LAND AT HILL FARM
DUNS TEW
BICESTER
OXFORDSHIRE

Results of a Heritage Assessment and Geophysical Survey

South West Archaeology Ltd. report no. 190921

ARCHAEOLOGICAL SERVICES & HISTORIC BUILDING RECORDING
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Land at Hill Farm, Duns Tew, Bicester, Oxfordshire
Results of a Heritage Assessment and Geophysical Survey

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Report Version: FINAL
31st October 2019

Work undertaken by SWARCH for Aardvark EM Ltd. (the Agent)

SUMMARY

This report presents the results of a heritage assessment and geophysical survey carried out by South West Archaeology Ltd. (SWARCH) for land at Hill Farm, Duns Tew, Bicester, Oxfordshire. This work was carried out on behalf Aardvark EM Ltd. (the Agent) in advance of a planning application for a new PV array.

*The proposed site would be located north of the village of Duns Tew close to the parish boundary with Deddington. Duns Tew was a Domesday Manor, but by 1086 it had already been subdivided into four smaller estates and the medieval descent of these sub-manors is complex. Tenurial division was reflected in the division of the parish into two halves, each with its own two-field Open Field. The parish was enclosed in 1794, but the fields at Hill Farm appear to have been enclosed in or before the 17th century. Crop- and soilmark evidence indicate ridge and furrow cultivation across the whole farm, and this was confirmed by a geophysical (gradiometer) survey. More importantly, the survey also identified several probable settlement enclosures and/or structures running back from a single long ditch orientated approximately east-to-west. This closely mirrors anomalies identified in the field to the west, later determined to be the remains of two settlement foci within a Mid-Late Iron Age clothes-line settlement. The evidence would therefore indicate the base of this valley was occupied by numerous small settlements at or just above the limit of flooding. The overall significance of this pattern of settlement is likely to be regional, as while there are relatively few close comparanda this is likely – as in this instance – to reflect the absence of fieldwork and poor cropmark response than actual scarcity. The impact of the proposed development on the buried archaeological resource would be **permanent** and **irreversible**, but could be mitigated through design, as it was for the adjacent PV site.*

*In terms of indirect impacts, most of the designated heritage assets in the wider area are located at such a distance to minimise the impact of the proposed development, or else the contribution of setting to overall significance is less important than other factors. The landscape context of many of these buildings and monuments is such that they would be partly or wholly insulated from the effects of the proposed development by a combination of local blocking from trees, buildings or embankments, or that other modern intrusions have already impinged upon their settings. The assets which lie in close proximity and were considered in detail in this assessment would be affected by the proposed development to a limited degree (**negligible to negative/ minor**), with a **negligible** impact on the historic landscape, **negligible** aggregate impact, but a **negative/minor** cumulative impact on the basis the footprint of the existing PV array will triple in size. On that basis the impact of the proposed development can be assessed as **negligible** overall.*

October 2019

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ACKNOWLEDGEMENTS

THE LANDOWNER, FOR ACCESS
AARDVARK ENVIRONMENTAL LTD.
The staff of the Oxfordshire Heritage Centre
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The staff of the Oxfordshire Historic Environment Record
The staff of the Historic England aerial photographic archive

PROJECT CREDITS

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1.0 INTRODUCTION

LOCATION:	HILL FARM, DUNS TEW
PARISH:	DUNS TEW
COUNTY:	OXFORDSHIRE
NGR:	SP 45974 30001
PLANNING NO.	PRE-PLANNING
SWARCH REF.	ODHF19

1.1 PROJECT BACKGROUND

South West Archaeology Ltd. (SWARCH) was commissioned to undertake an archaeological impact assessment and geophysical survey on land at Hill Farm, Duns Tew, Oxfordshire ahead of proposed development of a solar farm. This work was undertaken in accordance with best practice and CIfA guidelines.

1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

Duns Tew lies *c.*1.3km to the west of the A4260 and *c.*8km north-east of the A44. The site lay to the north of Duns Tew and was accessed via Hill Farm Lane. The site was located in the fields to the north of Hill Farm, and immediately south of the watercourse that marked the boundary between the parishes of Duns Tew and Deddington. The site lies at *c.*88m Above Ordinance Datum (AOD), rising to *c.*91m AOD towards the southern end of the surveyed area in field B. The soils of this area are slowly permeable seasonally wet clayey soils, which overlie the sedimentary mudstone of the Charmouth Mudstone Formation, superficial alluvium deposits are present closer to the watercourse to the north (BGS 2019).

1.3 HISTORICAL & ARCHAEOLOGICAL BACKGROUND

The site is located on agricultural land just to the west of the A4260, c.140m north-north-east of Duns Tew village in the parish of Duns Tew. It is located on the northern edge parish. In 1086 the parish contained four separate estates held by four separate lords and three tenants. The descent of the four estates is complex, with further subdivision occurring during the later medieval period. An inclosure act was passed in 1794 under which the bulk of the parish was enclosed. Down End Common to the north was previously known as Dunham Marsh; the common as recorded in 1794 is likely to have been larger, with records of enclosure in the 16th century and the creation of a farmstead later known as Hill Farm. After enclosure, Hill farm formed part of the Dashwood Estate.

With one notable exception, archaeological fieldwork in the local area has been relatively sparse. The fields probably formed part of Down End Common and were enclosed in the 16th century. It is likely, given the low-lying terrain and seasonally waterlogged soils, that these fields formed part of the meadow attached to the four Domesday estates at Duns Tew. Nonetheless, cropmarks across the site indicate ridge and furrow cultivation, implying it intermittently formed part of the arable Open Field system. Isolated findspots of Roman (MOX15918), and Prehistoric (MOX13448) date have been reported but are poorly located. Roman masonry remains have been reported c.1km to the north-east, and a cropmark enclosure c.1km to the west; with a gold quarter stater of the 'Cunobelinus Wild' type (c.AD8-41) was been reported from the north-eastern edge of the parish (PUBLI-3C79CE). The key discovery was made during a geophysical survey undertaken immediately to the west of the site (Stratascan 2016). This revealed two Prehistoric settlements which an evaluation dated to the Middle-Late Iron Age (MOLA 2016).

FIGURE 1: SITE LOCATION.

1.4 METHODOLOGY

The desk-based assessment follows the guidance as outlined in: *Standard and Guidance for Archaeological Desk-Based Assessment* (CIfA 2014a revised 2017) and *Understanding Place: historic area assessments in a planning and development context* (Historic England 2017). This work was undertaken in line with a project design (SWARCH 2019a).

The historic visual impact assessment follows the guidance outlined in: *Conservation Principles: policies and guidance for the sustainable management of the historic environment* (English Heritage 2008), *The Setting of Heritage Assets* (Historic England 2015 revised 2017), *Seeing History in the View* (English Heritage 2011), *Managing Change in the Historic Environment: Setting* (Historic Scotland 2016), and with reference to *Visual Assessment of Wind Farms: Best practice* (University of Newcastle 2002) and *Guidelines for Landscape and Visual Impact Assessment* 3rd edition (Landscape Institute 2013).

This geophysical survey was undertaken in accordance with best practice and the gradiometer survey follows the general guidance as outlined in: *EAC Guidelines for the use of Geophysics in* Archaeology (EAC 2016) and *Standard and Guidance for Archaeological Geophysical Survey* (CIfA 2014b). This work was undertaken in line with a project design (SWARCH 2019b).

2.0 HERITAGE IMPACT ASSESSMENT

2.1 HERITAGE IMPACT ASSESSMENT - OVERVIEW

The purpose of heritage impact assessment is twofold: Firstly, to understand – insofar as is reasonably practicable and in proportion to the importance of the asset – the significance of a historic building, complex, area, monument or archaeological site (the 'heritage asset'). Secondly, to assess the likely effect of a proposed development on the heritage asset (direct impact) and/or its setting (indirect impact). The methodology employed in this assessment is based on the approach outlined in the relevant DoT guidance (DMRB vol.11; WEBTAG), used in conjunction with the ICOMOS (2011) guidance and the staged approach advocated in *The Setting of Heritage Assets* (GPA3 Historic England 2015). The methodology employed in this assessment can be found in Appendix 3.

2.2 NATIONAL POLICY

General policy and guidance for the conservation of the historic environment are now contained within the *National Planning Policy Framework* (Department for Communities and Local Government 2019). The relevant guidance is reproduced below:

Paragraph 189
In determining applications, local planning authorities should require the applicant to describe the significance of any heritage assets affected, including the contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should be consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which a development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

Paragraph 190
Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.

A further key document is the Planning (Listed Buildings and Conservation Areas) Act 1990, in particular section 66(1), which provides *statutory protection* to the setting of Listed buildings:

In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

2.3 LOCAL POLICY

Policy ESD 15: *The Character of the Built and Historic Environment* in *The Cherwell Local Plan 2011-31* makes the following statements:

Conserve, sustain and enhance designated and non designated 'heritage assets' (as defined in the NPPF) including buildings, features, archaeology, conservation areas and their settings, and ensure new development is sensitively sited and integrated in accordance with advice in the NPPF and NPPG. Proposals for development that affect non-designated heritage assets will be considered taking account of the scale of any harm or loss and the significance of the heritage asset as set out in the NPPF and NPPG. Regeneration proposals that make sensitive use of heritage assets, particularly where these bring redundant or under used buildings or areas, especially any on English Heritage's At Risk Register, into appropriate use will be encouraged.

Include information on heritage assets sufficient to assess the potential impact of the proposal on their significance. Where archaeological potential is identified this should include an appropriate desk based assessment and, where necessary, a field evaluation.

2.4 STRUCTURE OF ASSESSMENT – DIRECT AND INDIRECT IMPACTS

This assessment is broken down into two main sections. Section 3.0 addresses the *direct impact* of the proposed development i.e. the physical effect the development may have on heritage assets within, or immediately adjacent to, the development site. Designated heritage assets on or close to a site are a known quantity, understood and addressed via the *design and access statement* and other planning documents. Robust assessment, however, also requires a clear understanding of the value and significance of the *archaeological* potential of a site. This is achieved via the staged process of archaeological investigation detailed in Section 3.0. Section 4.0 assesses the likely effect of the proposed development on known and quantified designated heritage assets in the local area. In this instance the impact is almost always indirect i.e. the proposed development impinges on the *setting* of the heritage asset in question and does not have a direct physical effect.

3.0 DIRECT IMPACTS

3.1 STRUCTURE OF ASSESSMENT

For the purposes of this assessment, the *direct effect* of a development is taken to be its direct physical effect on the buried archaeological resource. In most instances the effect will be limited to the site itself. However, unlike designated heritage assets (see Section 4.0) the archaeological potential of a site, and the significance of that archaeology, must be quantified by means of a staged programme of archaeological investigation. Sections 3.2-3.5 examine the documentary, cartographic and archaeological background to the site; Section 3.6 details the results of a geophysical survey; Section 3.7 summarises this information in order to determine the significance of the archaeology, the potential for harm, and outlines mitigation strategies as appropriate. Appendix 3 details the methodology employed to make this judgement.

3.2 DOCUMENTARY HISTORY

The site is located on agricultural land just to the west of the A4260, c.140m north-north-east of Duns Tew village in the parish of Duns Tew. It is located on the northern edge parish. Duns Tew (historically known as *Donestiua, Dunnestywa*) is an ancient ecclesiastical parish (VCH 1983). The OE place-name can be translated as *Dunn's meeting place/court* or *Dunn's row/lengthy place* (Watts 2010). In 1086 the parish contained four separate estates, of 7 hides, 3½ hides, 3½ hides and 3 hides, held by four separate lords and three tenants. By analogy, this subdivision is likely to have taken place in or around the 10th century AD. Each estate held meadow land (total 88 acres). The descent of the four estates is complex, with further subdivision occurring during the later medieval period. An inclosure act was passed in 1794 under which the bulk of the parish was enclosed. Prior to this there were two separate Open Fields, to the east (Down End Field) and west (West End) of the village, which were divided into a northern and a southern part, each functioning as a separate two-field system. The village was also divided between them. Down End Common to the north was previously known as Dunham Marsh; the common as recorded in 1794 is likely to have been larger, with records of enclosure in the 16th century and the creation of a farmstead later known as Hill Farm (structural evidence dating to 1688-1720). It is likely that prior to enclosure the fields in question formed part of a larger Down End Common. After 1814 Hill Farm formed part of the Dashwood Estate. The farm was sold in 1936 to Exeter College Oxford; Exeter College sold the farm in 1954 (ECO Archives, email dated 02.10.19). (Crossley 1983).

3.3 CARTOGRAPHIC DEVELOPMENT

The late 18th century Davis county map (Figure 2) shows the parish of Duns Tew as largely open with a small cluster of enclosed fields to the north-east corner with a *Farm*. The 1761 Rocque map was not available for reproduction at the Oxford Heritage centre. The earliest detailed cartographic sources available to this study are the 1790s enclosure maps of Duns Tew (Figure 3) and Deddington (Figure 4). The name *Thos. Preedy* is written across the fields in pencil, and as the land was already enclosed it does not appear in the accompanying schedule. The bulk of the parish (1155a of the 1500a enclosed) was allocated to Sir Henry Dashwood. However, Joseph and John *Preedy* were allocated 35a and 30a respectively, and presumably Thos. Preedy was a close relative. Following the death of John Preedy in 1814 the land was sold to Sir Henry Dashwood, and by 1825 he owned *c.*85% of the parish. The Deddington inclosure map of 1808 shows the land to the north of the site and across the stream. The former Open Field was subdivided into numerous straight-sided closes running down to the stream (the *South Brook*). The exception is plots 98 and 99 (coloured yellow); these were old enclosures and are listed in the Schedule as *First* and *Second Fisher* (collectively *The Fishers*) and were allocated to the Rev. Robert Marriott (note the HER lists a fishpond near Deddington Castle as *The Fishers*). The OS surveyor's draft map (Figure 5) is insufficiently detailed to provide further information.

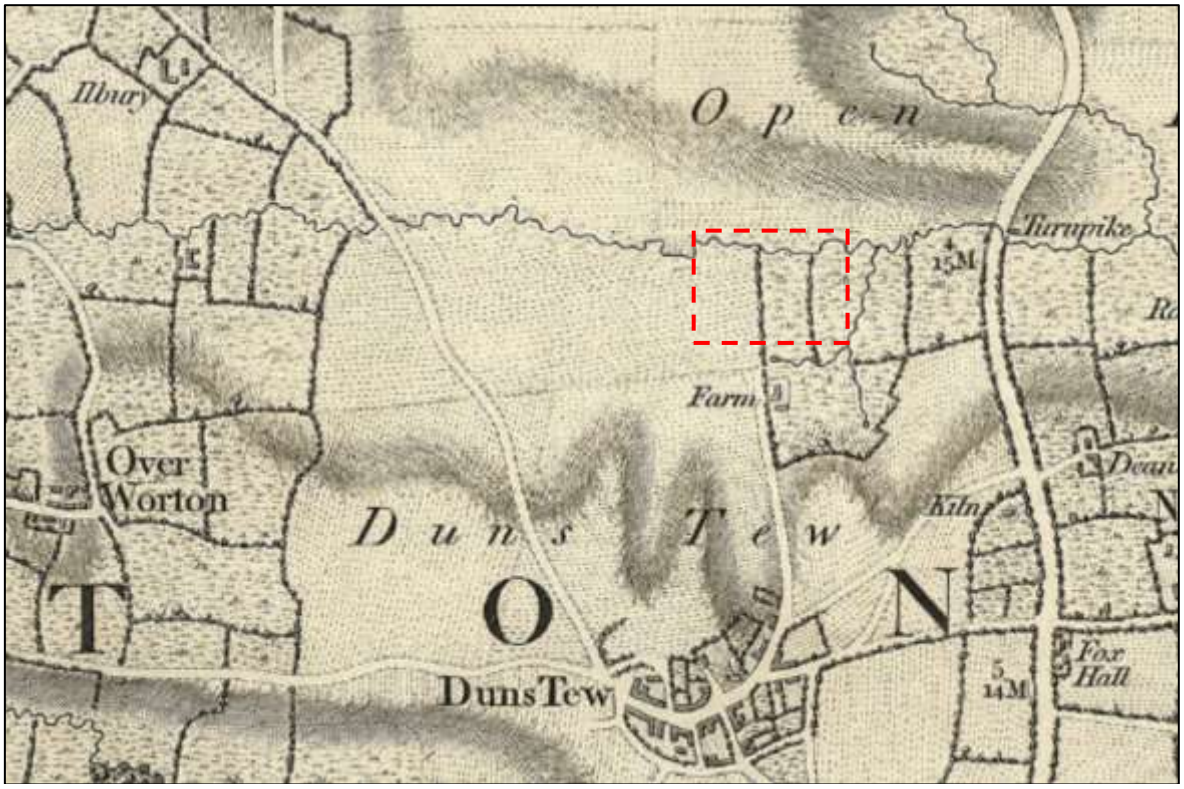

FIGURE 2: EXTRACT FROM THE 1793×94 DAVIS MAP OF THE COUNTY (© OHC); THE APPROXIMATE LOCATION OF THE SITE IS INDICATED.

FIGURE 3: EXTRACT FROM THE 1794 DUNS TEW INCLOSURE MAP; THE APPROXIMATE LOCATION OF THE PROPOSED SITE IS INDICATED (OHC PAR92/16).

FIGURE 4: EXTRACT FROM THE 1808 DEDDINGTON ENCLOSURE MAP; THE SITE IS LOCATED TO THE SOUTH OF THIS MAP (OHC PAR86/16/M/1).

FIGURE 5: EXTRACT FROM THE 1816 OS SURVEYOR'S DRAFT MAP (BL); THE APPROXIMATE LOCATION OF THE SITE IS INDICATED.

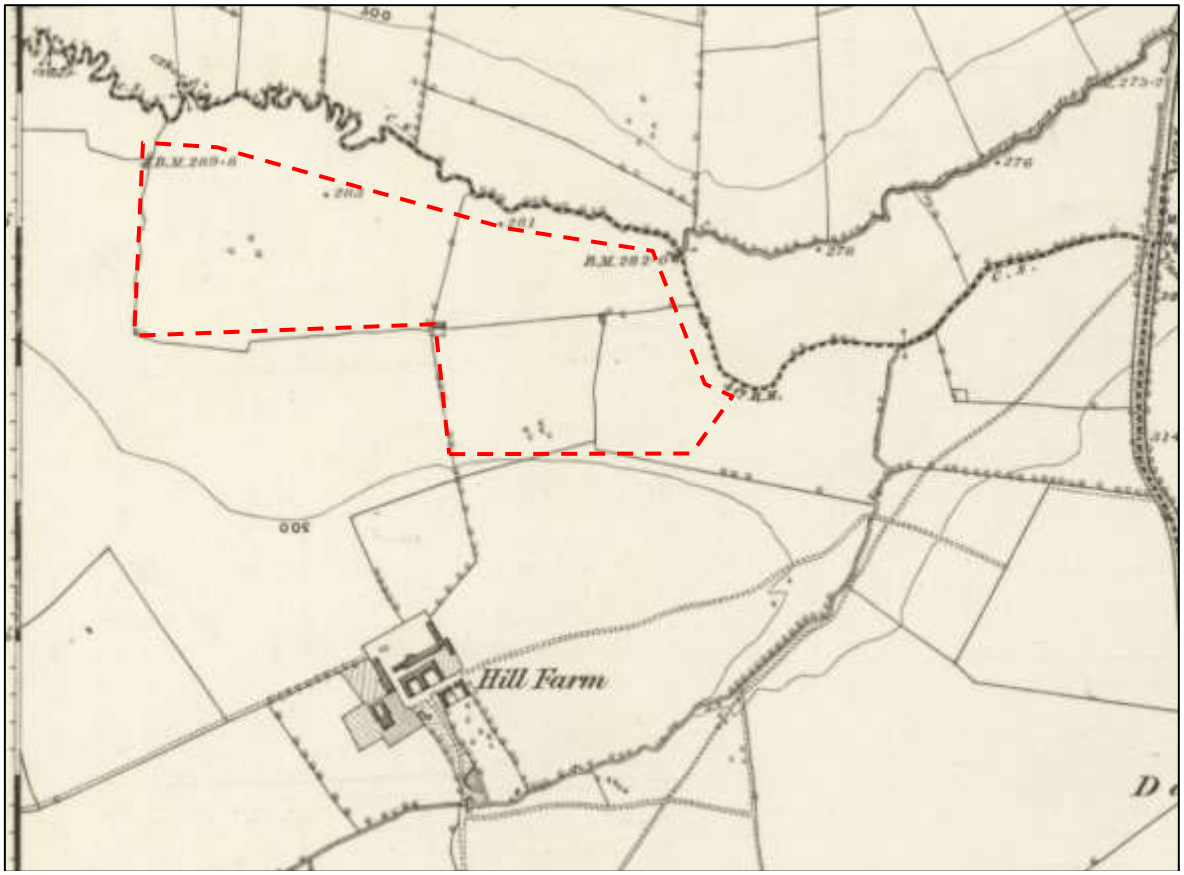

FIGURE 6: EXTRACT FROM THE 1ST EDITION OS 6" MAP (OXFORDSHIRE SHEET XVI, SURVEYED 1875-1880, PUBLISHED 1885); THE SITE IS INDICATED.

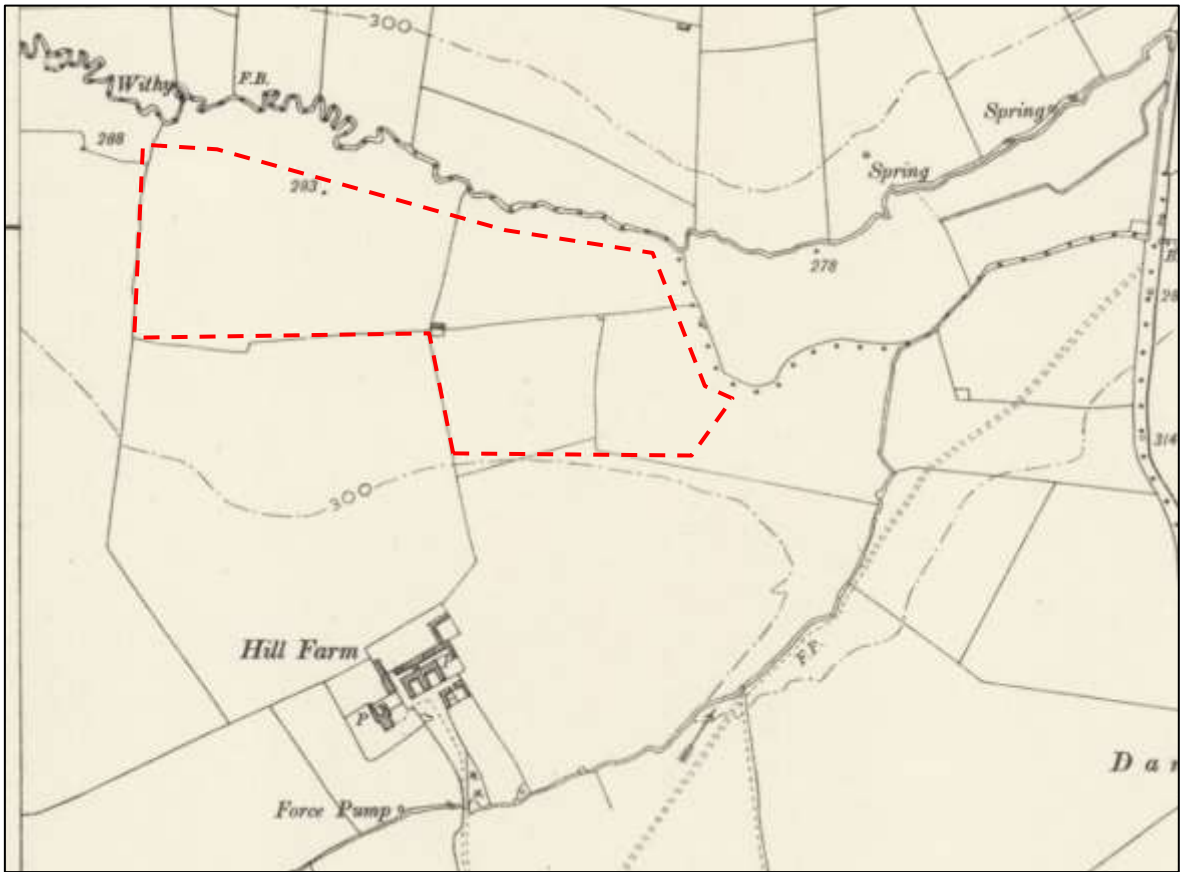

FIGURE 7: EXTRACT FROM THE 2ND EDITION OS 6" MAP (OXFORDSHIRE SHEET XVI, SURVEYED 1898, PUBLISHED 1900); THE SITE IS INDICATED.

