features.

- 3.2.9 In the south-western corner of the site, there are several sub-circular stronger positive anomalies (**4007**) varying between 0.6 and 3.2 m in diameter. These are also considered to represent possible large, pit-like features, though it is equally possible that they may be natural in origin.
- 3.2.10 At **4008** there is a linear anomaly measuring approximately 33 m in length and 1.8 m wide. A discrete oval anomaly lies north of the easternmost end of **4008**. This may also be associated with an isolated ditch-like or lynchet feature and is therefore interpreted as possible archaeology.
- 3.2.11 Numerous weakly positive linear anomalies have been identified traversing the survey area at **4009** - **4011**. These are all parallel and are aligned on the same approximate north-east to south-west as the ridge and furrow in the north of the survey area (**4002**). At **4009** a linear anomaly can be seen to traverse both western fields for 300 m. There is a strong dipolar response dominating much of the southern extent of the anomaly, and in the northern field there is a 'T'-shaped element to the anomaly at **4009**. This corresponds to a former tree line that is noted on historic OS Mapping from 1883-1884, and a crop mark noted in modern aerial photography and is therefore likely to be a former field boundary.
- 3.2.12 85 m to the south-east of **4009**, there is another weakly positive linear response at **4010** visible for 185 m. This follows the same north-east to south-west alignment of **4009** and part of the southern portion of this also and gives a more moderate dipolar response of -20 to +17 nT. This is interpreted as another former field boundary and is evidenced partially by a former tree line visible on historic OS Mapping 1883-1884.
- 3.2.13 At **4011**, a further weakly positive linear trend is noted approximately 70 m south-east of **4010**. The anomaly is 236 m in length. This aligns to two further trees on 1884 OS mapping and is also thought to relate a further former field boundary. However, this is not visible on historic mapping of the area and is poorly defined and may simply relate to a ploughing furrow. There are numerous other linear trends positioned on the same alignment within the area, and it is unclear whether these are associated with agricultural activity or additional field divisions within the area.
- 3.2.14 Several amorphous anomalies are identified predominantly in the south-western corner of the site at **4012**. These are weakly positive and are also surrounded by a weakly negative response. This is characteristic of localised variations in the underlying superficial geology, likely associated with alluvial or river terrace deposits relating to the River Frome, located to the south.
- 3.2.15 Three strong dipolar linear responses have been identified. **4013** is located adjacent to the north-western boundary of the survey area; **4014** can be seen traversing the centre-south-east of the survey area on a north-north-east to south-south-west alignment; and **4015** is noted at the south-eastern boundary traversing the site on a north-east to south-west alignment. These anomalies all have highly magnetic responses and are indicative of underground services, such as pipes or cables.
- 3.2.16 Weakly positive and dipolar linear responses have been identified in the north-west at **4016**, **4017** and **4018**. The linear anomalies at **4016** present a weakly dipolar response and is most likely associated with a ceramic drainage pipe. The anomalies at **4016** and



4017 are weakly positive and are oriented on a similar alignment to the former field boundaries identified within the area (**4009; 4010**). These anomalies are also likely to also be indicative of further land drains.

- 3.2.17 A small area of moderately strong ferrous responses is noted at the north of the survey area at **4018**. The region is broadly rectangular in plan and corresponds to an entrance of the Site. This is likely to be indicative of hardcore or demolition rubble used to consolidate the grounds of the gateway or potentially to form a small site compound.

4 DISCUSSION

- 4.1.1 The detailed gradiometer survey has been successful in detecting several anomalies of archaeological interest. These are predominantly located in the northernmost field of the survey area and are thought to be ditch-like features that may be associated with an enclosure. Given the propensity of Romano-British activity in the area, it is possible that the possible enclosure may also date to this period. However, this cannot be determined conclusively from the results of the geophysical survey. The precise layout of these features is thought to have been obscured by later medieval cultivation in the form of ridge and furrow ploughing. The notably increased magnetic background surrounding these anomalies could also indicate that further features, which may be heavily truncated, are present in this area.
- 4.1.2 Part of the Stroudwater Navigation canal has been identified in the south-eastern corner of the Site and a linear anomaly along the western fringe of the broadly increased magnetic response has been interpreted as the remains of a possible towpath. In addition, several other ditch and pit-like anomalies have been identified across the site as well as several former field boundaries.
- 4.1.3 In the south-western extent of the survey area, evidence for superficial geological deposits has been identified and several modern services and underground field drains can be seen traversing the site.

