

LAND OFF HOLYWELL ROAD

CUBERT

CORNWALL

Results of a Geophysical Survey



South West Archaeology Ltd. report no. 210709



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Land off Holywell Road, Cubert, Cornwall

Results of a Geophysical Survey

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Work undertaken by SWARCH for a private client (The Client)

SUMMARY

South West Archaeology Ltd. (SWARCH) was commissioned to undertake a heritage assessment and geophysical survey for Land off Holywell Road, Cubert, Cornwall in support of a planning application for the site.

The site comprises a single field surrounded by the modern development of the early medieval settlement of Cubert and the farmstead of Trevail. The site falls within land designated on the Historic Landscape Characterization as medieval farmland, with either medieval or prehistoric origins. There is clear evidence of prehistoric settlement and activity within the surrounding landscape; though much of the evidence reflects historic medieval and post-medieval field-systems.

The geophysical survey identified 10 groups of anomalies. The anomalies identified include: two removed historic boundaries (Groups 1 & 2) removed during the 19th century; 10 probable and two possible ditch and ditch and/or bank features which probably relate to field boundaries forming elements of the historic field-system (Groups 3-8); and eight possible pit, tree-throw or other natural features (Group 9). Agricultural activity in the form of ploughing was visible across the site and is represented by anomaly Group 10.

The majority of the features represent undated phases of field-system tentatively suggested as being largely medieval and post-medieval in date but with possible prehistoric elements. Whilst no prehistoric settlement features were identified within the site, their presence within the immediate wider landscape it can be inferred that some of the ditch features (such as anomalies 5-8) may have formed part of a prehistoric field-system.

Any development of the site is likely to encounter and destroy the buried archaeological resource, and whilst there is a high potential suggested by the surrounding prehistoric landscape, the results of the geophysical survey would suggest that the archaeological potential for the site is moderate to low, many of the identified anomalies likely reflecting medieval and post-medieval field-systems, though earlier prehistoric or Romano-British features cannot be ruled out. Further archaeological mitigation in the form of targeted evaluation trenching will likely be required to validate and clarify the results of the geophysical survey.



January 2022

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SENIOR DEVELOPMENT OFFICER, HISTORIC ENVIRONMENT (SDOHE), CORNWALL COUNCIL

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1.0 INTRODUCTION

LOCATION:	LAND OFF HOLYWELL ROAD
PARISH:	CUBERT
COUNTY:	CORNWALL
CENTROID NGR:	SW 78310 58145
PLANNING REF:	PRE-APPLICATION
SWARCH REF:	CLHR21
OASIS REF:	SOUTHWES1-512066

1.1 PROJECT BACKGROUND

South West Archaeology Ltd. (SWARCH) was commissioned by a private client (The Client) to undertake a heritage assessment and geophysical survey for Land off Holywell Road, Cubert, Cornwall in support of a planning application. This work was carried out in accordance with best practice and ClfA guidance in order to assess the potential impact of this part of the development.

1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

The site is located on the north-western edge of Cubert, c.4km south-west of Newquay; to the north of Holywell Road (Figure 1). The site comprises a single large sub-rectangular field on the edge of a gently sloping plateau on the upper part of a gentle north and north-east facing slope, at a height of between c.70m and 82m AOD.

The site lies on the well-drained fine loamy soils over slate or slate rubble of the Denbigh 2 Association (SSEW 1983). The bedrock geology of the site are the mudstone and siltstones of the Trendrean Mudstone Formation (BGS 2021).

1.3 HISTORICAL BACKGROUND

Cubert is located in the deanery and hundred of Powder; it is first documented in 1269 as *Sancti Cuberti*, the name of a Cornish saint. Cubert probably fell within the Domesday manor of Ellenglaze, held by the Canons of St Petroc at Bodmin until the Dissolution and held by the Agar-Robartes and Hosken families in the 17th and 18th centuries. The Cornwall Historic Landscape Characterization (HLC) identifies the site as being situated within Medieval Farmland ‘*The agricultural heartland with farming settlements documented before the 17th century AD and whose field patterns are morphologically distinct from the generally straight-sided fields of later enclosure. Either medieval or prehistoric origins*’ (HLC).

1.4 ARCHAEOLOGICAL BACKGROUND

There are a limited number of designated heritage assets within the settlement itself, and there is one Scheduled round c.1.4km to the south-east of the site. A small amount of archaeological fieldwork has taken place in the immediate area, including geophysical surveys at Carines and Trevornick Farms, and geophysical survey and evaluation trenching off Wesley Road, Cubert identifying prehistoric settlement, and medieval and later land-use of the area.

1.5 METHODOLOGY

This work was undertaken in accordance with current best practice, ClfA guidance. The desk-based assessment aspect of this report follows the guidance as outlined in: *Standard and Guidance for Archaeological Desk-Based Assessment* (ClfA 2014a) and *Understanding Place: historic area*

assessments in a planning and development context (English Heritage 2012). The geophysical (gradiometer) survey follows the general guidance as outlined in: *EAC Guidelines for the use of geophysics in Archaeology: Questions to Ask and Points to Consider* (Europae Archaeologiae Consilium/European Archaeological Council 2016) and *Standard and Guidance for Archaeological Geophysical Survey* (CIfA 2014b).



FIGURE 1: SITE LOCATION (THE SITE IS INDICATED).

2.0 HERITAGE ASSESSMENT

2.1 DOCUMENTARY HISTORY

The site is located within the ecclesiastical parish of Cubert, in the deanery and hundred of Powder. The settlement is first recorded in 1269 as *Sancti Cuberti*. The principal manor appears to have been Ellenglaze (formerly *Hellenclase*, perhaps *hel+glsd* 'green/blue/grey hall'), held by the canons of St Petroc in Bodmin and assessed as having land for 8 ploughs. At the Dissolution the canons held both the manor of *Elynglas*, income valued at £18/17s, and the church of 'St Cuthberti', worth £25/4s/1d. After the Dissolution Ellenglaze fell into the hands of the Trencreek family, passing to Digory Polwhele and the Agar-Robartes of Lanhydrock. It was sold in 1750 to the Hosken family (Lysons 1814).

2.2 CARTOGRAPHIC DEVELOPMENT

The earliest cartographic source available to this study is the 1810 Ordnance Survey surveyors draft map of St Columb Major (Figure 2). It shows the church and its small churchtown within a landscape of enclosed agricultural fields and isolated farmsteads, the more curving field boundaries having their origins in the medieval layout of the landscape. The site is shown as parts of three fields between Cubert and Treveal, though as the depiction of fields on these draft maps is generally speculative rather than accurate, the evidence is not conclusive.



FIGURE 2: EXTRACT FROM THE 1810 ORDNANCE SURVEY SURVEYOR'S DRAFT MAP OF ST COLUMB. THE APPROXIMATE OUTLINE OF THE SITE IS INDICATED (SOURCE: BRITISH LIBRARY).

The earliest detailed cartographic source is the Cubert tithe map of 1842 (Figure 3). This again shows the site as being set within a landscape of enclosed agricultural fields and isolated farmsteads, but includes more detail. The straighter boundaries which sub-divide the medieval fields are more likely post-medieval in date representing a later phase of enclosure. The site itself is depicted as being contained within two fields, plots 277 and 278, the straight boundary between the plots indicating a

post-medieval addition to the medieval layout. The accompanying 1840 apportionment indicates that the land was associated with Treveal, owned by James Theodore Hoskin esquire and occupied by William Phillips. The field names recorded in the title apportionment are essentially prosaic (no.277 *Mowhay Meadow*; 278 *Park Posts*).