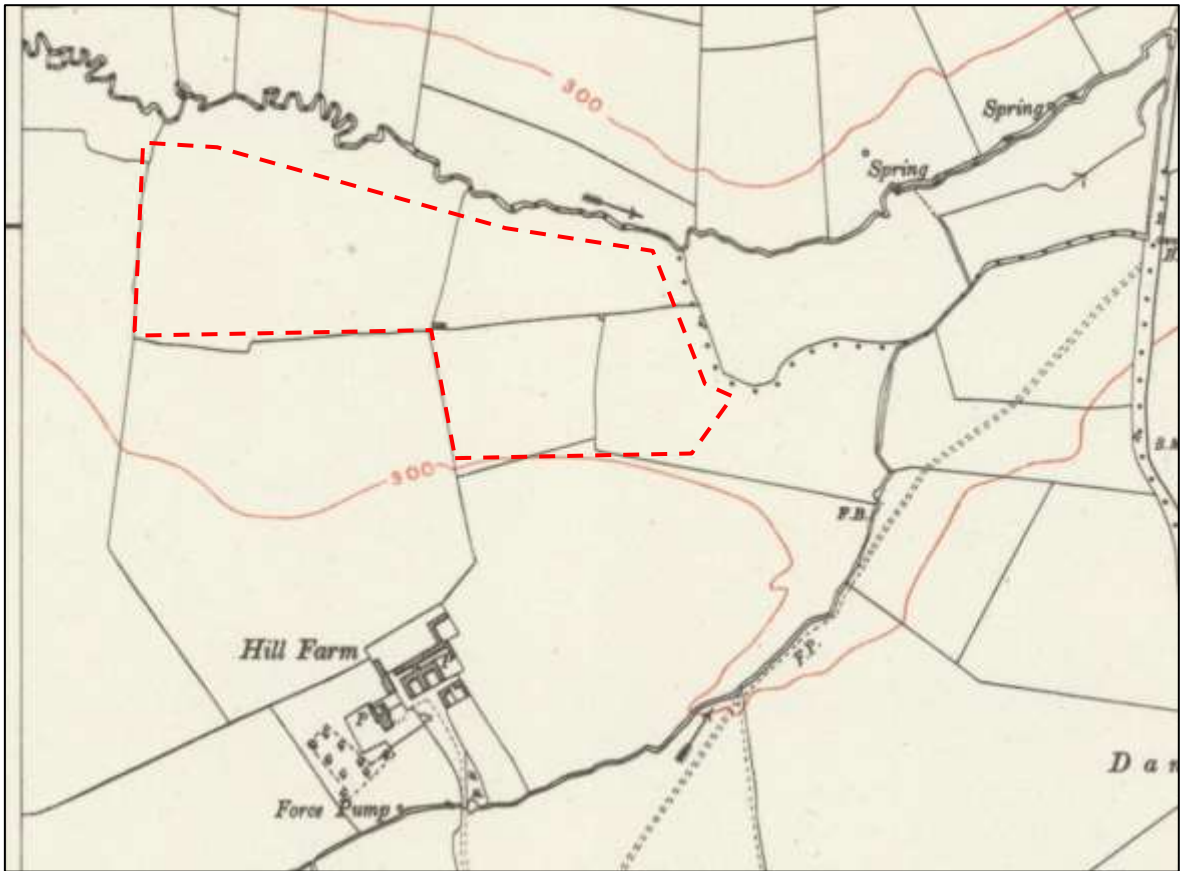

FIGURE 8: EXTRACT FROM A LATER OS 6" MAP (NORTHAMPTONSHIRE SHEET LXVI, SURVEYED 1919-20, PUBLISHED 1923); THE SITE IS INDICATED.

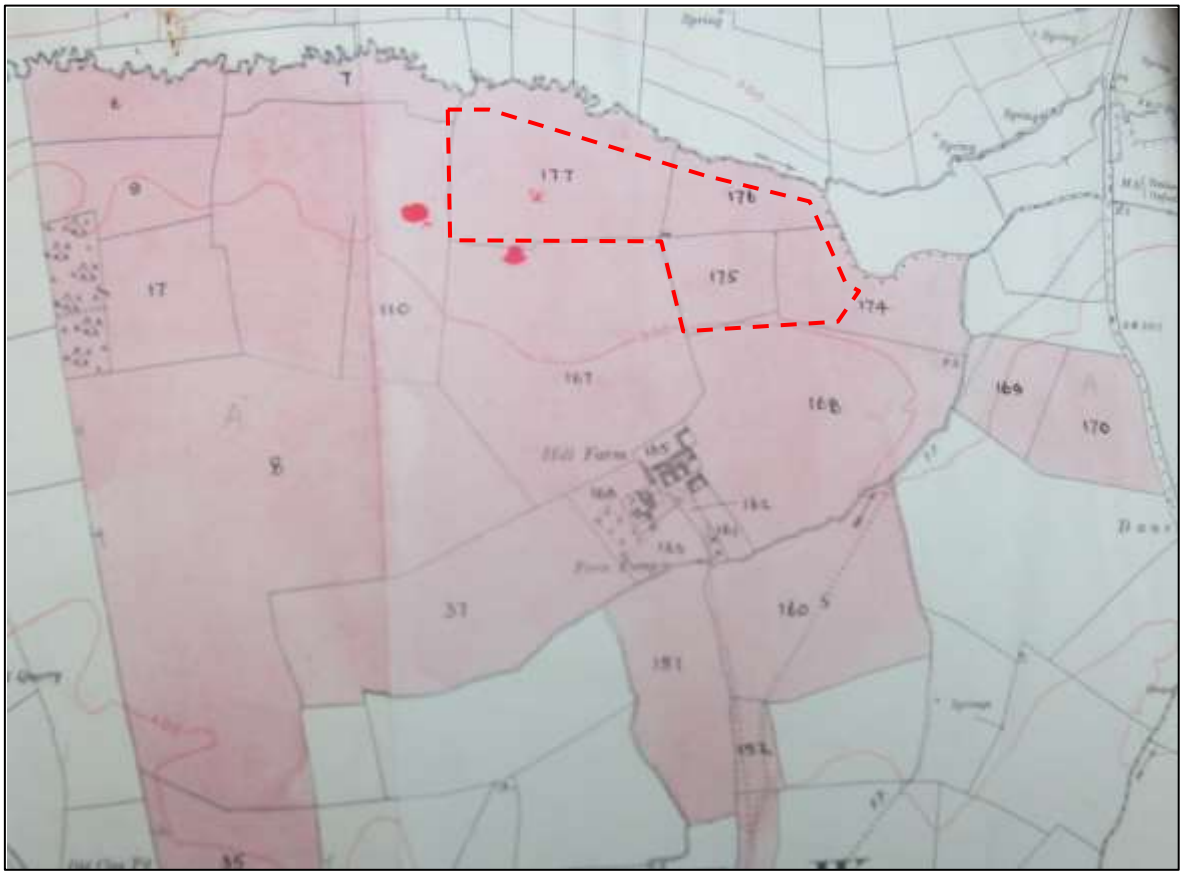

FIGURE 9: EXTRACT FROM THE MAP ACCOMPANYING THE 1936 SALE DOCUMENTS (ECO ARCHIVE); THE SITE IS INDICATED.

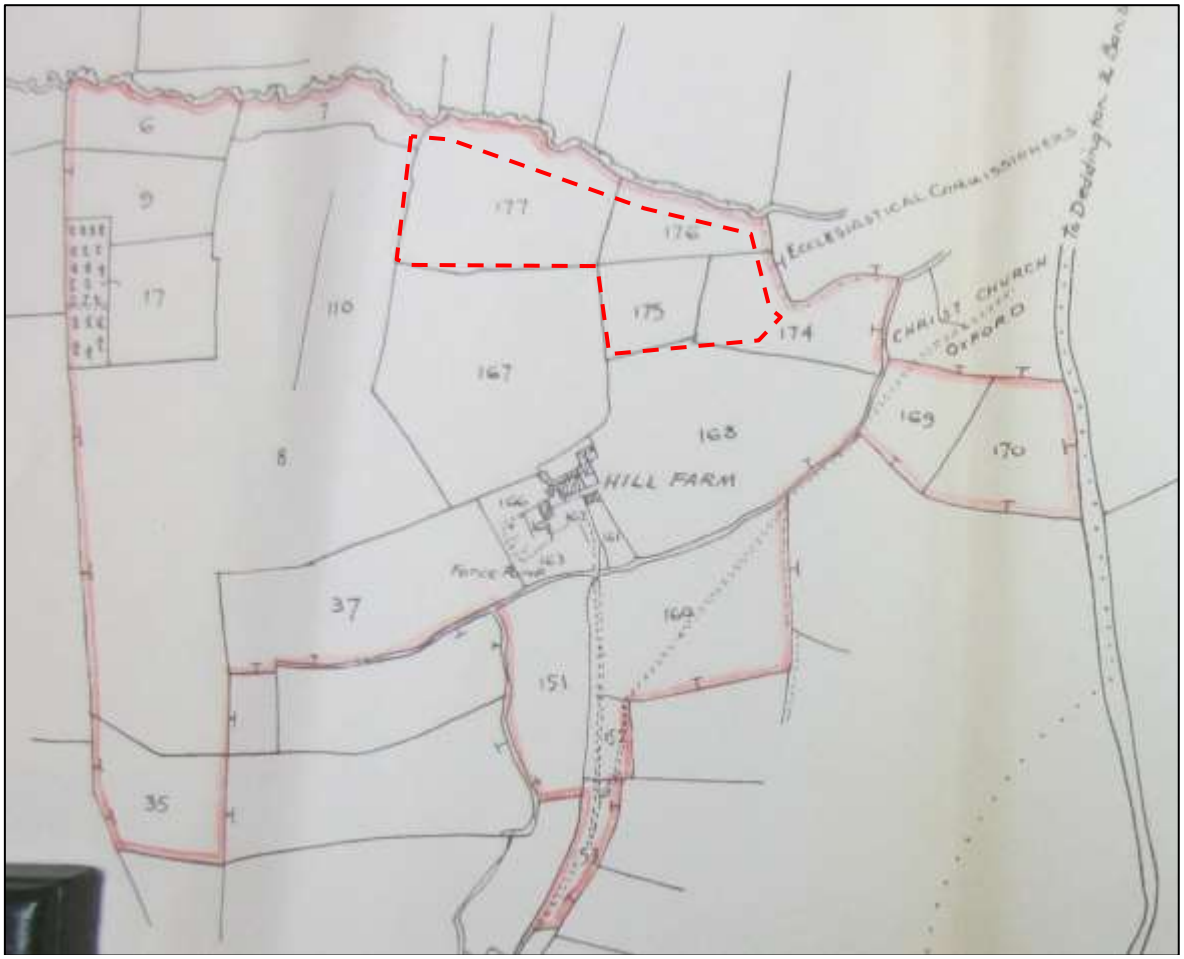

FIGURE 10: EXTRACT FROM THE MAP ACCOMPANYING THE 1954 SALE CATALOGUE (ECO ARCHIVE); THE SITE IS INDICATED.

The subsequent OS maps (Figures 6-8) are more detailed but depict a landscape largely devoid of interest: large regular fields defined by straight field boundaries which provide no additional information.

Exeter College Oxford owned the farm from 1936 to 1954 (Figures 9-10), during which time the tenants were Frederick and later Francis Goffe (in 1933 and 1937) (note William Goffe is listed as the tenant in the *Valuation* of 1910). Thereafter Winifred and Kenneth Armstrong (1954). The 1954 sale catalogue (OHC B28/1/D1/28/3) indicates it was a dairy and stock farm, with only one of the fields (10a) listed as arable. The catalogue describes the farm buildings in detail but unfortunately does not record the field names. It does, however, state: *in addition there is a 4-bay HOVEL in one of the outlying fields*. This is presumably a field barn, but the use of the term *hovel* might imply a former domestic use. The c.370a farm was sold freehold at public auction.

3.4 ARCHAEOLOGICAL BACKGROUND

Fieldwork in this corner of Oxfordshire is relatively sparse, but the PV site adjacent was preceded by desk-based work, a geophysical survey and evaluation trenching; a WSI for archaeological monitoring was produced but impact was mitigated through design and no further work took place (CgMs 2015; Stratascan 2016; MOLA 2016). The site is bisected by a major water pumping main that was installed after 2014; the planning permission for this development included a desk-based assessment (not available) and a WSI was recommended in the environmental statement that was submitted for the screening opinion, but it does not appear that archaeological work took place and it does not feature as an *event record* in the Oxfordshire HER (planning no.14/00103/SO). The HER holds records for other fieldwork in this area, but these are limited to

the immediate environs of the settlements of Duns Tew and Deddington and the Deddington Transfer Main to the east. Excavations took place at a probable villa site to the east, and limited fieldwalking across a DMV below Ilbury Hillfort.

The Oxfordshire Historic Environment Record (data: Oxfordshire HER) characterises the fields here as *Prairie/Amalgamated Enclosures* with *Planned Enclosures* north of the stream, with both subtypes arising from Open Field enclosure in the 19th century (see Figure 11). This is correct for the parish of Deddington (enclosed 1808), less so for Duns Tew: here some of the fields were anciently enclosed (before c.1700) or formed part of Down End Common/Dunham Marsh, that enclosed in the 1790s. A revised HLC that also takes account of the origins of the current fieldscape is presented in Figure 12.

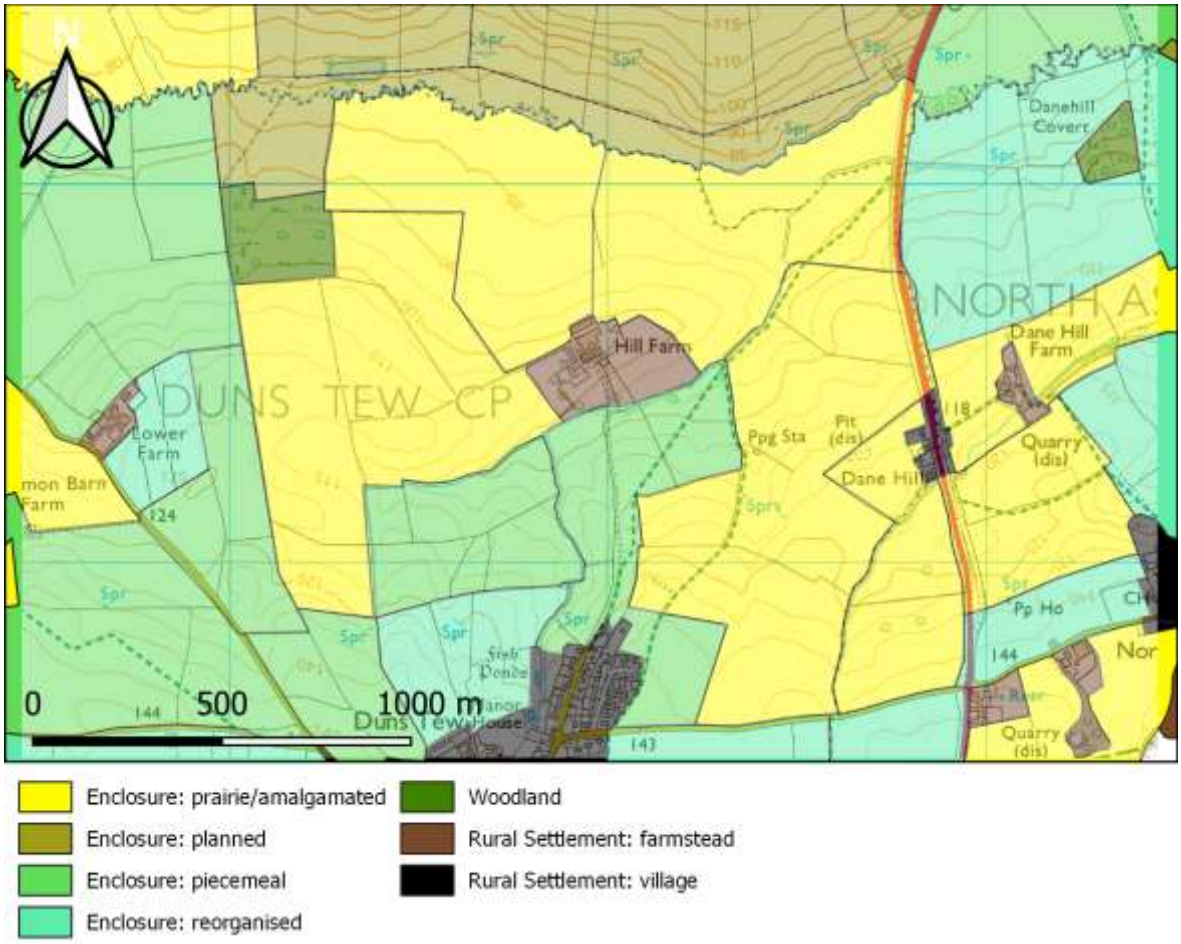

FIGURE 11: THE OXFORDSHIRE HISTORIC LANDSCAPE CHARACTERISATION (SOURCE: OXFORDSHIRE HER).

The research framework for Oxfordshire (the *Thames-Solent Research Framework*, Hey & Hind 2014) covers a very large and disparate area, to which Oxfordshire – and the Cherwell district in particular – is peripheral. However, the research questions outlined in that document are clearly applicable to an area where fieldwork has been limited but potential is demonstrable.

3.4.1 PREHISTORIC 4000BC - AD43

It is clear by analogy that this would have been a landscape cleared and settled from at least the Middle Bronze Age. There are isolated findspots in the vicinity: a Neolithic flint scraper from just to the north of the site (MOX3777), Neolithic stone axes from 1.5km to the west (MOX3732) and 1.1km to the south-east (MOX23620), a Bronze Age whetstone from 1.5km to the south-east (MOX23619) and a poorly-located Bronze Age socketed axe from Danes Hill (Mox23803). An early

1st century AD gold quarter stater of the Catuvellauni/Trinovantes has been reported to the PAS from a field c.500m to the east of the site (PUBLIC-3C79CE).

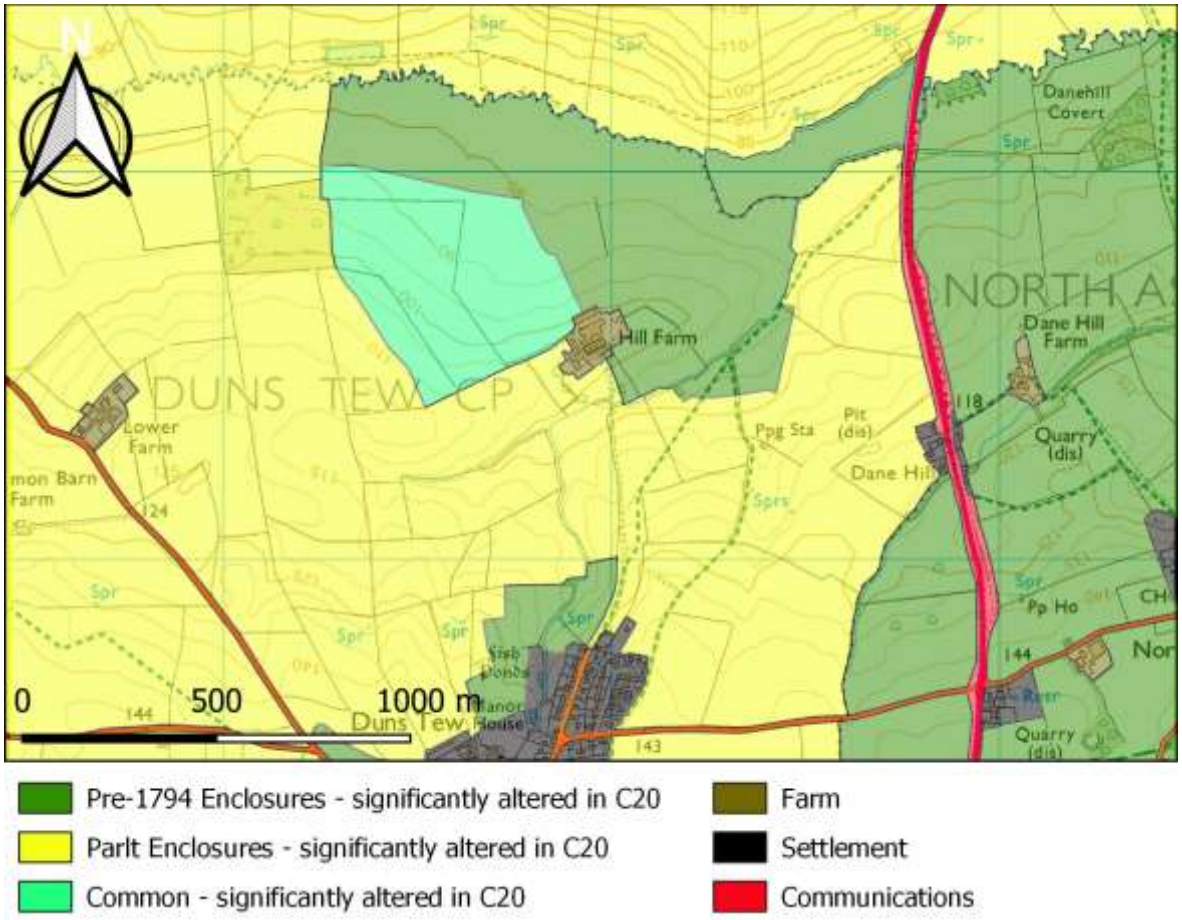

FIGURE 12: REVISED HLC BASED ON RETROGRESSIVE MAP ANALYSIS.

There is a univallate hillfort c.2km to the west at Ilbury (SAM 1015167) and the gradiometer survey that preceded the adjacent PV site identified two concentrations of geophysical anomalies (MOX27100) that were confirmed to be the remains of a two Middle to Late Iron Age settlements strung out along a single linear/ditch. This 'clothes-line' settlement was evaluated and the gullies of several roundhouse excavated. 105 sherds (412g) of Iron Age pottery was recovered, along with 58 fragments of abraded animal bone mainly from cattle and sheep and a small assemblage of burnt clay (16 fragments weighing 90g). A sub-rectangular cropmark (MOX26740) identified 1.2km to the west may form part of this clothes-line settlement.

3.4.2 ROMANO-BRITISH AD43 – AD409

The Romano-British period is represented by a findspot of poorly located pottery from Danes Hill (MOX3783), a carved stone slab with 'stones and pottery' from close to Ilbury hillfort (MOX3677), and a probable villa complex located 0.7km to 1.2km to the east (MOX3775; MOX3755), perhaps associated with an undated cremation burial (MOX3782). The villa was investigated by the Banbury Historical Society in 1969-70 following the discovery of tesserae, and excavation revealed part of a curving wall from a circular building 25' in diameter, other areas of stone rubble and a mosaic pavement. These excavations are noted in the regional CBA newsletter and the newsletter of the Banbury History Society but do not appear to have culminated in any form of publication.

3.4.3 MEDIEVAL AD410 – AD1540

The tenurial and ecclesiastical framework of the modern landscape was established during the early medieval period, with a high probability settlement nucleation and the establishment of

Open Fields took place in or around the long eighth century. The only evidence relating to this period is a Late Saxon brooch (MOX3619) found on the southern side of the village of Duns Tew. The post-Conquest history of that parish is relatively well understood, with numerous HER entries relating to the village and its church and manor. Despite the modern arable bias of this landscape, there are several instances of preserved medieval earthworks (e.g. MOX3653 south of Hill Farm), and the cropmarks of ploughed-out ridge and furrow are relatively common. Below Ilbury hillfort there are the remains of a DMV (MOX3692) and possible moated site (MOX24621).

3.4.4 POST-MEDIEVAL AND MODERN AD1540 - PRESENT

The traditional narrative for the late and early post-medieval period is one of decline, and there is a DMV below Ilbury hillfort, a possible DMV site south of Hill Farm, and earthworks at Duns Tew (MOX23129) and Deddington (MOX3763) indicating these settlements shrank or shifted. The HER contains a few entries relating to functional aspects of the 19th century landscape (e.g. brickworks MOX3744; lime kiln MOX3606). Hill Farm itself appears to be associated with the relatively early enclosure of part of the Open Fields attached to Duns Tew (17th century or earlier), and while the farm buildings may only be early 18th century in date, the 1794 enclosure map would hint they include part of a former domestic range. Down End Common and the rest of the Open Field was enclosued in the late 18th century, and they have remained under agricultural use thereafter. A PV array was constructed in the field immediately to the west of the site, and a major pumping main constructed bisecting the site, in the later 2010s.

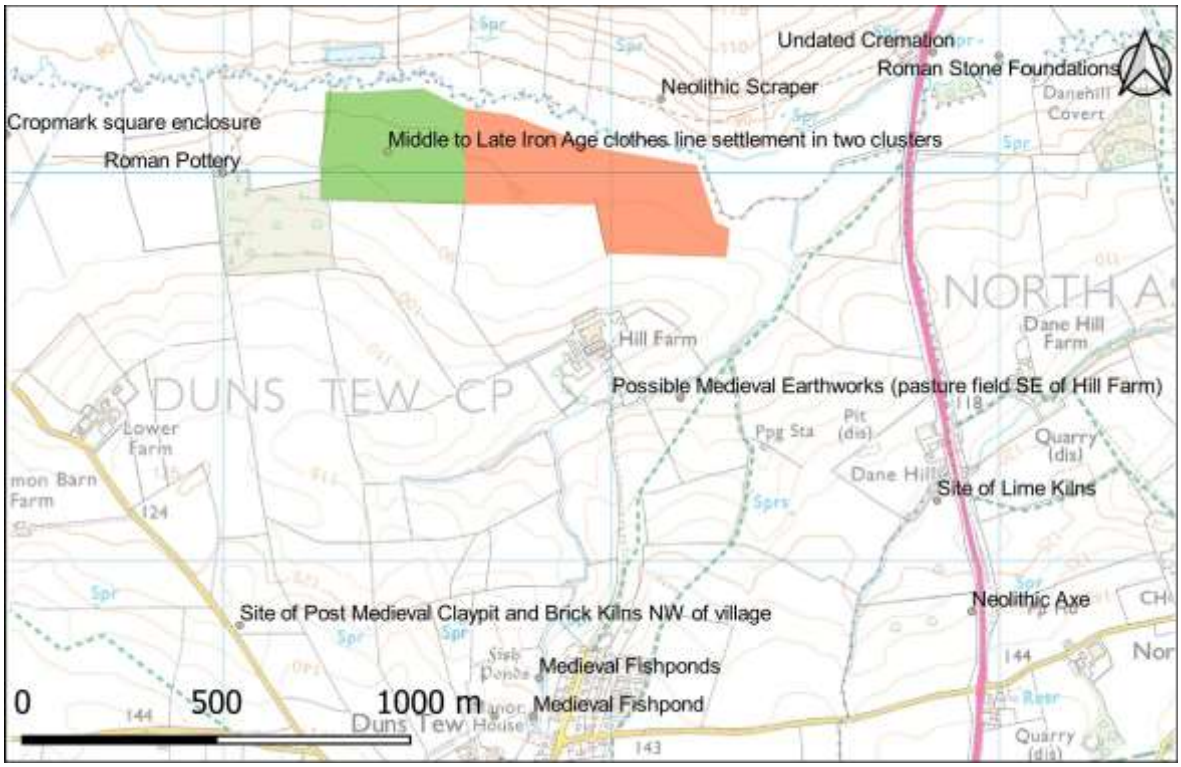

FIGURE 13: NEARBY HERITAGE ASSETS (EXCLUDES THE LISTED BARNS AT HILL FARM AND DANES HILL, AND THE LISTED STRUCTURES IN THE VILLAGE OF DUNS TEW). THE SITE IS INDICATED IN RED; THE EXTENT OF THE ADJACENT GEOPHYSICAL SURVEY IN GREEN.

