Archaeology South-East

ASE

Integrated Magnetometry and Fieldwalking Survey
Land North of Horsham, West Sussex

NGR: 519000 134000
(TQ 19000 34000)

ASE Project No: 7884
Site Code: LHO 15

ASE Report No. 2015463
OASIS ID: archaeol6-234727

By Dr Ed Blinkhorn,
John Cook BSc (Hons) ACIfA
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With contributions by
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Date of Issue:	17.12.15		
Revision:			

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Abstract

Archaeology South-East was commissioned by Liberty Property Trust UK Ltd to undertake a programme of magnetometry survey and surface artefact collection (archaeological fieldwalking) on land totalling approximately 50 hectares to the north of Horsham, West Sussex. The work was undertaken in November and December 2015. The site consists of mixed arable land, interspersed with woodland, buildings, small rivers and transport infrastructure. The site varies in altitude between 50 m above Ordnance Datum (AOD) and 75m AOD although it rises to 90m AOD in the north-west.

Throughout the survey anomalies of possible archaeological origin are characterised by linear and discrete positive anomalies indicating cut features such as pits and ditches. These anomalies are generally sparse and often coincide with former enclosure boundaries. However, more significant indicators of archaeological features are noted at several locations. A probable former building is suggested in Area C adjacent to the earthwork known as 'The Castle' and may be medieval or early post medieval in date. Areas of magnetic debris in the north west of Area D correspond to the location of Bushlags observed on the 1875 25-inch Ordnance Survey map and later known as Bush Cottage. Also noted in Area D are possible channels and river terrace gravels. A number of these anomalies appear to represent the pre-canalised route of Channells Brook and possible archaeological activity is noted within the largest of these meanders.

Prehistoric, medieval and post-medieval material was recovered in varying quantities from the four areas during the surface artefacts collection. Fieldwalking Areas A and D were smaller than those available for the magnetometry survey. There were no clear concentrations of prehistoric or medieval material, and a thin scatter of ironworking slag could contain bloomery waste varying in date from the Iron Age to the end of the medieval period. Similarly there was a thin spread of post-medieval blast furnace slag, but the majority of material from that period consisted of ceramic building material (CBM) and pottery, most (if not all) the result of manuring.

Statement of Indemnity

Geophysical survey is the collection of data that relate to subtle variations in the form and nature of soil and which relies on there being a measurable difference between buried archaeological features and the natural geology. Geophysical techniques do not specifically target archaeological features and anomalies noted in the interpretation do not necessarily relate to buried archaeological features. As a result, magnetic and earth resistance detail survey may not always detect sub-surface archaeological features. This is particularly true when considering earlier periods of human activity, for example those periods that are not characterised by sedentary social activity.

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1.0 INTRODUCTION

1.1 Site background

1.1.1 Archaeology South-East (ASE), a division of University College London (UCL) Centre for Applied Archaeology (CAA) was commissioned by Liberty Property Trust UK Ltd to undertake a programme of magnetometer survey and surface artefact collection (archaeological fieldwalking) on land to the north of Horsham, West Sussex henceforth referred to as 'the site' (centred at NGR. 519000 134000; Figure 1).

1.2 Geology and topography

1.2.1 The site lies on the northern edge of Horsham, bounded to the south by the A264, to the east by the A264, a railway line and Wimland Road, to the west by Langhurstwood Road and to the north by woodland and farmland. It is currently mixed agricultural land comprising modern amalgamated arable fields. The site comprises an irregular rectangular block of farmland and woodland, measuring approximately 3kms east-west and 1.3kms north-south, and comprises two distinct blocks linked by an access route.

1.2.2 The site occupies a shallow basin in the valley of the Channells Brook, extending in altitude from c.50m to c.75m, but reaching up to c.90m in the north-west corner. According to the latest data held by the British Geological Survey (BGS 2015a), the solid geology of the site comprises mostly Weald Clay, with a narrow belt of Horsham Stone crossing the northern edge of the site, and a smaller belt of Ironstone in the eastern corner.

1.2.3 The southernmost fields, between Channells Brook and the A264, are formed of Weald Clay to the north and Upper Tunbridge Wells Sand to the south. Superficial geological deposits in this area comprise Arun River Terrace Gravels, with the Channells Brook valley (a headwater of the Arun) itself containing alluvium. Historical geotechnical borehole logs available on the BGS website (BGS 2015b) contain limited data relating to the environs of the site: they indicate a consistent stratigraphy of topsoil (ranging in depth from 0.2-0.6m) overlying solid and superficial geologies.

1.3 Aims and Objectives

1.3.1 The general aim of this programme of archaeological survey was to obtain a better understanding of archaeological potential across the site. This work will allow informed decisions to be made as to the need, nature and scope of any further mitigation measures that may be required.

Specific Aims of the Geophysical Survey

1.3.2 The geophysical survey comprised a detailed magnetometer survey of the four areas shown on Figure 2. The survey aimed to detect any anomalies of an archaeological origin within the boundaries of the survey area. The features detected are limited to those features that produce a measurable response to the instrumentation used.

Specific Aims of the Fieldwalking Survey

1.3.3 The fieldwalking survey of the four areas shown on Figure 3 aimed to identify any concentrations of surface artefacts which might indicate the presence of below-ground archaeological features and/or foci of past human activity.

1.4 Planning Background

1.4.1 The first stage of pre-determination archaeological work was an *Archaeological Desk-Based Assessment* (DBA) completed by ASE (2015a).

1.4.2 Further to discussions with Martin Brown of WYG, in his capacity as Archaeological Advisor to Horsham District Council (hereafter HDCAA) it was agreed that a targeted sample of the site comprising geophysical (magnetometer) survey and fieldwalking, focussing on areas available at this early stage, would be undertaken. The information gathered forms part of the assessment of the heritage significance of the site, against which the potential impact of any future development proposals for the site can be assessed.

1.4.3 The site has been subdivided into four separate areas (Areas A to D) (Figures 1, 2 & 3). The geophysical and fieldwalking surveys have been targeted on areas with the highest potential as identified in the DBA. The rationale behind these areas was presented to the HDCAA by ASE in an email dated 25th September 2015 which observed that although the entire site has generic archaeological potential, known sites ('hotspots') are sparse and that the areas around the known moated site, the listed buildings, an alleged moated site, a findspot of a Bronze Age dagger and the gravel ridge in the south-east corner of the site, with Mesolithic potential, would be best to target along with a similar number of 'blank' areas to provide control data.

1.4.4 A comprehensive *Written Scheme of Investigation* (WSI) was prepared on behalf of Liberty Property Trust UK (ASE 2015b) for submission to, and approval by, the HDCAA prior to the commencement of fieldwork.

1.4.5 Following approval of the WSI and during fieldwork, various areas had to be to be discounted from both survey methods due to the presence of livestock and crop. This was agreed in an email dated 24th November 2015

1.5 Scope of report

1.5.1 The scope of this report is to report on the findings of the survey. The geophysical survey was conducted by John Cook, Ed Blinkhorn (Senior Archaeologists), John Hirst and Jake Wilson (Assistant Archaeologists), and the fieldwalking by Simon Stevens (Senior Archaeologist), Gemma Ward and Sophie Austin (Assistant Archaeologists). Both geophysical survey and fieldwalking grids were managed by Vasilis Tsamis (Senior Surveyor). The project was managed by Darryl Palmer (fieldwork) and by Jim Stevenson and Dan Swift (post-fieldwork).

2.0 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

2.1.1 The following information is taken from the *Archaeological Desk-Based Assessment* (ASE 2015a).

2.2 Prehistoric

2.2.1 The site lies in an area of historical importance in the development of our understanding of British postglacial hunter-gatherer societies but which has not been subjected to modern systematic study (Pope 2014). High potential exists for regionally important Mesolithic archaeology at the site with lesser, though untested, potential for Palaeolithic archaeology.