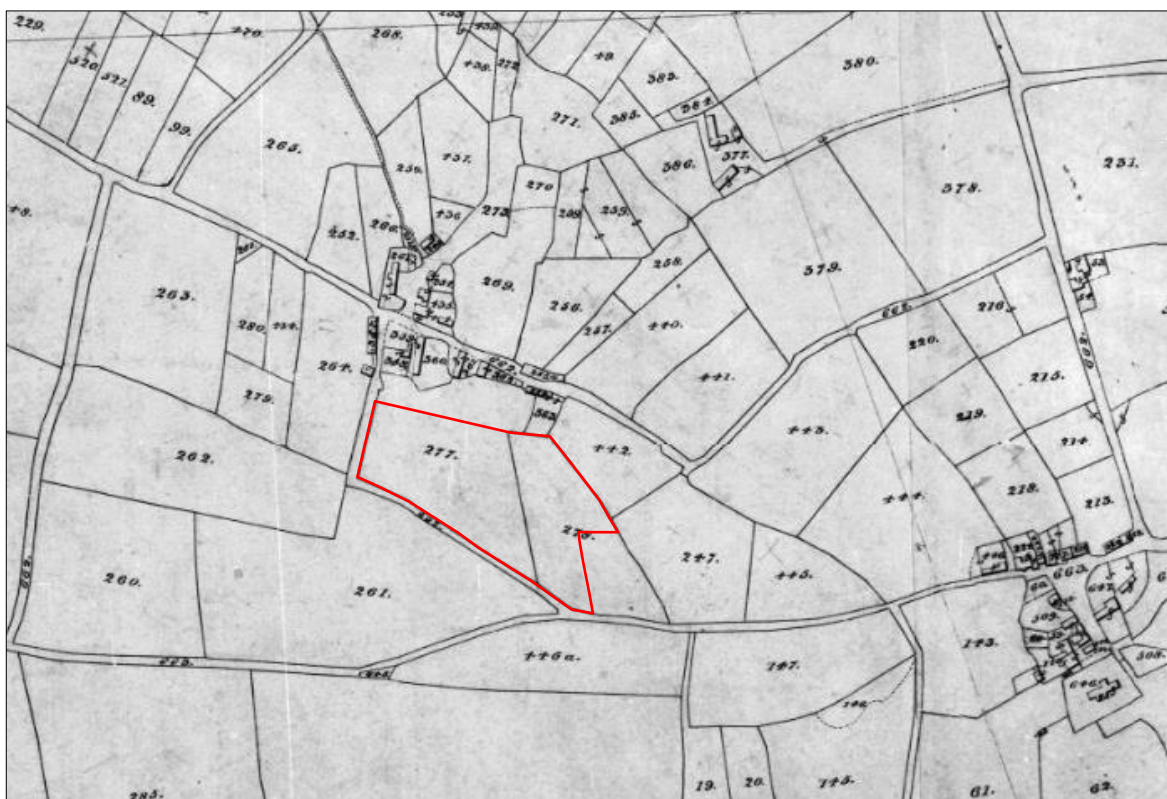


FIGURE 3: EXTRACT FROM THE CUBERT TITHE MAP OF 1842. THE APPROXIMATE OUTLINE OF THE SITE IS INDICATED (SOURCE: BRITISH LIBRARY).

TABLE 1: EXTRACT FROM THE 1840 CUBERT TITHE APPORTIONMENT (SOURCE: THE GENEALOGIST).

Plot No.	Land owner	Lessee	Occupier	Field name	Cultivation
Church Town					
247	John Theodore Hoskin	William Phillips	William Phillips	Church Town Close	Arable
Treveal					
261	John Theodore Hoskin		William Phillips	Higher Ground	Arable
262				Long Close	Arable
263				Great Park West	Arable
264				Little Park West	Arable
277				<i>Mowhay Meadow</i>	<i>Arable</i>
278				<i>Park Post</i>	<i>Arable</i>
279				Park West	Arable
280				Park West	Arable
281				Garden	Arable
357				Thomas Chynoweth & Joseph Pascoe	
358	Nicholas Burn & others	Cottages & Gardens			
359	James Ennor & others	Cottage & Shop			
360		Garden	Arable		
362	Jane Cornish		Jane Cornish & others		
363			John Bellows	House & Garden	
442	John Bradford Johns esq.		John Delbridge	Dry House Meadow	Arable
445				Beacon Honners Close	Arable
Poor House					
361	John Theodore Hoskin	Thomas Chynoweth & Joseph Pascoe	Burt & others	House & Waste	
Park West					
434	John Theodore Hoskin	James Christian	John Chynoweth	Clize	Arable

Subsequent historic Ordnance Survey mapping (Figures 4-5) shows the layout of the village to have changed remarkably little since 1842. By 1879 the cottage on the corner of Wesley Road and High Lanes had been replaced by a *School*, and by 1907 a *Sunday School* with a new school shown to the north off Wesley Road. By 1963 the existing housing estates were under construction on the southern, western and northern sides of Cubert, and by 1972 a new house (*Homes-Link*) had been built next to Lanlovey (now labelled *Barnwell*). By 1993 the village had almost reached its current extent, with only the addition of *Parc an Rose* at the south-eastern corner and *Sundown* along the northern boundary of the proposal site after 2009. The site itself has changed little during this period, the main alterations being the removal of the boundary between tithe plots 277 and 278 by the end of the 19th century; and the creation of the northern site boundary to the properties associated with Treveal added in the late 20th century.

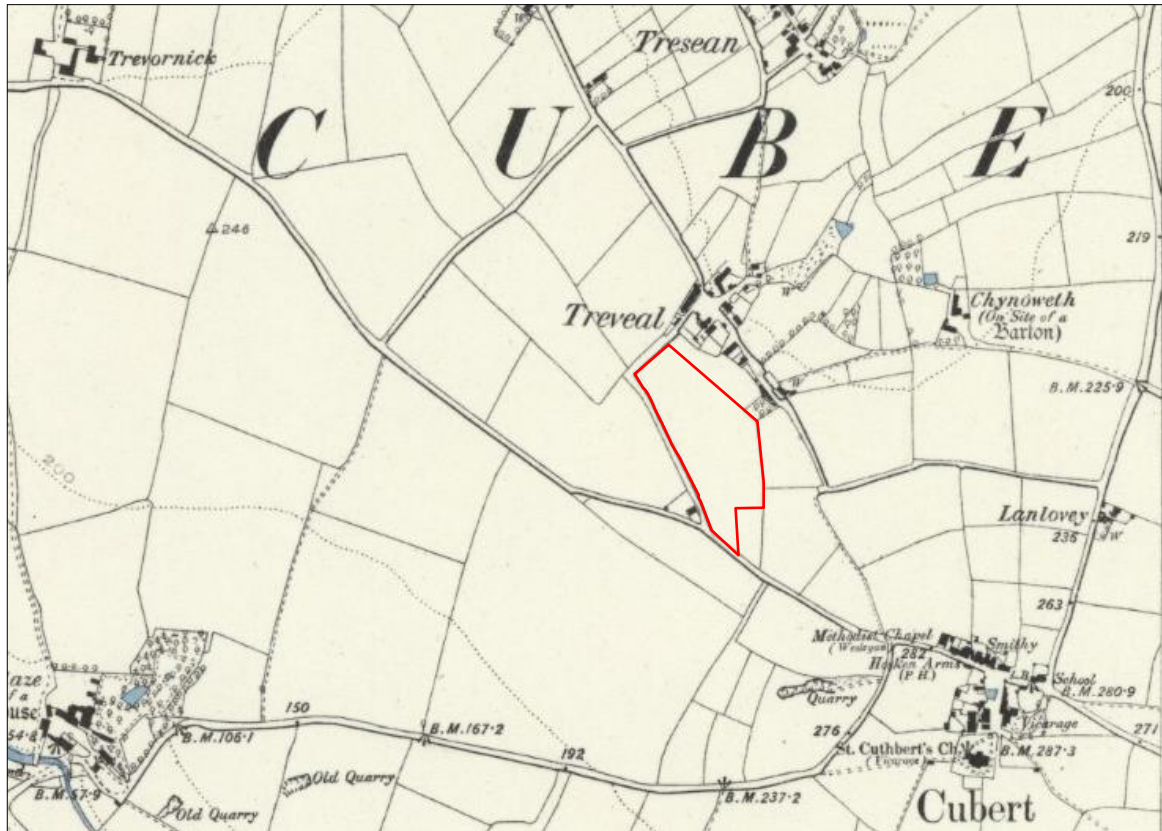


FIGURE 4: EXTRACT FROM THE FIRST EDITION ORDNANCE SURVEY 6" MAP OF 1888 (SURVEYED 1879) CORNWALL SHEET XXXIX SW; THE APPROXIMATE BOUNDARY OF THE SITE IS INDICATED (NATIONAL LIBRARY OF SCOTLAND).