TABLE 1: TABLE OF NEARBY DESIGNATED AND UNDESIGNATED HERITAGE ASSETS (SOURCE: OXFORDSHIRE HER AND OTHERS).

Mon ID.	Name	Record	Details
MOX3777	Neolithic Scraper	Findspot	Found 17/12/83 in seeded soil by Robert Wynne; no other flint material evident in proximity
MOX23620	Neolithic axe	Findspot	Axe found in field N of North Aston. Very symmetrical; non-local material and form. Retained by finder.
MOX23803	Bronze Age socketed axe	Findspot	Found at Danes Hill. Little information; poorly location to 1km grid square.
MOX27100	M-LIA clothes-line settlement	Geophysical survey; evaluation	Site comprises a clothes-line settlement, with two domestic enclosures, one lying largely outside the development area, linked

Mon ID.	Name	Record	Details
			by a linear ditch with several roundhouse ring ditches and small sub-enclosures lying along the southern side of the linear ditch.
MOX26740	Square enclosure	Cropmark	Cropmark square enclosure. Visible on NMP overlay.
MOX3782	Undated Cremation	Monitoring	Unaccompanied cremation in Area A probably relates to Roman settlement further east.
MOX3783	Roman Pottery	Findspot	A flask of pale-coloured pottery with slender neck, decorated with impressed bands, said to have been excavated at Deddington and donated to Pitt-Rivers Museum in 1927. Poorly location to 1km grid square.
MOX3775	Roman Stone Foundations	Excavation	Continued examination in August/September 1970 revealed 3 stone courses of foundations of circular building c.25' diameter on Deddington Roman site, only 90 degrees of arc remains. Other areas of stone rubble within 50 yards
MOX3653	Possible medieval earthworks SE Hill Farm	Monument	Earthworks including holloway, 3 embanked platforms, possible mill site with boundary mounds (nb. Picture Oxon image database contains a picture that purports to be the wheelpit with wheel *in situ* (POX0570497)).
MOX3607-08	Medieval fishponds	Monument	Marked on OS map, printed as an antiquity probably medieval with pond to south marked as earthworks; 3 fishponds shown.
MOX1245	Site of post-medieval clay pit and brick kilns	Documentary	1871 Census: 'Blue Barn Farm, Lower Farm, the brick kiln and Cottages in the Fields' - only known reference from 1871 Census. 'Brickyard Field' recorded in 1948.
MOX3606	Site of lime kilns	Cartographic	Shown on 1st edition 25" OS map.
Events			
EOX6245-46	Hill Farm PV array; Geophysical survey, Evaluation	A detailed gradiometry survey was conducted over approximately 11ha of grassland in advance of a solar farm development. The survey identified a number of previously unrecorded archaeological anomalies. MOLA Northampton was commissioned to carry out an evaluation on land at Hills Farm, excavating five trenches (all 50m long and 2m wide) over a c 10.50 ha area. Generally, the trenches confirmed the geophysical results. The settlement has been dated to the Middle-Late Iron Age.	
EOX71	Deddington Transfer Main; Monitoring	Variable combinations of activity types done in each of 4 sections. Limited archaeological features and finds.	

3.5 AERIAL PHOTOGRAPHY AND LIDAR

Environment Agency LiDAR coverage does not extend along the valley as far as the proposed site, but the area is well-served by aerial photographs. It is not, however, well served by the National Mapping Programme (NMP). Coverage for Oxfordshire is limited, the Northamptonshire NMP stops at the county boundary and the South East Warwickshire and Cotswolds NMP only extends to within 300m of the site. Therefore recent commercial aerial photographs and the collections of the University of Cambridgeshire, Historic England and the Oxfordshire Heritage Centre (*Picture Oxon*) were consulted and a composite image based on these sources is presented below (Figure 19).

These sources clearly show the crop- and soilmarks of the ridge and furrow that formerly existed here, and which survive as upstanding earthworks to the south-east of the farm buildings. Otherwise, the anomalies identified by the two geophysical surveys undertaken (Stratascan 2016; this report, below) do not appear or else are swamped by the ridge and furrow. The exception is the main east-west linear (Field A only) and what are likely to represent palaeochannels (also Field A). The features identified in the fields to the east (*The Fishers*) are likely to relate to surface land drainage or – possibly – simple water management.

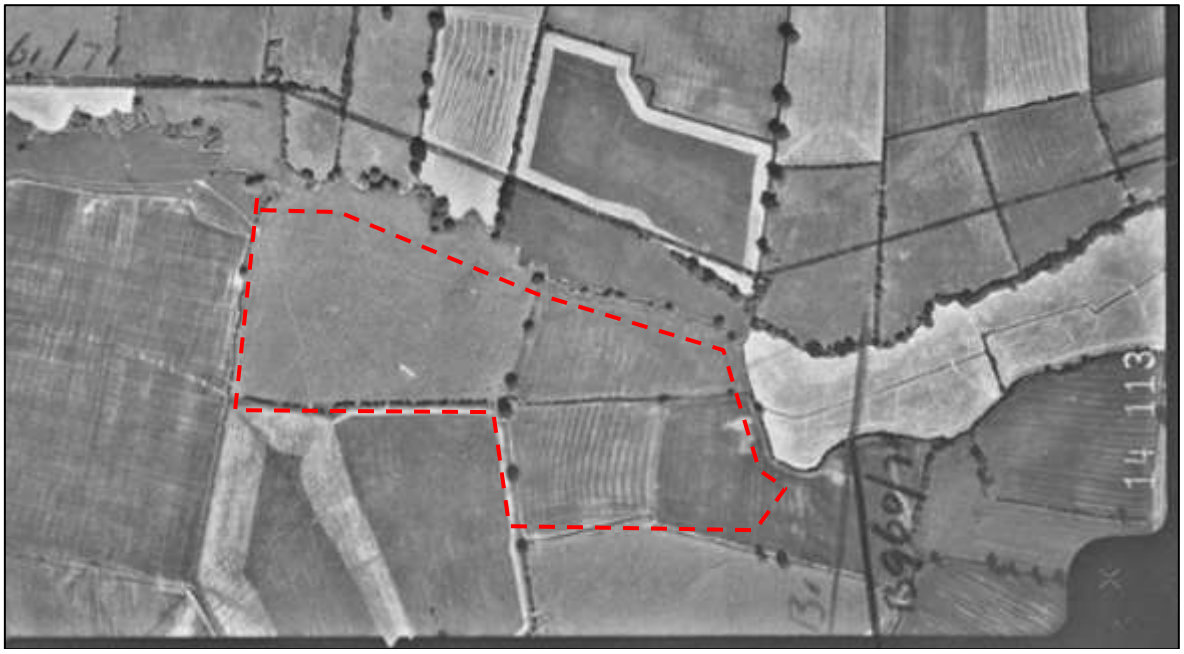

FIGURE 14: EXTRACT FROM THE FAIREY SURVEY OF OXFORDSHIRE, SORTIE 31, FRAME 35, JUNE 1961 (OHC POX0451823); THE SITE IS INDICATED.

FIGURE 15: 1971 AERIAL PHOTOGRAPH OF THE SITE SUPPLIED BY HISTORIC ENGLAND (OS_71066_V_285) SHOWING THE SOIL MARKS OF RIDGE AND FURROW CULTIVATION (THE SITE IS INDICATED).

FIGURE 16: 2004 AERIAL PHOTOGRAPH OF THE SITE (© 2019 INFOTERRA LTD. & BLUESKY).

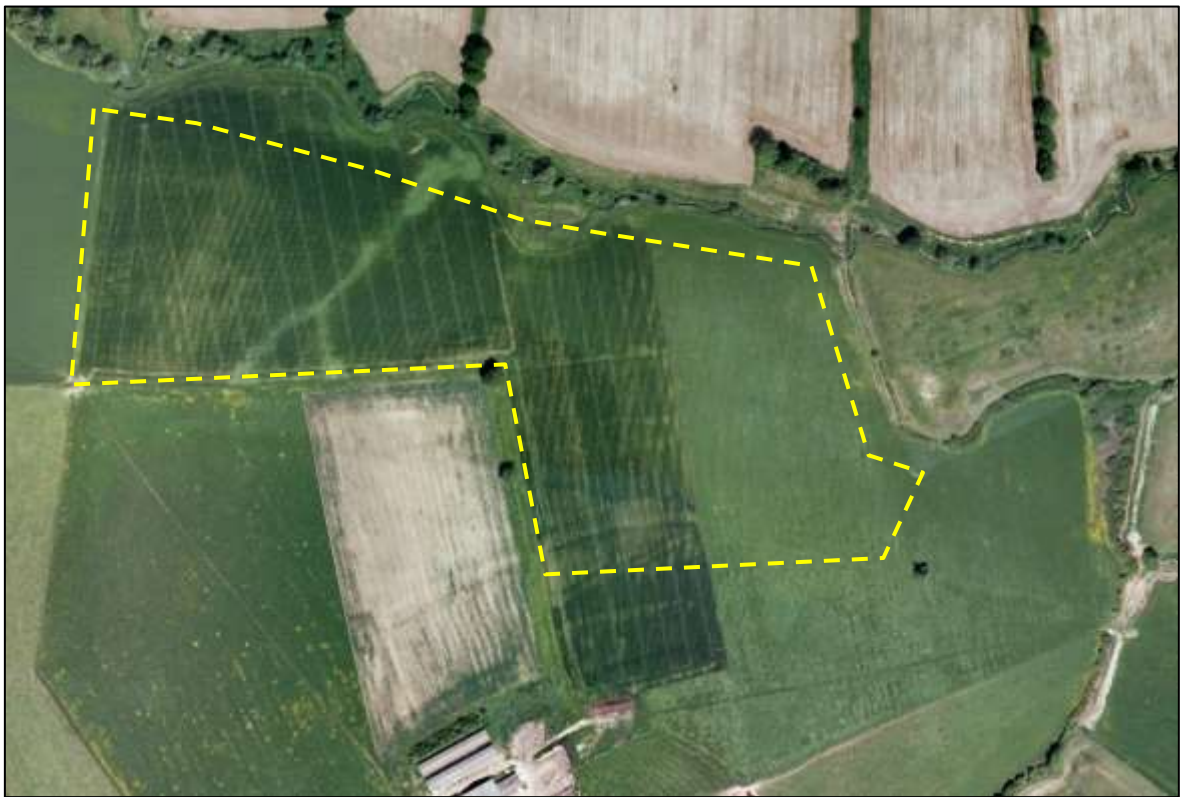

FIGURE 17: 2009 AERIAL PHOTOGRAPH OF THE SITE (© 2019 INFOTERRA LTD. & BLUESKY).

FIGURE 18: C.2015×16 AERIAL PHOTOGRAPH SHOWING THE ROUTE OF THE EASEMENT FOR A PUMPING MAIN BETWEEN TACKLEY AND MILTON (© BGS VIEWER 2019).

FIGURE 19: CROP- AND SOILMARK TRANSCRIPTION BASED ON AVAILABLE AERIAL PHOTOGRAPHS. ALMOST ALL THE CROPMARKS RELATE TO RIDGE AND FURROW CULTIVATION (BASEMAP SUPPLIED BY THE AGENT).

3.6 GEOPHYSICAL SURVEY

3.6.1 INTRODUCTION

An area of *c.*15ha 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 the 27th to the 30th of August 2019 by P. Bonvoisin and J. Bampton; the survey data was processed by P. Bonvoisin.

3.6.2 METHODOLOGY

The gradiometer survey follows the general guidance as outlined in: *EAC Guidelines for the Use of Geophysics in Archaeology* (EAC 2016) and *Standard and Guidance for Archaeological Geophysical Survey* (CIfA 2014b), and in accordance with a project design (SWARCH 2019b).

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. The data was downloaded onto *Grad601 Version 3.16* and processed using *TerraSurveyor Version 3.0.25.0*. 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 +/- 3SD; DeStripe all traverses, median. DeStagger of particular grids.
Details: 14.813ha surveyed; Max. 150.73nT, Min. -198.97nT; Standard Deviation 15.94nT, mean -0.88nT, median 0.00nT.

FIGURE 20: VIEW ACROSS FIELD A; VIEWED FROM THE SOUTH-WEST.

3.6.3 **SITE INSPECTION**

The site comprises parts of two large open fields (Fields A and B). There was no formal boundary between them, but the fields had been under different crops. These had been harvested prior to the survey, with the site under stubble at the time of the survey. The stream running roughly east-to-west through the valley formed the northern boundary of both fields. Field A lay to the west; an existing PV array formed the western boundary of Field A. The southern border of Field A lay open to unharvested fields. Field B lay to the east. The southern part of the western boundary of Field B comprised a hedgebank with occasional trees; a mature oak tree was present at the northern terminus of this boundary. The eastern and southern sides of Field B were open to the larger field. Manhole covers and access to a water main were visible towards the north-west and north-east corners of Field A; the location of the utility can clearly be seen in the geophysical survey results. No clear earthworks were visible, and no finds were recovered. A full complement of site photographs can be found in Appendix 2.

FIGURE 21: THE ACCESS TO THE PUMPING MAIN THAT RUNS ACROSS THE SITE (NORTH-EAST CORNER OF FIELD A); VIEWED FROM THE EAST.

FIGURE 22: VIEW ACROSS FIELD B; VIEWED FROM THE NORTH-WEST.

3.6.4 **RESULTS**

Table 2, with the accompanying Figures 20 to 25, show the analyses and interpretation of the geophysical survey data. Additional graphic images of the survey data and numbered grid locations can be found in Appendix 1.

TABLE 2: INTERPRETATION OF GRADIOMETER SURVEY DATA.

Anomaly Group	Class and Certainty	Form	Archaeological Characterisation	Comments
1	Weak positive, probable	Linear	Ditch	Indicative of a ditch or cut feature, possibly related to anomaly group 3. Responses of *c.*+0.6nT to +1.3nT.
2	Moderate positive, probable	Fragmented linear	Ditch	Indicative of a ditch or cut feature, related to anomaly group 7 and 16. Responses of *c.*+2nT to +5.9nT.
3	Weak positive, probable	Linear	Ditch	Indicative of a ditch or cut feature, possibly related to anomaly group 1. Responses of *c.*+0.8nT to +2.1nT.
4	Moderate positive, probable	Amorphous area	Cut feature	Indicative of a cut feature, such as a pit. Responses of *c.*+2nT to +8nT.
5	Moderate to strong positive, probable	Fragmented curving linear	Possible structure	Indicative of a structure or small enclosure, likely related to anomaly group 7. Responses of *c.*+3nT to +14nT.
6	Moderate to strong positive, probable	Curving linear	Possible structure	Indicative of a structure or similar feature, rectangular form indicates structure, likely related to anomaly group 7. Responses of *c.*+1.4nT to +21.7nT.
7	Moderate positive, probable	Fragmented linear	Ditch	Indicative of a ditch or similar feature, related to anomaly group 2 and 16. Responses of *c.*+0.6nT to +5.5nT.
8	Moderate positive, probable	Linear	Ditch or cut feature	Indicative of a ditch or cut feature. Responses of *c.*+1.5nT to +4.5nT.
9	Moderate positive, probable	Linear	Ditch	Indicative of a ditch or similar feature, likely related to anomaly groups 7, 10 and 11. Responses of *c.*+0.5nT to +6nT.
10	Moderate to strong positive, probable	Fragmented linear	Ditch	Indicative of a ditch or similar cut feature, may be related to anomaly group 7, 9 and 11. Responses of *c.*+1.1nT to +12.6nT.
11	Moderate positive, probable	Fragmented parallel linear	Ditch or cut feature	Indicative of a ditch or cut feature, may be related to anomaly group 13. Responses of *c.*+0.5nT to +4.5nT.
12	Moderate positive, probable	Linear	Ditch or cut feature	Indicative of a ditch or cut feature, related to anomaly group 21. Responses of *c.*+0.8nT to +4.6nT.
13	Moderate positive, probable	Linear	Ditch or cut feature	Indicative of a ditch or cut feature, may be related to anomaly group 11. Responses of *c.*+1.1nT to +10.1nT.
14	Weak positive, probable	Fragmented linear	Ditch or cut feature	Indicative of a ditch or cut feature. Responses of *c.*+0.4nT to +1.3nT.
15	Strong positive, probable	Linear	Ditch	Indicative of a ditch or cut feature. Responses of *c.*+2.7nT to +40.4nT.
16	Moderate positive, probable	Fragmented linear	Ditch, possible field system	Indicative of a ditch or cut feature, representative of a previous field system, likely related to anomaly groups 2 and 7. Responses of *c.*+0.7nT to +6.9nT.
17	Weak to moderate positive, probable	Fragmented bent linear	Possible structure	Indicative of a ditch or cut feature of rectangular form, likely representative of a structure, and likely related to anomaly groups 18 and 16. Responses of *c.*+1nT to +4.8nT.
18	Weak positive, probable	Bent parallel linear	Ditch	Indicative of a ditch or cut feature, likely related to anomaly groups 16 and 17. Responses of *c.*+1nT to +3.5nT.
19	Weak positive, possible	Linear	Cut feature	Indicative of a ditch or cut feature. Responses of *c.*+0.4nT to +0.8nT.
20	Weak positive, possible	Wide linear	Ditch or cut feature	Indicative of a ditch or cut feature, weak response and unclear form. Responses of *c.*+0.4nT to +1.4nT.
21	Weak positive, possible	Linear	Ditch or cut feature	Indicative of a ditch or cut feature, may be related to anomaly group 12. Responses of *c.*+0.5nT to +2.3nT.
22	Moderate positive, possible	Amorphous area	Cut feature	Indicative of a cut feature. Responses of *c.*+2.5nT to +4.8nT.
23	Moderate positive, probable	Linear	Ditch or cut feature	Indicative of a ditch or cut feature. Responses of *c.*+1.5nT to +12.1nT.
24	Moderate positive, probable	Linear	Ditch or cut feature	Indicative of a ditch or cut feature, possibly related to anomaly group 25. Responses of *c.*+0.5nT to +11.8nT.
25	Moderate positive, possible	Linear	Ditch or cut feature	Indicative of a ditch or cut feature, possibly related to anomaly group 24. Responses of *c.*+0.7nT to +2.8nT.
26	Weak negative, possible	Linear	Bank	Indicative of a bank or similar raised feature. Responses of *c.*-0.5nT to -1.5nT.
27	Weak negative	Linear	Historical field	Indicative of a bank, corresponds to historic field

Anomaly Group	Class and Certainty	Form	Archaeological Characterisation	Comments
			boundary	boundary. Responses of *c.*-0.4nT to -2nT.
28	Strong positive to negative, possible	Amorphous area	Possible cut feature or disturbance	Indicative of disturbed ground, may be indicative of a cut feature though form is disturbed. Possible paleochannel. Responses of *c.*-16nT to +20nT.
29	Very strong positive to negative, probable	Wide bent linear	Modern utility	Indicative of a modern utility, corresponds to the Angelinos pumping main. Responses of *c.*-100nT to +100nT.
30	Moderate positive to negative, possible	Amorphous area	Geological response	Indicative of a geological response, likely represents previous water channels from the meandering river. Responses of *c.*-4nT to +5.5nT.
31	Moderate positive to negative, possible	Amorphous area	Geological response	Indicative of a geological response, likely represents previous water channels from the meandering river. Responses of *c.*-2nT to +5.8nT.
32	Weak positive to negative, possible	Amorphous area	Geological response	Indicative of a geological response, likely represents previous water channels from the meandering river. Responses of *c.*-1.3nT to +1.9nT.

3.6.5 **DISCUSSION**

The survey identified 32 groups of anomalies. These were predominantly positive linear features, detailing several phases of relict field boundaries, several small apparent structures, ridge and furrow cultivation strips, and modern utilities. Responses around the modern utility are distorted.

The clear parallel linear anomalies covering much of both fields is probably agricultural and arising from ridge and furrow cultivation. The NW-SE aligned linears present in Field B correspond to the orientation of the recent crop and are probably modern. The NE-SW aligned linears do not appear to correlate directly with the previous system of enclosure system although the relative age of these agricultural responses is unclear.

Anomaly groups 2, 7, and 16 represent a seemingly discontinuous moderate-to-weak positive linear that likely represents a continuation of the 'clothes-line' ditch identified in the field to the west. It stretches across Fields A and B. Anomaly groups 9, 10, 11, 12, 14, 15, 17, 18, and 23 are all weak to strong positive linears that appear to be contemporary with and respect groups 2, 7 and 16. These linears are likely to represent small infield boundaries; groups 9 and 10, and 18 with 23, 24 and 15, are likely to represent settlement enclosures. The latter group in Field B is crossed by particularly clear ridge and furrow at 90° to linear 16, and the spread of more magnetically active material along the ridges may suggest there is a rectangular settlement enclosure here 120×60m across. Groups 11, 13 and 20 may represent a trackway, and follow a similar alignment to the known historic field boundary. Anomaly groups 5, 6 and 17 are moderate-to-strong rectangular or curved linears located close to or incorporating either anomaly group 7 or 16. The form of the responses is strikingly similar to the adjacent site, with these features are likely representing structures/roundhouses of Mid-to-Late Iron Age date associated with the contemporary fieldsystem.

The anomaly groups further to the south in Field B are less clear. Anomaly group 26 corresponds with the break of slope where the ground starts to rise to the south. Anomaly group 27 is a weak negative linear that corresponds to a historic boundary removed after 1961. Anomaly groups 19 and 21 are weak positive linears that correspond to historic boundaries removed after 1971. Anomaly group 28 has a partially strong response and numerous associated Di-Polar anomalies possibly relating to a disturbed cut feature; the aerial photographic evidence would imply a shallow palaeochannel, perhaps infilled. Anomaly groups 30, 31 and 32 are moderate to weak mixed anomalies indicative of geological responses and likely to correlate with palaeochannels associated with the stream to the north. Anomaly group 29 has a very high response represented the Angelinos pumping main and much of the area around this pipe has been disturbed. There are other areas of magnetic disturbance across the site. Di-Polar anomalies are spread across the site, with any concentrations that appear linear in form likely due to modern ploughing.

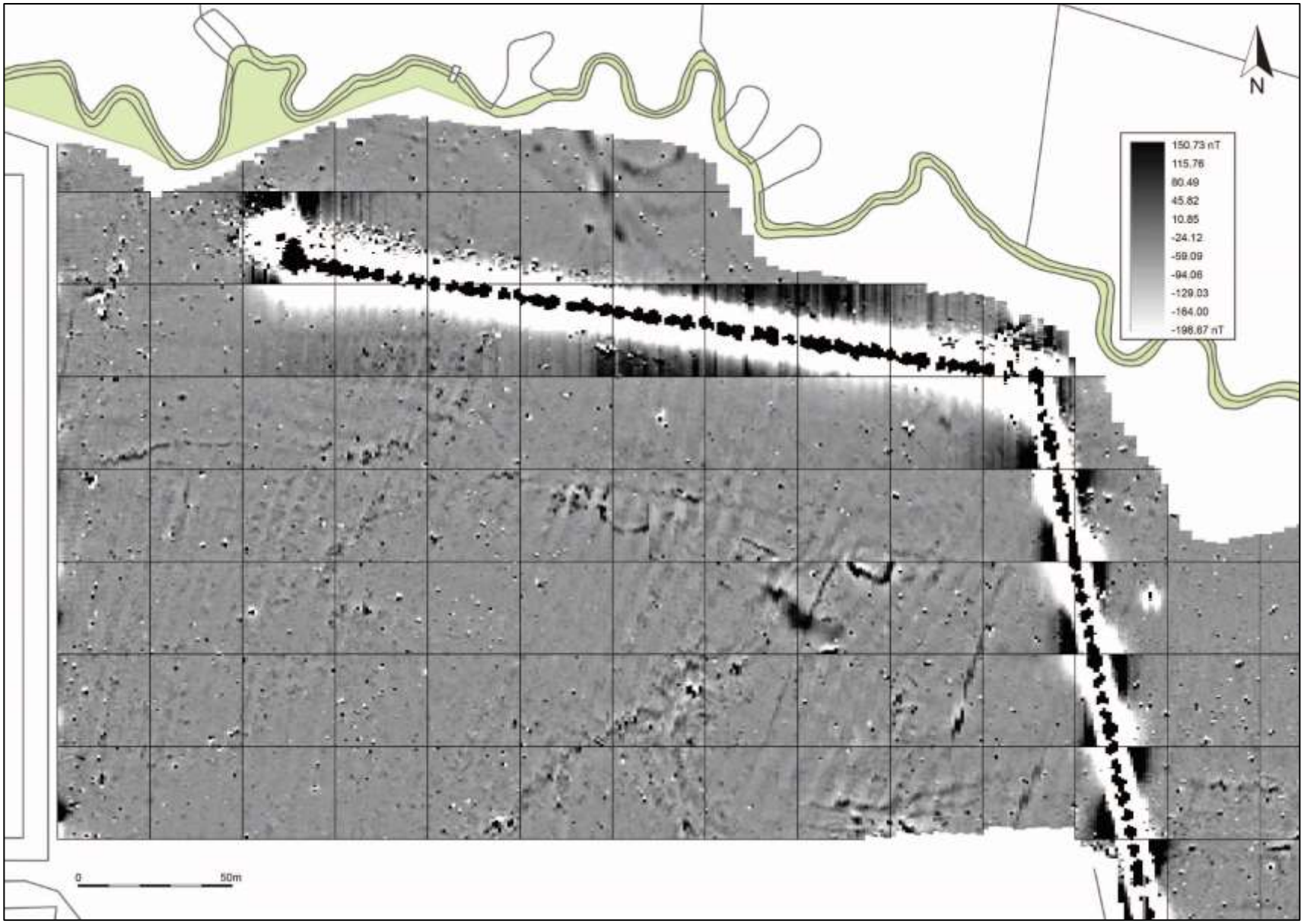

FIGURE 23: SHADE PLOT OF GRADIOMETER SURVEY DATA IN FIELD A; MINIMAL PROCESSING.