2.2.2 Later prehistoric material within the Weald tends to be sparse. The region was covered in dense forest throughout this period, and much of the known settlement pattern concentrates around the rim of the Weald, exploiting the better soils of the Chalk and Greensand, although recent work west of Horsham (Broadbridge Heath/Wickhurst Green; Margetts, *pers. comm.*) has produced considerable evidence for previously unsuspected prehistoric occupation on the claylands. The small amount of prehistoric material that is otherwise known from the area tends to be of Mesolithic date, reflecting hunter-gatherer lifeways in the Holocene (see above).

2.2.3 Some small-scale agricultural exploitation of the more tractable soils is suggested by pollen evidence from the Neolithic onwards, and the presence of Bronze Age barrows (burial mounds) within the High Weald (concentrating to the east and south-east of the DBA Study Area in the St. Leonard's Forest area) points to some level of settlement during this period. The Iron Age saw the exploitation of iron ore deposits, and the development of fortified hilltop enclosures illustrating the significance of this industry.

2.3 Roman

2.3.1 Evidence for Roman activity in the Weald is sparse, and is confined mainly to roads and ironworking sites. Few settlement sites have been found in the High Weald (Rudling 1999), although some sites such as villas at Chiddingfold in Surrey and Wiggonholt in West Sussex are known from the periphery (Gardiner 1990), and recent work west of Horsham has produced some evidence for occupation (Margetts, *pers. comm.*).

2.4 Anglo-Saxon

2.4.1 During the early medieval period, the Weald was largely covered by the great forest of *Andredeswald*. The heavily forested nature of the region limited settlement during this period, and the iron-working industry seems to have shrunk in scale in comparison with the Roman period. The Weald was an important area for seasonal swine pastures established as extra-territorial parcels of land associated with parent manors situated on better soils elsewhere in the region.

2.4.2 Little is currently known of the nature of Saxon occupation in the surrounding rural area. Horsham itself is not mentioned in Domesday, although its appearance in a pre-Conquest charter suggests a settlement of some nature (Darby & Campbell 1962, 420). By the 10th century, the multiple estates had begun a process of fragmentation into smaller units, and it is from this process that the separate parish of Horsham probably derives, although the date of this process is unclear – the site lay within the northern part of Horsham parish, not far from the border with Rusper. The settlement pattern, which largely developed from the Mid-Late Saxon period, tends to conform to the Ancient Countryside pattern (Rackham 1986), comprising an irregular landscape of fields carved out of the woodland, with settlement largely comprising a dispersed pattern of hamlets and isolated farmsteads.

2.5 Medieval

2.5.1 During the medieval period, the site lay within the lands of several different manors, primarily the manors of Horsham and Hawkesbourne, the latter an outlier of the manor of Applesham. Holbrook originated as a copyhold tenement of the manor of Marlpost, while the manor of Roffey (a sub-manor of Chesworth) lay to the east (Hudson 1986; Hurst 1868). The boundaries between the various and complex manorial holdings are difficult to reconstruct, although key landscape features such as lanes and trackways, watercourses and prominent linear hedgerows are likely to be relevant.

2.5.2 The central part of the site lay within the manor of Hawkesbourne, which was first recorded in 1073 when William de Braose, the manorial lord and a powerful Marcher baron, granted tithes from *Ablesborna* (derived from 'the stream of Ealh') to the college he founded at Bramber, adjacent to his primary castle. The manor descended with Applesham into the 13th century, and thereafter as an under-tenancy of Broadwater until the 15th century. A park is mentioned within the manor in 1335, and the lord, Ralph de Camoys, had free warren (the sole right to hunt small game, but not deer) there. A manor house is recorded in 1485 and again in 1572 – its location is unknown, but the earthwork site known as 'The Castle' could be a candidate. The manor of Roffey lay south-east of the site, and was first recorded (as a sub-manor of Chesworth) in the 15th century, with a park listed in 1439 and a manor house possibly located at the existing Roffey Place. Holbrook is first recorded c.1285 as a tenement of the manor of Marlpost, although nothing is known of its medieval history. The Moated House, 17th century and later in its current form, occupies a possible earlier moated site – Hurst records in 1868 that it was occupied by R.H. Hurst, whose ancestors lived there in the 15th century (Hurst 1868).

2.5.3 The agricultural regime initiated in the Saxon period in the Weald, mainly scattered pastoral activity, continued on into the medieval period. The typical heavy clayey soils of the area rendered much of the land unsuitable for arable farming at this time, as the primitive ploughing technology was unable to cope with these heavier soils. Consequently, an open field agricultural system never developed to any great extent, and those few examples that did exist were enclosed at an early date and have left few traces in the documentary record (Chapman & Seeliger 2001). Many of the

scattered landholdings in the region had developed into small settlement foci, many of which still survive as farms in the modern landscape. Warnham is mentioned as a tithing (a sub-division of a hundred, in this case the Hundred of Steyning) in 1166, with references to a church at the same period, but with no certain evidence for any sort of nucleated settlement – the high tax assessments recorded for 1334 suggest a relatively dense population for the locality, but do not indicate how that population was distributed (Hudson 1986). Roffey existed as a small hamlet by 1315. The rural landscape comprised a mainly pastoral landscape of irregular assarts with small patches of common demesne (land held in hand by the manorial lord) arable around scattered settlement foci with extensive common grazing to the south.

2.5.4 Other elements of the medieval landscape include a mill mentioned at Hawkesbourne in 1386 and a 14th century iron bloomery at Roffey, recorded in 1338 producing 6,000 crossbow bolts for the royal army.

2.6 Post-Medieval

2.6.1 The post-medieval period saw Horsham retaining its function as a market town. The layout remained fundamentally medieval in nature, with piecemeal suburban development on all sides. By 1524, the town had the highest average wealth in Sussex, and was referred to in 1730 as the 'Metropolis of the Weald' (Hudson 1986, 132). In 1648 the town played a small part in national events when it was the scene of a Royalist uprising, swiftly crushed by the New Model Army. The later post-medieval period saw a continuing rise in prosperity, partly due to the presence of a large barracks and the holding of assizes in the town, culminating in its status as joint county town of West Sussex (with Chichester) in 1889. By 1939, Horsham had acquired its present function, a dormitory settlement serving London.

2.6.2 The agricultural landscape around Horsham is in part a fossilised late medieval landscape, comprising small irregular fields carved from the surrounding woodland, much of which has been left as shaws, often managed for woodland products through coppicing – woodland remained an important resource until modern times. The Sussex Historic Landscape Characterisation (HLC) indicates most of the site comprises 'modern field amalgamations', indicating a modern post-war reorganisation of an earlier landscape – comparison with historic mapping suggests that this originally comprised an assarted landscape of medieval origin interspersed with early 19th century enclosures from the common, although most of the internal boundaries have been destroyed, leaving just a partial skeleton of the original field pattern.

2.6.3 Areas of open waste such as Horsham Common immediately south of the site were used as common pasture for manorial tenants and for other uses such as military musters, fairs and executions, until enclosed in 1812-13. A number of stone quarries and sand and clay pits provided alternative or additional employment for farming communities, with additional large-scale industrial development such as brickworks to the west of the site.

2.6.4 Scattered across the landscape are a number of large farms, often

comprising buildings of early post-medieval date, but occupying much older sites, although many of the names are first recorded in the post-medieval period: Pondtail in 1626; Holbrook ('hollow meadow') in 1504; Rapeland Farm (now Hawkesbourne) ('place where rape grows') in 1537. Smaller building plots along the roadsides often represent illegal encroachments (squatter settlements) onto former wasteland (Hudson 1986, 145). Some modification of the field pattern, including the grubbing out of shaws and hedgerows, took place during the 19th century when advances in technology allowed arable farming to be carried out on a much greater scale than before, but particularly in the post-war period with the advent of large agricultural plant. Further landscape developments included the expansion of Horsham in the 19th and 20th centuries and the construction of the two railway lines in 1848 and 1867.

2.6.5 The earliest available detailed map is an 1811 estate plan showing the Holbrook portion of the site. This shows the house and ancillary buildings at Holbrook, situated along the lane with a series of ornamental ponds, and a large area of parkland to the west. Lines of trees within the park represent former field boundaries, indicating a recently cleared system of small rectilinear fields. The next available mapping was the Horsham Tithe of 1844. This shows a complex and irregular arrangement of small fields, largely arable but with smaller areas of pasture around farmsteads and meadowland in the stream valley. Some of the field boundaries are still evident in the modern landscape, although most have been destroyed during periods of 20th century field amalgamation.

