

Substrata

Archaeological Geophysical Surveyors

An archaeological magnetometer survey
**Land west of Somerton Road, Street,
Somerset**

Centred on NGR: 348720,135610

Report: 1808STR-R-1

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17 October 2018

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1 Introduction

This report presents the results of an archaeological geophysical survey at the site listed in Section 4 and shown in Figure 1, hereafter referred to as the 'Survey Area'. The survey was commissioned by AC Archaeology Ltd on behalf of clients. The commissioning of this report was in keeping with the National Planning Policy Framework, Chapter 16, Paragraph 189 (Ministry of Housing, Communities & Local Government, 2018). The survey and report were completed in compliance with a Survey Method Statement (Substrata Ltd, 2018).

2 Client

AC Archaeology Ltd, 4 Halthaies Workshops, Bradninch Nr Exeter, Devon EX5 4QL

3 Copyright

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4 Survey type and location

4.1 Survey

Method:	shallow depth magnetometer survey
Instrument:	twin-sensor fluxgate gradiometer
Date:	14 and 17 to 21 September 2018
Area:	11.6ha
Survey resolution:	1m by 0.25m

4.2 Location

Name:	Land west of Somerton Road
Village:	Street
Civil Parish:	Street
District:	Mendip
County:	Somerset
Nearest Postcode:	BA16 0SL
Survey centre NGR:	ST 48720 35610 (point)
Survey centre NGR (E/N):	348700,135610 (point)
Historic environment designation:	None
OASIS ID:	substrat1-329724

5 Summary

A magnetometer survey was selected to provide a relatively fast and cost-effective evaluation of any buried archaeology across the Survey Area (see Section 14). The magnetic anomaly groups pertaining to potential buried archaeology and other relevant features were georeferenced to the Ordnance Survey National Grid, mapped, characterised and assigned with an appropriate degree of certainty in conformance with the survey aims and objectives set out in Section 7.

The differences in magnetic responses across the Survey Area were sufficient to be able to differentiate between anomalies representing possible buried archaeology and background magnetic responses.

Twenty-six magnetic anomaly groups were assessed as representing potential buried archaeology. The majority of these have characteristics typical of those reflecting linear and

curvilinear in-filled cut features. They are most likely to represent fragments of field and enclosure boundaries. Two anomaly groups may represent pits. Three groups may represent in-situ highly heated deposits close to a palaeochannel running across the site and deposits of clay. Speculatively, these three groups could represent deposits associated with kilns or early furnaces.

6 Standards

The standards that were used to complete this survey are defined by the Chartered Institute for Archaeologists (2014b) and the Europae Archaeologiae Consilium (undated). The codes of approved practice to be followed are those of the Chartered Institute for Archaeologists (2014) and Archaeology Data Service (undated).

7 Survey aims and objectives

7.1 Aims

1. Within the framework set out in Chartered Institute for Archaeologists (2014b) and Europae Archaeologiae Consilium (undated), complete an archaeological geophysical survey and report which will, as far as possible, establish the presence or absence, extent and character of any buried archaeology within the survey area.
2. Provide sufficient information on the nature of any archaeological remains to facilitate the assessment of their interest prior to the determination of the planning application.

7.2 Objectives

1. Complete a magnetometer survey across the Survey Area.
2. Identify any magnetic anomalies that may be related to buried archaeology.
3. Within the limits of the technique and dataset, archaeologically characterise any such anomalies or patterns of anomalies.
4. Accurately record the location of the identified anomalies.
5. Produce a report based on the survey that is sufficiently detailed to inform any subsequent development on the survey area about the location and possible archaeological character of the recorded anomalies.

8 Methodology

The magnetometer survey was undertaken in accordance a Survey Method Statement (Substrata Ltd, 2018) using the standards specified in Section 6 to achieve the aims and objectives set out in Section 7. The survey method was selected to provide a relatively fast and cost-effective evaluation of any buried archaeology across the Survey Area (see Section 14).

Data processing was undertaken using appropriate software (Table 2), with all anomalies being digitised and geo-referenced. The final report (this document) includes a graphical and textual account of the techniques undertaken, the data obtained and an archaeological interpretation of that data and conclusions about any likely archaeology. The survey and report conform to the Chartered Institute for Archaeologists standard for geophysical survey (2014b).

9 Survey Area

9.1 Location and description

The Survey Area comprises three fields on the southern side of Street (Figure 1) which have been designated Plots 1 to 3 for purposes of description (Figure 2). Plot 1 is divided into by a relatively recent fence. The external and internal field boundaries are hedges with wire fencing. The Survey Area is bound to the north by houses and gardens. Somerton Road lies along the eastern side of the Survey Area and Stallgrove Lane lies along the southern and western sides. The Survey Area is relatively flat and slopes from 33m aOD on it's southern side and 30m on the western side to 26m aOD in the north-east corner. The field was under grass at the time of the survey.

9.2 Geology and sub-surface deposits

The solid geology across the Survey Area comprises interbedded mudstone and limestone of the Triassic and Jurassic Langport Member, Blue Lias Formation and Charmouth Mudstone

Formation. The superficial geology is not recorded in the source consulted (British Geological Survey, undated).

A borehole log of near-surface deposits approximately 786m northeast of the centre of the Survey Area in the same solid geology is summarised in Table 5.

9.3 Soils

The local topsoils are 'lime rich loamy and clayey soils with impeded drainage' (LandIS, undated).

10 Archaeological background

10.1 Historic landscape characterisation

'Recently Enclosed Land 18th to 21st century. General field size, 3-6ha. Less than 25% boundary loss since 1905' (Fairclough and Aldred, 2013)

10.2 Summary of the archaeological background

This section summarises heritage assets that are thought relevant to the survey data analysis and is not designed to be a comprehensive description of the archaeological background.

An Historic Environment Assessment for the programme of work that includes this survey will be completed by AC Archaeology (forthcoming) and will include an analysis of the recorded heritage assets, cartographic evidence, other documentary evidence and field name evidence within the site and a study area extending to 1000m around the site.

The following is taken from an examination of the Somerset Historic Environment Record (HER) within approximately 1000m of the centre of the Survey Area via Historic England (undated) and South West Heritage Trust (undated). Historic maps were consulted using Old-Maps (undated). Whilst providing a useful context for the data analysis, detailed publication in commercial reports of information from the on-line sources is not permitted.