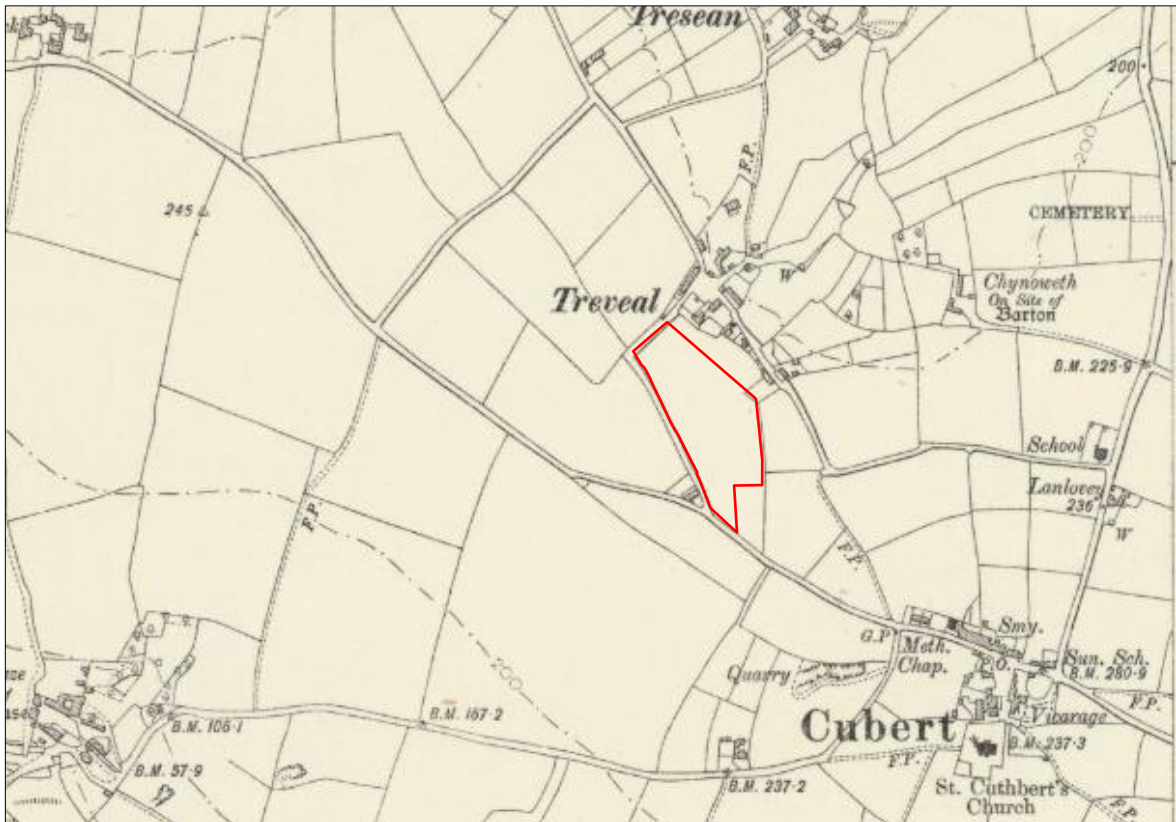


FIGURE 5: EXTRACT FROM THE SECOND EDITION ORDNANCE SURVEY 6" MAP OF 1908 (REVISED 1906) CORNWALL SHEET XXXIX SW; THE APPROXIMATE BOUNDARY OF THE SITE IS INDICATED (NLS).

2.3 ARCHAEOLOGICAL BACKGROUND

Relatively few archaeological investigations have taken place in the area, the majority of work comprising the assessment and survey of the wider landscape (most notably of the Gannel Estuary and Penhale Sands). Archaeological investigation that has taken place in the area has been limited to geophysical survey north-east of Chynoweth Farm (ECO3646; Stratascan 2011), identifying prehistoric settlement and field-systems; geophysical survey at Trevornick Farm (ECO1839); and geophysical survey (ECO5206; Bonvoisin & Balmond 2018) and evaluation trenching (ECO5205; Webb 2018) off Wesley Road to the south-east.

The Cornwall and Scilly Historic Environment Record (HER) identifies a series of designated and undesignated assets in the local area. The historic landscape characterization (HLC) for Cornwall shows this as *medieval farmland*, areas containing farming settlement documented before the 17th century and forming a component part of *Anciently Enclosed Land* (AEL). AEL is regarded as having a high potential for prehistoric and Romano-British archaeological remains; and is represented by the earthwork remains of late prehistoric or Romano-British enclosure ('round') c.1.4km to the south-east of the site (MCO95).

3.4.1 PREHISTORIC AND ROMANO-BRITISH 4000BC - AD410

There is clear evidence for extensive Prehistoric activity in this area. The geophysical survey carried out north-east of Chynoweth Farm (ECO3646; Stratascan 2011) identified a prehistoric field-system and a scatter of at least seven probable roundhouses. This pattern of scattered prehistoric settlement is mirrored to the south, off Wesley Road (ECO5205, ECO5206). In addition, cropmarks of prehistoric enclosures to the north-east (MCO21516) and south-east (MCO32855); a further undated enclosure that may be Prehistoric (MCO21535), and a lithic scatter in woods to the east (MCO6638). There is also a (fairly dubious) reference in 1939 to a 'menhir' buried at the crossroads to the south-east (MCO7390). Whilst outside of the search area, there are also the upstanding remains of the Scheduled

rounds to the south-east (MCO95) and south-west (MCO6495) of the site. Some or all of these sites may have been occupied in the Romano-British period.

3.4.2 EARLY MEDIEVAL AD410 – AD1065

A number of monuments of early medieval date are recorded in the HER including an inscribed stone built into the structure of the tower at Cubert Parish Church with Hiberno-Saxon lettering (MCO7142), the church enclosure itself (MCO25227), a trackway identified as a cropmark at Trebisen House (MCO32816) and a cropmark field-system at Trenissick (MCO32852).

3.4.3 MEDIEVAL AD1066 - AD1540

A number of settlements in the vicinity of the site are medieval in origin including: Trelaske (MCO11442), Trebisen (MCO11349), Lanlovey (MCO15297), Cubert (MCO14202), Hendra Goth (MCO14850) and Trebellan (MCO32857). The current church at Cubert dates to the medieval period. A number of cropmark field-systems (MCO32860; MCO32857; MCO20847), strip fields (MCO32854) and field boundaries (MCO32333; MCO32856; MCO30092) are also dated to this period.

3.4.4 POST-MEDIEVAL AND MODERN AD1540 - PRESENT

The settlement at Cubert expanded during the post-medieval period with the addition of two Nonconformist chapels (MCO32462; MCO32161), a school (MCO53082; MCO51342), a mine (MCO12613), a blacksmith's workshop (MCO9041) and a quarry (MCO32808). Most of the post-medieval monuments within 1km of Cubert are located within the settlement itself. The only modern monument is the war memorial close to Cubert church (MCO58391).