3.0 SURVEY METHODOLOGIES

3.1 Introduction

3.1.1 Fluxgate gradiometer (magnetometry) surveys were undertaken across four areas (A-D), (Figure 2). The work was undertaken in November and early December 2015 during mixed conditions. Further area- and method-specific detail is provided in Section 4.

3.2 Survey Grids

3.2.1 The survey grids devised for the site were located and geo-referenced using a Leica Viva Smartrover Global Positioning System (GPS) instrument. The GPS receiver collects satellite data to determine its position and uses the mobile phone networks to receive corrections, transmitting them to the RTK Rover via Bluetooth to provide a sub-centimetre Ordnance Survey position and height. Each surveyed grid point has an Ordnance Survey position; therefore the geophysical survey can be directly referenced to the Ordnance Survey National Grid.

3.2.2 Geophysical survey grids were based on a 30m grid system, whereas fieldwalking grids were based on a 20m grid system. Both grids were aligned with the Ordnance Survey National Grid (Figure 2).

3.3 Geophysical Survey

Applied geophysical instrumentation

3.3.1 The Fluxgate Gradiometer employed was the Bartington Instrumentation Grad 601-2 which has a data logger and internal memory that stores the survey data. This data is downloaded onto a PC and is then processed in a suitable software package.

3.3.2 30m x 30m grids were set out using a GPS (see below). Each grid was surveyed with 1m traverses; samples were taken every 0.25m.

3.3.3 Data was collected along north-south traverses in a zigzag pattern beginning in the south-west corner of each grid, following the contours of the site.

Data processing

3.3.4 All of the geophysical data were processed using DW Consulting TerraSurveyor software. Minimally processed data was produced using the following schedule of processing. Due to the very high positive readings of some of the magnetic disturbance, the values were replaced with a dummy value so as to avoid detrimentally affecting the dataset when further processed. The first process carried out upon the data was to apply a DESPIKE to the data set which removes the random ‘iron spikes’ that occur within fluxgate gradiometer survey data. A ZERO MEDIAN TRAVERSE was then applied to survey data. This removes stripe effects within grids and ensures that the survey grid edges match.

Data presentation

3.3.5 Data is presented using images exported from TerraSurveyor into Autocad software and inserted into the geo-referenced site grid. Data is presented as both raw and processed data, followed by interpretation of that data.

Data Interpretation

3.3.6 Results presented in the following sections should be read in conjunction with the figures at the end of this report, specified in the text. The types of features likely to be identified are discussed below and summarised in each section.

3.3.7 *Positive Magnetic Anomalies*
Positive anomalies generally represent cut features that have been in-filled with magnetically enhanced material.

3.3.8 *Negative Magnetic anomalies*
Negative anomalies generally represent buried features such as banks or compacted ground that have a lower magnetic signature in comparison to the background geology.

3.3.9 *Magnetic Disturbance*
Magnetic disturbance is generally associated with interference caused by modern ferrous features such as fences and service pipes or cables.

3.3.10 *Magnetic Debris*
Low amplitude magnetic debris consists of a number of dipolar responses spread over an area and is indicative of ground disturbance.

3.3.11 *Dipolar Anomalies*
Dipolar anomalies are positive anomalies with an associated negative response. These anomalies are usually associated with discrete ferrous objects or may represent buried kilns or ovens.

3.3.12 *Bipolar Anomalies*
Bipolar anomalies consist of alternating responses of positive and negative magnetic signatures. Interpretation will depend on the strength of these responses; modern pipelines and cables typically produce strong bipolar responses.

3.3.13 *Thermoremanence*
Thermoremanence is most commonly encountered through the magnetising of clay through the firing process although stones and soils can also acquire thermoremanence.

3.3.14 Magnetism from ferromagnetic materials (iron) and from thermoremanence are forms of permanent magnetism and in most cases a magnetometer will not enable the separation of anomalies into the two categories. The interpretation of these anomalies into either category relies on field strength within an area. Magnetic anomalies due to iron normally rise and fall rapidly, forming a ‘spike’ in the data.

3.4 Fieldwalking

3.4.1 The surveys were undertaken in linear transects based on the National Grid. The four areas which were surveyed are shown on Figure 3. Each transect examined a strip of land approximately 2m wide. Transects were positioned 20m apart, with artefacts bagged and labelled in 20m stints.

3.4.2 Each grid or part grid square was recorded on a pro-forma sheet which includes:

- Location of the grid
- Name of the transect walkers
- Conditions affecting the quality of the data (e.g. weather, lighting, state of the ground surface)
- Soil type
- Topography
- Any other field observations (e.g. dumped or deposited material).

3.5 Project Archive

3.5.1 The site archive is currently held at Archaeology South-East offices in Portslade, and will be offered to Horsham Museum in due course. The archive consists of the following material:

FW Record Forms	81
Files/paper record	1
Plans and sections sheets	0
Colour photographs	0
B&W photos	0
Digital photos1	76
Context register	0
Drawing register	0
Watching brief forms	0
Trench Record forms	0

Table 1: Quantification of Site Archive

Bulk finds (quantity e.g. 1 bag, 1 box, 0.5 box 0.5 of a box)	1 box of retained finds
Registered finds (number of)	0
Flots and environmental remains from bulk samples	0
Palaeoenvironmental specialists sample samples (e.g. columns, prepared slides)	0
Waterlogged wood	0
Wet sieved environmental remains from bulk samples	0

Table 2: Quantification of artefact and environmental samples

4.0 AREA A RESULTS (Figures 4-15)

4.1 Description of site

4.1.1 The survey area comprised approximately *c.*11.5 hectares of arable and pasture land, bounded by hedges, wire fences and woodland, with a notable north to south slope with far-reaching views to the south from close to the Graylands complex. However, due to planted crop in the northern enclosure and livestock in the south, only a limited area was surveyed.

4.1.2 Heavy clay soils were present across Area A, with areas of waterlogging present across the survey plot.

4.2 Survey conditions and limitations

Geophysical survey

4.2.1 The survey was undertaken during overcast and showery conditions with rain remaining on the surface during dry periods.

4.2.2 Physical obstructions encountered on site included trees and heavily waterlogged ground. Obstructions for each area are noted in the results. In addition, the effectiveness of magnetometer surveys depends on a contrast between the absolute magnetic susceptibility of the topsoil to the underlying subsoil (Clark 1996). Features may also be difficult to detect where there has been significant primary silting and development of significant overburden. Areas where physical obstructions form a barrier to survey, or a health and safety issue, have been omitted. The site lies over mudstone geology. An average response to magnetometer is possible, although results may be variable (English Heritage 2008).

Fieldwalking

4.2.3 Much of the central area of the field was occupied by substantial crop growth which completely blocked visibility of the ploughed surface. This affected Squares 9, 10 and 13 and parts of Squares 6, 7, 11 and 14 (Figures 7 – 15). The other areas of the field had sparse crop growth and good visibility of the field surface, a mid brown/mid-greyish brown silty clay.

4.2.4 The area in the immediate vicinity of the moated site was laid to pasture and could not be fieldwalked.

4.3 Geophysical Survey Results (Figures 4 to 5)

Introduction

4.3.1 The results should be read in conjunction with the figures at the end of this report. The types of features likely to be identified are detailed in sections 3.3.6 – 3.3.14, but are summarised briefly below with possible interpretations:

- Positive anomalies: cut/negative features
- Negative anomalies: compacted ground/buried bank
- Magnetic disturbance: interference from modern ferrous structures
- Magnetic debris: disturbed ground with ferrous litter
- Dipolar anomalies: discrete ferrous objects/kilns/ovens
- Bipolar anomalies: modern pipelines/cables
- Thermoremanence: clay magnetised through firing

Interpretation of fluxgate gradiometer results (Figure 6)

4.3.2 Evidence of possible archaeological activity was, in general, sparse and included the following described anomalies. Several discrete and linear moderate positive anomalies (A1) may represent cut features such as pits and ditches. However, these anomalies may also relate to in-filled natural features. A linear anomaly near to the moat (A2) may relate to earthworks noted in the southern pasture field.