There are no known designated or undesignated heritage assets situated within the Survey Area.

Vegetational marks suggesting buried positive features comprising parallel marks and possibly a small rectangular enclosure of uncertain date are recorded at NGR ST 48 2346 (HER number 24606).

The site of a Roman villa is recorded at ST 488 346 (HER 24708, Scheduled Monument 1006182). Vegetational marks recorded in 1949 are indicative of a possible Roman road leading from the villa (HER 24709).

11 Results

11.1 Scope and definitions

This survey was designed to record magnetic anomalies. A magnetic anomaly is a local variation in the Earth's magnetic field. Such variations can result from differences in the magnetic properties of the underlying solid geology, superficial geology and other near-surface deposits including those altered and created by past human activities. Near-surface artefacts can also create magnetic anomalies.

The dimensions of magnetic anomalies mapped as representing potential buried archaeology do not represent the dimensions of any associated archaeology.

The analysis presented below identifies and characterises anomalies and anomaly groups that may relate to buried archaeology.

11.2 Analysis

Figures 2 to 5 show the interpretation of the survey data and include the anomaly groups identified as possibly relating to buried archaeology along with their identifying numbers.

Table 1 is an extract of the detailed analysis of the survey data sourced from the attribute tables of the GIS project provided in the project archive.

Figure 2 to 5 and Table 1 comprise the analysis of the survey data.

Figures 6 to 9 are plots of the processed data as specified in Table 3. Figure 10 is a plot of minimally processed data as specified in Table 4. Figure 11 shows the location of the survey grid and grid data files.

12 Discussion

12.1 General points

Scope

Not all anomalies or anomaly groups identified in Table 1 are necessarily discussed below. All identified anomaly groups are recorded in the GIS project held in the survey archive.

Data collection

Data collection along the survey area edges was restricted as shown in the figures due to the presence magnetic materials within and adjacent to the plot boundaries. Strong magnetic responses mapped close to the boundaries are likely to relate to the magnetic materials except where otherwise indicated in Figures 2 to 5 and Table 1.

Anomaly characterisation

There are a number of anomaly groups that could be interpreted as relating to large postholes or pits although most will have natural origins. Anomalies of this sort are mapped as potential archaeology when they are well defined in the data, associated with other significant anomaly groups or otherwise formed recognisable patterns as listed in Table 1.

Anomalies thought to relate to natural features and recent man-made objects such as manholes, water management equipment, drains, cables and other services are only mapped where they comprise significant magnetic responses across the dataset that need clarification.

Numerous dipole magnetic anomalies are present within the dataset. These are likely to represent recent ferrous objects. They are only mapped if they could influence the analysis of anomaly groups thought to have an archaeological origin.

Data trends

Data trends recorded in Plot 1 (anomaly groups **101** and **102**) may have archaeological significance or are highlighted to better understand potential buried archaeology and are recorded in Table 1.

An approximately north-north-west to south-south-east set of parallel, linear anomalies recorded in Plot 3 (Figure 7) are likely to represent relatively recent ploughing disturbance.

12.2 Data relating to historic maps and other records

No magnetic anomaly groups were assessed as representing previously recorded heritage assets.

12.3 Data with no previous archaeological provenance

All of the magnetic anomaly groups characterised as representing possibly buried archaeology in Plot 1 have characteristics typical of those reflecting linear, in-filled cut features. They are most likely to represent fragments of field and enclosure boundaries.

In Plots 2 and 3, the majority of the anomaly groups also probably represent fragments of field and enclosure boundaries, exceptions being groups **15** (Plot 2) and **25** (Plot 3) which may represent large pits.

Groups **14**, **17** and **19** in Plot 2 may represent in-situ heated deposits such as those left by kilns, furnaces and cremation funerary practices. None of the anomalies have perfect magnetic responses for this interpretation and so other origins, such as in-filled pits or natural depressions cannot be ruled out. The three groups are close to a palaeochannel trending approximately south-west (the higher ground) to north-east through Plots 2 and 3 (groups 202, 204 and 203). Clay is relatively common in the area (Table 5) and there is the possibility that, if the anomaly groups do represent in-situ heated deposits, they are connected to kilns or early furnaces.

13 Conclusions

The differences in magnetic responses across the Survey Area were sufficient to be able to differentiate between anomalies representing possible buried archaeology and background magnetic responses. Twenty-six magnetic anomaly groups were assessed as representing potential buried archaeology. The majority of these have characteristics typical of those reflecting linear and curvilinear in-filled cut features. They are most likely to represent fragments of field and enclosure boundaries. Two anomaly groups (15 and 25) may represent pits. Three groups (14, 17 and 19) may represent in-situ, highly heated deposits close to a palaeochannel running across the site and deposits of clay. Speculatively, these three groups could represent deposits associated with kilns or early furnaces.

14 Disclaimer

The description and discussion of the results presented in this report are the authors', based on their interpretation of the survey data. Every effort has been made to provide accurate descriptions and interpretations of the geophysical data set. The nature of archaeological geophysical surveying is such that interpretations based on geophysical data, while informative, can only be provisional. Geophysical surveys are a cost-effective early step in the multi-phase process that is archaeology.

15 Archive

15.1 Online Access to the Index of archaeological investigationS (OASIS)

OASIS ID: substrat1-329724

The OASIS entry has been completed and the boundary file and report uploaded with six months delay in publication.

15.2 Substrata Limited archive

A full archive of this survey will be held by Substrata Limited on cloud and local hard drive storage as specified in Appendix 3.

15.3 Archaeological Data Service (ADS)

Depending on local authority policy, an archive may be deposited with the ADS as specified in Appendix 3.

15.4 Historic Environment Record (HER)

Subject to any contractual requirements on confidentiality, a PDF or printed copy of the report will be submitted to the appropriate HER within six months of completion.

16 Acknowledgements

Substrata would like to thank Fiona Pink of AC Archaeology Ltd for commissioning us to complete this survey.