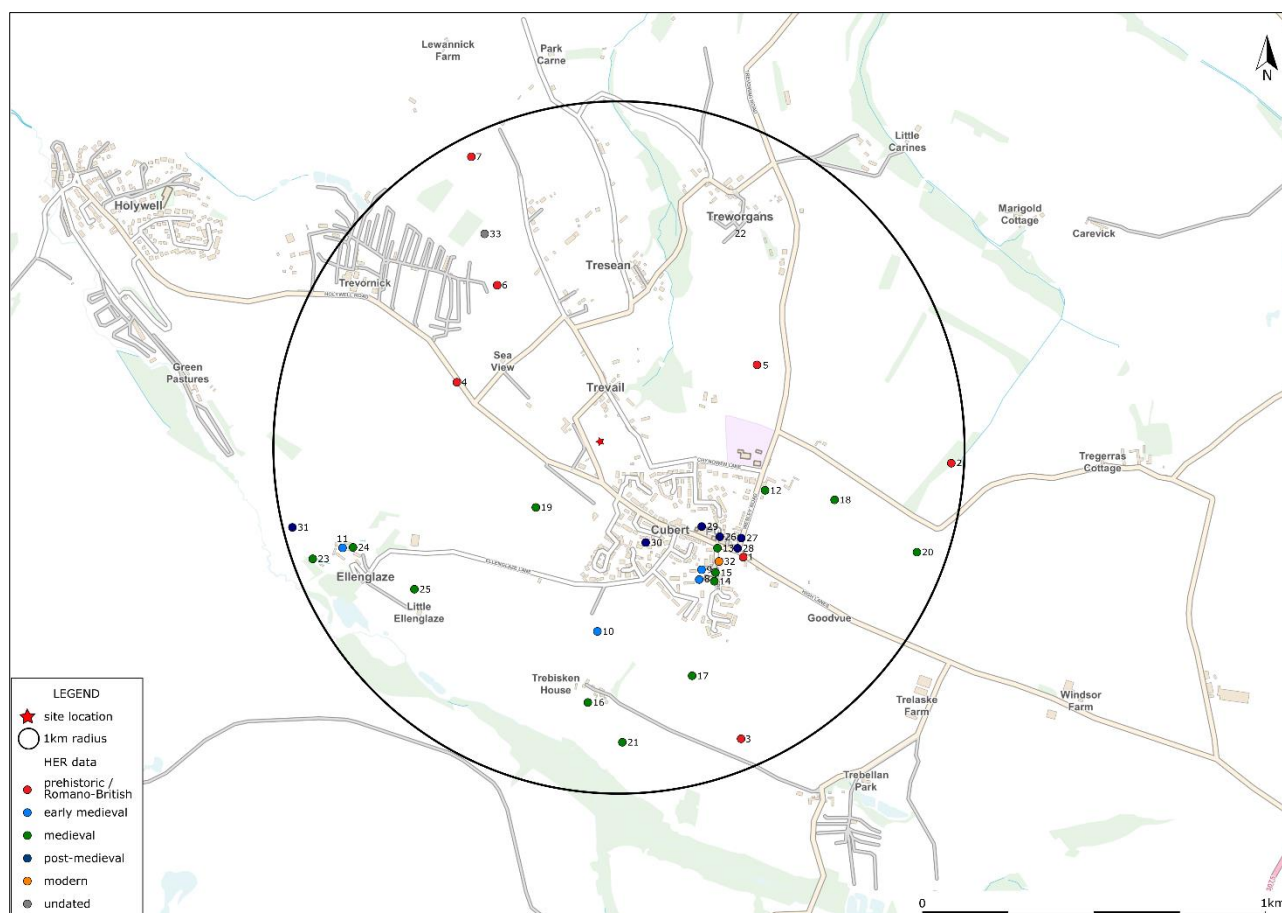


FIGURE 6: NEARBY UNDESIGNATED HERITAGE ASSETS; SEE TABLE 2 (SOURCE: CORNWALL & SCILLY HER).

TABLE 2: NEARBY UNDESIGNATED HERITAGE ASSETS (SOURCE: CORNWALL & SCILLY HER).

No.	Mon ID.	Name	Record	Details
1	MCO7390	Standing stone	Documentary	'Menhir' under crossroads
2	MCO6638	Lithic scatter	Find	Lithic scatter
3	MCO32855	Trebellen Prehistoric enclosure	Cropmark	Sub-triangular enclosure
4	MCO7234	Prehistoric enclosure	Cropmark	Triangular ditched enclosure
5	MCO21516	Prehistoric enclosure	Cropmark	Oval enclosure visible
6	MCO3263	Bronze Age barrow	Earthwork	Earthwork barrow recorded at this location
7	MCO7266	Prehistoric enclosure	Cropmark	Rectilinear banked enclosure
8	MCO7142	Early medieval inscribed stone	Extant Structure	Stone pillar 1.3m long built into church tower
9	MCO25227	Early medieval Lann	Documentary	Cubert Church is probably of early medieval origin
10	MCO32816	Trebisken House	Cropmark	Early medieval trackway
11	MCO11154	Early medieval settlement	Documentary	Settlement first recorded in 1086 as <i>Elil</i>
12	MCO15297	Lanlovey settlement	Documentary	Settlement first recorded in 1622 as <i>Lanowyn or Lanwoven</i>
13	MCO14202	Cubert settlement	Documentary	Settlement first recorded in 1269 as <i>Sancti Cuberti</i>
14	MCO6303	Cubert medieval church	Extant Structure	Cubert parish church is dedicated to St Cuby
15	MCO5230	Medieval cross	Extant Structure	Wheelheaded cross formerly at Ellenglaze lane is now attached to a shaft in the churchyard
16	MCO14850	Hendra Goth settlement	Documentary	Settlement first recorded in 1337 as <i>Hendrekrogh</i>
17	MCO32853	Medieval fieldsystem	Cropmark	Medieval fieldsystem
18	MCO32854	Medieval strip field	Cropmark	Medieval strip field
19	MCO20847	Medieval fieldsystem	Documentary	Medieval fieldsystem on Cubert Common
20	MCO32856	Medieval field boundary	Cropmark	Medieval field boundary
21	MCO32854	Trebisken medieval strip field	Cropmark	Medieval strip field
22	MCO30092	Treworgans medieval field boundary	Cropmark	Medieval field boundary
23	MCO29111	Medieval corn mill	Documentary	Corn mill recorded in 1538
24	MCO11153	Medieval house	Extant Structure	Site of medieval manor house
25	MCO32737	Medieval field system	Cropmark	Medieval field system
26	MCO9041	Post-medieval blacksmith's workshop	Documentary	A smithy shown at this position on the 1879 map
27	MCO32161	Post-medieval Non-Conformist Chapel	Extant Structure	Probably the earliest purpose-built Wesleyan chapel in Cornwall, last used as a restaurant. Built by Joseph Hosken of Carines in 1765
28	MCO53082	Post-medieval school	Extant Structure	National School, Cubert Churchtown. Recorded 1880 map. In use as a Sunday school by 1907, a new school built in 1891. In residential use
29	MCO32162	Non-Conformist Chapel	Extant Structure	Wesleyan Methodist chapel with early C20 school
30	MCO32808	Post-medieval quarry	Demolished	Now under a housing estate
31	MCO12084	Post-medieval mine	Documentary	19 th century mine
32	MCO58391	C20 War Memorial	Extant Structure	WWI memorial erected in 1920
33	MCO21535	Undated enclosure	Cropmark	A kidney shaper enclosure

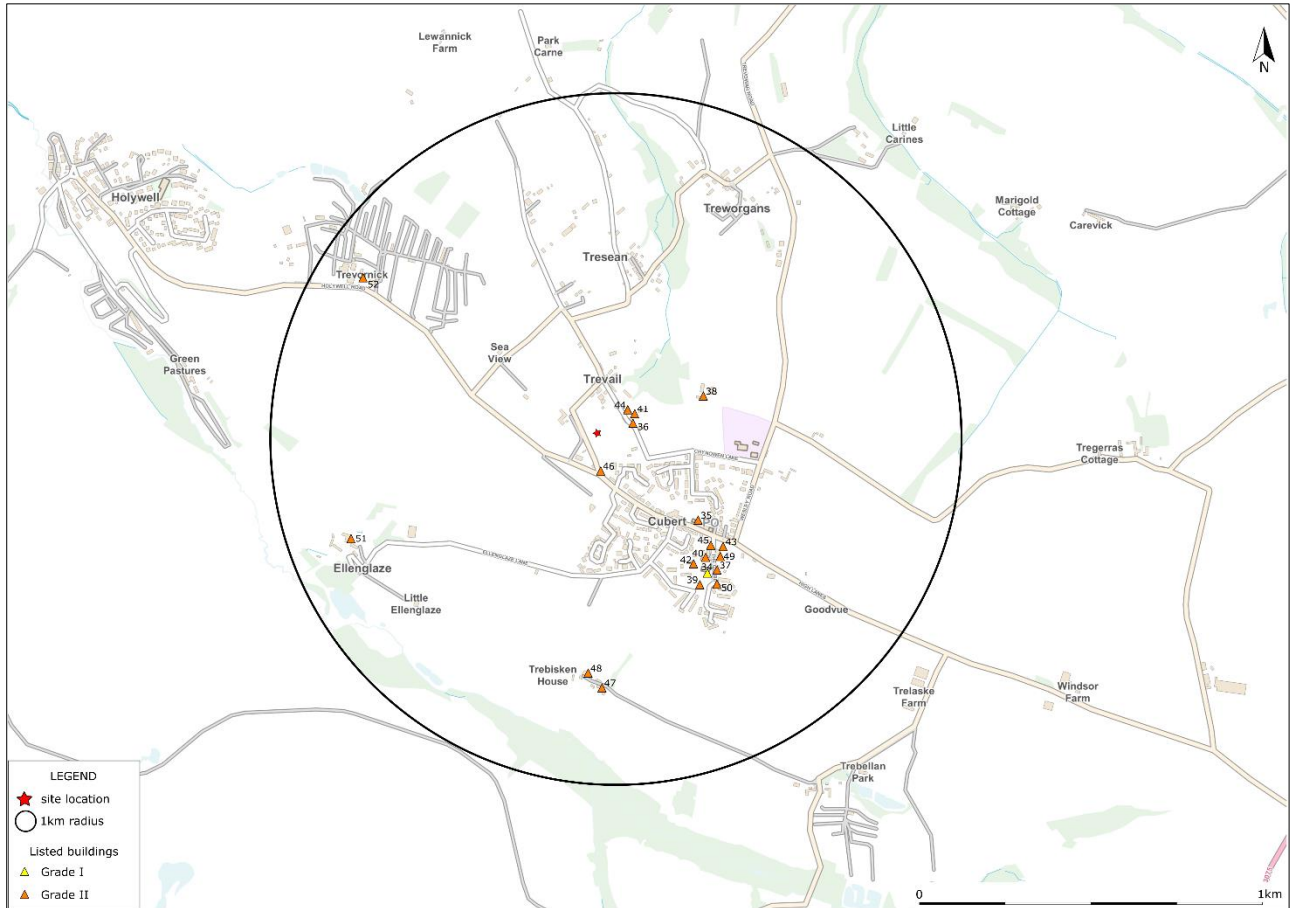


FIGURE 7: DESIGNATED HERITAGE ASSETS WITHIN 1KM; SEE TABLE 3 (SOURCE: CORNWALL & SCILLY HER).