4.3.3 Areas of magnetic debris (A3, A4) may relate to a scattering of near surface ferrous material, ground disturbance or made ground.

4.3.4 Two dipolar anomalies (A5) are observed. These anomalies may relate to thermoremanent material such as that due to kilns and furnaces or, more likely, near surface ferrous objects.

4.3.5 An area of magnetic disturbance in the east of Area A (A6), with associated linear anomalies, relates to tanks noted during survey.

4.3.6 A number of linear anomalies running in a predominately east to west orientation (A7) relate to ploughing.

4.4 Fieldwalking Survey Results (Figures 7 to 15)

The Fieldwalking Finds

The Fire-Cracked Flint by Karine Le Hégarat

4.4.1 Area A produced 34 fragments of burnt unworked flint weighing 417g (Figure 7). Fragments were present in the south-east (Squares 1, 2 and 4) and in the north and north-east (Squares 8, 12, 7, 11, 15, 18 and 14), reflecting the visibility in the field. But the material occurred in very small quantities. All the fragments were heavily calcined to a white colour.

The Struck Flint by Karine Le Hégarat

4.4.2 Area A produced two flakes weighing 16g (Figure 8; Squares 11 and 18). The pieces are not chronologically distinctive based on technological/morphological grounds.

Category	Flakes	Blades, Blade-like flakes	Irregular waste	Cores	Retouched forms	Hammerstone	Total
Area A - surface area: *c.* 11.5 hectares	2	-	-	-	-	-	2

Table 3: The flintwork from Area A

The Post-Roman Pottery by Luke Barber

4.4.3 The fieldwalking of the available land within Area A produced just 40 sherds of pottery, weighing 305g, from 30 different transects. The earliest material consists of three (24g) High Medieval sherds of oxidised sandy ware, almost certainly deriving from the Earlswood kilns in southern Surrey. A 13th- to early 14th- century is likely. The sherds, which some moderate signs of abrasion were recovered from transects 14P, 15P and 15R (Figure 9). There is no Late Medieval (*c.*1350-1550) pottery from this area.

4.4.4 Eight sherds (50g) of Early Post-medieval *(c.*1550-1750) pottery were recovered from Area A. These consist of a number of somewhat worn glazed red earthenware sherds and a few pieces of Staffordshire White Salt-glazed Stoneware that can all be placed right at the end of the chronological range: all probably relate to manuring in the first half of the 18th century. The material was quite widely distributed but there is a notable concentration in the NE portion of the area, most notably in Square 15 (Figure 10).

4.4.5 The remaining 29 sherds (231g) from Area A are of the Late Post-medieval period. These consist of a few sherds of later 18th- century date (e.g. creamware and some of the glazed red earthenwares) but are dominated by a typical range of 19th- century domestic wares. These appear to have a wider distribution suggesting that manuring the land had intensified at this time, possibly using nightsoil brought by the railway.

The Ceramic Building Material by Isa Benedetti-Whitton

4.4.6 A mixture of Late medieval, Early Post-medieval and Late Post-medieval Ceramic Building Material (CBM) was recovered from across the area, with the exception of those squares not available for fieldwalking (Figure 11).

The Glass by Luke Barber

4.4.7 Area A produced nine shards of glass, weighing 60g, from seven different transects in four Squares (Figure 12). The earliest material consists of two slightly worn pieces from green wine bottles of the later 18th or early 19th centuries (Transects 15F and 15G). The remaining glass consists of a wide-spread scatter of later 19th- to early 20th- century material in Squares 11, 18 and 5.

The Metalwork by Luke Barber

4.4.8 Just two pieces of iron were recovered from Area A: a bolt plate and a component of an agricultural machine in Squares 5 and 14 (Figure 13). Both pieces are of 19th- to 20th- century date.

The Slag by Luke Barber

4.4.9 The only slag from Area A consists of a 16g fragment of undiagnostic iron slag of uncertain date from Square 5 (Transect 5K) and two fragments of early post-medieval blast furnace slag from Squares 2 and 5 (2R and 15C), undoubtedly redeposited during track metalling etc (Figure 14).

The Geological Material by Luke Barber

4.4.10 Area A produced four small (12g) pieces of coal and two small (6g) pieces of Welsh slate that probably accompanied the spreading of 19th- century domestic waste on the land (Squares 5, 8, 14 and 15; Figure 15).

4.4.2 The Distribution of Finds

Prehistoric

4.4.11 Despite the far-reaching views and general potential of the area, the distribution of struck flint was sparse. There was a greater presence of fire-cracked flint in the field, but again not in significant concentrations.

Medieval

4.4.12 Despite the location of a medieval moated site immediately to the south of the fieldwalked area, only a very limited assemblage of medieval pottery was recovered, some distance from the monument further up the slope. This might suggest some medieval activity predating the Graylands complex.

Post-medieval

4.4.13 The range of material including both domestic and industrial waste is indicative of long-term manuring in the area, which has many local post-medieval buildings. Limited concentrations near the Graylands complex and close to the field entrance follow this expected pattern.

4.5 Integrated Results Discussion

4.5.1 Given the paucity of the assemblages recovered from the fieldwalking, and the problems with visibility in the central area of the field and access to field adjacent to the moated site, attempting to match the results from the two surveys proved problematic. Therefore there are no obvious correlations between the two sets of data.

5.0 AREA B RESULTS (Figures 16-31)

5.1 Description of site

5.1.1 The survey area comprised approximately *c.*11.6 hectares of arable land, bounded by hedges, wire fences, woodland and a single dwelling. Dividing the two fields surveyed was strip of woodland. There was a notable slope from north to south, which increased in steepness to the immediate north of the investigated area.

5.1.2 At the time of survey, the ground was under mixed arable use and both fields were under young crop. Area B slopes down to the south and sits below a hill which rises to *c.*125m OD at its maximum height.

5.1.3 Heavy clay soils were present across Area C, with some areas of waterlogging present across the survey plot.

5.2 Survey conditions and limitations

Geophysical survey

5.2.1 Weather conditions were mixed during this period, comprising cold days with bright sunshine and wet and windy conditions due to the tail of storm Clodagh.

5.2.2 Physical obstructions encountered on site included heavily waterlogged ground. Obstructions for each area are noted in the results. In addition, the effectiveness of magnetometer surveys depends on a contrast between the absolute magnetic susceptibility of the topsoil to the underlying subsoil (Clark 1996). Features may also be difficult to detect where there has been significant primary silting and development of significant overburden. Areas where physical obstructions form a barrier to survey, or a health and safety issue, have been omitted. The site lies over Weald Clay geology. An average response to magnetometry is possible, although results may be variable (English Heritage 2008).

Fieldwalking

5.2.3 Although there were some periods of heavy rain during the fieldwalking in Area B, resulting in wet conditions underfoot, visibility of the surface of the field was good, with minimal crop coverage of the mid brown/mid-greyish brown silty clay ploughsoil.

5.3 Geophysical Survey Results (Figures 16 to 19)

Introduction

5.3.1 The results should be read in conjunction with the figures at the end of this report. The types of features likely to be identified are detailed in sections 3.3.6 – 3.3.14, but are summarised briefly below with possible interpretations:

- Positive anomalies: cut/negative features
- Negative anomalies: compacted ground/buried bank
- Magnetic disturbance: interference from modern ferrous structures
- Magnetic debris: disturbed ground with ferrous litter
- Dipolar anomalies: discrete ferrous objects/kilns/ovens
- Bipolar anomalies: modern pipelines/cables
- Thermoremanence: clay magnetised through firing

Interpretation of fluxgate gradiometer results (Figures 20 and 21)

5.3.2 Area B consists of parts of two fields on south-facing slopes. At the time of the survey the land was under young crop.