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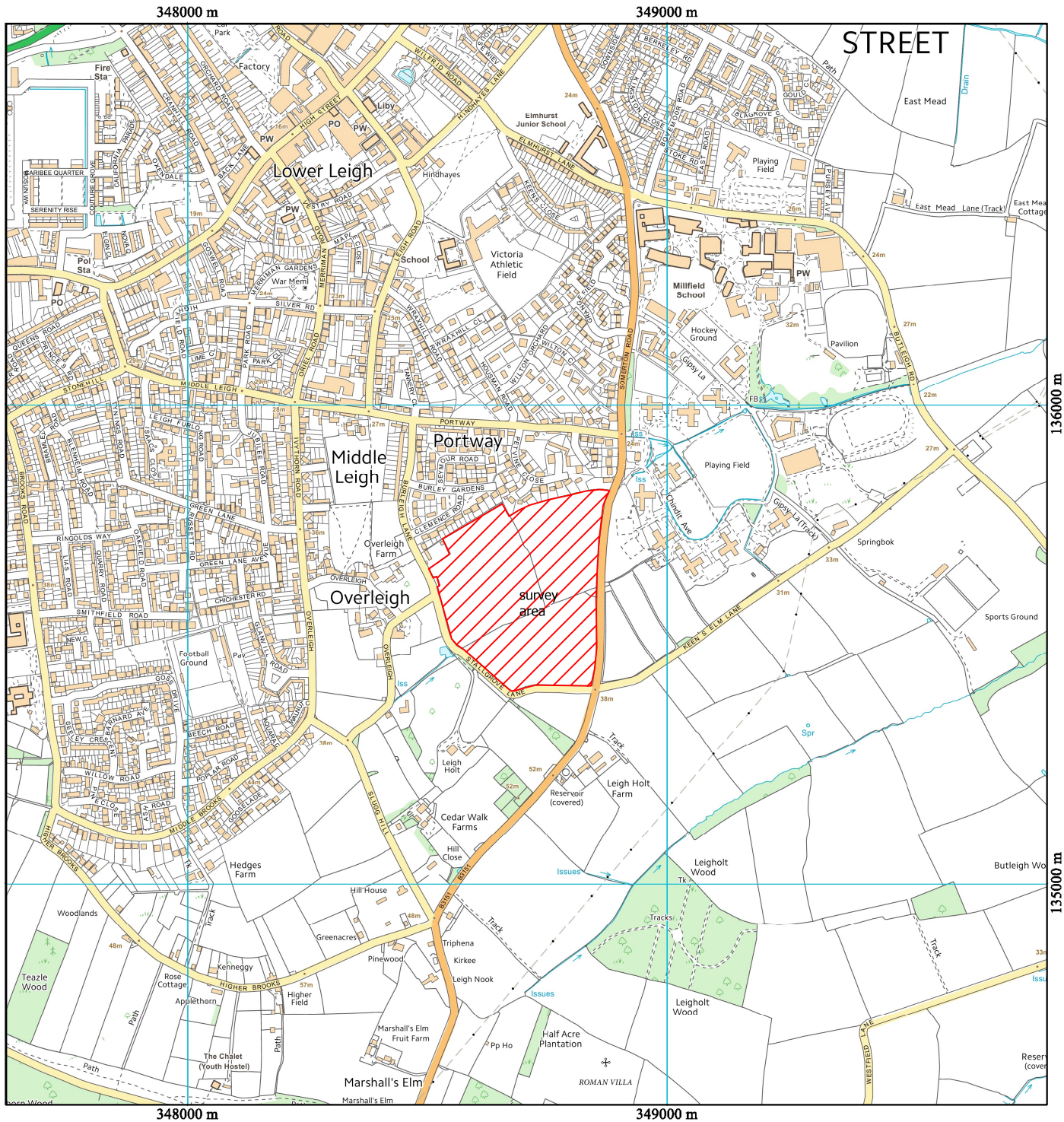
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Appendix 1 Figures

General Guidance

The anomalies represented in the survey plots provided in this appendix are magnetic anomalies. The apparent size of such anomalies and anomaly patterns are unlikely to correspond exactly with the dimensions of any associated archaeological features .

A rough rule for interpreting magnetic anomalies is that the width of an anomaly at half its maximum reading is equal to the width of the buried feature, or its depth if this is greater (Clark, 2000: 83). Caution must be applied when using this rule as it depends on the anomalies being clearly identifiable and distinct from adjacent anomalies. In northern latitudes the position of the maximum of a magnetic anomaly will be displaced slightly to the south of any associated physical feature.



British Grid
 centre X: 348706.54 m, centre Y: 135667.09 m

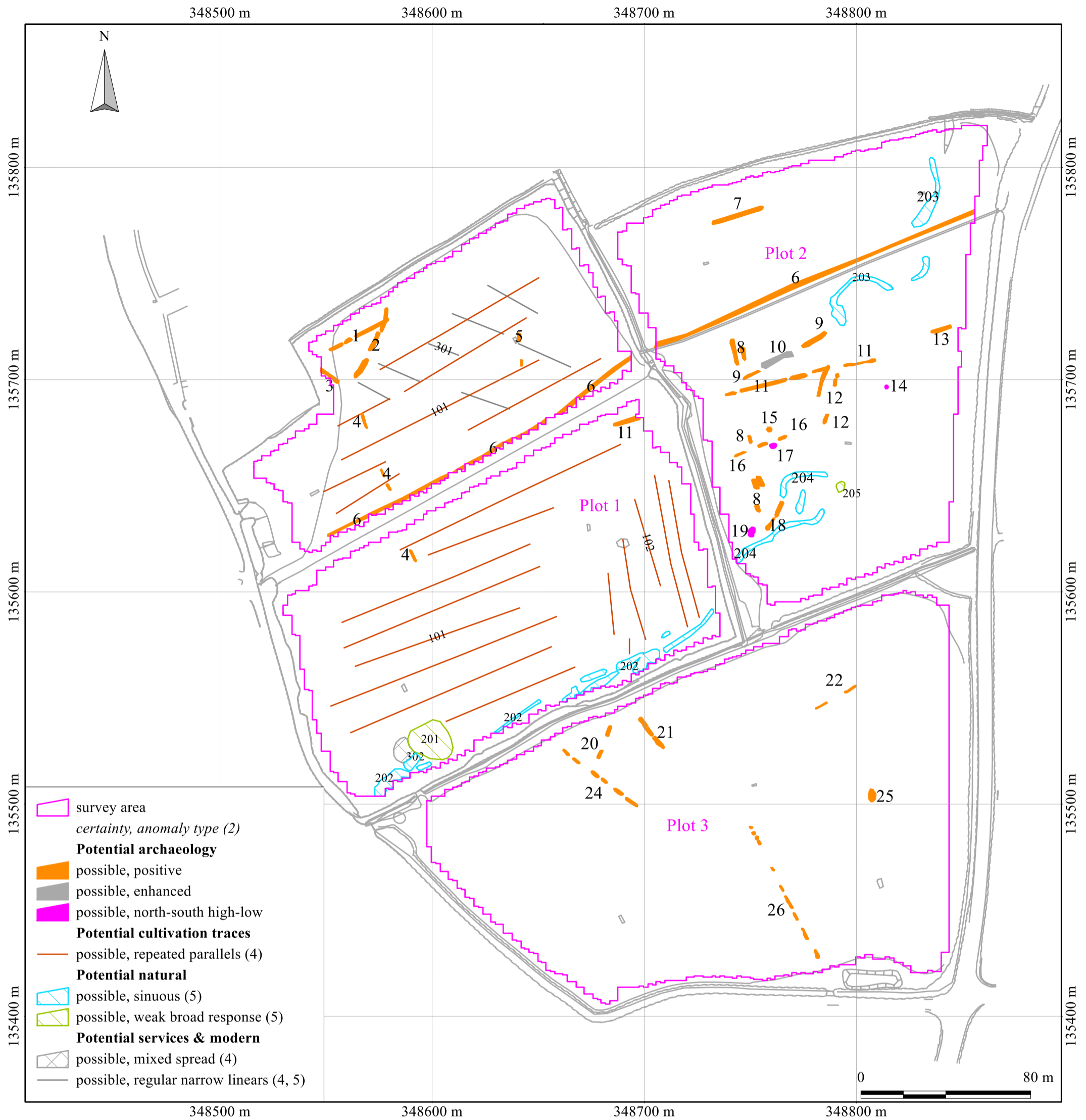
Geophysical survey: Copyright Substrata Limited.
 Base map: Landmark Information Group Ltd 2017
 (order 172808182_1_1)