TABLE 3: NEARBY DESIGNATED HERITAGE ASSETS (SOURCE: CORNWALL & SCILLY HER).

No.	Mon ID.	Name	Grade
34	DCO4230	Church of St Cubert	I
35	DCO5592	Former Cubert Methodist Chapel	II
36	DCO5517	Thatched Cottage	II
37	DCO5522	Three monuments in the churchyard c.6m north of the chancel	II
38	DCO4224	Chynoweth Farmhouse	II
39	DCO4391	Five monuments to the Lower family c. 1m south of south aisle	II
40	DCO5523	Gateway, Coffin Rest and Lamppost at north-east entrance to churchyard	II
41	DCO4404	Wychwood Cottage	II
42	DCO4231	Cross in the churchyard against west wall of the north transept	II
43	DCO4232	Cubert Vicarage	II
44	DCO4234	Haven Cottage	II
45	DCO5519	Church Room	II
46	DCO5587	Guidestone	II
47	DCO5588	Little Trebiskan Farmhouse	II
48	DCO5589	Trebiskan House	II
49	DCO17043	Cubert War Memorial	II
50	DCO5591	Four monuments to the Christian and Andre families	II
51	DCO4225	Ellenglaze Manor	II
52	DCO5590	Trevornick Farmhouse	II

2.4 AERIAL PHOTOGRAPHY AND LiDAR

A review of readily-available aerial photography for the site revealed no additional detail. Analysis of Environment Agency LiDAR data shows no evidence of significant archaeological features. Linear

striations parallel to the edges of the site probably represent trackways or agricultural activity. Relict field boundaries and possible holloways can be seen in the wider landscape.



FIGURE 8: IMAGE DERIVED FROM LIDAR DATA (PROCESSED USING QGIS VER2.18.4, TERRAIN ANALYSIS/SLOPE, VERTICAL EXAGGERATION 3.0). DATA: CONTAINS FREELY AVAILABLE DATA SUPPLIED BY NATURAL ENVIRONMENT RESEARCH COUNCIL (CENTRE FOR ECOLOGY & HYDROLOGY; BRITISH ANTARCTIC SURVEY; BRITISH GEOLOGICAL SURVEY); ©NERC (CENTRE FOR ECOLOGY & HYDROLOGY; BRITISH ANTARCTIC SURVEY; BRITISH GEOLOGICAL SURVEY) 2018.

3.0 GEOPHYSICAL SURVEY

3.1 INTRODUCTION

An area of c.1.5ha was the subject of a magnetometry (gradiometer) survey. The purpose of this survey was to identify and record magnetic anomalies within the proposed site. While identified anomalies may relate to archaeological deposits and structures the dimensions of recorded anomalies may not correspond directly with any associated features. The following discussion attempts to clarify and characterise the identified anomalies. The survey was undertaken on 1st July 2021 by P. Webb; the survey data was processed by P. Webb. Additional graphic images of the survey data and numbered grid locations can be found in Appendix 1; and supporting photographs for the site inspection can be seen in Appendix 2.

3.2 SITE INSPECTION

The site comprises a single north-west to south-east orientated field at the north-western corner of Cubert. The topography of the survey area was gently sloping north facing slopes. At the time of survey, the site was under pasture, the grass having recently been cut. The site is bounded to the north and east by overgrown hedgbanks; to the south by concrete post and wire fencing (south-east) and a low overgrown earth bank (south-west); and to the west by a recently constructed dry-stone wall.

No visible earthwork features were identified within the survey area.

3.3 METHODOLOGY

The gradiometer survey follows the general guidance as outlined in: *EAC Guidelines for the use of geophysics in Archaeology: Questions to Ask and Points to Consider* (Europae Archaeologiae Consilium/European Archaeological Council 2016) and *Standard and Guidance for Archaeological Geophysical Survey* (CIfA 2014b).

The survey was carried out using a twin-sensor fluxgate gradiometer (Bartington Grad601). These machines are sensitive to depths of up to 1.50m. The survey parameters were: sample intervals of 0.25m, traverse intervals of 1m, a zigzag traverse pattern, traverse orientation was circumstantial, grid squares of 30×30m. The gradiometer was adjusted ('zeroed') every 0.5-1ha. The survey grid was tied into the Ordnance Survey National Grid- and set out using a Leica CS15 GNSS Rover GPS. The data was downloaded onto *Grad601 Version 3.16* and processed using *TerraSurveyor Version 3.0.36.0*. The primary data plots and analytical tools used in this analysis were *Shade* and *Metadata*. The details of the data processing are as follows:

Processes:

Clip +/- 1SD; removes extreme data point values.

DeStripe all traverses, median; used to equalise underlying differences between grids (potentially caused by instrument drift or orientation, directional effects inherent in magnetic instrument, or differences in instrument set up during survey e.g. using two gradiometers).

TABLE 4: SURVEY DETAILS (UNADJUSTED).

Field	Area (ha)	Max (nT)	Min (nT)	Standard Deviation (nT)	Mean (nT)	Median (nT)
1	1.5263	98.64	-100.00	7.89	1.22	1.44

3.4 RESULTS

Table 5 with the accompanying Figures 9 and 10 show the analyses and interpretation of the geophysical survey data.

TABLE 5: INTERPRETATION OF GRADIOMETER SURVEY DATA.

Anomaly Group	Class and Certainty	Form	Archaeological Characterisation	Comments
1	Weak to moderate positive with associated negative, probable	Linear	Historic boundary – double ditch and bank	Indicative of cut and infilled features such as ditches flanking associated compacted/banked material. Aligned approximately north-east to south-west. Depicted on 19 th century historic mapping. Responses of between -20.74nT and +22.43nT.
2	Weak to moderate positive with associated negative, probable	Linear	Historic boundary – double ditch and bank	Indicative of cut and infilled features such as ditches flanking associated compacted/banked material. Aligned approximately west-north-west to east-south-east. Depicted on 19 th century historic mapping. Responses of between -23.97nT and +26.01nT.
3	Weak positive with associated negative, probable	Linear	Double ditch and bank	Indicative of cut and infilled features such as ditches flanking associated compacted/banked material. Aligned approximately east-north-east to west-south-west. Responses of between -11.21nT and +12.45nT.
4	Weak to moderate positive with associated negative, probable	Linear	Ditch and bank	Indicative of a cut and infilled feature such as a ditch with associated compacted/banked material. Aligned approximately north-west to south-east. Responses of between -11.84nT and +18.50nT.
5	Weak to moderate positive with associated negative, probable	Linear	Ditch and bank	Indicative of a cut and infilled feature such as a ditch with associated compacted/banked material. Aligned approximately north-west to south-east. Responses of between -14.45nT and +27.20nT.
6	Weak to moderate positive, probable	Linear	Ditch	Indicative of a cut and infilled feature such as a ditch. Aligned approximately north-east to south-west and north-west to south-east. Responses of between +0.04nT and +22.39nT.
7	Weak to moderate positive, probable	Linear	Ditch	Indicative of a cut and infilled feature such as a ditch. Aligned approximately north-west to south-east. Responses of between +0.44nT and +16.12nT.
8	Weak positive, possible	Linear	Ditch	Indicative of a cut and infilled feature such as a ditch. Aligned approximately north-west to south-east. Responses of between +0.62nT and +12.04nT.
9	Weak to moderate positive, probable	Discrete ovoid	Pit or tree-throw	Indicative of cut and infilled features such as pits. Weaker responses may indicate natural features such as tree-throws. Responses of between +0.88nT and +31.96nT.
10	Weak to moderate positive with associated negative, probable	Linear	Agricultural activity	Linear striations covering the field with regularity. Aligned approximately north-east to south-west. Positive with associated negative responses. Responses of between -20.08nT and +11.17nT.
	Strong dipolar (mixed response)	Discrete	Ferrous anomaly	Indicative of metallic object. Responses of between c.+/-102nT.
	Strong bipolar (mixed response)	Irregular	Modern disturbance	Indicative of disturbed ground and disturbance caused by proximity to metallic fences and debris. Responses of between c.+/-117nT.