4.2 Recommendations

- 4.2.1 The results of the geophysical survey indicate the presence of anomalies of probable archaeological origin. As such, further archaeological investigations may be required by the Local Planning Authority. Any such works are likely to comprise a trial trenching strategy. Should this be the case, it is recommended that the anomalies identified as possible archaeology are investigated.
- 4.2.2 Additionally, areas of significant magnetic disturbance or particularly variable magnetic background should be investigated to ensure that these responses are not masking weaker and potentially archaeological anomalies. Trenches should also be planned to investigate areas where no anomalies of potential archaeological interest have been identified within the Site.



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Cartographic and documentary sources

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

Online resources

British Geological Survey Geology of Britain Viewer (accessed October 2017) <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

Heritage Gateway (accessed October 2017) <http://www.heritagegateway.org.uk/>

Old Maps (accessed October 2017) <https://www.old-maps.co.uk>



APPENDICES

Appendix 1: Survey Equipment and Data Processing

Survey methods and equipment

The magnetic data for this project will be acquired using a non-magnetic cart fitted with 4x Bartington Grad-01-1000L magnetic gradiometers. The instrument has four sensor assemblies fixed horizontally 1 m apart allowing four 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 0.03 nT over a ± 100 nT range, and measurements from each sensor are logged at intervals of 0.25 m. All the data are then relayed to a Leica Viva CS35 tablet, running the MLgrad601 program, which is used to record the survey data from the array of Grad601 probes at a rate of 10 Hz. The program also receives measurements from a GPS system, which is fixed to the cart at a measured distance from the sensors, providing real time locational data for each data point.

The cart-based system relies upon accurate GPS location data which is collected using a Leica Viva system with rover and base station. This 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 Historic England (English Heritage 2008) for geophysical surveys.

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 0.125 m intervals along traverses spaced up to 0.25m apart.

Post-processing

The magnetic data collected during the detail survey are downloaded from the Bartington cart 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.

The cart-based system generally requires a lesser amount of post-processing than the handheld Bartington Grad 601-2 fluxgate gradiometer instrument. This is largely because mounting the gradiometers on the cart reduces the occurrence of operator error; caused by inconsistent walking speeds and deviation in traverse position due to varying ground cover and topography.

Typical data and image processing steps may include:

- GPS Destripe – Determines the median of each transect and then subtracts that value from each data point in the transect. May be used to remove the striping effect seen within a survey caused by directional effects, drift, etc.
- GPS Base Interpolation – Sets the X & Y interval of the interpolated data and the track radius (area around each data point that is included in the interpolated result).
- Discard Overlaps - Intended to eliminate a track(s) that have been collected too close to one another. Without this, the results of the interpolation process can be distorted as it tries to accommodate very close points with potentially differing values.



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.

Appendix 2: Geophysical Interpretation

The interpretation methodology used by Wessex Archaeology separates the anomalies into four main categories: archaeological, modern, agricultural, and uncertain origin/geological.

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.
- Possible archaeology – used for features which give a response but which form no discernible pattern or trend.

The modern category is used for anomalies that are presumed to be relatively modern in date:

- Ferrous – used for responses caused by ferrous material. These anomalies are likely to be of modern origin.
- Modern service – used for responses considered relating to cables and pipes; most are composed of ferrous/ceramic material although services made from non-magnetic material can sometimes be observed.