Scale: 1:8000 @ A3. Spatial Units: Meter. Do not scale off this drawing

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Figure 1: location map



British Grid
centre X: 348652.39 m, centre Y: 135613.59 m

Geophysical survey: Copyright Substrata Limited.
Base map: (c) Lewis Brown Ltd

Scale: 1:1800 @ A3. Spatial Units: Meter. Do not scale off this drawing

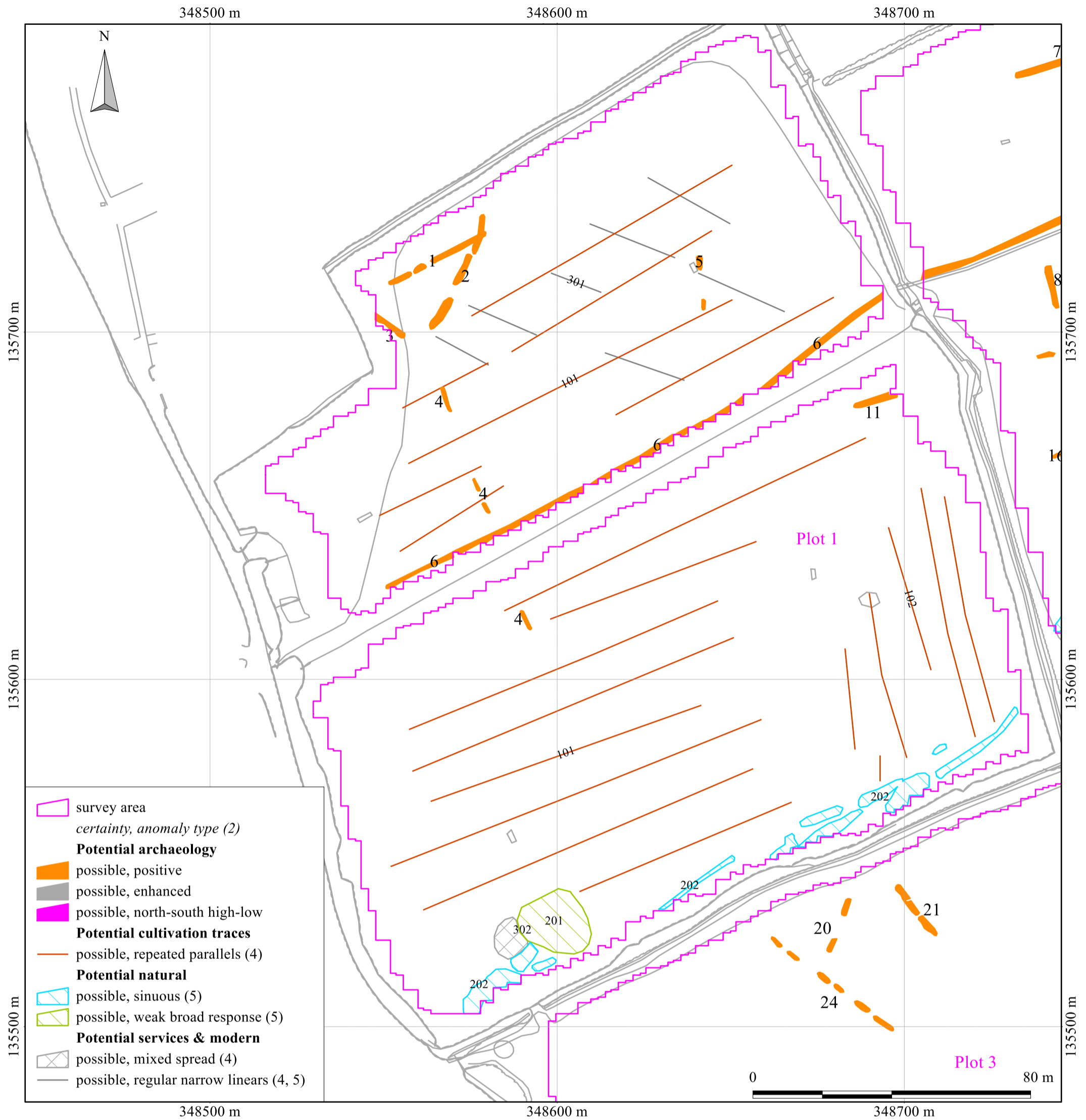
Notes:

1. All interpretations are provisional and represent potential archaeological deposits.
2. 'Anomaly type' is a description of the magnetic anomaly. See the report text or GIS for an archaeological characterisation.
3. Anomalies designated "likely archaeology" have supporting evidence e.g. historical maps and or visible earthworks.
4. Not all instances are mapped.
5. Anomalies likely to represent recent deposits or ground disturbance, or geological and other natural deposits are not mapped unless relevant to potential buried archaeology.