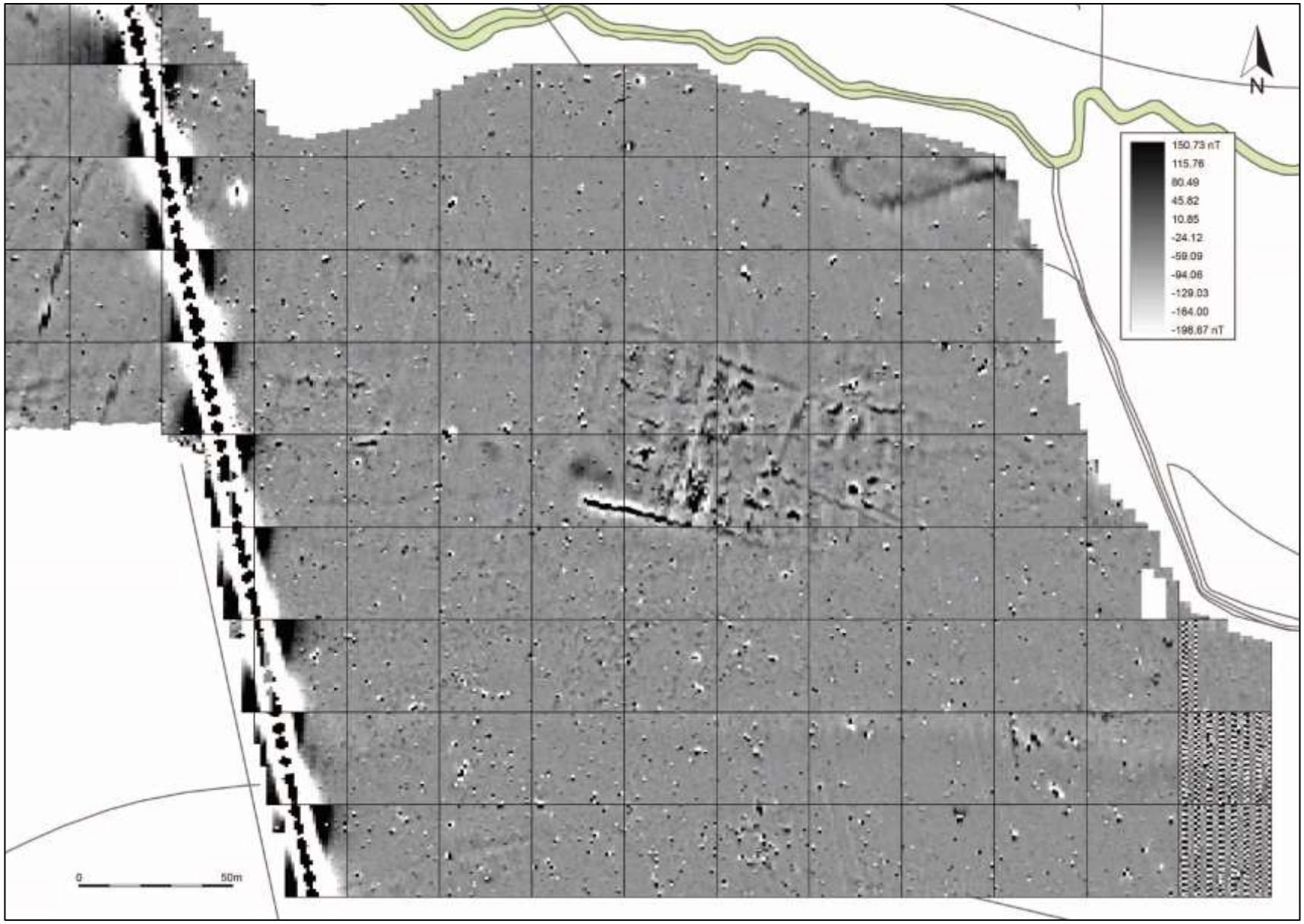

FIGURE 24: SHADE PLOT OF GRADIOMETER SURVEY DATA IN FIELD B; MINIMAL PROCESSING. NOTE THE SURVEY DATA IN THE LAST TWO GRIDS TO THE SE IS CORRUPT.

FIGURE 25: INTERPRETATION OF GRADIOMETER SURVEY DATA, FIELD A.

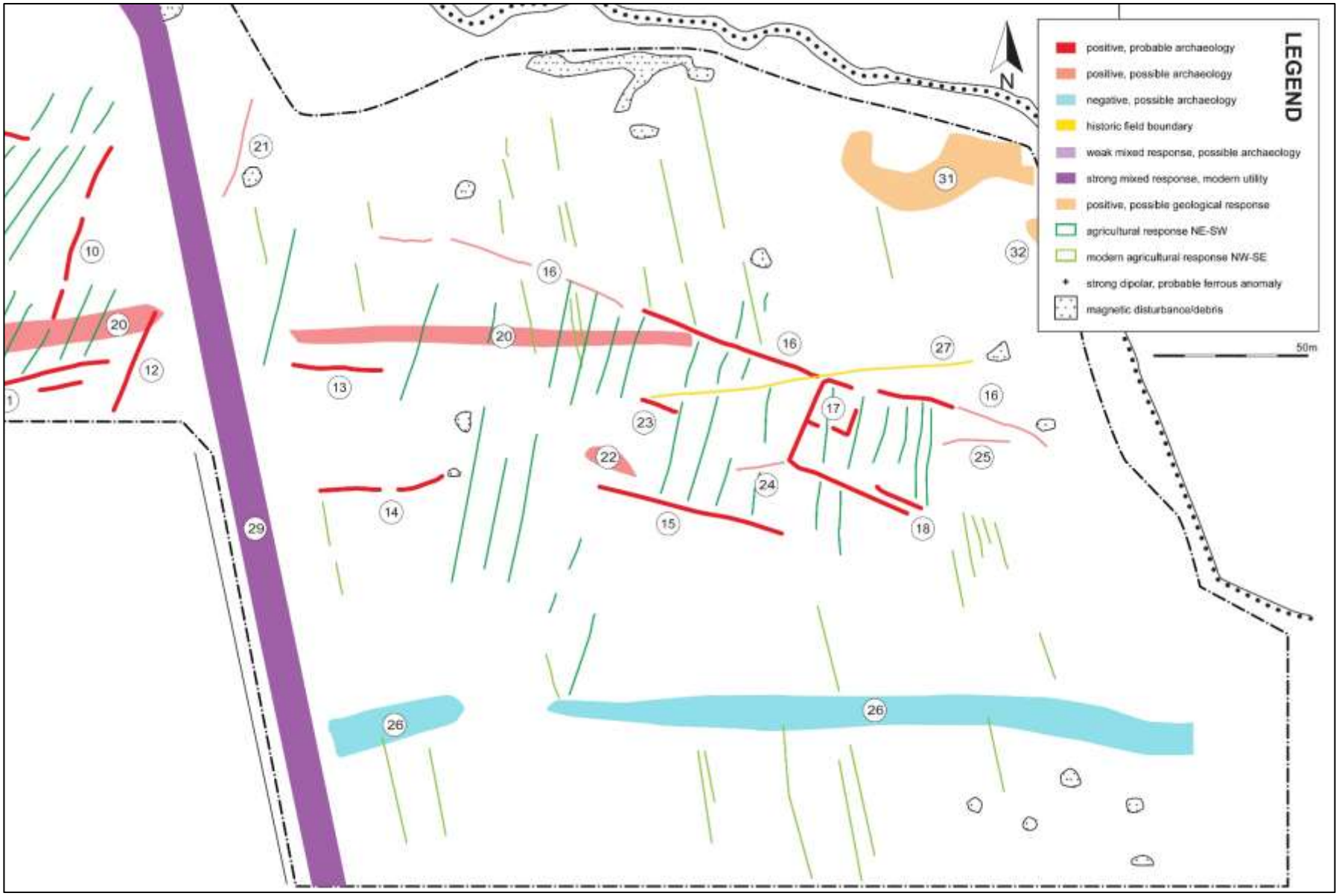

FIGURE 26: INTERPRETATION OF GRADIOMETER SURVEY DATA, FIELD B.

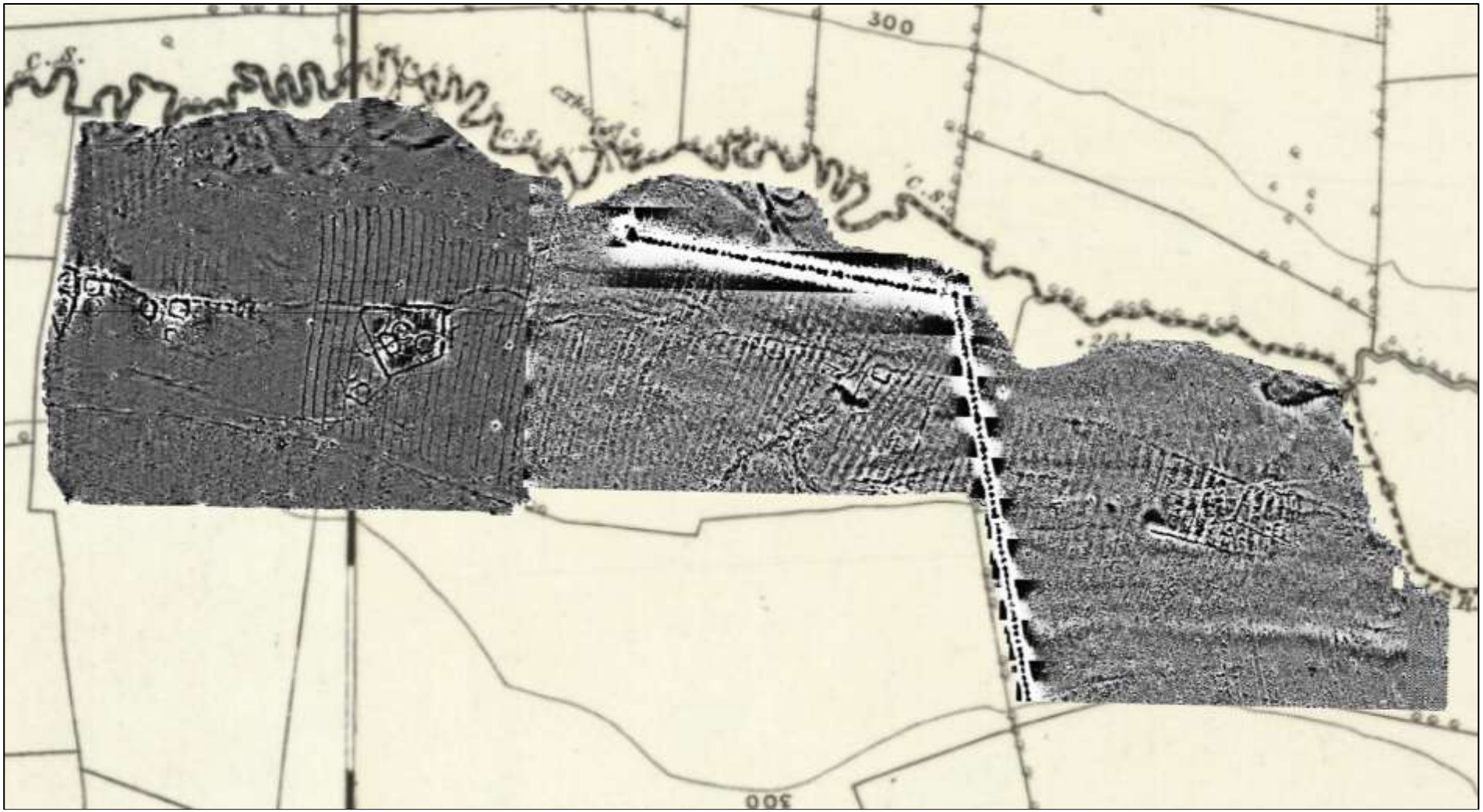

FIGURE 27: COMPOSITE IMAGE SHOWING THE RESULTS OF THE SURVEY TOGETHER WITH THAT OF STRATASCAN (2016) IN RELATION TO THE OS 1ST EDITION MAPS.

FIGURE 28: COMPOSITE IMAGE SHOWING THE RESULTS OF THE SURVEY TOGETHER WITH THAT OF STRATASCAN (2016) IN RELATION TO THE OS 1ST EDITION MAPS.

3.7 ARCHAEOLOGICAL POTENTIAL AND IMPACT SUMMARY

The direct *effect* of the development would be the possible disturbance or destruction of archaeological features or deposits present within the footprint of the development; the *impact* of the development would depend on the presence and significance of archaeological features and deposits.

Based on the results of the desk-based assessment and geophysical survey, the archaeological potential of the site would appear to be *high.* However, further archaeological work on the site would only be justified if mitigation through design cannot be achieved. The site adjacent to the west was evaluated and a post-determination monitoring planning condition was imposed; in the event, mitigation through design was achieved and monitoring did not take place. On the basis that the archaeology on this site is, in all probability, very similar (i.e. a series of Mid-to-Late Iron Age structures/settlements at equal intervals along a single boundary), the conclusions drawn for the adjacent site will be relevant here.

TABLE 3: SUMMARY OF DIRECT IMPACTS.

Asset	Type	Distance	Value	Magnitude of Impact	Assessment	Overall Assessment
Direct Impacts						
Clothes-line settlement with two or three clear foci	U/D	Onsite	Medium (regional)	Minor to Moderate	Slight to Moderate	Negative/Minor to Negative/Moderate
After mitigation				Minor	Neutral/Slight	Neutral/Negligible

4.0 INDIRECT IMPACTS

4.1 STRUCTURE OF THE ASSESSMENT

For the purposes of this assessment, the *indirect effect* of a development is taken to be its effect on the wider historic environment. The principal focus of such an assessment falls upon identified designated heritage assets like Listed buildings or Scheduled Monuments. Depending on the nature of the heritage asset concerned, and the size, character and design of a development, its effect – and principally its visual effect – can impact on designated assets up to 20km away.

The methodology adopted in this document is based on that outlined in *The Setting of Heritage Assets* (GPA3 Historic England 2015), with reference to ICOMOS (2011) and DoT (DMRB, WEBTAG) guidance. The assessment of effect at this stage of a development is an essentially subjective one, but one based on the experience and professional judgement of the authors. Appendix 3 details the methodology employed.

This report follows the staged approach to proportionate decision making outlined in *The Setting of Heritage Assets* (Historic England 2015, 6). *Step one* is to identify the designated heritage assets that might be affected by the development. The first stage of that process is to determine an appropriate search radius, and this would vary according to the height, size and/or prominence of the proposed development. For instance, the search radius for a wind turbine, as determined by its height and dynamic character, would be much larger than for a single house plot or small agricultural building. The second stage in the process is to look at the heritage assets within the search radius and assign to one of three categories:

- Category #1 assets: Where proximity to the proposed development, the significance of the heritage asset concerned, or the likely magnitude of impact, demands detailed consideration.
- Category #2 assets: Assets where location and current setting would indicate that the impact of the proposed development is likely to be limited, but some uncertainty remains
- Category #3 assets: Assets where location, current setting, significance would strongly indicate the impact would be no higher than negligible and detailed consideration both unnecessary and disproportionate. These assets are still listed in the impact summary table.

For *Step two* and *Step three*, and with an emphasis on practicality and proportionality (*Setting of Heritage Assets* p15 and p18), this assessment then groups and initially discusses heritage assets by category (e.g. churches, historic settlements, funerary remains etc.) to avoid repetitious narrative; each site is then discussed individually, and the particulars of each site teased out. The initial discussion establishes the baseline sensitivity of a given category of monument or building to the potential effect, the individual entry elaborates on local circumstance and site-specific factors. The individual assessments should be read in conjunction with the overall discussion, as the impact assessment is a reflection of both.

4.2 QUANTIFICATION

The character, size and topographical location of the proposed development would indicate a search radius of 2km is sufficient to identify those designated heritage assets where an appreciable effect might be experienced.

As a result, there are only a few designated heritage assets to consider (see Table 4): three farms/farm buildings, one Scheduled Ancient Monument and one undesignated DMV. There are no Conservation Areas, Registered Parks and Gardens, Battlefields or World Heritage sites within proximity to the site.

With an emphasis on practicality and proportionality (see *Setting of Heritage Assets* p15 and p18), only those assets where there is the possibility for an effect greater than negligible (see Table 7 in Appendix 3) are considered here in detail – the rest have been scoped out of this assessment. This includes the heritage assets in the villages of Duns Tew, Deddington and North Aston, which are largely screened from the proposed development by the terrain.

- Category #1 assets: None.
- Category #2 assets: Hill Farm Barns (GII); New House Farm house (GII) and barns (GII); Danes Hill barn and stable (GII); Ilbury Hillfort (SAM); Ilbury deserted medieval settlement (u/d).
- Category #3 assets: None.

4.3 Impact by Class of Monument or Structure

4.3.1 Farmhouse and Farm Buildings

Listed farmhouses with Listed agricultural buildings and/or Curtilage; some may have elements of formal planning/model farm layout

These have been designated for the completeness of the wider group of buildings or the age or survival of historical or architectural features. The significance of all of these buildings lies within the farmyard itself, the former historic function of the buildings and how they relate to each other. For example, the spatial and functional relationships between the stables that housed the cart horses, the linhay in which the carts were stored, the lofts used for hay, the threshing barn to which the horses brought the harvest, or to the roundhouse that would have enclosed a horse engine and powered the threshing machine. Many of these buildings were also used for other mechanical agricultural processes, the structural elements of which are now lost or rare, such as apple pressing for cider or hand threshing, and may hold separate significance for this reason. The farmhouse is often listed for its architectural features, usually displaying a historic vernacular style of value; they may also retain associated buildings linked to the farmyard, such as a dairy or bake house, and their value is taken as being part of the wider group as well as the separate structures.

The setting of the farmhouse is in relation to its buildings or its internal or structural features; farmhouses were rarely built for their views, but were practical places of work, developed when the farm was profitable and neglected when times were hard. In some instances, model farms were designed to be viewed and experienced, and the assessment would reflect this. Historic farm buildings are usually surrounded by modern industrial farm buildings, and if not, have been converted to residential use, affecting the original setting.

What is important and why

Farmhouses and buildings are expressions of the local vernacular (evidential) and working farms retain functional interrelationships (historical/associational). Farms are an important part of the rural landscape and may exhibit levels of formal planning with some designed elements (aesthetic/designed but more often aesthetic/fortuitous). Working farms are rarely aesthetically attractive places, and often resemble little more than small industrial estates. The trend towards the conversion of historic farm buildings and the creation of larger farm units severely impacts on historical/associational value.

Asset Name: **Hill Farm Barns**	
Parish: Duns Tew, Oxfordshire	*Value:* Medium
Designation: GII	*Distance to Development:* c.250m
Description Summary: Listing: Hill Farmhouse (not included): range of 2 barns approx. 60m NE. 2 barns. Probably early C18. Limestone rubble with wooden lintels and some ashlar dressings; Welsh-slate and corrugated-iron roofs. 4-bay and 3-bay plans. Larger barn has a porch set to left of centre and has opposed double doors to rear; steep-pitched roof has marlstone gable parapets with projecting	

moulded kneelers. Smaller barn is lower with a Welsh-slate roof and has central full-height doors with lower doors to rear. Interiors. Butt-purlin roofs with through tenons; smaller barn has lofted end bays.
Supplemental Comments: This is a large multi-period farm complex, with 18th, 19th and probably early 20th century barns. It is an active working farm and the farmyard contains numerous modern open-span structures and concrete and metal clad sheds. As reflected in the wider farming landscape, it appears to be a mix of cattle and arable. The barns appear to be in good working condition and are still in use, if only for storage.
Conservation Value: These barns were functional buildings but are traditional and therefore have a certain aesthetic value. This is somewhat affected by the modern farm buildings which abut and flank them. They have no communal or known historical value. As a working farm, we can expect the building to be full of inherent evidential value, maybe even fixtures and fittings.
Authenticity and Integrity: This is a working farmyard and consequently the buildings are very authentic; they also appear in good condition and are still used in some capacity, so integrity is expected to be high.
Setting: The farmstead sits at the heart of a large ring-fenced block of arable and pasture. It sits on a slightly raised ridge on the lower slopes on the south side of a wide shallow valley, in an undulating landscape of low hills. The village of Duns Tew lies just to the south and cottages run up the lane to the farm gate. To the east is a large A road cut into the valley and screened via banking, that leads to the larger settlement of Deddington to the north-east. To the west are small parish road. The farm is framed in views by other farmsteads and actively farmed fields.
Contribution of Setting to Significance of Asset: The setting allows us to appreciate the farmstead and the raison d'etre for its form and function. We understand the rich nature of the land allows for both animal and arable farming. The farmstead lay on the edge of a block of land held in severalty and likely enclosed in the 17th century, surrounded by the Open Fields of Duns Tew, with a small area of common immediately to the west. The farmstead represents the first stage of enclosure in this landscape and may have originated as an outfarm. The distinctiveness of its origins in the context of Duns Tew were eroded when the parish was enclosed in the late 18th century and other new farms established. Nonetheless, it imparts a good sense of place to the farm for its physical visual profile, but also for its narrative cultural interpretation as well.
Magnitude of Effect: The proposed PV array would cover an area of c.16ha to the north of the farmstead, joining an existing array that covers c.8ha. On one hand, this means the precedent for this kind of development in this landscape is accepted and established, on the other, that there is a more pronounced cumulative effect to consider. However, the barns are largely surrounded by modern structures and are not visible in views across the proposed site from the north. The barns present to the south, towards the village and the track leading to the farm, and the PV array would be screened by the topography from this approach.
Magnitude of Impact: Medium value assets + Minor Effect = Slight Impact
Overall Impact Assessment: **Negative/minor Impact**

FIGURE 29: VIEW ALONG THE FRONT OF THE HISTORIC LINEAR RANGE AT HILL FARM, WITH BARN, MIDDLE THRESHING BARN AND IN THE FOREGROUND AN OPEN-FRONTED CART SHED/LINHAY; VIEWED FROM THE WEST-SOUTH-WEST.

FIGURE 30: VIEW OF THE U-SHAPED FRONT RANGE OF BARNS AT HILL FARM THAT FLANK THE DRIVEWAY AND THE FARMHOUSE TO THE EAST; VIEWED FROM THE NORTH-WEST.

Asset Name: **New House Farm and Barns**	
Parish: Nether Wootton, Oxfordshire	*Value:* Medium
Designation: GII	*Distance to Development:* c.2.1km
Description Summary: Listing: Farmhouse. Early/mid C18 incorporating C17 elements. Coursed squared marlstone; concrete plain-tile and Welsh-slate roof with brick gable stacks. 2-unit plan with added rear outshut. 2 storeys plus attic on semi-basement. Symmetrical 3-window front has a central 6-panel door with a long flight of stone steps, 16-pane sashes to the outer bays, and a 12-pane sash over the door. Most windows have flat arches above wooden lintels and were probably originally casements. Gabled rear stair tower with a tall window, is now surrounded by a deep slated outshut, probably also C18, which includes at basement level a 3-light casement with stop-chamfered lintel. Interior: stop-chamfered beams and joists in basement are probably part of an earlier house. Butt-purlin roof.	
Supplemental Comments: This farmhouse is used for other purposes, as an organisational headquarters, holiday park or similar. It has modern hedges and is gated off the road, enclosed by a fence and divorced from its connection to the agricultural landscape.	
Conservation Value: Of no known historical or communal value, the building is of traditional vernacular appearance and is therefore aesthetically pleasing. It has quite high evidential value as the listing suggests it incorporates elements of an earlier building.	
Authenticity and Integrity: The integrity of the building is likely to be high as it looks to be in good condition from afar. It does not appear to be a working farm, so may no longer be particularly authentic in use/condition.	
Setting: Newhouse Farm is no longer a working farmstead, seemingly part of an organisation, or holiday lets, etc., the road closed off and gated. The fields around the farm have been laid to pasture. Tall conifer hedges and beech have been planted, obscuring views and creating the sense of enclosure around the site. Therefore, despite its wider setting in fairly open agricultural fields its immediate setting is rather divorced from its surroundings.	
Contribution of Setting to Significance of Asset: The wider setting allows us to understand this site as a historic farmstead, integral to the shaping and form of this landscape. This wider setting rises in importance as the immediate setting appears to have been changed and sanitised.	
Magnitude of Effect: The former farm is located in the base of the wide low valley, so the proposed PV site would theoretically be visible from the house. However, the intervening hedges with trees provide very effective screening. The extant PV site is barely visible from the fields next to the farmstead, and the existing PV would provide screening to the proposed.	
Magnitude of Impact: Medium value asset + Negligible Effect = Neutral/Slight Impact	
Overall Impact Assessment: **Negligible Impact**	

FIGURE 31: VIEW ALONG THE LONG PRIVATE DRIVE TO NEWHOUSE FARM AND BARNS; VIEWED FROM THE EAST.