5.3.3 Evidence of possible archaeological activity included the following described anomalies.

5.3.4 The most obvious possible archaeological anomalies are the parallel east-west linear moderate positive anomalies, A8 and related north-south anomaly A9 which are likely to be due to cut features such as gullies. Due to the form of these anomalies in both fields it is likely that they relate to land drainage. A number of these match the location of former field boundaries (A10, A11). Further linear positive anomalies occur across the mid-section of the eastern field (A12). These are, similarly, likely to be cut features and again may represent land drainage. Several discrete moderate positive anomalies (A13), may represent cut features such as pits. However, these anomalies may also relate to in filled natural features.

5.3.5 Areas of magnetic debris (A14) may relate to a scattering of near surface ferrous material, ground disturbance or made ground.

5.3.6 Moderate and weak positive amorphous anomalies (A15) may relate to cut archaeological features. However, due to size and shape, these anomalies are likely to relate to underlying geological features.

5.3.7 Dipolar anomalies (A16) are observed across the two fields. These anomalies may relate to thermoremanent material such as that due to kilns and furnaces or near surface ferrous objects.

5.3.8 A large dipolar anomaly with associated magnetic disturbance (A17) is observed in the western enclosure of Area B. This anomaly is likely to represent the infilling of a former pond, noted on historical mapping, with strongly magnetic material. In addition, further dipolar anomalies and magnetic debris on the western edge of the site correspond to the location of a small former building also noted on the historical mapping.

5.3.9 A number of linear anomalies (A18, A19) relate to ploughing.

5.4 Fieldwalking Survey Results (Figures 22 to 31)

Fieldwalking Finds

Fire-Cracked Flint by Karine Le Hégarat

5.4.1 In total, 57 fragments (1145g) of burnt unworked flint were recovered from Area B (Figure 22). Fragments were found in the southern part of the surveyed area. (Squares 19, 20, 22 and 23, 26-28, 31 and 32, and 35-37). But no dense concentrations were observed. The fragments were all heavily calcined.

Worked Flint by Karine Le Hégarat

5.4.2 In total, 12 pieces of struck flint weighing 106g were recovered from Area B (Table 4). They were spread over the surveyed area, in Squares 21, 24 and 25, 26, 28, 31 and 39 (Figure 23). The small assemblage comprises nine flakes, one piece of irregular waste, a retouched flake and a possible small flint hammerstone (12g). The later exhibits crushing/bruising damage around its full circumference. The artefact may have been used for strike-a-lights to create a spark and start a fire. The presence of blade scar removals on the dorsal surface indicates an early prehistoric (Mesolithic or Early Neolithic) date. Only a broad prehistoric date can be given to the remaining assemblage from Area B.

Table 2: the flintwork from Area B

Category	Flakes	Blades, Blade-like flakes	Irregular waste	Cores	Retouched forms	Hammerstone	Total
Area B - surface area: *c.* 11.6 hectares	9	-	1	-	1	1	12

Table 4: The flintwork from Area A

The Post-Roman Pottery by Luke Barber

5.4.3 The fieldwalking of the available land within Area B produced just 100 sherds of pottery, weighing 728g, from 67 different transects in 16 Squares. The earliest material consists of two (6g) High Medieval sherds: one of Earlswood type (Figure 24, Square 19, Transect 19P), the other consisting of a reduced sandy ware of Limpsfield type (Figure 24, Square 20, Transect 20F). The sherds suggest some 13th- to 14th- century activity, perhaps related to manuring, along the lane bordering Grids 19 and 20. Two sherds of Late Medieval pottery were also recovered from this area. Both Squares 23 and 24 (Transects 23E and 24M) contained relatively fresh sherds of fine buff earthenware of mid 15th- to mid 16th- century type (Figure 24).

5.4.4 Nineteen sherds (128g) of Early Post-medieval (*c.*1550-1750) pottery were recovered from Area B. Some of these sherds are probably of the 17th century, including a German Frechen stoneware piece from Square 19 (Transect 19S) and a Midlands purple jar from Square 24 (Transect 24E) (Figure 25). However, the vast majority consist of somewhat worn glazed red earthenware sherds, a few pieces London stoneware and some of Staffordshire white salt-glazed stoneware that can all be placed right at the end of the chronological range: all probably relate to manuring in the first half of the 18th century. The material was quite widely distributed but there is a notable concentration in the western portion of the area, most notably in Square 23 (Figure 25).

5.4.5 The remaining 77 sherds (566g) from Area B are of the Late Post-medieval period. These consist of a few sherds of later 18th-century date (e.g. creamware, pearlware and some of the glazed red earthenwares) but are dominated by a typical range of 19th- century domestic wares. These appear to have a wide distribution but with a densest point in Squares 19, 20, 23 and 24 (Figure 25). The material obviously relates to manuring.

The Ceramic Building Material by Isa Benedetti-Whitton

5.4.6 Again a mixture of late medieval, early post-medieval and late post-medieval material was recovered from across the area, with no obvious patterning (Figure 26).

The Clay Tobacco Pipes by Luke Barber

5.4.7 Area B produced four worn stem fragments from three Squares (Figure 27). One is of the first half of the 18th century (Square 24, Transect 24J) while the others can only be ascribed a mid 18th- to 19th-century date.

The Glass by Luke Barber

5.4.8 Area B produced 31 shards of glass, weighing 142g, from 26 different transects in four Squares. The earliest material consists of three very corroded fragments of green wine bottle that are probably of later 17th- to mid 18th-century date (Squares 19, 23, 24; Transects 19X, 23Z, 24D). There are a few worn wine bottle fragments of the later 18th or early 19th centuries (e.g. Transects 23A, 25G, 26B, 27H, 30I and 35J), but the vast majority of shards relate to a range of wine/beer, household and medicine bottles of the later 19th to early 20th centuries. These are widely spread across the area.

The Metalwork by Luke Barber

5.4.9 Just two pieces of metalwork were recovered from Square 20 in Area B (Figure 29): an iron pipe fragment (20S) and a copper alloy 17mm diameter button of 18th- to early 19th- century date (20G).

The Slag by Luke Barber

5.4.10 Area B produced quite a large assemblage of slag: 55 pieces weighing 2579g from 13 Squares (Figure 30). The earliest consists of nine worn pieces (530g) of iron bloomery slag that could relate to activity anywhere between the Late Iron Age and Late Medieval period. However, the material is notably worn and widely distributed (Squares/Transects 19U, 24V, 26L, 27K, 28A, 32X, 35C and 36D) suggesting a background scatter, perhaps of redeposited material. There are also 11 pieces (678g) of undiagnostic iron slag from the area that could be of this early period. These show a similar wide distribution with no obvious concentrations. Some 15 pieces (328g) of early post-medieval blast furnace slag were also recovered. These also show a wide distribution and probably relate to material brought in for track metalling etc.

5.4.11 Twenty pieces (1043g) are thought to relate to late post-medieval activity. Most of this can be classified as fuel ash slag waste derived from burning coal and was probably spread with the domestic waste. There are also two small pieces of vitrified flint (Squares/Transects 20L and 22X) that hint at dressing the soil with lime.

The Geological Material by Luke Barber

5.4.12 Area B produced 15 small (128g) pieces of coal, coal shale and Welsh slate that probably accompanied the spreading of 19th- century domestic waste on the land ((Figure 31, Squares 19, 20, 22, 23, 25, 26, 32 and 37). Although most of the slate is clearly roofing material the piece from 37Y is from a polished school slate. The only other stone consists of an unmodified piece of sandstone.

Miscellaneous Material by Luke Barber (not illustrated)

5.4.13 Transect 35H produced a scrap of 20th- century plastic.

5.4.2 The Distribution of Finds

Prehistoric

5.4.14 There was an extremely thin scatter of struck flint across the investigated area. Although more numerous, the fire-cracked flint displayed an equal absence of obvious concentrations.

Late Iron Age/Romano-British or Medieval

5.4.15 Much of the ironworking slag could date from any period in this range, but it is notoriously mobile (Cleere and Crossley 1995, 275) and is therefore not necessarily indicative of ironworking in the vicinity.