The agricultural category is used for the following:

- Former field boundaries – used for ditch sections that correspond to the position of boundaries marked on earlier mapping.
- Ridge and furrow – used for broad and diffuse linear anomalies that are considered to indicate areas of former ridge and furrow.
- Ploughing – used for well-defined narrow linear responses, usually aligned parallel to existing field boundaries.
- Drainage – used to define the course of ceramic field drains that are visible in the data as a series of repeating bipolar (black and white) responses.

The uncertain origin/geological 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.
- Superficial geology – used for diffuse edged spreads considered to relate to shallow geological deposits. They can be distinguished as areas of positive, negative, or broad bipolar (positive and negative) anomalies.



Appendix 3: OASIS form

Project Details:

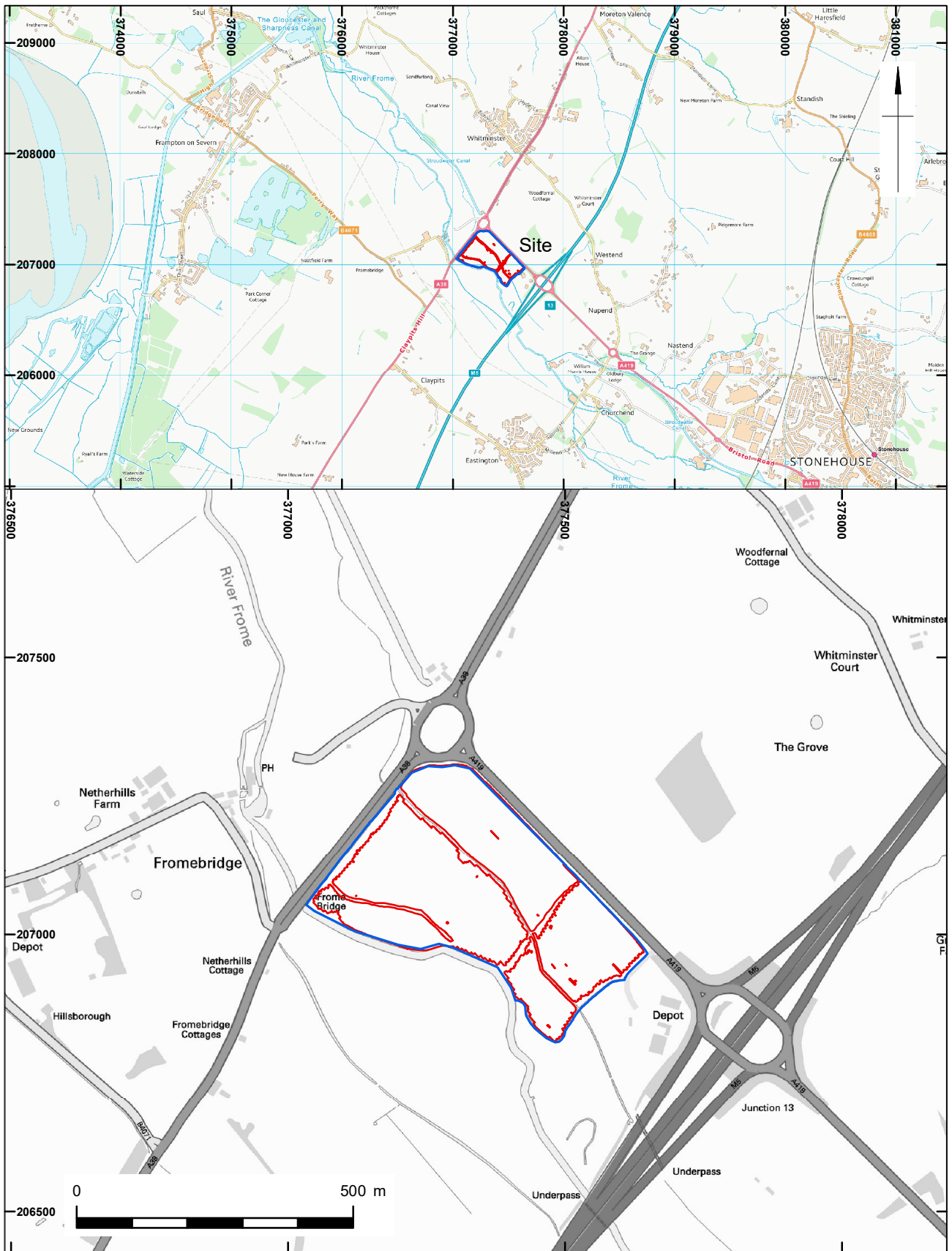
Project name		Stroudwater Navigation Missing Mile			
Type of project		Detailed Gradiometer Survey (Field evaluation)			
Project description		<p>A detailed gradiometer survey was conducted over land south of A38 & A419, Fromebridge, South Gloucestershire (centred on NGR 377340 207055). The project was commissioned by LUC with the aim of establishing the presence, or otherwise, and nature of detectable archaeological features in support of a planning application for the development of the site.</p> <p>The survey has demonstrated the presence of several anomalies of archaeological interest, primarily in the north of the survey area, with several more discrete areas of possible archaeology throughout the site.