Asset Name: Danes Hill Barn and Stable	
Parish: North Aston, Oxfordshire	*Value:* Medium
Designation: GII	*Distance to Development:* c.0.8km
Description Summary: Listing: Dane Hill Farmhouse (not included): barn and stable approx. 30m N. II Barn and stable. Early C18. Mixed limestone and marlstone rubble with wooden lintels; corrugated-iron roof. Barn has a 5-bay plan with central opposed full-height doors. Stable has a central plank door and small flanking windows plus a loft door in the right gable wall. Both sections have steep-pitched roofs. Interior: barn has 4 trusses, each with tie beam, collar and raking struts, supporting 2 rows of butt purlins. Lower purlins are morticed for rafters, and some original rafters survive.	
Supplemental Comments: Set down a private drive the farmstead appears to be arranged around a courtyard, to the west of its block of land.	
Conservation Value: There is no known historical or conservation value in these buildings, but they will have inherent evidential value. Of the local traditional form, they are broadly aesthetically pleasing, historic in appearance.	
Authenticity and Integrity: The barn and stable appear to be on a working farmstead and are not converted to domestic use. Therefore, they are more authentic than many others in their type, across the county. They are also therefore expected to have quite high levels of integrity.	
Setting: The barn and stable form two sides of a farm courtyard, the farmhouse of later date. The yard is flanked by fields on all sides. To the west, a row of farm cottages lines the busy A road. The ground drops away to the north into a wide shallow valley, affording views up to Deddington, the farm sitting just on the cusp of the slope above the valley.	
Contribution of Setting to Significance of Asset: The cottages to the west, the road and the private drive make this farm, although quite close to other settlements, feel quite detached and isolated; the approach via the busy A-road is confrontational and does not feel rural. Despite this, the farmstead seems little altered, and is set within its fields.	
Magnitude of Effect: The planting and landscaping associated with the A road is likely to screen views to a certain extent. Other mature hedge boundaries may also add to this, subject to seasonal variation. This farm can very clearly be understood as a historic asset in a much-altered rural landscape. There would be a certain degree of cumulative effect if the PV to the west was expanded. However, the important immediate farmyard setting and views and relationship between barn and stable will be retained, collectively as a group providing a historical buffer and context to each other as individual assets.	
Magnitude of Impact: Medium value assets + Negligible effect = Neutral/Slight Impact	
Overall Impact Assessment: **Negligible Impact**	

FIGURE 32: VIEW TO DANE HILL FARM; VIEWED FROM THE WEST.

4.3.2 **HILLFORTS**

Hillforts are large embanked enclosures, most often interpreted as fortifications, and usually occupy defensible and/or visually prominent positions in the landscape. They are typically visible from all or most of the surrounding lower and higher ground, with the corollary that they enjoyed extensive views of the surrounding countryside. As such, they are as much a visible statement of power as they are designed to dissuade or repel assault. The location of these sites in the landscape must reflect earlier patterns of social organisation, but these are essentially visual monuments. They are designed to see and be seen, and thus the impact of wind turbines is often disproportionately high compared to their height or proximity.

Asset Name: **Ilbury Camp Hillfort**	
Parish: Deddington, Oxfordshire	*Value:* High
Designation: SAM	*Distance to Development:* c.1.7km
Description Summary: Listing: The monument includes a univallate hillfort known as Ilbury Camp. It is situated on a prominent ridge aligned roughly north west-south east and located c.1km ENE of Nether Worton. The site commands clear views of the surrounding terrain in all directions. The defences include a single rampart and outer ditch which enclose a kidney-shaped area, with its narrow end to the north west. This is due to the builders of the fort having taken advantage of the natural defences provided by the contours which helped create a steep sided and well defended site. The area enclosed by the defence measures 310m from north west-south east and up to 160m from south west-north east. The western half of the earthworks survive as upstanding earthworks while the eastern half have been reduced in height by cultivation over the years. The rampart is constructed of stone and turf and stands up to 4m high above the present ground level to the north west and 3m above the interior. It measures c.10m across and was originally continuous except for a c.8m wide gap at the entrance at the south east corner. Two modern gaps on the southern and western sides are not thought to be original. The surrounding ditch served the dual function of enhancing the defences and providing material for the construction of the rampart. It has become largely infilled due to cultivation and deposition of soil from the banks over time. However, aerial photographs show that it survives around the circuit of the hillfort with one break of c.8m at the original entrance, and that it measures c.12m wide. It is still visible as a slight depression at a number of points around the monument, especially to the north west. Finds of pottery from the plough soil on the eastern half of the monument include both Iron Age and early Romano-British material. Excluded from the scheduling are the boundary fences which divide it into a number of fields, although the ground beneath is included.	
Supplemental Comments: On private land with no access but can be seen from an adjacent footpath. This is a univallate enclosure, better preserved to its west side as part of a small tree-lined paddock, the rampart and ditch lined by trees and shrubs. Surrounded by agricultural fields and, to the east, grass pasture that contains earthworks of a deserted medieval village, the enclosure has now been subsumed into the early 19th century landscape. It no longer has any landscape presence and the old routeways, which have	

been adopted by the local councils into modern roads, totally bypass it in the landscape.
Conservation Value: The interior of the hillfort would have been used for settlement and/or storage and there are likely to be the archaeological remains of structures, pits etc. Buried soils beneath the ramparts will have palaeoenvironmental potential. Evidential value is therefore likely to be high to very high. Historical and communal value is slight and none. These types of enclosures are built in naturally defendable sites and are intended to be impressive and effective as either a deterrent, a stamp of ownership on the landscape, or as a fort. Now they form romantic ancient sites, earthworks in the landscape that much of the public know to be Scheduled Monuments; although only recognized at close quarters, this site being shrouded in trees.
Authenticity and Integrity: The eastern part of the site has largely been ploughed away, low on integrity, but archaeological deposits would still be expected to survive. To the west, the ramparts survive in weathered condition, but trees and scrub developed with a potential risk to the monument. It now presents as a small treelined paddock, an infield animal enclosure or similar; it is not particularly authentic at first glance.
Setting: The enclosure occupies the top and upper western part of a small raised promontory at the end of an undulating ridge. The ground slopes away steeply to the south, west and north-west, more shallowly to the north-east and east. The surviving ramparts have been used to form a small paddock between larger fields, possibly used as an outfarm animal pen in the past. It is surrounded by fields on all sides, to the north arable, to the south steeply sloping grass pasture. The patchwork fieldscape relates to the late 18th and early 19th century enclosures and overlies a more complex medieval relict landscape, represented by the deserted medieval settlement located on the slopes below the hillfort (see below). This asset therefore relates to a relict landscape which has had at least two major remodels.
Contribution of Setting to Significance of Asset: This kind of defended settlement was intentionally located to make best use of the natural advantages of the terrain: the steep slopes increase the security of the site, simultaneously affording excellent views across the adjacent valley and presenting as a high visible symbol of authority/community/status. While the topography has not changed, its visibility within the landscape has. Its partial survival and tree cover mean it is barely visible; the landscape visible from this elevated location will be very different to that of the Iron Age, although we can still appreciate its extent.
Magnitude of Effect: The proposed PV array would cover an area of c.16ha to the east-south-east of the hillfort, joining an existing array that covers c.8ha. On one hand, this means the precedent for this kind of development in this landscape is accepted and established, on the other, that there is a more pronounced cumulative effect to consider. Seen within the context of the historic landscape, views from the hillfort do include large modern farmsteads and other clearly modern visual actors. However, the PV array will not block valley views. The mature hedges and trees in the landscape break up views in spring and summer and despite its elevated position it is unlikely that there will be clear and direct views.
Magnitude of Impact: High value asset + Negligible change = Slight Impact
Overall Impact Assessment: **Negligible Impact**

FIGURE 33: VIEW OF ILBURY CAMP ON ITS HILLTOP, NOW PRESENTING AS A TREE-LINED ENCLOSURE; VIEWED FROM THE SOUTH.

4.3.1 DESERTED MEDIEVAL SETTLEMENTS

An important development in the history of medieval archaeology in the 20th century was the identification of deserted and shrunken settlements – ranging from nucleated villages to small hamlets – across the whole country, with marked concentrations in certain areas. Deserted

settlements may survive as extensive and well-defined earthworks, as crop or soilmarks, or simply as orphaned place- or field names. Many churches that now stand in isolation formerly stood within a contemporary settlement. The significance of these sites depends on the level of preservation, and associations with other relict or extant features, like manorial sites, castles or churches. In most instances, should earthworks survive in an appreciable form, the settlement itself is significant less for what it was, and more for the experiential sense of abandonment and tranquillity. Shrunken or lost settlements were rarely laid out with a conscious appreciation of designed views, and more a practical appreciation or agricultural context. As such, the impact of a turbine development will vary according to location and context, but is unlikely, in most instances, to be significant.

What is important and why

The importance of deserted settlements lies primarily in the buried archaeological resource (evidential value). There is usually some historical value, particularly where the site is well-preserved, or where associated earthwork remains survive in close proximity e.g. ridge-and-furrow (both historical/illustrative and historical/associational). There may be some aesthetic value, but such sites are typically best appreciated from the air (aesthetic/fortuitous).

Asset Name: **Ilbury Deserted Medieval Village**	
Parish: Nether Wootton/Duns Tew, Oxfordshire	*Value:* Medium
Designation: undesignated	*Distance to Development:* c.1.4km
Description Summary: Ilbury is known to have been an established medieval settlement on the road between the hamlet of Hempton and the larger village of Duns Tew; it is located at the river crossing at Ilbury Bridge. Ilbury was mentioned as a settlement in the Domesday Book. By the 14th century it had shrunk to the extent that it was collectively taxed with the larger villages of Duns Tew or Nether Wootton. By the 16th century, records show only the mill building alongside the river remained. At a farm named Ilbury Farm, which lies to the north-west beyond the hillfort, there were remains of medieval buildings into the Victorian period, but the current farmstead is very modern. Archaeological work of limited extent was undertaken when hedgebanks were removed in c.1980s, when pottery and rubble was found.	
Supplemental Comments: A large pair of pasture fields on the lower east and south-east slopes of the hill occupied by Ilbury Camp hillfort which contain clear and well-defined earthworks that signify a typical linear medieval village with a central trackway/road and plots running back from that. The earthworks are in good condition and individual plots and details can be made out, suggesting this is a site of real interest and archaeological potential. It forms a valuable group with the hillfort, the chronological narrative of successive settlement in this landscape. Collectively these two sites increase in value and sensitivity, although both are only expected to be affected by immediate setting changes.	
Conservation Value: No communal value. Some local historical value as a former medieval settlement. No aesthetic value as all buried deposits. High evidential value, as the earthworks suggest clearly defined tofts and crofts along a roadway and would suggest very good survival conditions.	
Authenticity and Integrity: Integrity of below-ground deposits is expected to be very high. The site is very authentic as a deserted medieval village.	
Setting: The village site is located on the northern side of the valley on the lower south-east facing slopes below Ilbury hillfort. The fields here are currently laid to pasture, fairly large and bounded by low hedgerows with some mature trees. A stream runs to the south, and a parish lane crosses from north-east to south-west, crossing the stream by means of a brick bridge.	
Contribution of Setting to Significance of Asset: The farming landscape we see today relates to the late 18th and early 19th century enclosure acts and not the more complex, involved medieval farming landscape. We can see in patterns of old routeways and in the relationship of the village site with existing roads that this was part of a wider scattered pattern of settlement, represented by surviving places like Nether Wootton, North Aston and Duns Tew. Its location on a south-east facing slope just above the stream with higher ground above reflects the advantageous positioning of rural sites vis-à-vis different resources in the landscape.	
Magnitude of Effect: The proposed development would be located to the east-south-east, and the site largely survives as a buried monument. The intervening hedges with trees provide very effective screening. The extant PV site is barely visible from the fields next to the site, and the existing PV would provide screening to the proposed.	
Magnitude of Impact: Medium value + Negligible Effect = Neutral/Slight Impact	
Overall Impact Assessment: **Negligible Impact**	

FIGURE 34: VIEW OF ILBURY DMV FROM ILBURY BRIDGE; VIEWED FROM THE SOUTH-SOUTH-EAST.

4.3.2 HISTORIC LANDSCAPE

General Landscape Character

The landscape of the British Isles is highly variable, both in terms of topography and historical biology. Natural England has divided the British Isles into numerous 'character areas' based on topography, biodiversity, geodiversity and cultural and economic activity. The County Councils and AONBs have undertaken similar exercises, as well as Historic Landscape Characterisation.

Some character areas are better able to withstand the visual impact of development than others. Rolling countryside with wooded valleys and restricted views can withstand a larger number of sites than an open and largely flat landscape overlooked by higher ground. The English landscape is already populated by a large and diverse number of intrusive modern elements, e.g. electricity pylons, factories, modern housing estates, quarries, and turbines, but the question of cumulative impact must be considered. The aesthetics of individual developments is open to question, and site specific, but as intrusive new visual elements within the landscape, it can only be **negative**.

The proposed site would be constructed within the *Clay Vale* Landscape Character Area (LCA), immediately north of the *Farmland Slopes and Valley Sides*:

- The Clay Vale landscape type extends from the northern part of the river Cherwell to the Upper Thames area south of Bicester. This landscape is low lying vale associated with small pasture fields, many watercourses and hedgerow trees and well-defined nucleated villages. The proposed installation of a solar array, adjacent to an extant solar array, may be visible for some distance across the landscape as it is low and gently rolling. However, a general lack of elevated viewpoints and the established hedgerows with trees are likely to provide enhanced screening. Based on the limited effect the proposed development is likely to have on the LCA, the impact is assessed as **negligible**.

FIGURE 35: VIEW FROM THE EDGE OF THE FARMYARD AT HILL FARM, LOOKING ACROSS THE PROPOSED SITE TO THE EXISTING PV ARRAY; VIEWED FROM THE SOUTH.

4.3.3 AGGREGATE IMPACT

The aggregate impact of a proposed development is an assessment of the overall effect of a single development on multiple heritage assets. This differs from cumulative impact (below), which is an assessment of multiple developments on a single heritage asset. Aggregate impact is particularly difficult to quantify, as the threshold of acceptability will vary according to the type, quality, number and location of heritage assets, and the individual impact assessments themselves.

Based on the restricted number of assets where any appreciable effect is likely, the aggregate impact of this development is **negligible**.

4.3.4 CUMULATIVE IMPACT

Cumulative impacts affecting the setting of a heritage asset can derive from the combination of different environmental impacts (such as visual intrusion, noise, dust and vibration) arising from a single development or from the overall effect of a series of discrete developments. In the latter case, the cumulative visual impact may be the result of different developments within a single view, the effect of developments seen when looking in different directions from a single viewpoint, of the sequential viewing of several developments when moving through the setting of one or more heritage assets.
The Setting of Heritage Assets 2011a, 25

*The key for all cumulative impact assessments is to focus on the **likely significant** effects and in particular those likely to influence decision-making.*
GLVIA 2013, 123

An assessment of cumulative impact is, however, very difficult to gauge, as it must take into account existing, consented and proposed developments. The threshold of acceptability has not, however, been established, and landscape capacity would inevitability vary according to landscape character. The proposed development would effectively triple the size of an existing PV site, and thus the cumulative effect will be enhanced. However, the number of designated

heritage assets in this area where an appreciable effect is likely is fairly low. Therefore, and on balance, an assessment of **negative/minor** is appropriate.

TABLE 4: SUMMARY OF IMPACTS.

Asset	Type	Distance	Value	Magnitude of Impact	Assessment	Overall Assessment
Indirect Impacts						
Hill Farm Barns	GII	250m	Medium	Minor	Slight	Negative/Minor
New House Farm & Barns	GII	c.2.1km	Medium	Negligible	Neutral/Slight	Negligible
Dane Hill Barn & Stable	GII	c.0.8km	Medium	Negligible	Neutral/Slight	Negligible
Ilbury Camp Hillfort	SAM	c.1.7km	High	Negligible	Slight	Negligible
Ilbury Deserted Medieval Village	SAM	c.1.5km	Medium	Negligible	Neutral/Slight	Negligible
Indirect Impacts						
Historic Landscape						Negligible
Aggregate Impact						Negligible
Cumulative Impact						Negligible

5.0 CONCLUSION

The proposed site would be located north of the village of Duns Tew close to the parish boundary with Deddington. Duns Tew was a Domesday Manor, but by 1086 it had already been subdivided into four smaller estates, a subdivision that is likely to have occurred in or around the 10th century AD. The medieval descent of these sub-manors is complex, but between c.1800 and c.1950 most of the parish lay within the Dashwood Estate. The complex tenurial arrangements are reflected in the division of the parish into two halves, each with its own two-field Open Fields. Most of the parish remained unenclosed until 1794; the Open Fields at Deddington survived until 1808. Typically, most isolated farms in an Open Field parish were established after enclosure. Hill Farm is unusual in that it predates 1794 and probably dates to at least the 17th century, when the north-east corner of the parish was enclosed, presumably through agreement. However, the surviving historic farm buildings are Listed as 18th century and later in date. Prior to enclosure, and immediately to the west of Hill Farm, lay an area of common grazing known as Down End Common, and it would seem likely that the fields at Hill Farm were enclosed from common rather than the Open Field. However, crop- and soilmark evidence demonstrates the presence of ridge and furrow cultivation across the whole area and thus it must have formed an integral part of the eastern Open Field, but perhaps only during the high medieval period.

The geophysical (gradiometer) survey carried out across the site identified the remains of that ridge and furrow cultivation, but also several probable settlement enclosures and/or structures running back from a single long ditch orientated approximately east-to-west. This closely mirrors the geophysical anomalies identified by a similar survey in 2016 in the field immediately to the west, which were subsequently determined to be the remains of two settlement foci within a Mid-Late Iron Age clothes-line settlement. The results from the current survey, taken in conjunction with the cropmark of a rectangular enclosure to the west, and a Romano-British (villa) settlement to the east, would indicate that the base of the valley was occupied by numerous small settlements at or just above the limit of flooding. The overall significance of this pattern of settlement is likely to be local or regional, as while there are relatively few close comparanda this is likely – as in this instance – to reflect the absence of fieldwork and poor cropmark response than actual scarcity. The impact of the proposed development on the buried archaeological resource would be **permanent** and **irreversible**, but could be mitigated through design, as it was for the adjacent PV site.

In terms of indirect impacts, most of the designated heritage assets in the wider area are located at such a distance to minimise the impact of the proposed development, or else the contribution of setting to overall significance is less important than other factors. The landscape context of many of these buildings and monuments is such that they would be partly or wholly insulated from the effects of the proposed development by a combination of local blocking from trees, buildings or embankments, or that other modern intrusions have already impinged upon their settings. The assets which lie in close proximity and were considered in detail in this assessment would be affected by the proposed development to a limited degree (**negligible to negative/ minor**), with a **negligible** impact on the historic landscape, **negligible** aggregate impact, but a **negative/minor** cumulative impact on the basis the footprint of the existing PV array will triple in size. On that basis the impact of the proposed development can be assessed as **negligible** overall.

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Davis county map

Deddington enclosure map 1808, PAR86/16/M/1

Duns Tew enclosure map 1794, PAR92/16

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Ordnance Survey 2nd edition 6" map Oxfordshire sheet XVI, surveyed 1898, published 1900; Northamptonshire sheet LXVI, surveyed 1919-20, published 1923

Exeter College Oxford Archive

1936 and 1954 maps of Hill Farm

Historic England Archive

Aerial photograph, OS_71066_V_285

APPENDIX 1: ADDITIONAL GRAPHICAL IMAGES OF THE GRADIOMETER SURVEY

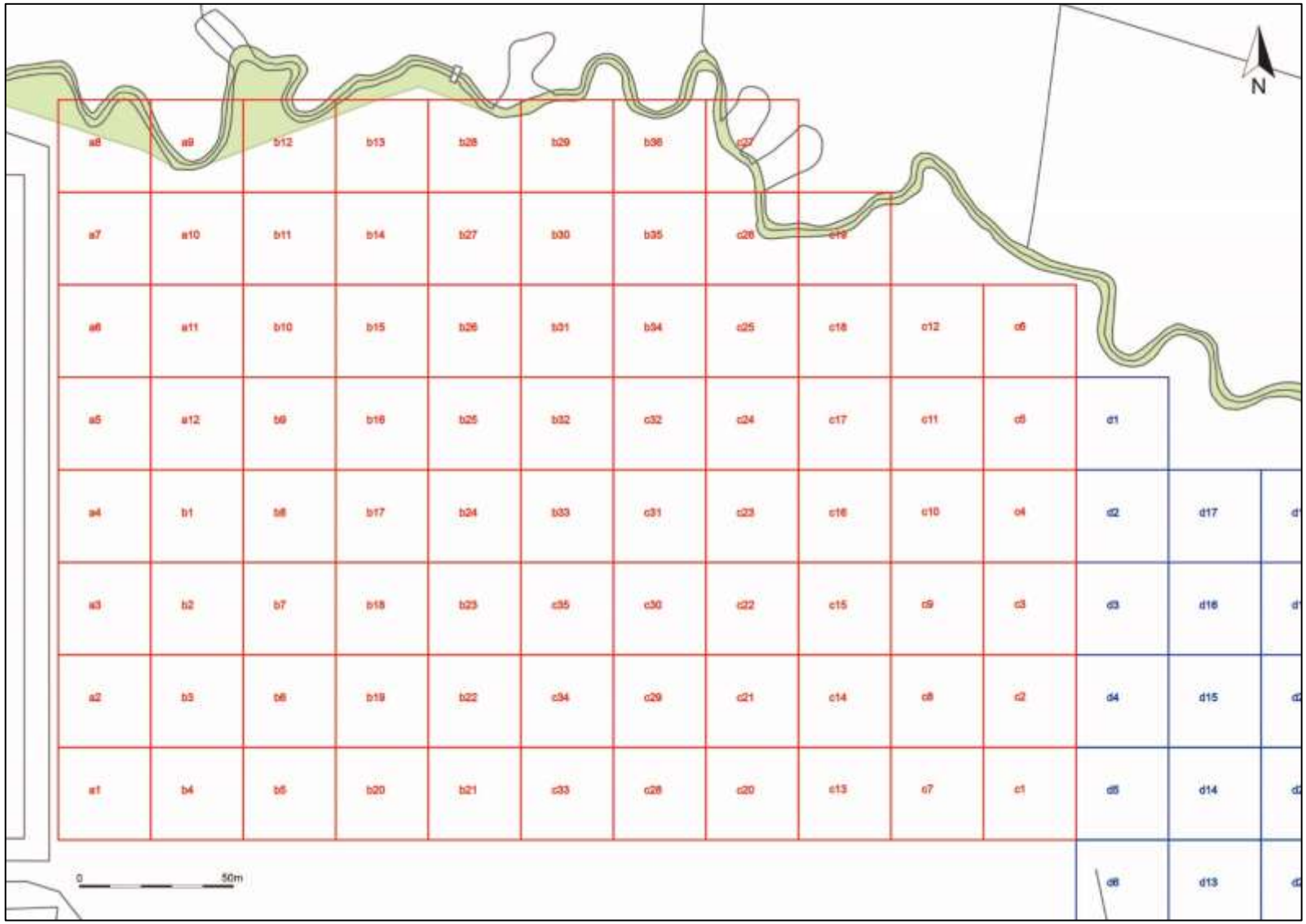

FIGURE 36: GEOPHYSICAL SURVEY GRID LOCATION AND NUMBERING, FIELD A.

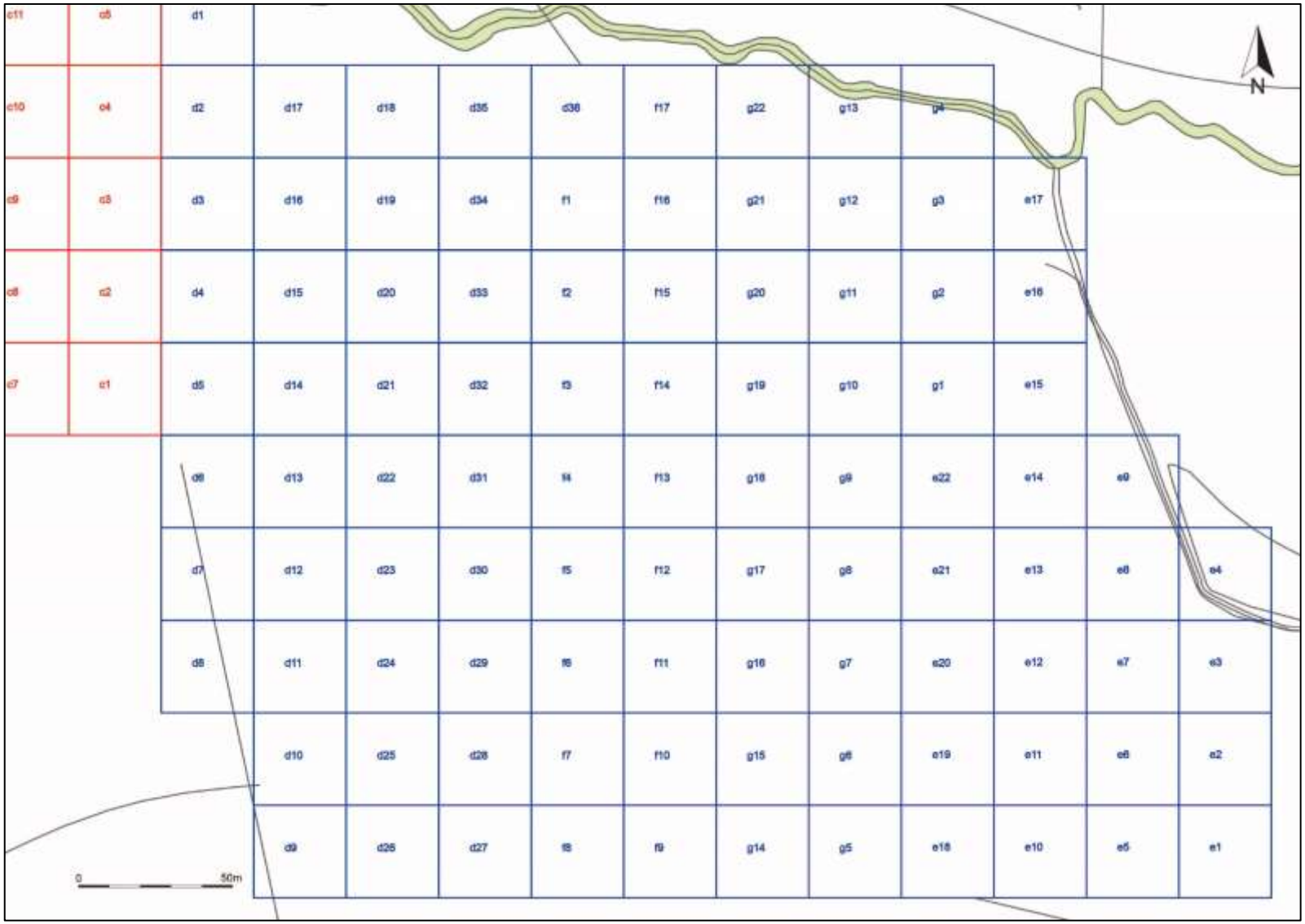

FIGURE 37: GEOPHYSICAL SURVEY GRID LOCATION AND NUMBERING, FIELD B.