Medieval

5.4.16 Despite the location of another medieval moated site immediately to the south of the fieldwalked area, only a very limited assemblage of medieval

pottery was recovered, again some distance from the monument. These sherds probably relate to manuring rather than occupation.

Post-medieval

5.4.17 The range of material including both domestic and industrial waste is again indicative of long-term nightsoiling/manuring in the area. There is a clear concentration near *Old Holbrook*, the lane to the immediate west of Area B. A number of properties front onto the lane.

5.4.3 Integrated Results Discussion

5.4.18 Again, given the paucity of the assemblages recovered from the fieldwalking, there was no obvious correlation between the two sets of survey data - there were no scatters of artefacts associated with the geophysical anomalies.

6.0 AREA C RESULTS (Figures 32-43)

6.1 Description of site

6.1.1 The survey area comprised approximately *c.*9 hectares of arable land, bounded by hedges, wire fences, and woodland. Dividing the two fields surveyed was an area of grass and bamboo, which was too tall to survey. In the southern portion of the survey area, temporary butts for pheasant shooting were installed with frequent spent shotgun cartridges left on the surface.

6.1.2 At the time of survey, the ground was under mixed arable use at different stages of the agricultural cycle. Both fields were under young crop, with a track present in the northern portion of the southern field. The fields sloped down to the south towards the Channells Brook, although the topography was broadly level across the surveyed area.

6.1.3 Heavy clay soils were present across Area C, with some areas of waterlogging present across the survey plot.

6.2 Survey conditions and limitations

Geophysical survey

6.2.1 Weather conditions were mixed during this period, comprising cold days with bright sunshine and wet and windy conditions.

6.2.2 Physical obstructions encountered on site included heavily waterlogged ground. Obstructions for each area are noted in the results. In addition, the effectiveness of magnetometer surveys depends on a contrast between the absolute magnetic susceptibility of the topsoil to the underlying subsoil (Clark 1996). Features may also be difficult to detect where there has been significant primary silting and development of significant overburden. Areas where physical obstructions form a barrier to survey, or a health and safety issue, have been omitted. The site lies over Weald Clay geology. An average response to magnetometry is possible, although results may be variable (English Heritage 2008).

Fieldwalking

6.2.3 Although conditions underfoot were wet, visibility of the surface of the field was good, with minimal crop coverage of the mid brown/mid-greyish brown silty clay ploughsoil.

6.3 Geophysical Survey Results (Figures 32 and 33)

Introduction

6.3.1 The results should be read in conjunction with the figures at the end of this report. The types of features likely to be identified are detailed in sections 3.3.6 – 3.3.14, but are summarised briefly below with possible interpretations:

- Positive anomalies: cut/negative features
- Negative anomalies: compacted ground/buried bank
- Magnetic disturbance: interference from modern ferrous structures
- Magnetic debris: disturbed ground with ferrous litter
- Dipolar anomalies: discrete ferrous objects/kilns/ovens
- Bipolar anomalies: modern pipelines/cables
- Thermoremanence: clay magnetised through firing

Interpretation of fluxgate gradiometer results (Figure 34)

6.3.2 The interpretation of fluxgate gradiometer results should be read in conjunction with the figures at the end of the report. Specific examples of anomaly types are numbered in the figures and text but not all anomalies are numbered.

6.3.3 Area C comprises two south-facing fields. At the time of the survey both fields were under young crop.

6.3.4 Evidence of possible archaeological activity included the following described anomalies. The most obvious possible archaeological anomalies are the magnetic debris and associated dipolar anomalies in the north east corner of Area C (A20). These anomalies indicate a possible former building or made ground with associated possible thermoremanent anomalies. No structure is recorded at this location on the historic mapping and the location of these anomalies adjacent to the earthwork known as *'The Castle'* point towards a possible medieval or early post-medieval origin.

6.3.5 Linear moderate positive anomalies in the southern field, noted as A21, are likely to be due to cut features such as gullies. Due to the form of these anomalies it is likely that they relate to former field boundaries or drainage. Further linear positive anomalies occur in the same area (A22) but are weak, probably representing drainage of a different phase of activity. A few discrete moderate positive anomalies (A23) may represent cut features such as pits. However, these anomalies may also relate to in filled natural features. A moderate negative linear anomaly is observed across the centre of the northern field (A24) and may represent a remnant bank or earthwork. However, this anomaly may also relate to former enclosure boundary. Negative anomalies may also stem from the dipolar effect of certain magnetic anomalies.

6.3.6 An area of quiet magnetic responses (A25), bounded to the south by a moderate positive response is probably due to the track running east west across the plot.

6.3.7 Dipolar anomalies (A26) are observed across the two fields. These anomalies may relate to thermoremanent material such as that due to kilns and furnaces or near surface ferrous objects.

6.3.8 A bipolar anomaly with associated magnetic disturbance (A27) aligned in a north-south orientation in the west of the plot and is likely to be due to a modern service.

6.4 Fieldwalking Survey Results (Figures 35 to 43)

Fieldwalking Finds

Fire-Cracked Flint by Karine Le Hégarat

6.3.9 Ten fragments of burnt unworked flint weighing 254g were recovered from Area C (Figure 35, Squares 42, 43, 48, 51-53). The fragments were thinly distributed. They were calcined to a white or light grey colour.

Worked Flint by Karine Le Hégarat

6.3.10 Twenty one pieces of struck flint weighing 208g were recovered from Area C (Table 5). The flints were thinly spread over the area (Figure 36, Squares 42 and 43, 46-48 and 51-54). The assemblage comprised 18 flakes, two cores and a modified piece. A small blade core (62g) used to remove bladelets indicates a Mesolithic or Early Neolithic date. A second burnt and fragmented core displays thin flake scar removals. It is likely to pre-date the middle Bronze Age. A piercer could also belong to the same period. The majority of the flakes are of unspecified date, although based on technological traits a small number indicate a pre middle Bronze Age date.

Category	Flakes	Blades, Blade-like flakes	Irregular waste	Cores	Retouched forms	Hammerstone	Total
Area C - surface area: *c.* 6.4 hectares	18	-	-	2	1	-	21

Table 5: The flintwork from Area C

The Post-Roman Pottery by Luke Barber

6.3.11 The fieldwalking of the available land within Area C produced just 50 sherds of pottery, weighing 283g, from 37 different transects in 8 Squares (Figures 37 and 38). The earliest material consists of a single (6g) fresh High Medieval sherd of Earlswood type (Figure 37, Square 41, Transect 41Z). This suggests very little manuring of the land here during the High Medieval period. No pottery of the Late Medieval period was recovered.

6.3.12 Twenty sherds (96g) of early post-medieval (*c.*1550-1750) pottery were recovered from Area C. Although a few of these may relate to 17th- century activity none need predate 1700. The vast majority consist of glazed red earthenwares, London stoneware, Staffordshire white salt-glazed stoneware

and Wealden buff earthenwares that can be placed in the first half of the 18th century. This pattern of a notable increase in manuring at this time was noted in the other areas. A single imported Chinese porcelain sherd was recovered from Square 47 (Transect 47B). Although quite widespread the majority of pottery of this period was recovered from Squares 46 and 47.

6.3.13 The remaining 29 sherds (181g) from Area C are of late post-medieval date. These are mainly of later 18th- century date (e.g. creamware and most of the glazed red earthenwares) and can be seen to be a continuation of the early 18th- century manuring. Although there is 19th- century domestic pottery present it is notably rare in comparison with the other areas.

The CBM by Isa Benedetti-Whitton

6.3.14 A mixture of Late medieval, Early Post-medieval and Late Post-medieval material was recovered from across the area, with little discernible patterning (Figure 39).

The Glass by Luke Barber

6.3.15 Area C produced just four shards of glass, weighing 25g, from four Squares (Figure 40, Squares 41, 46, 47, 48). The earliest material consists of a slightly worn green wine bottle fragment of mid 18th- to early 19th- century date (Transect 46P), with the remaining consisting of 19th- to early 20th- century green and colourless bottle fragments. The scarcity of 19th- century glass correlates well with the scarcity of pottery of this date in the area.