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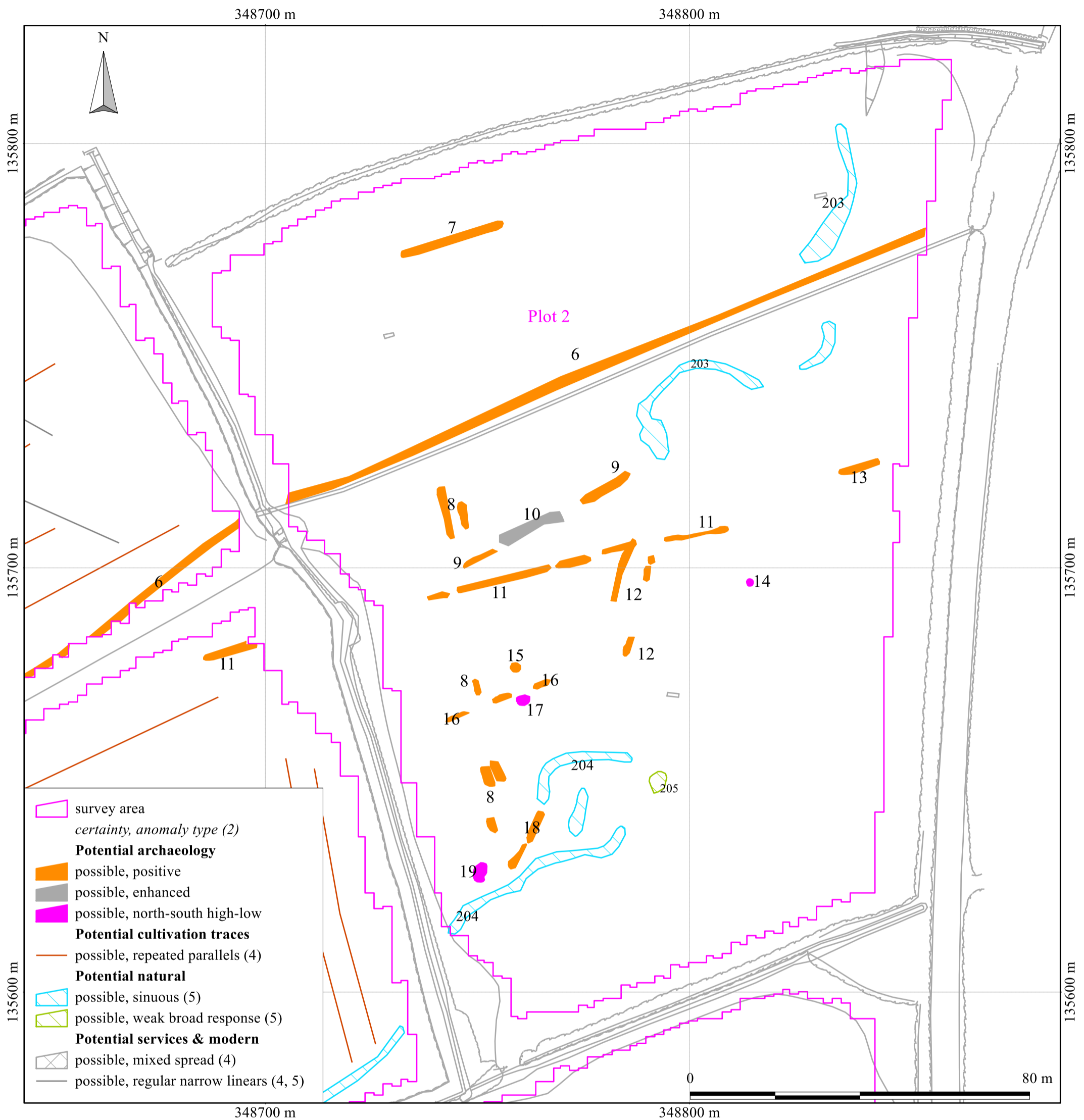
Figure 2: survey interpretation



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Figure 3: survey interpretation, Plot 1



British Grid
 centre X: 348765.27 m, centre Y: 135700.83 m

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Scale: 1:900 @ A3. Spatial Units: Meter. Do not scale off this drawing