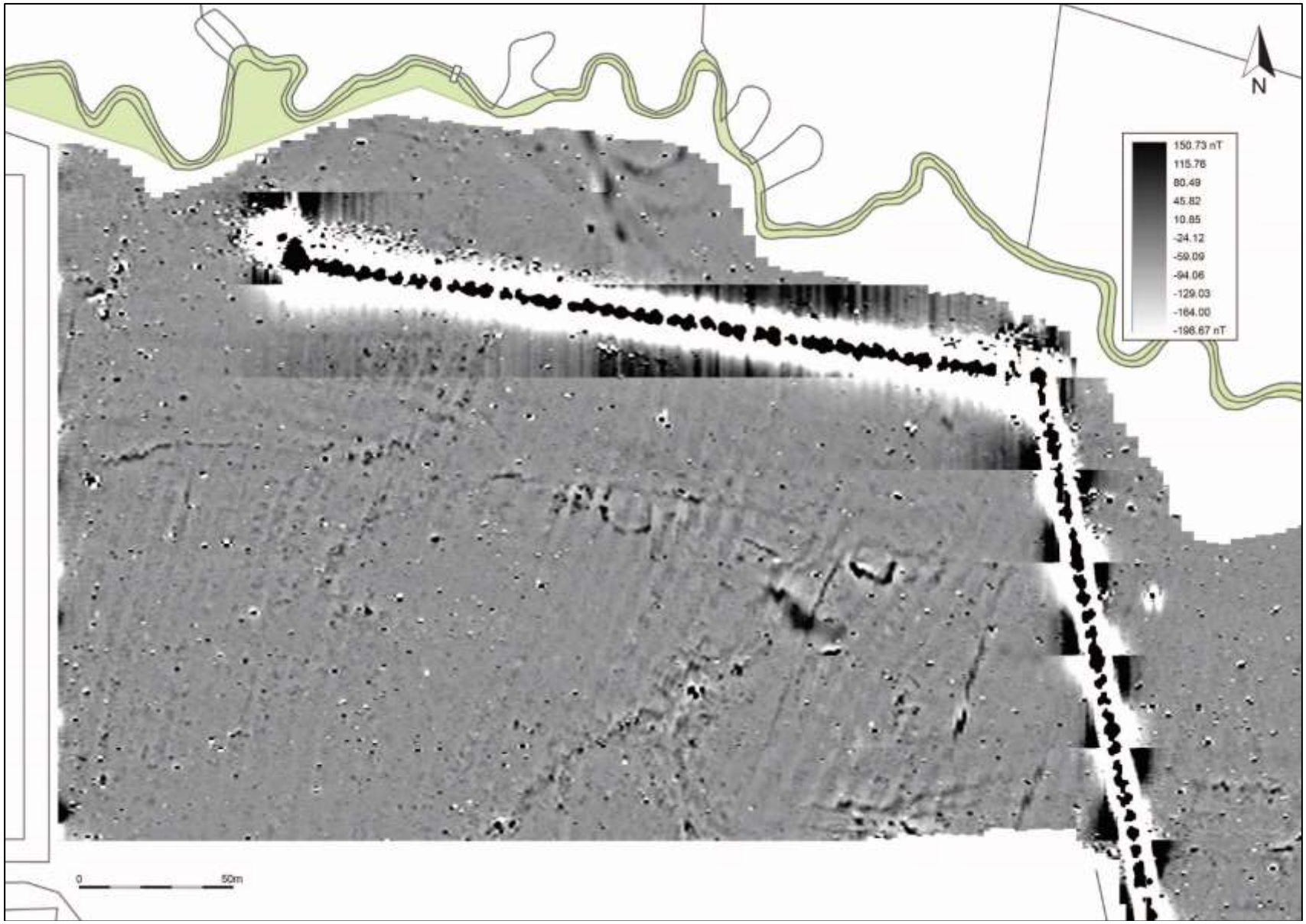

FIGURE 38: SHADE PLOT OF GRADIOMETER SURVEY DATA; GRADIATED SHADING, FIELD A.

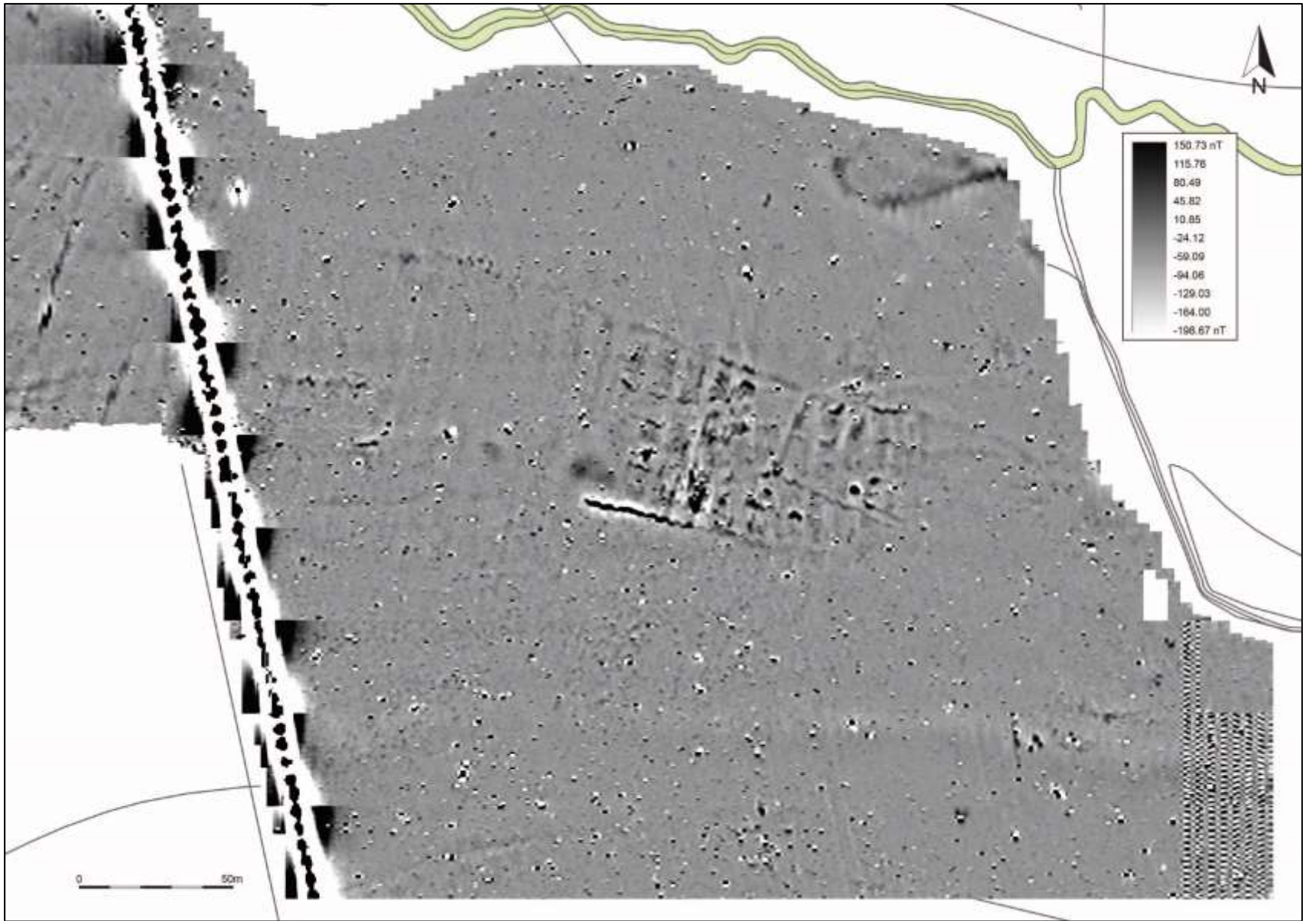

FIGURE 39: SHADE PLOT OF GRADIOMETER SURVEY DATA; GRADIATED SHADING, FIELD B.

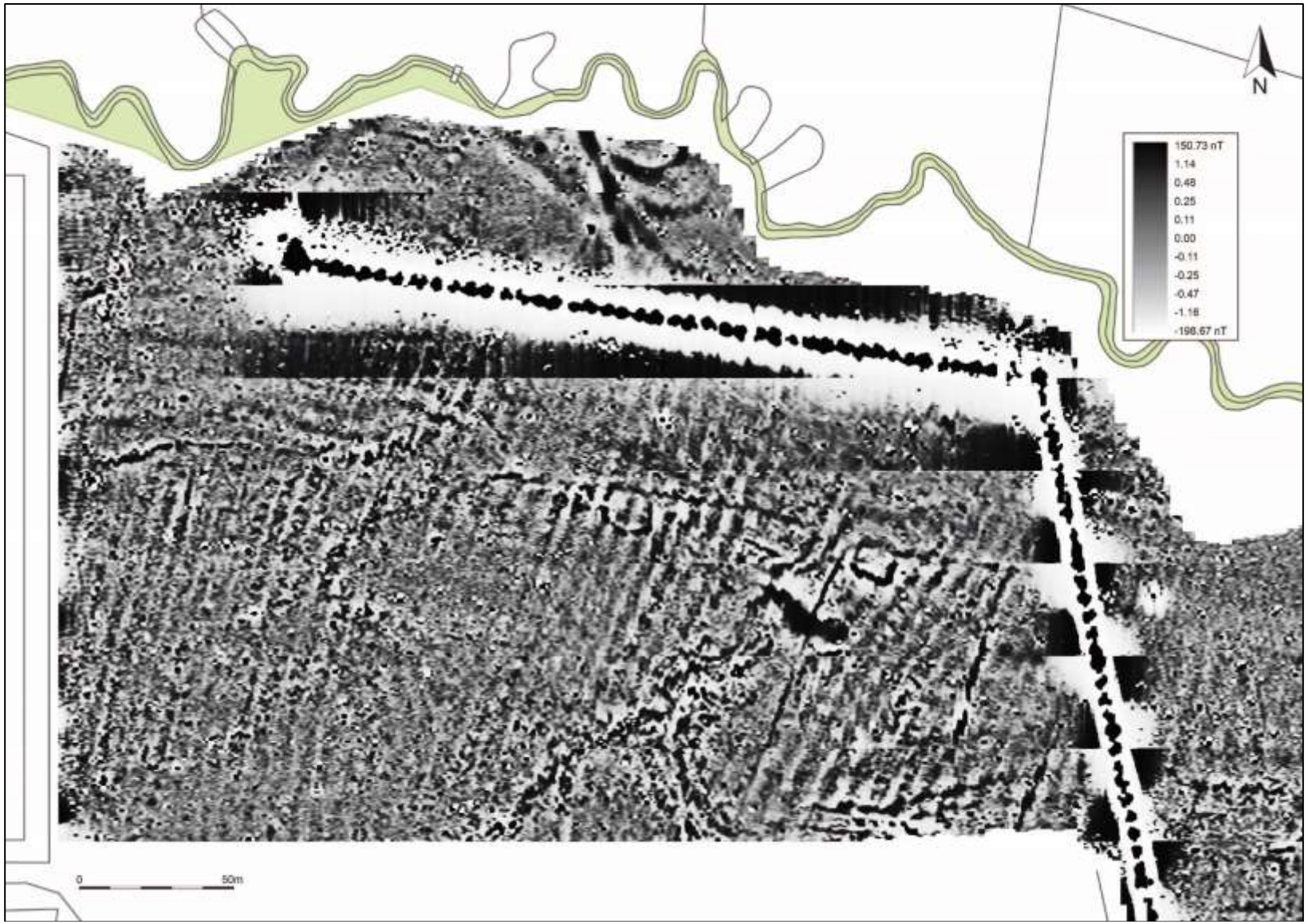

FIGURE 40: SHADE PLOT OF GRADIOMETER SURVEY DATA; GRADIATED SHADING, BAND WEIGHT EQUALISED, FIELD A.

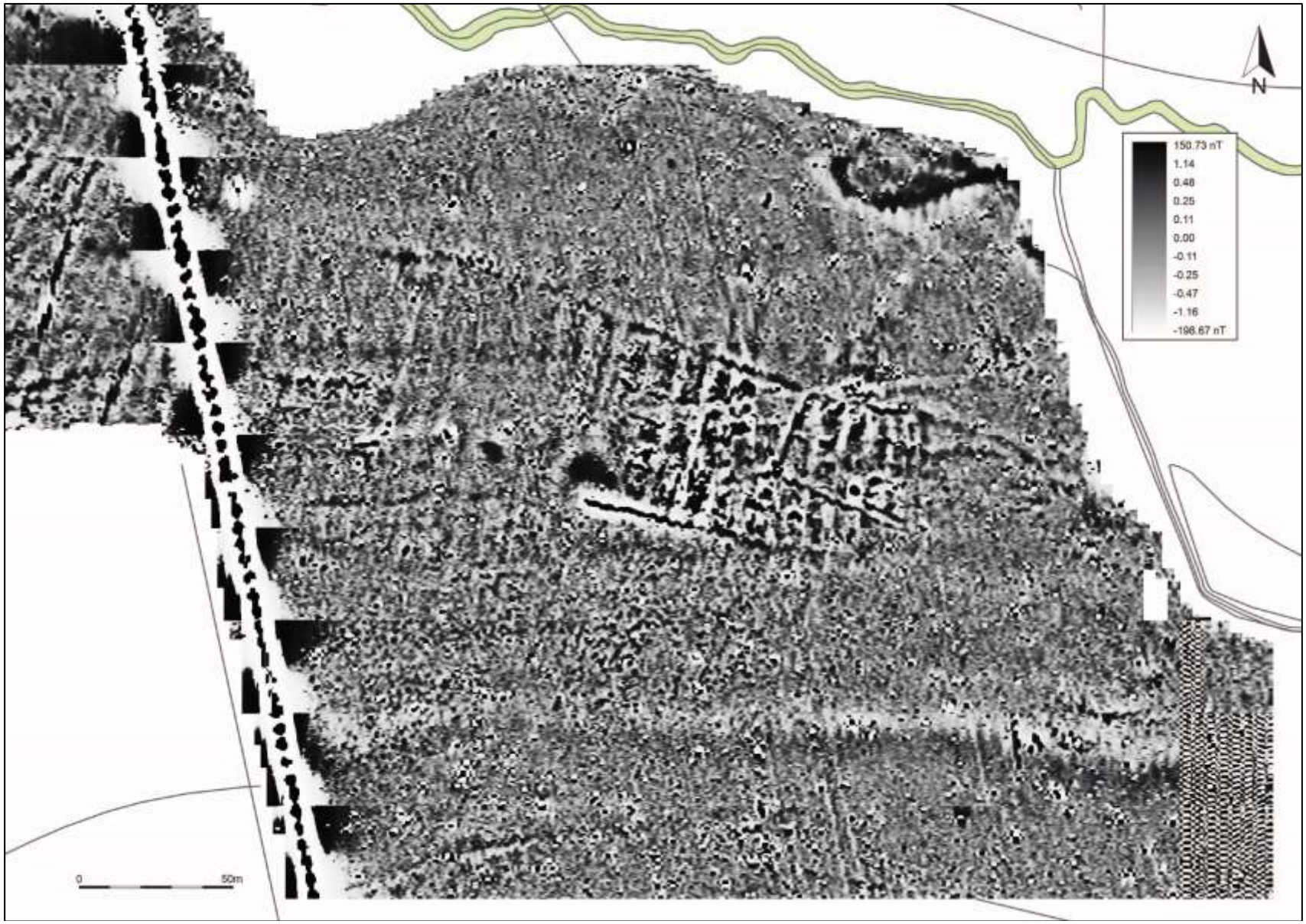

FIGURE 41: SHADE PLOT OF GRADIOMETER SURVEY DATA; GRADIATED SHADING, BAND WEIGHT EQUALISED, FIELD B.

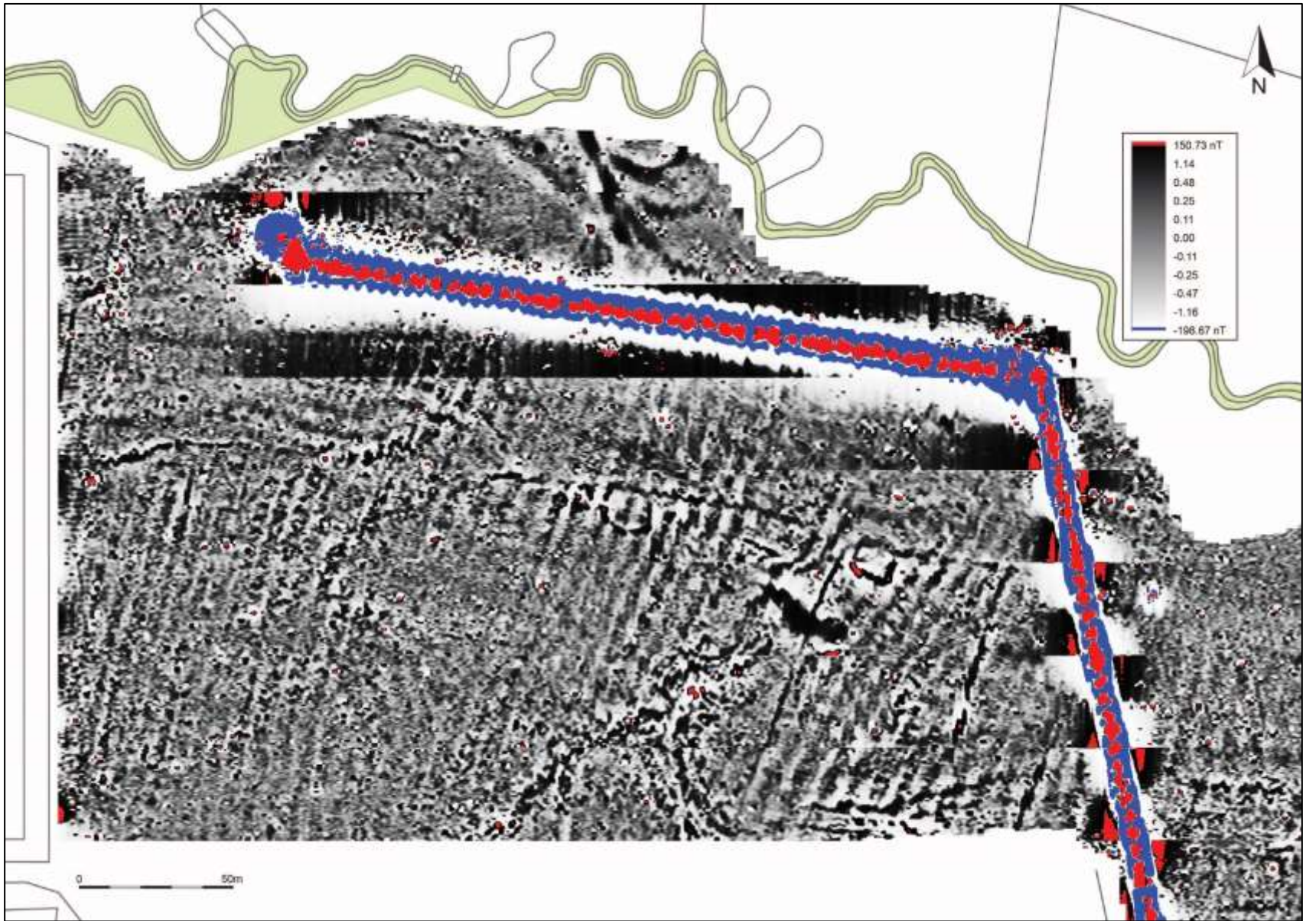

FIGURE 42: RED GREYSCALE BLUE SHADE PLOT OF GRADIOMETER SURVEY DATA; GRADIATED SHADING, BAND WEIGHT EQUALISED, FIELD A.

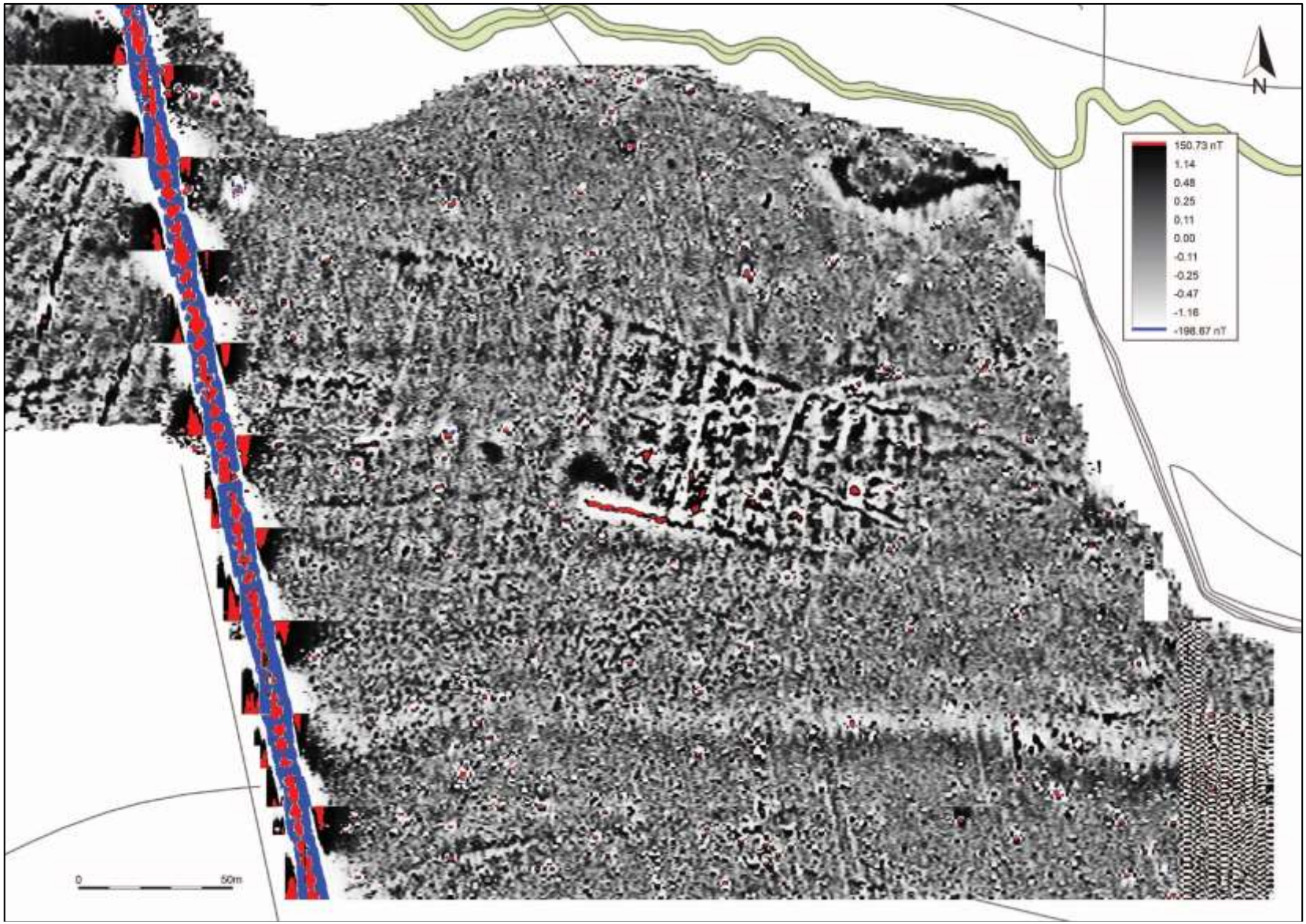

FIGURE 43: RED GREYSCALE BLUE SHADE PLOT OF GRADIOMETER SURVEY DATA; GRADIATED SHADING, BAND WEIGHT EQUALISED, FIELD B.