The Metalwork by Luke Barber

6.3.16 A single modern 10 bore shotgun case with iron base and plastic sides was recovered from Transect 41W (Figure 41).

The Slag by Luke Barber

6.3.17 Area C produced eight pieces of slag weighing 122g, from eight different transects in Squares 41,-42, 50 and 52 (Figure 42). The earliest consists of a single worn piece (24g) of iron bloomery slag that could relate to activity anywhere between the Late Iron Age and Late Medieval period (Transect 42Y). There is also a single piece of early post-medieval blast furnace slag (Transect 42P) with the remaining pieces consisting of a wide scatter of fuel ash slag from coal burning, undoubtedly of 18th- to 19th- century date.

The Geological Material by Luke Barber

6.3.18 Area B produced three small pieces of ston totalling 43g from Squares 43 and 48 (Figure 43), including Welsh slate (Transect 43S), partially burnt coal (Transect 43X) and chert (Transect 48M).

Miscellaneous Material by Luke Barber (not illustrated)

6.3.19 Transect 48N produced a scrap of 20th- century plastic.

6.4.2 The Distribution of Finds

Prehistoric

6.3.20 As in the other investigated areas, the spread of flintwork was disappointingly thin. More struck and fire-cracked flint was recovered in the eastern half of the examined area, but not in any obvious concentrations

Late Iron Age/Romano-British or Medieval

6.3.21 A single fragment of ironworking slag could date from any period in this range.

Medieval

6.3.22 Despite the location of '*The Castle'*, a medieval moated site bordering the site, only one piece of medieval pottery was recovered from Area C, *c.*300m to the south-west of the monument.

Post-medieval

6.3.23 The range of material including both domestic and industrial waste is again indicative of long-term nightsoiling/manuring. There was no clear concentration of the material, which had been deposited in smaller quantities in Area C than in the other examined areas, reflecting its isolation away from roads or structures

6.4 Integrated Results Discussion

6.4.1 Again there was no obvious correlation between the results of the two surveys. There was no link between the clear archaeological remains identified close to *'The Castle'* and the character and density of artefacts recovered in the vicinity.

6.4.2 This was also true of the more enigmatic remains recorded in the geophysical survey - there was no matching concentration of artefacts in the ploughsoil.

7.0 AREA D RESULTS (Figures 44 to 63)

7.1 Description of site

7.1.1 The survey area comprised approximately *c.*25 hectares of arable land, bounded by hedges, wire fences, a brook, and woodland.

7.1.2 At the time of survey, the ground was under mixed arable use at different stages of the agricultural cycle. The field to the south was under young crop, whereas fields to the north and west were under stubble and grass. The site sloped down to the north towards the Channells Brook, although the topography undulated across the survey area.

7.1.3 Heavy clay soils were present across Area D, with some areas of waterlogging present across the survey plot.

7.2 Survey conditions and limitations

Geophysical survey

7.2.1 Weather conditions were mixed during this period, comprising cold days with bright sunshine and wet and windy conditions coinciding with winter Storms Abigail and Barney.

7.2.2 Physical obstructions encountered on site included trees, pylons and heavily waterlogged ground. Obstructions for each area are noted in the results. In addition, the effectiveness of magnetometer surveys depends on a contrast between the absolute magnetic susceptibility of the topsoil to the underlying subsoil (Clark 1996). Features may also be difficult to detect where there has been significant primary silting and development of significant overburden. Areas where physical obstructions form a barrier to survey, or a health and safety issue, have been omitted. The site lies over Weald Clay geology. An average response to magnetometry is possible, although results may be variable (English Heritage 2008).

Fieldwalking

7.2.3 Although there were some periods of heavy rain during the fieldwalking in Area D and therefore conditions underfoot were wet, visibility of the surface of the field was good, with minimal crop coverage of the a mid brown/mid-greyish brown silty clay ploughsoil.

7.2.4 The western and northern fields within Area D, however, could not be walked owing to a covering of grass, with no soil visibility. This affected all of Squares 56, 57, 58, 59, 60, 61, 62, 63, 67, 72, 77, 82, 83, 87 and 88, and part of Squares 66, 71, 81 and 86 (Figures 53-63).

7.3 Geophysical Survey Results (Figures 44 to 49)

Introduction

7.3.1 The results should be read in conjunction with the figures at the end of this report. The types of features likely to be identified are detailed in sections 3.3.6 – 3.3.14, but are summarised briefly below with possible interpretations:

- Positive anomalies: cut/negative features
- Negative anomalies: compacted ground/buried bank
- Magnetic disturbance: interference from modern ferrous structures
- Magnetic debris: disturbed ground with ferrous litter
- Dipolar anomalies: discrete ferrous objects/kilns/ovens
- Bipolar anomalies: modern pipelines/cables
- Thermoremanence: clay magnetised through firing

Interpretation of fluxgate gradiometer results (Figures 50 to 52)

7.3.2 The interpretation of fluxgate gradiometer results should be read in conjunction with the figures at the end of the report. Specific examples of anomaly types are numbered in the figures and text but not all anomalies are numbered.

7.3.3 Area D comprises three fields on north-facing slopes. At the time of the survey one field to the south was under young crop, while the remaining two to the north and west were under stubble and grass.

7.3.4 Evidence of possible archaeological activity was, in general, sparse and included the following described anomalies. The most obvious possible archaeological anomaly is the curvilinear feature and associated discrete anomalies in the north-east corner, noted as A28 (Figure 52) which may represent a cut feature such as a ditched enclosure. However, its shape, in relation to other anomalies observed in Area, and its proximity to the existing course of the Channells Brook suggests it may represent a former meander of this watercourse. The relatively strong magnetic response of this anomaly may be the result of deliberate infilling of these features. Within the 'meander' several relatively strong magnetic anomalies indicate possible archaeology. Several linear positive anomalies occur in the southern field (A29) along with discrete moderate positive anomalies (A30) (Figure 52). These may represent cut features such as pits and ditches. However, these anomalies may also relate to in filled natural features.

7.3.5 Areas of magnetic debris (e.g. Figure 52, A31, A32) may relate to a scattering of near surface ferrous material, ground disturbance or made ground, and are found across Area D. Areas of magnetic debris in the north west of Area D (Figure 50, A32) correspond to the location of *Bushlags* observed on the 1875 25-inch Ordnance Survey map and later known as *Bush Cottage*.

7.3.6 Moderate and weak positive amorphous anomalies (Figure 51, A33; Figure 50, A34) may relate to cut archaeological features, but are much more likely to represent geological formations. In both instances these are probably palaeochannels or responses caused by the presence of river terrace gravels.

7.3.7 Dipolar anomalies (Figure 52, A35) are observed across the area. These anomalies may relate to thermoremanent material such as that due to kilns and furnaces or near surface ferrous objects.

7.3.8 A single dipolar anomaly with associated magnetic disturbance (Figure 52, A36) is observed to the south-east of the southern field. This anomaly is probably associated with the power lines at that location.

7.3.9 A number of linear anomalies (Figure 51, A37; Figure 50, A38) relate to ploughing.

7.4 Fieldwalking Survey Results (Figures 53 to 62)

Fieldwalking Finds

Fire-Cracked Flint by Karine Le Hégarat

7.4.1 A total of 42 fragments of burnt unworked flint weighing 354g were found in Area D. The density was very low but there is a suggestion of a concentration in the south-central part of the area Figure 53, Squares 64, 65, 69, 70, 73-76, 79-81). The fragments were principally calcined white.

Worked Flint by Karine Le Hégarat

7.4.2 A total of 24 pieces of struck flint weighing 178g were recovered from Area D (Table 6), mostly from Squares 64, 65, 69, 70, 74, 75, 79, 81, 84, 91 and 93), but no dense concentration was present. The flints comprised 16 flakes, a blade, a blade-like flake, five pieces of irregular waste and a core. The blade and broken core (50g) indicate a Mesolithic or Early Neolithic date. The remaining of the assemblage cannot be precisely dated.