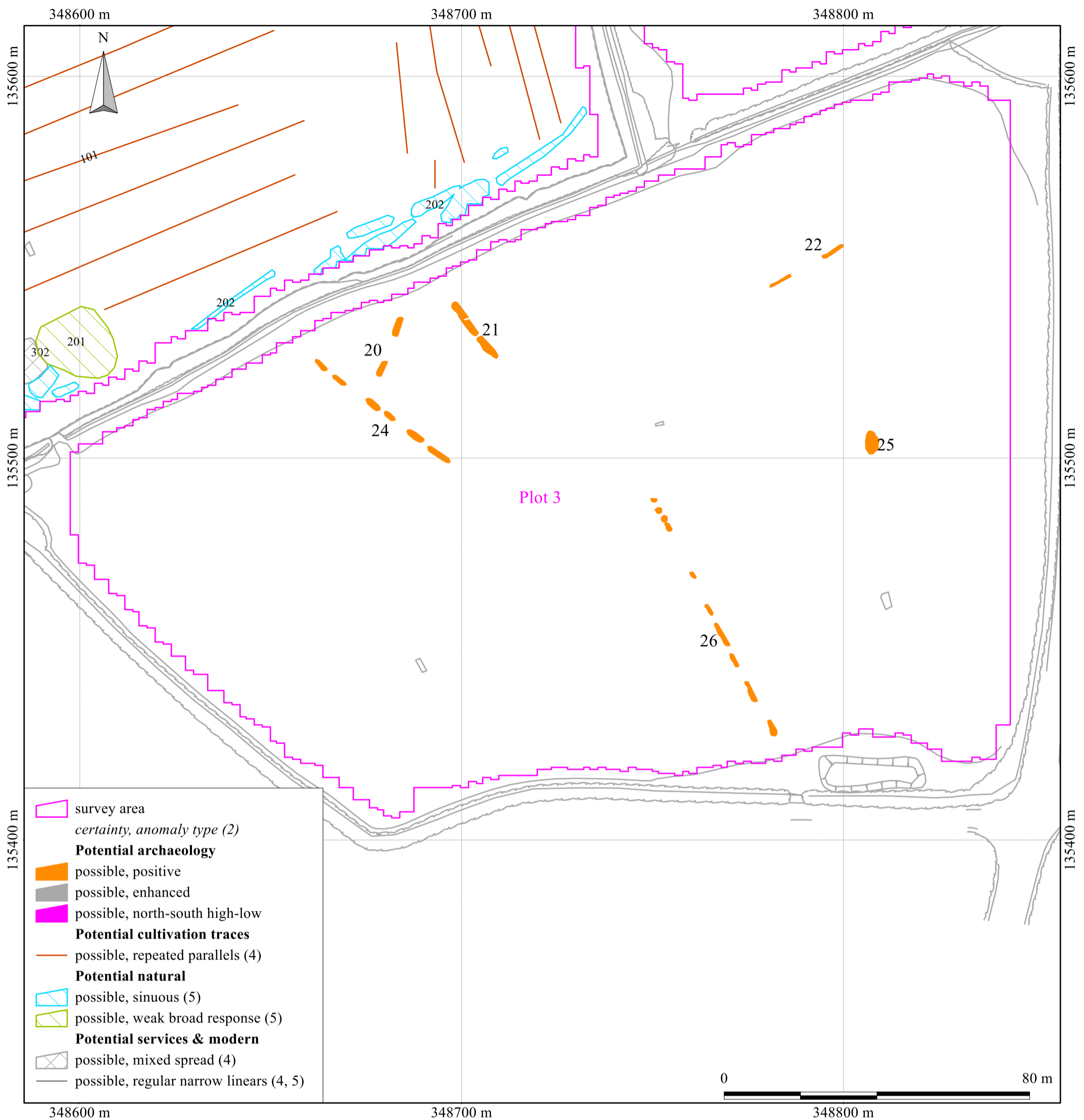
Notes:

1. All interpretations are provisional and represent potential archaeological deposits.
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3. Anomalies designated "likely archaeology" have supporting evidence e.g. historical maps and or visible earthworks.
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Figure 4: survey interpretation, Plot 2



survey area
certainty, anomaly type (2)
Potential archaeology
 possible, positive
 possible, enhanced
 possible, north-south high-low
Potential cultivation traces
 possible, repeated parallels (4)
Potential natural
 possible, sinuous (5)
 possible, weak broad response (5)
Potential services & modern
 possible, mixed spread (4)
 possible, regular narrow linears (4, 5)

British Grid
 centre X: 348721.11 m, centre Y: 135472.20 m

Geophysical survey: Copyright Substrata Limited.
 Base map: (c) Lewis Brown Ltd

Scale: 1:1000 @ A3. Spatial Units: Meter. Do not scale off this drawing

- Notes:
1. All interpretations are provisional and represent potential archaeological deposits.
 2. 'Anomaly type' is a description of the magnetic anomaly. See the report text or GIS for an archaeological characterisation.
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Figure 5: survey interpretation, Plot 3



British Grid
 centre X: 348667.46 m, centre Y: 135609.51 m

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Figure 6: shade plot of processed data



British Grid
 centre X: 348597.73 m, centre Y: 135646.20 m

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Figure 7: shade plot of processed data, Plot 1



British Grid
 centre X: 348597.73 m, centre Y: 135646.20 m

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Figure 7: shade plot of processed data, Plot 1



British Grid
 centre X: 348720.02 m, centre Y: 135472.92 m

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Figure 9: shade plot of processed data, Plot 3



British Grid
 centre X: 348667.46 m, centre Y: 135609.51 m

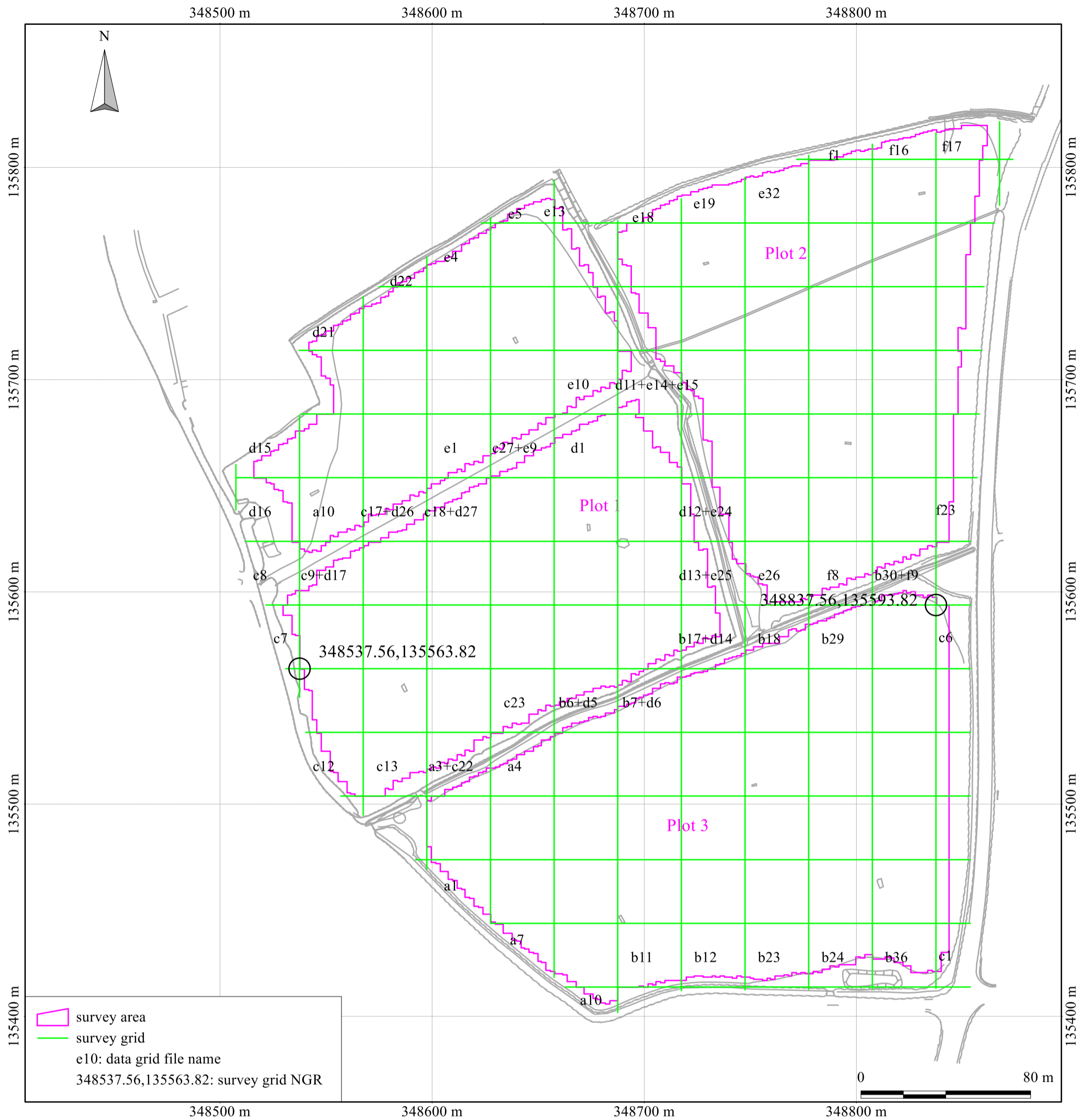
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Figure 10: shade plot of minimally processed data