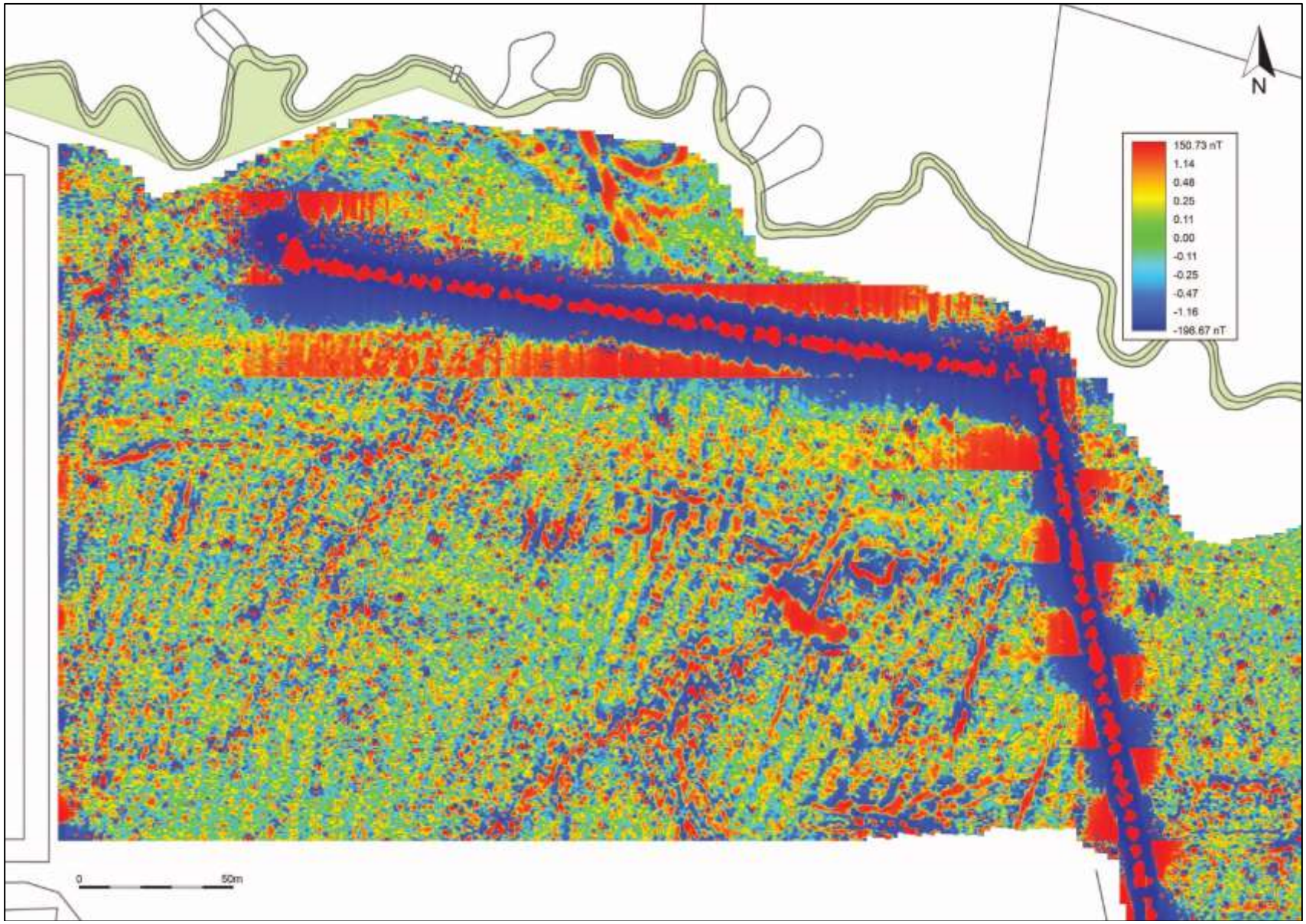

FIGURE 44: RED-BLUE-GREEN2 SHADE PLOT OF GRADIOMETER SURVEY DATA; GRADIATED SHADING, BAND WEIGHT EQUALISED, FIELD A.

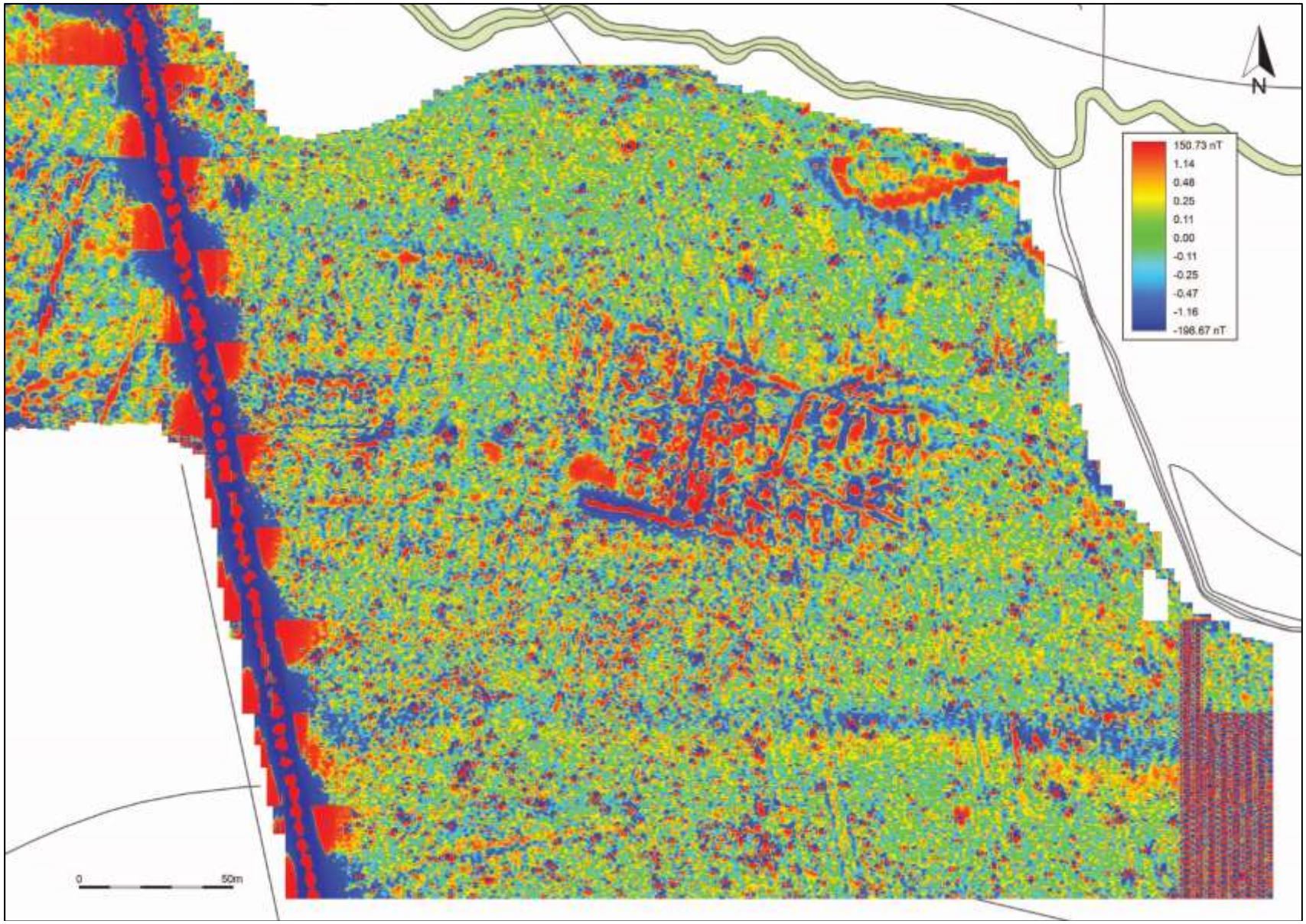

FIGURE 45: RED-BLUE-GREEN2 SHADE PLOT OF GRADIOMETER SURVEY DATA; GRADIATED SHADING, BAND WEIGHT EQUALISED, FIELD B.

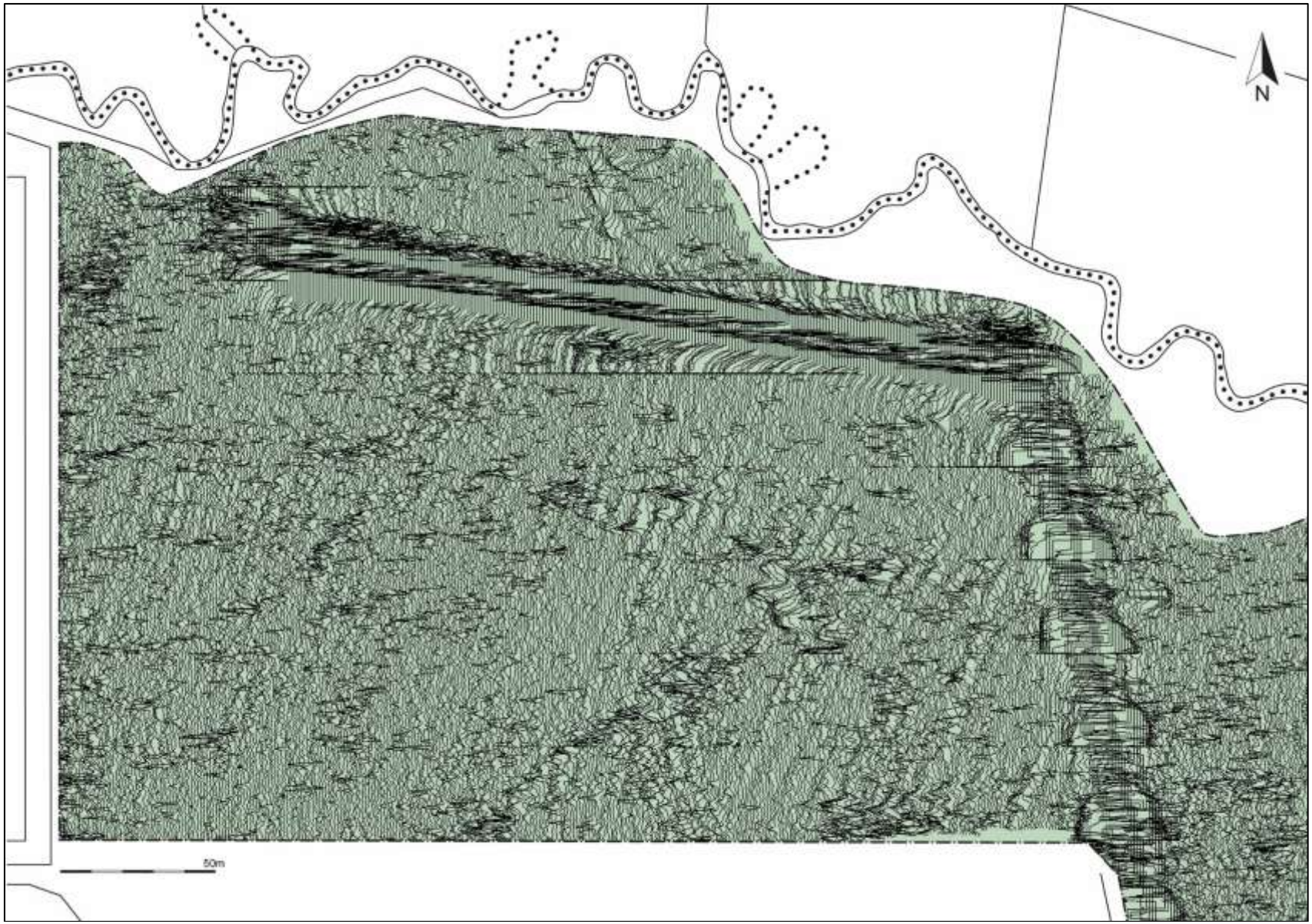

FIGURE 46: THE SURVEY DATA PRESENTED AS A TRACE PLOT (XYZ), FIELD A.

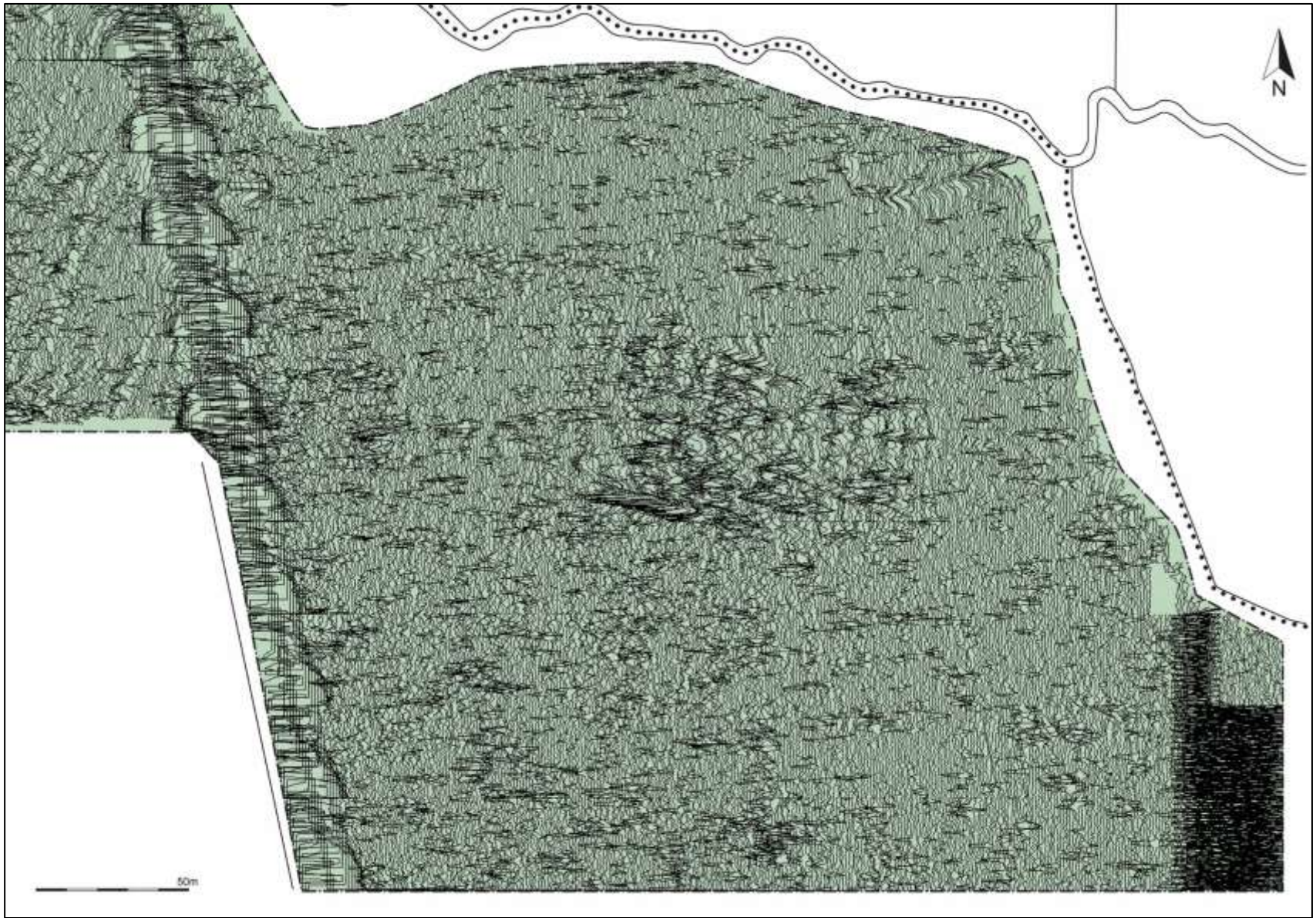

FIGURE 47: THE SURVEY DATA PRESENTED AS A TRACE PLOT (XYZ), FIELD B.

APPENDIX 2: SUPPORTING PHOTOGRAPHS:

SITE INSPECTION

VIEW TOWARDS FIELD B; VIEWED FROM THE WEST.

VIEW ALONG THE EASTERN BOUNDARY OF FIELD A; VIEWED FROM THE SOUTH-WEST.

VIEW OF THE PUMPING MAIN INSPECTION HATCH; VIEWED FROM THE SOUTH.

VIEW ALONG THE NORTHERN EDGE OF FIELD A; VIEWED FROM THE EAST.

VIEW ALONG THE NORTHERN BOUNDARY OF FIELD B; VIEWED FROM THE WEST.

VIEW ALONG THE NORTHERN BOUNDARY OF FIELD B; VIEWED FROM THE WEST.

VIEW TOWARDS THE MATURE OAK BETWEEN THE TWO FIELDS; VIEWED FROM THE NORTH-EAST.

VIEW ACROSS FIELD A; VIEWED FROM THE NORTH-EAST.

IMPACT ASSESSMENT

VIEW ACROSS THE LANDSCAPE TO HILL FARM FROM THE SOUTH; VIEWED FROM THE SOUTH.

LANDSCAPE VIEW OF HILL FARM, SHOWING IT SITTING ON A SHALLOW RIDGE IN THE VALLEY; VIEWED FROM THE SOUTH.

VIEW TO HILL FARM WITHIN ITS IMMEDIATE SETTING; VIEWED FROM THE SOUTH-SOUTH-EAST.

VIEW OF THE HISTORIC BARNS IN THEIR SETTING FLANKED WITHIN THE WORKING FARMYARD BY MODERN STRUCTURES AND FEATURES; VIEWED FROM THE NORTH-WEST.

VIEW SHOWING THE MODERN SHEDS THAT ABUT AND ENCLOSE THE HISTORIC THRESHING BARN ON ITS NORTH SIDE; VIEWED FROM THE WEST-NORTH-WEST.

VIEW PAST THE THRESHING BARN TO THE U-SHAPED RANGES; VIEWED FROM THE WEST-NORTH-WEST.

THE U-SHAPED RANGE WITH ENCLOSED COURTYARD TO FRONT, WITH LOW WALL; VIEWED FROM THE WEST-SOUTH-WEST.

THE LATER RANGE OF BARNS AND WORKSHOPS TO THE WEST OF THE FARMYARD, WITH BRICK DETAILING, LIKELY MUCH LATER 19TH CENTURY; VIEWED FROM THE SOUTH.

VIEW OF ONE OF THE LARGE MODERN AGRICULTURAL SHEDS, THAT FRAMES THE HISTORIC BARNS ON THEIR NORTHERN SIDE; VIEWED FROM THE WEST-NORTH-WEST.

VIEW SHOWING A RANGE OF THE MODERN OPEN-SPAN BARNS AND RELATIVELY MODERN TREE PLANTING, BETWEEN THE HISTORIC YARD AND FIELDS BEYOND, WHICH PROVIDE SOME SCREENING TO THE HISTORIC BUILDINGS AT THE FARM; VIEWED FROM THE SOUTH-WEST.

LANDSCAPE VIEW LOOKING ACROSS TO THE ROUNDED HILLTOP OF WOODED ILBURY CAMP (INDICATED), NOW SUBSUMED WITHIN THE AGRICULTURAL LANDSCAPE; VIEWED FROM THE SOUTH-EAST.

WIDER VIEW OF THE NEWHOUSE FARM, SHOWING HOW PLANTING AND THE CLOSURE/PRIVATISATION OF THE ROAD HAS DIVIDED THIS FARM FROM THE WIDER LANDSCAPE; VIEWED FROM THE EAST.

VIEW ACROSS THE LEVEL FIELDS OF NEWHOUSE FARM, IN THE BOTTOM OF THE WIDE VALLEY, SHOWING HOW IN SUCH A LANDSCAPE THE SCREENING PROVIDED BY TREES AND HEDGES IS ENHANCED; VIEWED FROM THE WEST-NORTH-WEST.

VIEW OF THE MATURE TREE LINED BOUNDARY TO THE WEST OF DANE HILL FARM, PLANTED AS PART OF THE ROAD CUTTING LANDSCAPING OF THE NEARBY A4260; VIEWED FROM THE SOUTH.

VIEW OF THE MODERN ROAD SET DOWN INTO A CUTTING WITH BANKING AND TREE PLANTING, TRUNCATING THE LANDSCAPE AND DIVIDING DANE HILL FARM FROM THE REST OF THE VALLEY; VIEWED FROM THE SOUTH-SOUTH-EAST.

VIEW FROM THE FOOTPATH NEXT TO ILBURY CAMP LOOKING TOWARDS HILL FARM, SHOWING DIRECT BUT DISTANT INTERVISIBILITY; VIEWED FROM THE WEST-NORTH-WEST.

VIEW OF THE EARTHWORKS OF THE DMV IN A FIELD EAST OF ILBURY CAMP; VIEWED FROM THE NORTH-NORTH-EAST.

VIEW OF THE SAME FIELD, SHOWING THE SHADOWING FROM THE EARTHWORKS; VIEWED FROM THE SOUTH-WEST.

APPENDIX 3: IMPACT ASSESSMENT METHODOLOGY

Heritage Impact Assessment - Overview

The purpose of heritage impact assessment is twofold: Firstly, to understand – insofar as is reasonable practicable and in proportion to the importance of the asset – the significance of a historic building, complex, area or archaeological monument (the 'heritage asset'). Secondly, to assess the likely effect of a proposed development on the heritage asset (direct impact) and its setting (indirect impact). This methodology employed in this assessment is based on the staged approach advocated in *The Setting of Heritage Assets* (GPA3 Historic England 2015), used in conjunction with the ICOMOS (2011) and DoT (DMRB vol.11; WEBTAG) guidance. This Appendix contains details of the methodology used in this report.

National Policy

General policy and guidance for the conservation of the historic environment are now contained within the *National Planning Policy Framework* (Department for Communities and Local Government 2012). The relevant guidance is reproduced below:

Paragraph 189

In determining applications, local planning authorities should require the applicant to describe the significance of any heritage assets affected, including the contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should be consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which a development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

Paragraph 190

Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.

A further key document is the Planning (Listed Buildings and Conservation Areas) Act 1990, in particular section 66(1), which provides *statutory protection* to the setting of Listed buildings:

In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

Cultural Value – Designated Heritage Assets

The majority of the most important ('nationally important') heritage assets are protected through *designation*, with varying levels of statutory protection. These assets fall into one of six categories, although designations often overlap, so a Listed early medieval cross may also be Scheduled, lie within the curtilage of Listed church, inside a Conservation Area, and on the edge of a Registered Park and Garden that falls within a world Heritage Site.

Listed Buildings

A Listed building is an occupied dwelling or standing structure which is of special architectural or historical interest. These structures are found on the *Statutory List of Buildings of Special Architectural or Historic Interest.* The status of Listed buildings is applied to 300,000-400,000 buildings across the United Kingdom. Recognition of the need to protect historic buildings began after the Second World War, where significant numbers of buildings had been damaged in the county towns and capitals of the United Kingdom. Buildings that were considered to be of 'architectural merit' were included. The Inspectorate of Ancient Monuments supervised the collation of the list, drawn up by members of two societies: The Royal Institute of British Architects and the Society for the Protection of Ancient Buildings. Initially the lists were only used to assess which buildings should receive government grants to be repaired and conserved if damaged by bombing. The *Town and Country Planning Act 1947* formalised the process within England and Wales, Scotland and Ireland following different procedures. Under the 1979 *Ancient*

Monuments and Archaeological Areas Act a structure cannot be considered a Scheduled Monument if it is occupied as a dwelling, making a clear distinction in the treatment of the two forms of heritage asset. Any alterations or works intended to a Listed Building must first acquire Listed Building Consent, as well as planning permission. Further phases of 'listing' were rolled out in the 1960s, 1980s and 2000s; English Heritage advise on the listing process and administer the procedure, in England, as with the Scheduled Monuments.

Some exemption is given to buildings used for worship where institutions or religious organisations (such as the Church of England) have their own permissions and regulatory procedures. Some structures, such as bridges, monuments, military structures and some ancient structures may also be Scheduled as well as Listed. War memorials, milestones and other structures are included in the list, and more modern structures are increasingly being included for their architectural or social value.

Buildings are split into various levels of significance: Grade I (2.5% of the total) representing buildings of exceptional (international) interest; Grade II* (5.5% of the total) representing buildings of particular (national) importance; Grade II (92%) buildings are of merit and are by far the most widespread. Inevitably, accuracy of the Listing for individual structures varies, particularly for Grade II structures; for instance, it is not always clear why some 19th century farmhouses are Listed while others are not, and differences may only reflect local government boundaries, policies and individuals.

Other buildings that fall within the curtilage of a Listed building are afforded some protection as they form part of the essential setting of the designated structure, e.g. a farmyard of barns, complexes of historic industrial buildings, service buildings to stately homes etc. These can be described as having *group value*.

Conservation Areas
Local authorities are obliged to identify and delineate areas of special architectural or historic interest as Conservation Areas, which introduces additional controls and protection over change within those places. Usually, but not exclusively, they relate to historic settlements, and there are c.7000 Conservation Areas in England.

Scheduled Monuments
In the United Kingdom, a Scheduled Monument is considered an historic building, structure (ruin) or archaeological site of **'national importance'**. Various pieces of legislation, under planning, conservation, etc., are used for legally protecting heritage assets given this title from damage and destruction; such legislation is grouped together under the term 'designation', that is, having statutory protection under the *Ancient Monuments and Archaeological Areas Act 1979*. A heritage asset is a part of the historic environment that is valued because of its historic, archaeological, architectural or artistic interest; those of national importance have extra legal protection through designation. Important sites have been recognised as requiring protection since the late 19th century, when the first 'schedule' or list of monuments was compiled in 1882. The conservation and preservation of these monuments was given statutory priority over other land uses under this first schedule. County Lists of the monuments are kept and updated by the Department for Culture, Media and Sport. In the later 20th century sites are identified by English Heritage (one of the Government's advisory bodies) of being of national importance and included in the schedule. Under the current statutory protection any works required on or to a designated monument can only be undertaken with a successful application for Scheduled Monument Consent. There are 19,000-20,000 Scheduled Monuments in England.