</p> <p>The anomalies identified as being of archaeological interest are thought to be ditch-like features that may be associated with an enclosure. Given the propensity of Romano-British activity in the area, it is possible that this may date to a similar period. However, this is not apparent from the results of this geophysical survey. The precise layout of these features is thought to have been obscured by later medieval cultivation in the form of ridge and furrow ploughing. The notably increased magnetic background surrounding these anomalies which may be that heavily truncated, are present in this area.</p> <p>Part of the Stroudwater Navigation canal has been identified in the north-western corner of the Site and a broad area of an increased magnetic response has been interpreted as the remains of a possible towpath. In addition, several anomalies have been identified across the site as well as several former field boundaries.</p>			
Project dates		Start: 19-09-2017		End: 21-09-2017	
Previous work		DBA provided by client.			
Future work					
Project Code:	118300	HER event no.	N/A	OASIS form ID:	wessexar1-298063
		NMR no.	N/A		
		SM no.	N/A		
Planning Application Ref.					
Site Status		Conservation Area			
Land use		Pasture			
Monument type				Period	
Project Location:					
Site Address	South of A38 & A419, Fromebridge, South Gloucestershire			Postcode	GL2 7PA
County	South Gloucestershire	District		Parish	
Study Area	14.5 ha (13.1 ha)	Height OD	11 – 13 m aOD	NGR	377340 207055
Project Creators:					
Name of Organisation	Wessex Archaeology				