FIGURE 9: SHADE PLOT OF THE GRADIOMETER SURVEY DATA; BAND WEIGHT EQUALIZED, GRADIATED SHADING.

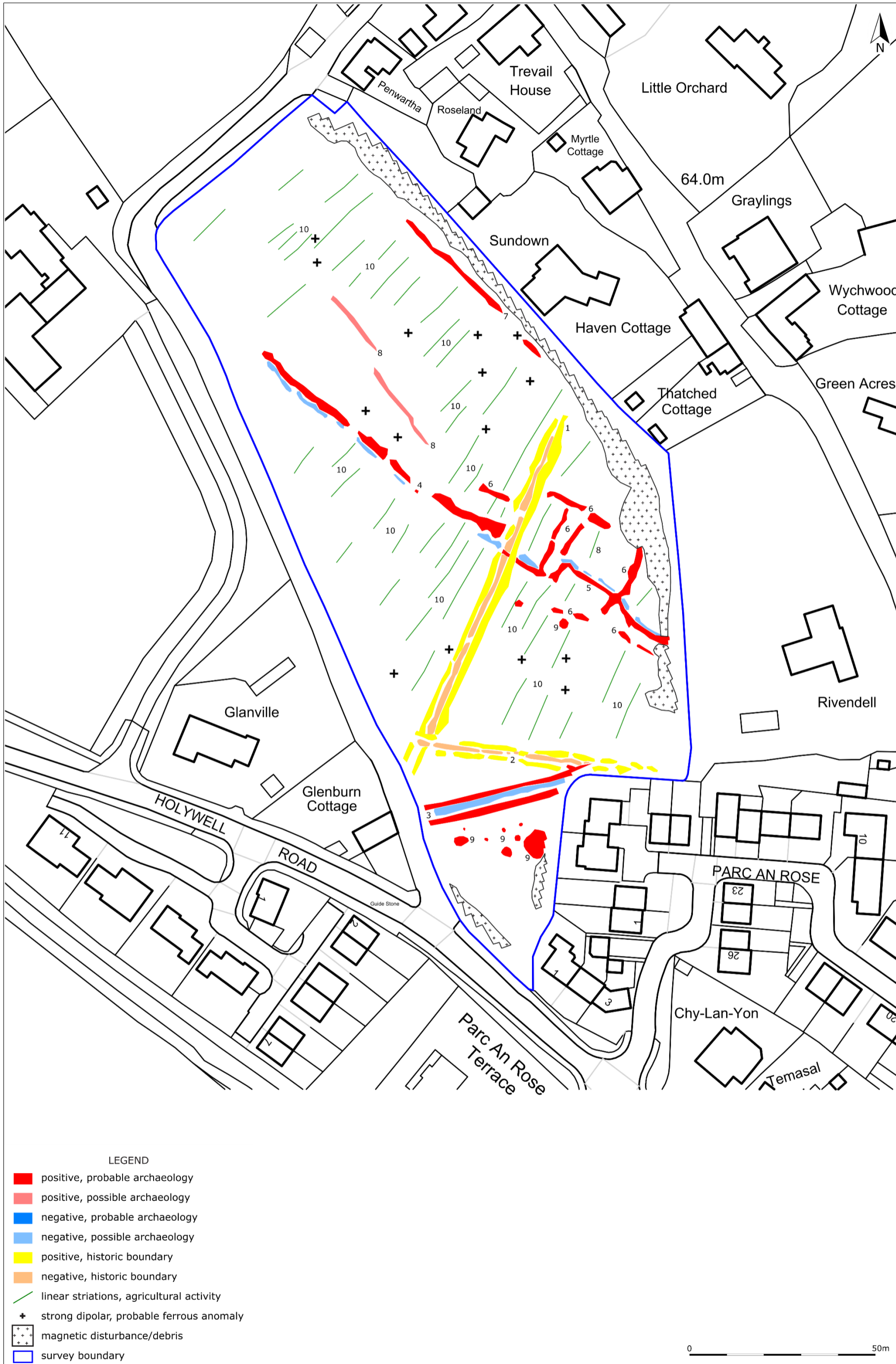


FIGURE 10: INTERPRETATION OF THE GRADIOMETER SURVEY DATA.

3.5 DISCUSSION

The survey identified 10 groups of anomalies. These were predominantly linear anomalies likely associated with phases of historic boundaries and agricultural activity. The identified anomaly groups include: historic field boundaries; ditch features; ditch and bank features; pits or tree-throws; and agricultural activity. Evidence of ploughing and metallic debris was also identified.

The general response variation across the site was between ± 5 nT. The response strength of probable archaeological activity was relatively low (typically between ± 15 nT) though some of the strength may be attributed to the overlying responses associated with the ridge and furrows of the recent agricultural activity (typically between ± 20 nT). The weak responses of many of the anomalies indicates that the majority are only likely to survive to a shallow depth.

The identified anomalies include: two removed historic boundaries (Groups 1 & 2) removed during the 19th century; 10 probable and two possible ditch and ditch and/or bank features which probably relate to field boundaries forming elements of the historic field-system (Groups 3-8); and eight possible pit features (Group 9). Agricultural activity in the form of ploughing was visible across the site and is represented by anomaly Group 10.

Anomaly Group 1 consists of a pair of weak to moderate positive (+0.33nT to +22.43nT) linear anomalies flanking associated negative (-20.74nT to -0.11nT) indicative of cut and infilled features such as ditches flanking a central bank, typical of Devon and Cornish field boundaries. They are orientated approximately north-east to south-west, congruent with the existing field-system and corresponds to a boundary depicted on the 1842 Cubert tithe map and removed by the end of the 19th century.

Anomaly Group 2 consists of a pair of weak to moderate positive (+0.08nT to +26.01nT) linear anomalies flanking associated negative (-23.97nT to -0.69nT) responses indicative of cut and infilled features such as ditches flanking a central bank, typical of Devon and Cornish field-systems. It is orientated approximately west-north-west to east-south-east, congruent with elements of the existing field-system and corresponds to a boundary depicted on the 1810 Ordnance Survey surveyor's draft map.

Anomaly Group 3 consists of a pair of weak to moderate positive (+0.87nT to +12.45nT) linear anomalies flanking associated negative (-11.21nT to -0.29nT) responses indicative of cut and infilled features such as ditches flanking a central bank, typical of Devon and Cornish field-systems. It is orientated approximately east-north-east to west-south-west, and whilst not directly congruent with elements of the existing field-system, is not too far off-set and may belong to an earlier phase.

Anomaly Group 4 consists of a weak to moderate positive (+0.32nT to +18.50nT) linear anomaly with associated negative (-11.84nT to -0.02nT) responses indicative of a cut and infilled feature such as a ditch with associated compacted/banked material. It is orientated approximately north-west to south-east, congruent with elements of the existing field-system and may belong to an earlier phase.

Anomaly Group 5 consists of a weak to moderate positive (+1.70nT to +27.20nT) linear anomaly with associated negative (-14.45nT to -0.28nT) responses indicative of a cut and infilled feature such as a ditch with associated compacted/banked material. It is broadly orientated north-west to south-east, congruent with elements of the existing field-system and may belong to an earlier phase with smaller sub-divisions formed with anomaly Group 6.

Anomaly Group 6 consists of a series of weak to moderate positive (+0.04nT to +22.39nT) linear anomalies indicative of cut and infilled features such as ditches. They are orientated approximately north-east to south-west, congruent with elements of the existing field-system and may belong to an earlier phase associated with anomaly Group 6.

Anomaly Group 7 consists of a weak to moderate positive (+0.44nT to +16.12nT) linear anomaly indicative of a cut and infilled feature such as a ditch. It is orientated approximately north-west to south-east, congruent with elements of the existing field-system and may belong to an earlier phase.

Anomaly Group 8 consists two short sections of weak positive (+0.44nT to +12.04nT) linear anomalies indicative of cut and infilled features such as ditches. They are orientated approximately north-west to south-east, congruent with elements of the existing field-system and may belong to an earlier phase.

Anomaly Group 9 consists of a series of weak to moderate positive (+0.88nT to +31.96nT) discrete ovoid anomalies indicative of cut and infilled features such as pits, tree-throws or other natural features. The larger of these features may represent quarry pits; the weaker responses are likely natural features such as tree-throws.

Linear striations (anomaly Group 10) of weak to moderate negative (-20.08nT to -0.01nT) and positive (+0.06nT to +11.17nT) responses are orientated approximately north-east to south-west are present across the site, the regularity of the responses suggesting that they represent episodes of ploughing.