British Grid
 centre X: 348652.39 m, centre Y: 135613.59 m

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Figure 11: survey grid map and location

Appendix 2 Tables

Site: Land west of Somerton Road, Street, Somerset
Centred on NGR: 348700,135610

plot	anomaly group	associated anomaly groups	anomaly characterisation certainty & class	anomaly form	additional archaeological characterisation	comments	supporting evidence
1	1		possible, positive	disrupted linear			
	2		possible, positive	disrupted curvilinear			
	3		possible, positive	linear			
	4		possible, positive	disrupted linear			
	5		possible, positive	disrupted linear			
	6		possible, positive	disrupted curvilinear			
1 2	11		possible, positive	disrupted linear			
	101		possible, repeated parallels		ridge-and-furrow or land drains		
	102		possible, repeated parallels		ridge-and-furrow		
	201		possible, weak broad response		spring or wet area		
	202		possible, sinuous		palaeochannel with recent vehicle disturbance	anomaly group represents palaeochannel deposits with recent disturbance from farm vehicles	
	301		possible, regular narrow linears		land drains		
	302		possible, mixed spread		recent ground disturbance, possibly with rubble		
2	7		possible, positive	linear			
	8		possible, positive	disrupted double linear			
	9	10	possible, positive	disrupted linear			
1 2	10	9	possible, enhanced	linear			
	11		possible, positive	disrupted linear			
	12		possible, positive	double linear ?	ditched track?		
	13		possible, positive	linear	linear (possibly archaeological) deposit with recent ferrous material		
	14		possible, north-south high-low		in-situ heated deposits ?	kiln, furnace or highly heated deposits ?	
	15		possible, positive	oval	pit		
	16		possible, positive	disrupted linear			
	17		possible, north-south high-low		in-situ heated deposits ?	kiln, furnace or highly heated deposits ?	
	18		possible, positive	disrupted linear			
	19		possible, north-south high-low		in-situ heated deposits ?	kiln, furnace or highly heated deposits ?	
	203		possible, sinuous		palaeochannel		
	204		possible, sinuous		palaeochannel		
	205		possible, weak broad response		spring or wet area		
3	20		possible, positive	disrupted linear			
	21		possible, positive	disrupted linear			
	22		possible, positive	disrupted linear			
	24		possible, positive	disrupted linear			
	25		possible, positive	oval	large pit or natural deposit		
	26		possible, positive	disrupted linear			

Table 1: data analysis

<p>Grid <i>Method of Fixing:</i> DGPS set-out using pre-planned survey grids and Ordnance Survey coordinates. <i>Composition:</i> 30m by 30m grids <i>Recording:</i> Geo-referenced and recorded using digital map tiles. <i>DGPS used:</i> Spectra Precision PM5V2 GPS with external antenna and survey pole and DigiTerra Explorer 7 as the survey control program.</p>	
<p>Equipment <i>Instrument:</i> Bartington Instruments grad601-2 <i>Firmware:</i> version 6.1</p>	<p>Data Capture <i>Sample Interval:</i> 0.25m <i>Traverse Interval:</i> 1 metre <i>Traverse Method:</i> zigzag <i>Traverse Orientation:</i> GN</p>
<p>Data Processing, Analysis and Presentation Software IntelliCAD 8.4 DW Consulting TerraSurveyor3 Manifold System 8 GIS Microsoft Corp. Office 365: Excel, Publisher, Word Adobe Systems Inc Adobe Acrobat 9 Pro Extended</p>	