Registered Parks and Gardens
Culturally and historically important 'man-made' or 'designed' landscapes, such as parks and gardens are currently "listed" on a non-statutory basis, included on the 'Register of Historic Parks and Gardens of special historic interest in England' which was established in 1983 and is, like Listed Buildings and Scheduled Monuments, administered by Historic England. Sites included on this register are of **national importance** and there are currently 1,600 sites on the list, many associated with stately homes of Grade II* or Grade I status. Emphasis is laid on 'designed' landscapes, not the value of botanical planting. Sites can include town squares and private gardens, city parks, cemeteries and gardens around institutions such as hospitals and government buildings. Planned elements and changing fashions in landscaping and forms are a main focus of the assessment.

Registered Battlefields
Battles are dramatic and often pivotal events in the history of any people or nation. Since 1995 Historic England maintains a register of 46 battlefields in order to afford them a measure of protection through the planning

system. The key requirements for registration are battles of national significance, a securely identified location, and its topographical integrity – the ability to 'read' the battle on the ground.

World Heritage Sites

Arising from the UNESCO World Heritage Convention in 1972, Article 1 of the Operational Guidelines (2015, no.49) states: 'Outstanding Universal Value means cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity'. These sites are recognised at an international level for their intrinsic importance to the story of humanity, and should be accorded the highest level of protection within the planning system.

Value and Importance

While every heritage asset, designated or otherwise, has some intrinsic merit, the act of designation creates a hierarchy of importance that is reflected by the weight afforded to their preservation and enhancement within the planning system. The system is far from perfect, impaired by an imperfect understanding of individual heritage assets, but the value system that has evolved does provide a useful guide to the *relative* importance of heritage assets. Provision is also made for heritage assets where value is not recognised through designation (e.g. undesignated 'monuments of Schedulable quality and importance' should be regarded as being of *high* value); equally, there are designated monuments and structures of *low* relative merit.

Table 5: The hierarchy of value/importance (based on the DMRB vol.11 tables 5.1, 6.1 & 7.1).

Hierarchy of Value/Importance	
Very High	Structures inscribed as of universal importance as World Heritage Sites; Other buildings of recognised international importance; World Heritage Sites (including nominated sites) with archaeological remains; Archaeological assets of acknowledged international importance; Archaeological assets that can contribute significantly to international research objectives; World Heritage Sites inscribed for their historic landscape qualities; Historic landscapes of international value, whether designated or not; Extremely well preserved historic landscapes with exceptional coherence, time-depth, or other critical factor(s).
High	Scheduled Monuments with standing remains; Grade I and Grade II* (Scotland: Category A) Listed Buildings; Other Listed buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the Listing grade; Conservation Areas containing very important buildings; Undesignated structures of clear national importance; Undesignated assets of Schedulable quality and importance; Assets that can contribute significantly to national research objectives. Designated historic landscapes of outstanding interest; Undesignated landscapes of outstanding interest; Undesignated landscapes of high quality and importance, demonstrable national value; Well-preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factor(s).
Medium	Grade II (Scotland: Category B) Listed Buildings; Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations; Conservation Areas containing buildings that contribute significantly to its historic character; Historic Townscape or built-up areas with important historic integrity in their buildings, or built settings (e.g. including street furniture and other structures); Designated or undesignated archaeological assets that contribute to regional research objectives; Designated special historic landscapes; Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional value; Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factor(s).
Low	Locally Listed buildings (Scotland Category C(S) Listed Buildings); Historic (unlisted) buildings of modest quality in their fabric or historical association; Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings

Hierarchy of Value/Importance	
	(e.g. including street furniture and other structures); Designated and undesignated archaeological assets of local importance; Archaeological assets compromised by poor preservation and/or poor survival of contextual associations; Archaeological assets of limited value, but with potential to contribute to local research objectives; Robust undesignated historic landscapes; Historic landscapes with importance to local interest groups; Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.
Negligible	Buildings of no architectural or historical note; buildings of an intrusive character; Assets with very little or no surviving archaeological interest; Landscapes with little or no significant historical interest.
Unknown	Buildings with some hidden (i.e. inaccessible) potential for historic significance; The importance of the archaeological resource has not been ascertained.

Concepts – Conservation Principles
In making an assessment, this document adopts the conservation values (*evidential*, *historical*, *aesthetic* and *communal*) laid out in *Conservation Principles* (English Heritage 2008), and the concepts of *authenticity* and *integrity* as laid out in the guidance on assessing World Heritage Sites (ICOMOS 2011). This is in order to determine the relative importance of *setting* to the significance of a given heritage asset.

Evidential Value
Evidential value (or research potential) is derived from the potential of a structure or site to provide physical evidence about past human activity, and may not be readily recognised or even visible. This is the primary form of data for periods without adequate written documentation. This is the least equivocal value: evidential value is absolute; all other ascribed values (see below) are subjective. However,

Historical Value
Historical value (narrative) is derived from the ways in which past people, events and aspects of life can be connected via a place to the present; it can be *illustrative* or *associative*.

Illustrative value is the visible expression of evidential value; it has the power to aid interpretation of the past through making connections with, and providing insights into, past communities and their activities through a shared experience of place. Illustrative value tends to be greater if a place features the first or only surviving example of a particular innovation of design or technology.

Associative value arises from a connection to a notable person, family, event or historical movement. It can intensify understanding by linking the historical past to the physical present, always assuming the place bears any resemblance to its appearance at the time. Associational value can also be derived from known or suspected links with other monuments (e.g. barrow cemeteries, church towers) or cultural affiliations (e.g. Methodism).

Buildings and landscapes can also be associated with literature, art, music or film, and this association can inform and guide responses to those places.

Historical value depends on sound identification and the direct experience of physical remains or landscapes. Authenticity can be strengthened by change, being a living building or landscape, and historical values are harmed only where adaptation obliterates or conceals them. The appropriate use of a place – e.g. a working mill, or a church for worship – illustrates the relationship between design and function and may make a major contribution to historical value. Conversely, cessation of that activity – e.g. conversion of farm buildings to holiday homes – may essentially destroy it.

Aesthetic Value
Aesthetic value (emotion) is derived from the way in which people draw sensory and intellectual stimulation from a place or landscape. Value can be the result of *conscious design*, or the *fortuitous outcome* of landscape evolution; many places combine both aspects, often enhanced by the passage of time.

Design value relates primarily to the aesthetic qualities generated by the conscious design of a building, structure or landscape; it incorporates composition, materials, philosophy and the role of patronage. It may have associational value, if undertaken by a known architect or landscape gardener, and its importance is enhanced if it is seen as innovative, influential or a good surviving example. Landscape parks, country houses and model farms all have design value. The landscape is not static, and a designed feature can develop and mature, resulting in the 'patina of age'.

Some aesthetic value developed *fortuitously* over time as the result of a succession of responses within a particular cultural framework e.g. the seemingly organic form of an urban or rural landscape or the relationship of vernacular buildings and their materials to the landscape. Aesthetic values are where a proposed development usually has their most pronounced impact: the indirect effects of most developments are predominantly visual or aural, and can extent many kilometres from the site itself. In many instances the impact of a development is incongruous, but that is itself an aesthetic response, conditioned by prevailing cultural attitudes to what the historic landscape should look like.

Communal Value

Communal value (togetherness) is derived from the meaning a place holds for people, and may be closely bound up with historical/associative and aesthetic values; it can be *commemorative, symbolic*, *social* or *spiritual*.

Commemorative and symbolic value reflects the meanings of a place to those who draw part of their identity from it, or who have emotional links to it e.g. war memorials. Some buildings or places (e.g. the Palace of Westminster) can symbolise wider values. Other places (e.g. Porton Down Chemical Testing Facility) have negative or uncomfortable associations that nonetheless have meaning and significance to some and should not be forgotten. *Social value* need not have any relationship to surviving fabric, as it is the continuity of function that is important. *Spiritual value* is attached to places and can arise from the beliefs of a particular religion or past or contemporary perceptions of the spirit of place. Spiritual value can be ascribed to places sanctified by hundreds of years of veneration or worship, or wild places with few signs of modern life. Value is dependent on the perceived survival of historic fabric or character, and can be very sensitive to change. The key aspect of communal value is that it brings specific groups of people together in a meaningful way.

Authenticity

Authenticity, as defined by UNESCO (2015, no.80), is the ability of a property to convey the attributes of the outstanding universal value of the property. 'The ability to understand the value attributed to the heritage depends on the degree to which information sources about this value may be understood as credible or truthful'. Outside of a World Heritage Site, authenticity may usefully be employed to convey the sense a place or structure is a truthful representation of the thing it purports to portray. Converted farm buildings, for instance, survive in good condition, but are drained of the authenticity of a working farm environment.

Integrity

Integrity, as defined by UNESCO (2015, no.88), is the measure of wholeness or intactness of the cultural heritage ad its attributes. Outside of a World Heritage Site, integrity can be taken to represent the survival and condition of a structure, monument or landscape. The intrinsic value of those examples that survive in good condition is undoubtedly greater than those where survival is partial, and condition poor.

Summary

As indicated, individual developments have a minimal or tangential effect on most of the heritage values outlined above, largely because almost all effects are indirect. The principle values in contention are aesthetic/designed and, to a lesser degree aesthetic/fortuitous. There are also clear implications for other value elements (particularly historical and associational, communal and spiritual), where views or sensory experience is important. As ever, however, the key element here is not the intrinsic value of the heritage asset, nor the impact on setting, but the relative contribution of setting to the value of the asset.

Setting – The Setting of Heritage Assets

The principle guidance on this topic is contained within two publications: *The Setting of Heritage Assets* (Historic England 2015) and *Seeing History in the View* (English Heritage 2011). While interlinked and complementary, it is useful to consider heritage assets in terms of their *setting* i.e. their immediate landscape context and the environment within which they are seen and experienced, and their *views* i.e. designed or fortuitous vistas

experienced by the visitor when at the heritage asset itself, or those that include the heritage asset. This corresponds to the experience of its wider landscape setting.

Where the impact of a proposed development is largely indirect, *setting* is the primary consideration of any HIA. It is a somewhat nebulous and subjective assessment of what does, should, could or did constitute the lived experience of a monument or structure. The following extracts are from the Historic England publication *The Setting of Heritage Assets* (2015, 2 & 4):

The NPPF makes it clear that the setting of a heritage asset is the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve.

Setting is not a heritage asset, nor a heritage designation. Its importance lies in what it contributes to the significance of the heritage asset. This depends on a wide range of physical elements within, as well as perceptual and associational attributes, pertaining to the heritage asset's surroundings.

While setting can be mapped in the context of an individual application or proposal, it does not have a fixed boundary and cannot be definitively and permanently described for all time as a spatially bounded area or as lying within a set distance of a heritage asset because what comprises a heritage asset's setting may change as the asset and its surroundings evolve or as the asset becomes better understood or due to the varying impacts of different proposals.

The HIA below sets out to determine the magnitude of the effect and the sensitivity of the heritage asset to that effect. The fundamental issue is that proximity and visual and/or aural relationships may affect the experience of a heritage asset, but if setting is tangential to the significance of that monument or structure, then the impact assessment will reflect this. This is explored in more detail below.

Landscape Context

The determination of *landscape context* is an important part of the assessment process. This is the physical space within which any given heritage asset is perceived and experienced. The experience of this physical space is related to the scale of the landform, and modified by cultural and biological factors like field boundaries, settlements, trees and woodland. Together, these determine the character and extent of the setting.

Landscape context is based on topography, and can vary in scale from the very small – e.g. a narrow valley where views and vistas are restricted – to the very large – e.g. wide valleys or extensive upland moors with 360° views. Where very large landforms are concerned, a distinction can be drawn between the immediate context of an asset (this can be limited to a few hundred metres or less, where cultural and biological factors impede visibility and/or experience), and the wider context (i.e. the wider landscape within which the asset sits).

When new developments are introduced into a landscape, proximity alone is not a guide to magnitude of effect. Dependant on the nature and sensitivity of the heritage asset, the magnitude of effect is potentially much greater where the proposed development is to be located within the landscape context of a given heritage asset. Likewise, where the proposed development would be located outside the landscape context of a given heritage asset, the magnitude of effect would usually be lower. Each case is judged on its individual merits, and in some instances the significance of an asset is actually greater outside of its immediate landscape context, for example, where church towers function as landmarks in the wider landscape.

Views

Historic and significant views are the associated and complementary element to setting, but can be considered separately as developments may appear in a designed view without necessarily falling within the setting of a heritage asset *per se*. As such, significant views fall within the aesthetic value of a heritage asset, and may be *designed* (i.e. deliberately conceived and arranged, such as within parkland or an urban environment) or *fortuitous* (i.e. the graduated development of a landscape 'naturally' brings forth something considered aesthetically pleasing, or at least impressive, as with particular rural landscapes or seascapes), or a combination of both (i.e. the *patina of age*, see below). The following extract is from the English Heritage publication *Seeing History in the View* (2011, 3):

Views play an important part in shaping our appreciation and understanding of England's historic environment, whether in towns or cities or in the countryside. Some of those views were deliberately designed to be seen as a

unity. Much more commonly, a significant view is a historical composite, the cumulative result of a long process of development.

The Setting of Heritage Assets (2015, 3) lists a number of instances where views contribute to the particular significance of a heritage asset:

- Views where relationships between the asset and other historic assets or places or natural features are particularly relevant;
- Views with historical associations, including viewing points and the topography of battlefields;
- Views where the composition within the view was a fundamental aspect of the design or function of the heritage asset;
- Views between heritage assets and natural or topographic features, or phenomena such as solar and lunar events;
- Views between heritage assets which were intended to be seen from one another for aesthetic, functional, ceremonial or religious reasons, such as military or defensive sites, telegraphs or beacons, Prehistoric funerary and ceremonial sites.

On a landscape scale, views, taken in the broadest sense, are possible from anywhere to anything, and each may be accorded an aesthetic value according to subjective taste. Given that terrain, the biological and built environment, and public access restrict our theoretical ability to see anything from anywhere, in this assessment the term *principal view* is employed to denote both the deliberate views created within designed landscapes, and those fortuitous views that may be considered of aesthetic value and worth preserving. It should be noted, however, that there are distance thresholds beyond which perception and recognition fail, and this is directly related to the scale, height, massing and nature of the heritage asset in question. For instance, beyond 2km the Grade II cottage comprises a single indistinct component within the wider historic landscape, whereas at 5km or even 10km a large stately home or castle may still be recognisable. By extension, where assets cannot be seen or recognised i.e. entirely concealed within woodland, or too distant to be distinguished, then visual harm to setting is moot. To reflect this emphasis on recognition, the term *landmark asset* is employed to denote those sites where the structure (e.g. church tower), remains (e.g. earthwork ramparts) or – in some instances – the physical character of the immediate landscape (e.g. a distinctive landform like a tall domed hill) make them visible on a landscape scale. In some cases, these landmark assets may exert landscape *primacy*, where they are the tallest or most obvious man-made structure within line-of-sight. However, this is not always the case, typically where there are numerous similar monuments (multiple engine houses in mining areas, for instance) or where modern developments have overtaken the heritage asset in height and/or massing.

Yet visibility alone is not a clear guide to visual impact. People perceive size, shape and distance using many cues, so context is critically important. For instance, research on electricity pylons (Hull & Bishop 1988) has indicated scenic impact is influenced by landscape complexity: the visual impact of pylons is less pronounced within complex scenes, especially at longer distances, presumably because they are less of a focal point and the attention of the observer is diverted. There are many qualifiers that serve to increase or decrease the visual impact of a proposed development (see Table 6), some of which are seasonal or weather-related.

Thus the principal consideration of assessment of indirect effects cannot be visual impact *per se*. It is an assessment of the likely magnitude of effect, the importance of setting to the significance of the heritage asset, and the sensitivity of that setting to the visual or aural intrusion of the proposed development. The schema used to guide assessments is shown in Table 6 (below).

Type and Scale of Impact

The effect of a proposed development on a heritage asset can be direct (i.e. the designated structure itself is being modified or demolished, the archaeological monument will be built over), or indirect (e.g. a housing estate built in the fields next to a Listed farmhouse, and wind turbine erected near a hillfort etc.); in the latter instance the principal effect is on the setting of the heritage asset. A distinction can be made between construction and operational phase effects. Individual developments can affect multiple heritage assets (aggregate impact), and contribute to overall change within the historic environment (cumulative impact).

Construction phase: construction works have direct, physical effects on the buried archaeology of a site, and a pronounced but indirect effect on neighbouring properties. Direct effects may extend beyond the nominal footprint of a site e.g. where related works or site compounds are located off-site. Indirect effects are both visual and aural, and may also affect air quality, water flow and traffic in the local area.

Operational phase: the operational phase of a development is either temporary (e.g. wind turbine or mobile phone mast) or effectively permanent (housing development or road scheme). The effects at this stage are largely indirect, and can be partly mitigated over time through provision of screening. Large development would have an effect on historic landscape character, as they transform areas from one character type (e.g. agricultural farmland) into another (e.g. suburban).

Cumulative Impact: a single development will have a physical and a visual impact, but a second and a third site in the same area will have a synergistic and cumulative impact above and beyond that of a single site. The cumulative impact of a proposed development is particularly difficult to estimate, given the assessment must take into consideration operational, consented and proposals in planning.

Aggregate Impact: a single development will usually affect multiple individual heritage assets. In this assessment, the term aggregate impact is used to distinguish this from cumulative impact. In essence, this is the impact on the designated parts of the historic environment as a whole.

Scale of Impact

The effect of development and associated infrastructure on the historic environment can include positive as well as negative outcomes. However, all development changes the character of a local environment, and alters the character of a building, or the setting within which it is experienced. change is invariably viewed as negative, particularly within respect to larger developments; thus while there can be beneficial outcomes (e.g. positive/moderate), there is a presumption here that, as large and inescapably modern intrusive visual actors in the historic landscape, the impact of a development will almost always be **neutral** (i.e. no impact) or **negative** i.e. it will have a **detrimental impact** on the setting of ancient monuments and protected historic buildings. This assessment incorporates the systematic approach outlined in the ICOMOS and DoT guidance (see Tables 5-7), used to complement and support the more narrative but subjective approach advocated by Historic England (see Table 8). This provides a useful balance between rigid logic and nebulous subjectivity (e.g. the significance of effect on a Grade II Listed building can never be greater than moderate/large; an impact of negative/substantial is almost never achieved). This is in adherence with GPA3 (2015, 7).

Table 6: Magnitude of Impact (based on DMRB vol.11 tables 5.3, 6.3 and 7.3).

Factors in the Assessment of Magnitude of Impact – Buildings and Archaeology	
Major	Change to key historic building elements, such that the resource is totally altered; Change to most or all key archaeological materials, so that the resource is totally altered; Comprehensive changes to the setting.
Moderate	Change to many key historic building elements, the resource is significantly modified; Changes to many key archaeological materials, so that the resource is clearly modified; Changes to the setting of an historic building or asset, such that it is significantly modified.
Minor	Change to key historic building elements, such that the asset is slightly different; Changes to key archaeological materials, such that the asset is slightly altered; Change to setting of an historic building, such that it is noticeably changed.
Negligible	Slight changes to elements of a heritage asset or setting that hardly affects it.
No Change	No change to fabric or setting.
Factors in the Assessment of Magnitude of Impact – Historic Landscapes	
Major	Change to most or all key historic landscape elements, parcels or components; extreme visual effects; gross change of noise or change to sound quality; fundamental changes to use or access; resulting in total change to historic landscape character unit.
Moderate	Changes to many key historic landscape elements or components, visual change to many key aspects of the historic landscape, noticeable differences in noise quality, considerable changes to use or access; resulting in moderate changes to historic landscape character.
Minor	Changes to few key historic landscape elements, or components, slight visual changes to few key aspects of historic landscape, limited changes to noise levels or sound quality; slight changes to use or access: resulting in minor changes to historic landscape character.
Negligible	Very minor changes to key historic landscape elements, parcels or components, virtually unchanged visual effects, very slight changes in noise levels or sound quality; very slight changes to use or access; resulting in a very small change to historic landscape character.
No Change	No change to elements, parcels or components; no visual or audible changes; no changes arising from in amenity or community factors.

Table 7: Significance of effects matrix (based on DRMB vol.11 tables 5.4, 6.4 and 7.4; ICOMOS 2011, 9-10).

Value of Assets	Magnitude of Impact (positive or negative)				
	No Change	Negligible	Minor	Moderate	Major
Very High	Neutral	Slight	Moderate/Large	Large/Very Large	Very Large
High	Neutral	Slight	Moderate/Slight	Moderate/Large	Large/Very Large
Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/Large
Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/Moderate
Negligible	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight

Table 8: Scale of Impact.

Scale of Impact	
Neutral	No impact on the heritage asset.
Negligible	Where the developments may be visible or audible, but would not affect the heritage asset or its setting, due to the nature of the asset, distance, topography, or local blocking.
Negative/minor	Where the development would have an effect on the heritage asset or its setting, but that effect is restricted due to the nature of the asset, distance, or screening from other buildings or vegetation.
Negative/moderate	Where the development would have a pronounced impact on the heritage asset or its setting, due to the sensitivity of the asset and/or proximity. The effect may be ameliorated by screening or mitigation.
Negative/substantial	Where the development would have a severe and unavoidable effect on the heritage asset or its setting, due to the particular sensitivity of the asset and/or close physical proximity. Screening or mitigation could not ameliorate the effect of the development in these instances.

Table 9: Importance of setting to intrinsic significance.

Importance of Setting to the Significance of the Asset	
Paramount	Examples: Round barrow; follies, eye-catchers, stone circles
Integral	Examples: Hillfort; country houses
Important	Examples: Prominent church towers; war memorials
Incidental	Examples: Thatched cottages
Irrelevant	Examples: Milestones

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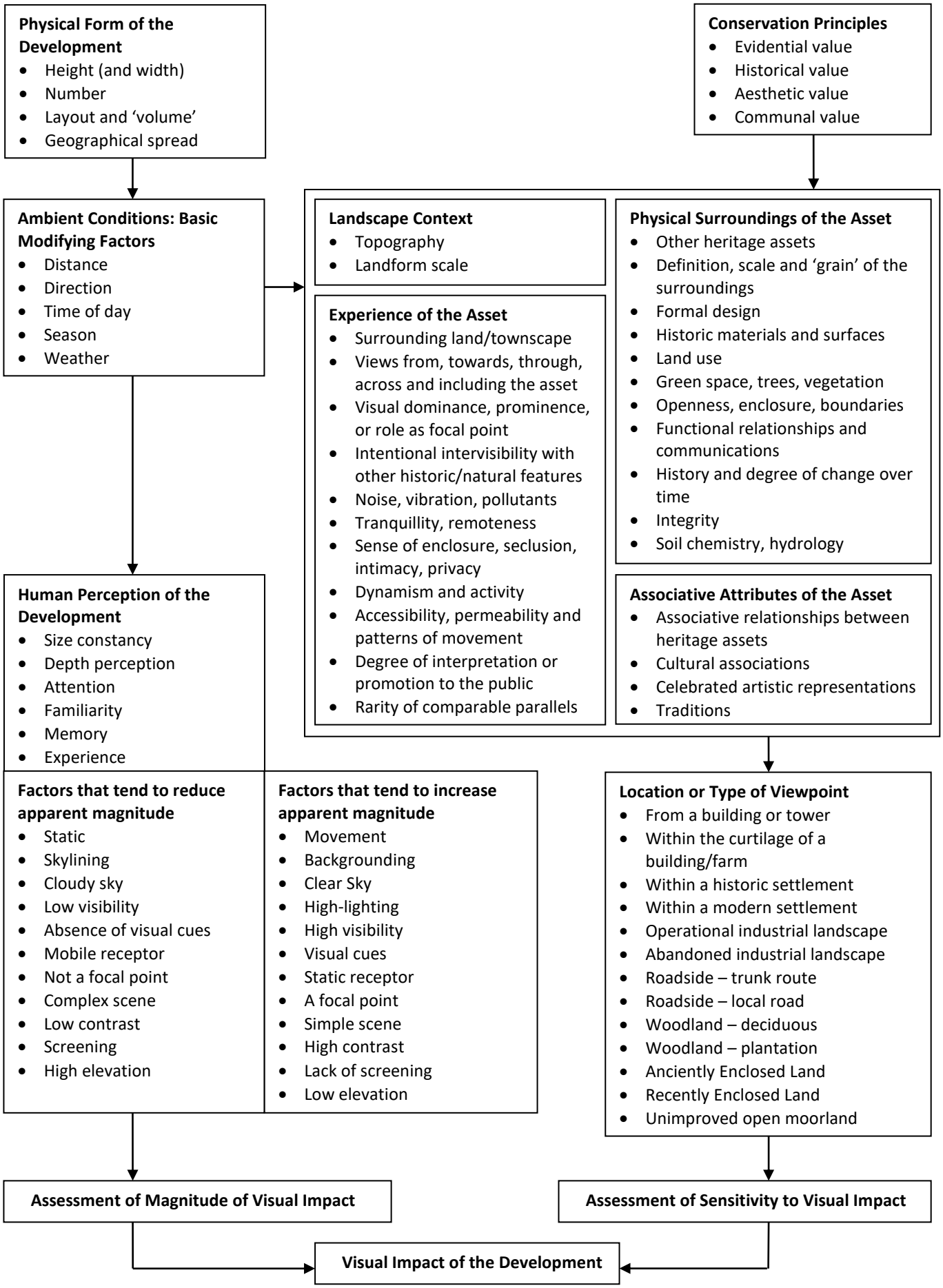

TABLE 10: THE CONCEPTUAL MODEL FOR VISUAL IMPACT ASSESSMENT PROPOSED BY THE UNIVERSITY OF NEWCASTLE (2002, 63), MODIFIED TO INCLUDE ELEMENTS OF *ASSESSMENT STEP 2* FROM THE SETTING OF HERITAGE ASSETS (HISTORIC ENGLAND 2015, 9).