3.6 ARCHAEOLOGICAL POTENTIAL

The survey identified 10 groups of anomalies. These were predominantly ditch and ditch and bank features associated with historic boundaries (Groups 1 & 2) and earlier phases of the existing field-system (Groups 3-8) as well as pits (Group 9) and agricultural activity (Group 10).

Whilst all of the features at this stage are inherently undated, the surrounding field-pattern is characterized as medieval farmland, the surviving boundaries of which are represented in the gently curving elements of the existing field-system. Elements of this had gone out of use by the middle of the 19th century and it is possible that some of the identified features (including anomaly Groups 2 & 4) formed part of this system; whilst others continued to the end of the century (Group 1). The presence of prehistoric or Romano-British settlement features within the surrounding wider landscape, however, means that origins dating to this period cannot be ruled-out for some of the features, particularly for those off-set to the existing field-system or which divide the landscape into smaller parcels of land not typical of medieval field-systems (Groups 5 & 6).

The degree of preservation of the identified features appears to be mixed. The strength of some of the anomalies indicates that they may survive to a good depth, whilst those of other anomalies are weak and intermittent. This suggests that these features only survive to a shallow depth, with their intermittent nature indicating only partial survival. It is also possible that additional, more ephemeral features, are masked by the strength of the responses caused by the background geology and more recent agricultural activity.

Any development of the site is likely to encounter and destroy the buried archaeological resource, and whilst there is a *high* potential suggested by the surrounding prehistoric landscape, the results of the geophysical survey would suggest that the archaeological potential for the site is *moderate*, many of the identified anomalies likely reflecting medieval and post-medieval field-systems, though earlier prehistoric or Romano-British features cannot be ruled out. Further archaeological mitigation in the form of targeted evaluation trenching would validate and clarify the results of the geophysical survey.

4.0 CONCLUSION

The site comprises a single field surrounded by the modern development of the early medieval settlement of Cubert and the farmstead of Trevail. The site falls within land designated on the Historic Landscape Characterization as medieval farmland, with either medieval or prehistoric origins. There is clear evidence of prehistoric settlement and activity within the surrounding landscape; though much of the evidence reflects historic medieval and post-medieval field-systems.

The geophysical survey identified 10 groups of anomalies. The anomalies identified include: two removed historic boundaries (Groups 1 & 2) removed during the 19th century; 10 probable and two possible ditch and ditch and/or bank features which probably relate to field boundaries forming elements of the historic field-system (Groups 3-8); and eight possible pit, tree-throw or other natural features (Group 9). Agricultural activity in the form of ploughing was visible across the site and is represented by anomaly Group 10.

The majority of the features represent undated phases of field-system tentatively suggested as being largely medieval and post-medieval in date but with possible prehistoric elements. Whilst no prehistoric settlement features were identified within the site, their presence within the immediate wider landscape it can be inferred that some of the ditch features (such as anomalies 5-8) may have formed part of a prehistoric field-system.

Any development of the site is likely to encounter and destroy the buried archaeological resource, and whilst there is a *high* potential suggested by the surrounding prehistoric landscape, the results of the geophysical survey would suggest that the archaeological potential for the site is *moderate to low*, many of the identified anomalies likely reflecting medieval and post-medieval field-systems, though earlier prehistoric or Romano-British features cannot be ruled out. Further archaeological mitigation in the form of targeted evaluation trenching will likely be required to validate and clarify the results of the geophysical survey.

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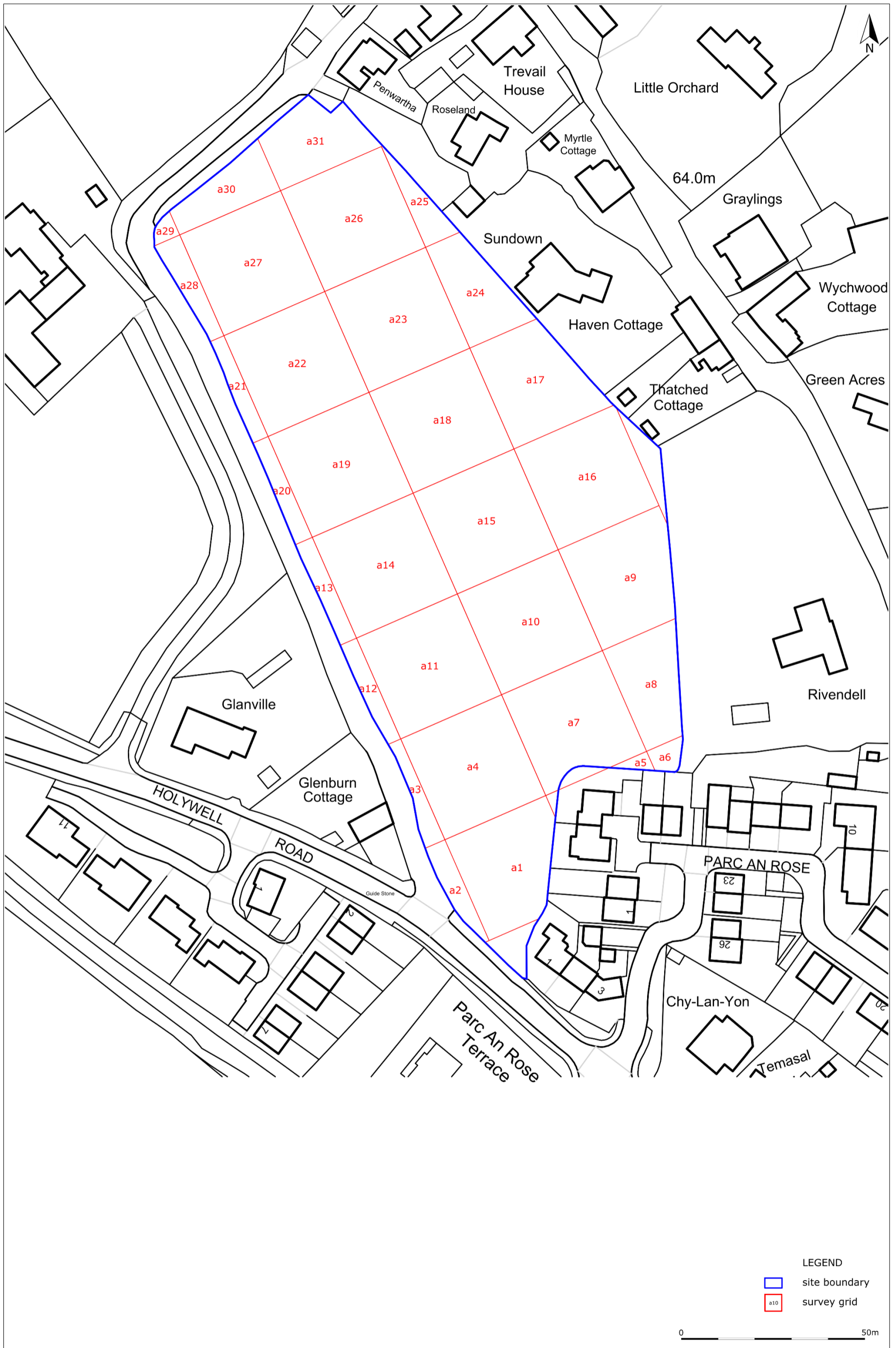
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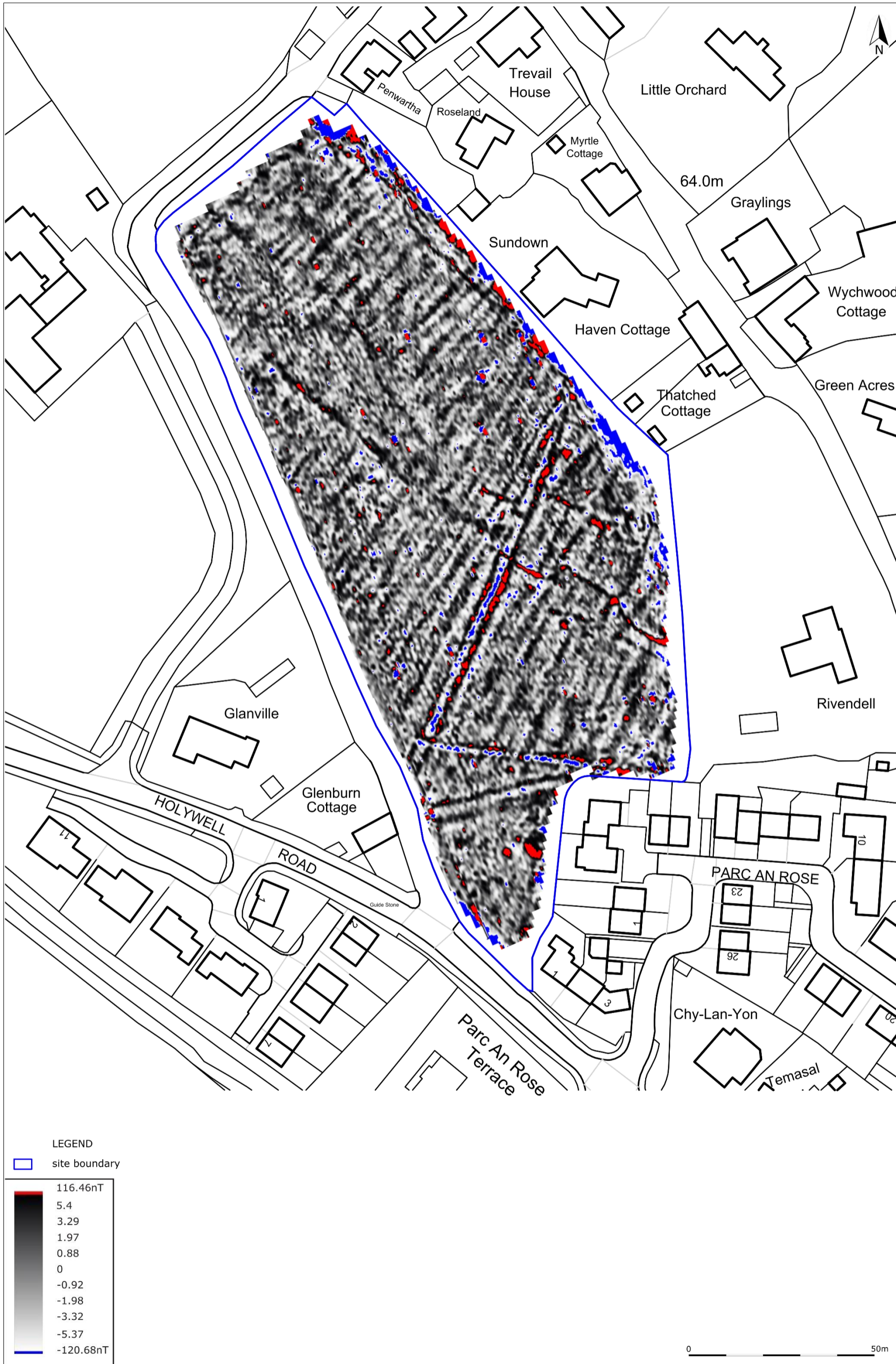
APPENDIX 1: ADDITIONAL GRAPHICAL IMAGES OF THE GRADIOMETER SURVEY