Table 2: methodology information

Filename:	1808STR processed gradiometer.xyz
Description:	
Instrument Type:	Bartington Grad 601-2
Units:	nT
Direction of 1st Traverse:	0 deg
Collection Method:	ZigZag
Sensors:	2 @ 1.00 m spacing.
Dummy Value:	32702
Dimensions	
Composite Size (readings):	1800 x 1440
Survey Size (meters):	450 m x 360 m
Grid Size:	30 m x 30 m
X Interval:	0.25 m
Y Interval:	0.25 m (surveyed @ 1 m)
Stats	
Max:	94.23
Min:	-121.22
Std Dev:	2.79
Mean:	0.03
Median:	0.00
PROGRAM	
Name:	TerraSurveyor
Version:	3.0.33.6
Processes:	22
1	Base Layer
2	Clip at 2.00 SD
3	DeStripe Median Traverse: Grids: All
4	De Stagger: Grids: All By: 0 intervals, 25.00cm
5	De Stagger: Grids: d20.xgd d24.xgd e2.xgd e8.xgd e10.xgd d11+e14+e15.xgd e22.xgd e29.xgd f5.xgd f12.xgd f21.xgd d21.xgd d23.xgd e3.xgd e7.xgd e11.xgd e16.xgd e21.xgd e30.xgd f4.xgd f13.xgd f20.xgd d22.xgd e4.xgd e6.xgd e12.xgd e17.xgd e20.xgd e31.xgd f3.xgd f14.xgd f19.xgd e5.xgd e13.xgd e18.xgd e19.xgd e32.xgd f2.xgd f15.xgd f18.xgd f1.xgd f16.xgd f17.xgd By: 0 intervals, 25.00cm
6	De Stagger: Grids: d15.xgd d19.xgd d25.xgd e1.xgd By: 0 intervals, 25.00cm
7	De Stagger: Grids: d16.xgd d18.xgd By: 0 intervals, 25.00cm
8	De Stagger: Grids: d13+e25.xgd e26.xgd f8.xgd f9+b30.xgd d12+e24.xgd e27.xgd f7.xgd f10.xgd f23.xgd e23.xgd e28.xgd f6.xgd f11.xgd f22.xgd e22.xgd e29.xgd f5.xgd f12.xgd f21.xgd By: 0 intervals, 25.00cm
9	Add/Subtract -0.2 (Area: Top 60, Left 1440, Bottom 179, Right 1559)
10	Add/Subtract -0.1 (Area: Top 90, Left 1440, Bottom 119, Right 1559)
11	Add/Subtract -0.1 (Area: Top 60, Left 1440, Bottom 89, Right 1559)
12	Edge Match (Area: Top 120, Left 1560, Bottom 149, Right 1679) to Left edge
13	Edge Match (Area: Top 150, Left 1560, Bottom 179, Right 1679) to Top edge
14	Add/Subtract -0.2 (Area: Top 180, Left 1560, Bottom 269, Right 1679)
15	Add/Subtract -0.1 (Area: Top 270, Left 1560, Bottom 329, Right 1679)
16	Edge Match (Area: Top 330, Left 1560, Bottom 359, Right 1679) to Top edge
17	Add/Subtract -0.5 (Area: Top 270, Left 1680, Bottom 359, Right 1799)
18	De Stagger: Grids: f14.xgd By: 0 intervals, -50.00cm
19	De Stagger: Grids: e21.xgd By: 0 intervals, -25.00cm
20	Add/Subtract -0.4 (Area: Top 227, Left 719, Bottom 262, Right 744)
21	Add/Subtract -0.2 (Area: Top 305, Left 1680, Bottom 318, Right 1700)
22	Interpolate: Match X & Y Doubled.

Table 3: processed data metadata

Filename:	1808STR minimally processed gradiometer.xyz
Description:	
Instrument Type:	Bartington Grad 601
Units:	nT
Direction of 1st Traverse:	0 deg
Collection Method:	ZigZag
Sensors:	2 @ 1.00 m spacing.
Dummy Value:	32702
Dimensions	
Composite Size (readings):	1800 x 1440
Survey Size (meters):	450 m x 360 m
Grid Size:	30 m x 30 m
X Interval:	0.25 m
Y Interval:	0.25 m (surveyed @ 1 m)
Stats	
Max:	206.33
Min:	-236.14
Std Dev:	3.77
Mean:	0.00
Median:	0.00
Composite Area:	16.2 ha
Surveyed Area:	9.4545 ha
PROGRAM	
Name:	TerraSurveyor
Version:	3.0.33.6
Processes: 3	
1	Base Layer
2	Clip at 5.00 SD
3	Interpolate: Match X & Y Doubled

Table 4: minimally processed data metadata

Site: Land west of Somerton Road, Street, Somerset
 Centred on NGR: 348720,135610

BGS ID	BGS reference	NGR (E/N)	solid geology	method	strata	depth below ground level(m) level (m)	OD level (m)	thickness (m)
386167	ST43NE54	349240,136200	Langport Member, Blue Lias Formation and Charmouth and Mudstone Formation	cable percussion	ground level		22.90	
					turf over brown grey clayey TOPSOIL with some limestone fragments	0.10	22.80	0.10
					firm brown mottled greenish grey silty CLAY with some decayed root traces. LOWER LIAS	1.40	21.50	1.30
					firm becoming stiff below 1.6m, pale grey and pale yellow brown fissured very silts CLAY with occasional decayed root traces. Occasional pale grey calcareous silt pockets. Below 1.6m some very weakly cemented siltstone fragments. LOWER LIAS	2.00	20.90	0.60
				borehole	stiff becoming hard very dark grey, occasionally dark greenish grey extremely closely fissured very thinly laminated (1-2mm) shaley silty CLAY with some very weakly cemented laminae. Some non-laminated very silty layers towards base. LOWER LIAS	3.20	19.70	1.20
					end of cable percussion			
					pale grey fine grained slightly weathered LIMESTONE, very strong	3.40	19.50	0.20
	hard grey fissured, in parts shaley, very silty CLAY	3.80	19.10	0.40				
	pale grey fine grained slightly weathered LIMESTONE, very strong							
	end of borehole	4.00	18.90					

Table 5: example geological borehole log approximately 786.5m northeast of the Survey Area centre (British Geological Survey, undated).

Appendix 3 Project archive contents

1 Substrata Limited archive

A full archive of this survey will be held by Substrata Limited on cloud and local hard drive storage as follows:

Report:	Adobe PDF (.pdf), Microsoft Publisher (.pub)
Raw grid data files:	DW Consulting TerraSurveyor 3 (.xgd)
Raw data composite files:	DW Consulting TerraSurveyor 3 (.xgd) and CSV (.xyz)
Final data processing composite files:	DW Consulting TerraSurveyor 3 (.xgd) and CSV (.xyz)
GIS project:	GIS project Manifold 8 (.map)
Survey interpretation:	ESRI shape files
AutoCAD version of the survey interpretation: (if generated)	AutoCAD (.dwg)
All project working files:	IntelliCAD 8.4 Microsoft Corp. Office 365: Excel, Publisher, Word Adobe Systems Inc Adobe Acrobat 9 Pro Extended

2 Online Access to the Index of archaeological investigationS (OASIS)

Metadata:	online form
Georeferenced survey boundary file:	ESRI shape file
Report:	Adobe PDF (.pdf)

3 Archaeological Data Service

Depending on local authority policy, an archive may be deposited with the ADS as follows:

Raw data composite file:	CSV (.xyz)
Processed data plot:	rendered images in TIFF format
Survey grid plot:	image in TIFF format
Details of data processing:	image in TIFF format
Interpretation plot:	rendered images in TIFF format
Metadata:	Microsoft Excel format

4 Historic Environment Record (HER)

Subject to any contractual requirements on confidentiality, a PDF copy of the report will be submitted to the appropriate HER within 6 months of the completion of this report via the OASIS process or by other means, depending on the relevant HER process.