Project brief originator	LUC	Project design originator	Wessex Archaeology
Project Manager	Ben Urmston	Project Supervisor	Rok Plesnicar
Sponsor or funding body	LUC	Type of Sponsor	

Project Archive and Bibliography:

Physical archive	N/A	Digital Archive	Geophysics, survey and report	Paper Archive	N/A
Report title	Stroudwater Navigation Missing Mile South of A38 & A419, Fromebridge, South Gloucestershire			Date	2017
Author	Wessex Archaeology	Description	Unpublished report	Report ref.	118300.03



<ul style="list-style-type: none"> Proposed Survey Boundary Detailed Survey Extent 	<p>Contains Ordnance Survey data © Crown copyright and database right 2017. This material is for client report only © Wessex Archaeology. No unauthorised reproduction.</p>		
<p>Coordinate system: OSGB36 (OSTN15/OSGM15)</p>	<p>Date: 12/10/2017</p>	<p>Revision Number: 0</p>	
	<p>Scale: 1:50,000; 1:10,000 @ A4</p>	<p>Illustrator: AJS</p>	
<p>Path: X:\PROJECTS\118300\GIS\Figs\MXD</p>			

Site location

Figure 1



- Site Boundary
- Detailed Survey Extent

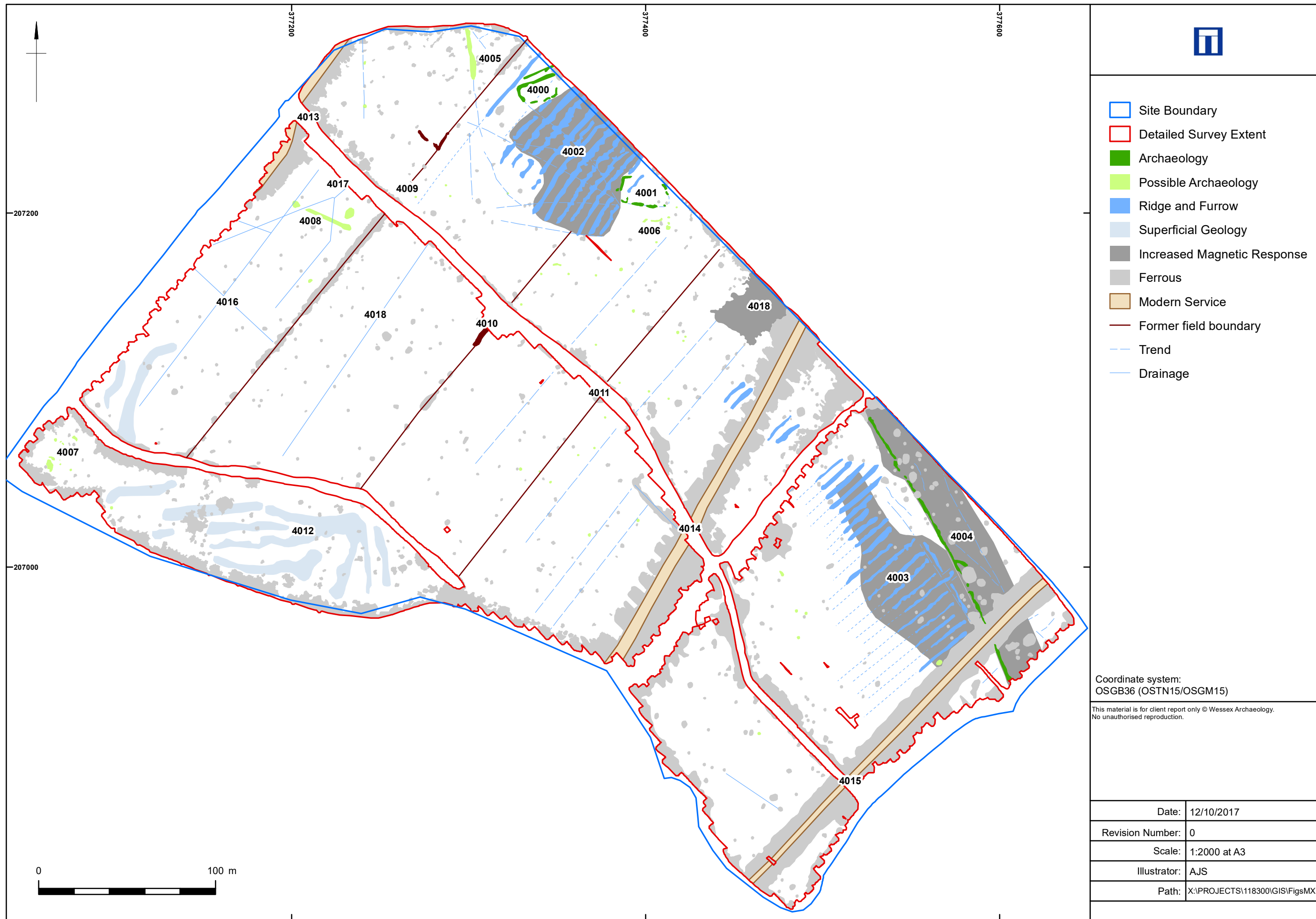
Coordinate system:
OSGB36 (OSTN15/OSGM15)

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Date:	12/10/2017
Revision Number:	0
Scale:	1:2000 at A3
Illustrator:	AJS
Path:	X:\PROJECTS\118300\GIS\FigsMXD

Detailed Gradiometer Results: Greyscale Plot

Figure 2



Detailed Gradiometer Results: Interpretation

Figure 3



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