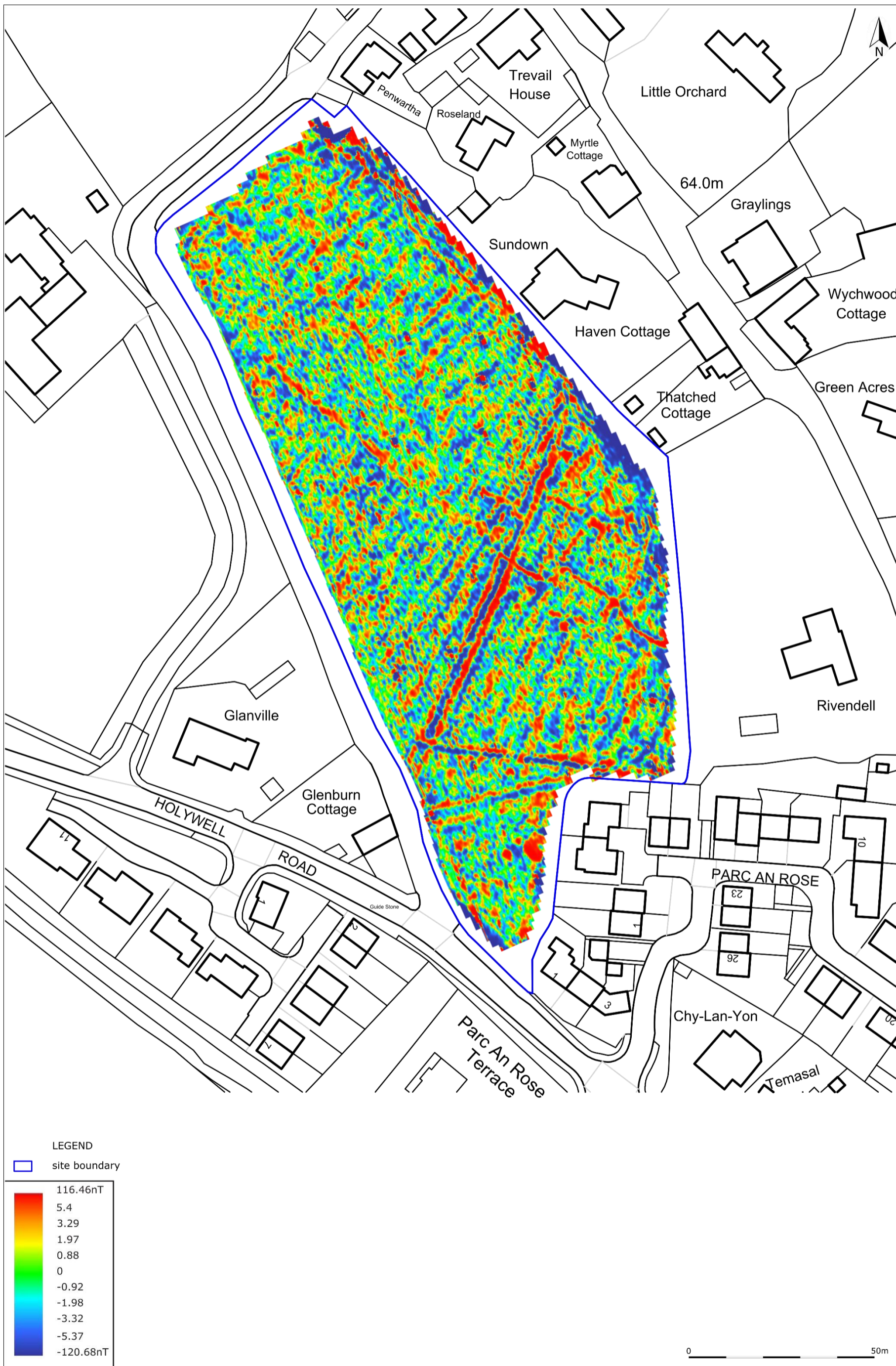
1. GEOPHYSICAL SURVEY GRID LOCATION AND NUMBERING.



2. SHADE PLOT OF THE GRADIOMETER SURVEY DATA; MINIMAL PROCESSING.



3. RED-GREY-BLUE SHADE PLOT OF THE GRADIOMETER SURVEY DATA; BAND WEIGHT EQUALIZED; GRADIATED SHADING.



4. RED-GREEN-BLUE 2 SHADE PLOT OF THE GRADIOMETER SURVEY DATA; BAND WEIGHT EQUALIZED, GRADIATED SHADING.

APPENDIX 2: SUPPORTING PHOTOGRAPHS



1. VIEW ACROSS THE SITE; VIEWED FROM THE NORTH-NORTH-WEST (NO SCALE).



1. VIEW ACROSS THE SITE; VIEWED FROM THE SOUTH (NO SCALE).



2. VIEW ACROSS THE SITE FROM THE SOUTHERN TIP; VIEWED FROM THE SOUTH (NO SCALE).



3. VIEW ACROSS THE NORTHERN END OF THE SITE; VIEWED FROM THE WEST-NORTH-WEST (NO SCALE).



4. DETAIL OF THE NORTHERN ROADSIDE SITE BOUNDARY; VIEWED FROM THE EAST (1M SCALE).



5. DETAIL OF THE FENCE LINE BOUNDARY TO THE NORTHERN HALF OF THE SITE; VIEWED FROM THE NORTH-WEST (1M SCALE).



6. DETAIL OF THE TREE-LINED BANK BOUNDARY TO THE SOUTHERN HALF OF THE SITE; VIEWED FROM THE NORTH-WEST (1M SCALE).



7. DETAIL OF THE STONE WALL BOUNDARY TO THE SOUTH-EASTERN CORNER OF THE SITE; VIEWED FROM THE NORTH-EAST (1M SCALE).



8. DETAIL OF THE WESTERN ROADSIDE HEDGEBANK BOUNDARY; VIEWED FROM THE SOUTH-EAST (1M SCALE).



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