Category	Flakes	Blades, Blade-like flakes	Irregular waste	Cores	Retouched forms	Hammerstone	Total
Area D - surface area: *c.* 21.5 hectares	16	2	5	1	-	-	24

Table 6: the flintwork from Area D

The Post-Roman Pottery by Luke Barber

7.4.3 The fieldwalking of the available land within Area D produced 229 sherds of pottery, weighing 1088g, from 146 different transects in 19 Squares (Figures 55 and 56). The earliest material consists of a just five sherds (24g) of High Medieval pottery. These consist of sandy wares of the 13th to 14th centuries, including Earlswood products and a single Surrey Whiteware sherd. Both cooking pots and jugs are present. Too little is present to comment on distributions (Figure 55, Squares 79, 84,86 and 90; Transects 79C, 84C, 84E, 86V and 90F) but it is clear manuring was not occurring to any notable degree at this time. The area also produced three Late Medieval sherds of mid 15th- to mid 16th- century type (Figure 55, Squares 79, 86, 91; Transects 79L, 86L, 91X). Although widely spread, proportionately they suggest an increase in activity in comparison to the High Medieval period.

7.4.4 Thirty one sherds (189g) of Early Post-medieval (c. 1550-1750) pottery were recovered from Area D. Although a few of these may relate to 17th-century activity none need predate 1700. The vast majority consist of glazed red earthenwares, London stoneware, Staffordshire white salt-glazed stoneware and Staffordshire combed slipware that can be placed in the first half of the 18th century. This pattern of a notable increase in manuring at this time was noted in the other areas. Although quite widespread there is a slight concentration towards the eastern part of the area (Figure 56).

7.4.5 The remaining 190 sherds (862g) from Area D are of the Late Post-medieval period. As was seen in Area C, most of the late post-medieval sherds are of later 18th- century date (eg creamware, pearlware and most of the glazed red earthenwares) and can be seen to be a continuation of the early 18th- century manuring at ever-increasing intensity. Although there is 19th- century domestic pottery present it is proportionately sparse in comparison with Areas A and B.

The CBM by Isa Benedetti-Whitton

7.4.6 A mixture of late Medieval and early post-medieval and late post-medieval material was recovered from across the area, with no obvious patterning of concentrations (Figure 57).

The Clay Tobacco Pipes by Luke Barber

7.4.7 Area D produced just three heavily worn stem fragments (Figure 58). The earliest, both from Square 84 (Transect 84H), are of a c. 1640-1700 date range, while the example from Square 93 (Transect 93P) is of the second half of the 17th century.

The Glass by Luke Barber

7.4.8 Area D produced 61 shards of glass, weighing 833g, from 53 different transects in 15 squares (Figure 59). The earliest material consists of six slightly worn green wine bottle fragments of mid 18th- to early 19th- century date (Figure 59 Squares/Transects 69P, 75W, 79Z, 80X, 91B, 93J) as well

as a probable piece of 18th- century window glass (Square/Transect 91L). The remaining pieces consist of a spread of later 19th- to early 20th- century material of mixed type (mainly wine/beer bottles but household, chemist examples and window glass). The material is spread widely across the area.

The *Metalwork* by Luke Barber

7.4.9 The six pieces of metalwork from Area D (177g) all consist of 19th- to 20th- century nail, nut, bolt or strip fragments (Figure 60).

The Slag by Luke Barber

7.4.10 Area D produced surprisingly little slag: four pieces weighing 122g. Two of these (40g) are of iron bloomery tap slag and as such can be placed between the Late Iron Age and medieval periods (Figure 61, Squares 79 and 90, Transects 79Q and 90B). Transect 94K produced a 76g fragment of iron smithing slag of uncertain age, while Transect 75N produced a 6g scrap of 18th- to 19th- century fuel ash slag from coal burning.

The Geological Material by Luke Barber

7.4.11 Just three pieces of stone were recovered from Area D. These consist of Welsh slate, coal and a piece of breccia/aggregate (Transects 70C, 74X and 78I respectively; Figure 62).

Miscellaneous Material by Luke Barber (not illustrated)

7.4.12 Transects 74Y, 75J, 86L and 92K produced scraps of 20th- century plastic while 91Y produced a weathered oyster shell.

The Animal Bone by Gemma Ayton (not illustrated)

7.4.13 Just one fragment of animal bone was recovered during field walking and this was found in Square 85. The bone has been identified as a sheep/goat pelvic fragment and derives from the ilium. The proximal section of the ilium has been sliced off, a common practice when dismembering a carcass. There is no evidence of burning, pathology of gnawing on the specimen

7.4.2 The Distribution of Finds

Prehistoric

7.4.14 As in the other investigated areas, the spread of flintwork was disappointingly thin, no more than a ‘back ground scatter’, although there is a suggestion of a concentration of fire-cracked flint in the south-central part of the area.

Late Iron Age/Romano-British or Medieval

7.4.15 A small quantity of ironworking slag could date from any period in this range.

Medieval

7.4.16 A thin scatter of medieval pottery, apparently from manuring of the fields was noted.

Post-medieval

7.4.17 A range of material including both domestic and industrial waste was recovered from Area D. There was no clear concentration of any of the post-medieval material, suggesting manuring/spreading of nightsoil. The comparative scarcity of late post-medieval material reflects the isolation of the field from 19th century (or later) development.

7.5 Integrated Results Discussion

7.5.1 Again there were no scatters of artefacts associated with the geophysical anomalies identified in the part of Area D which could be fieldwalked.

8.0 CONCLUSIONS

8.1 Geophysical Survey - Area by Area

Area A

8.1.1 Evidence for possible archaeological features in Area A was relatively sparse. This probably represents more the limited survey coverage of the area than a true representation of the disposition of archaeological features. Several discrete and linear moderate positive anomalies (A1) may represent cut features such as pits and ditches. However, these anomalies may also relate to in filled natural features. A linear anomaly near to the moat (A2) may relate to earthworks noted in the southern pasture field.

Area B

8.1.2 The most obvious possible archaeological anomalies are the linear moderate positive anomalies, noted as A8 and A9, which are likely to be due to cut features such as gullies. Due to the form of these anomalies in both fields it is likely that they relate to drainage. A number of these match the location of former field boundaries (A10, A11). Further linear positive anomalies occur across the mid-section of the eastern field (A12). These are, similarly, likely to be cut features although their origins are obscure. Several discrete moderate positive anomalies (A13) may represent cut features such as pits. However, these anomalies may also relate to in filled natural features. A large dipolar anomaly with associated magnetic disturbance (A17) is observed in the western enclosure of Area B. This anomaly is likely to represent the infilling of a former pond, noted on historical mapping, with strongly magnetic material. In addition, further dipolar anomalies and magnetic debris on the western edge of the site correspond to the location of a small former building also noted on the historical mapping.

Area C

8.1.3 The most obvious possible archaeological anomalies are the magnetic debris and associated dipolar anomalies in the north east corner of Area C (A20). These anomalies indicate a possible former building or made ground with associated possible thermoremanent anomalies. No structure is recorded at this location on the historical mapping and the location of these anomalies adjacent to the earthwork known as '*The Castle'* point towards a possible medieval or early post-medieval origin. Linear moderate positive anomalies in the southern field, noted as A21, and likely to be due to cut features such as gullies. Due to the form of these anomalies it is likely that they relate to former field boundaries or drainage. Further linear positive anomalies occur in the same area (A22) but are weak, probably representing drainage of a different phase of activity. A few discrete moderate positive anomalies (A23) may represent cut features such as pits. However, these anomalies may also relate to in filled natural features. A moderate negative linear anomaly is observed across the centre of the northern field (A24) and may represent a remnant bank or earthwork. However, this anomaly may also relate to former agricultural activity.

Negative anomalies may also stem from the dipolar effect of certain magnetic anomalies.

Area D

8.1.4 A curvilinear feature and associated discrete anomalies in the north-east corner, noted as A28, may represent a cut feature such as a ditched enclosure. However, its shape, in relation to other anomalies observed in Area D, and its proximity to the Channell Brook indicates that it is morelikely to represent a former meander of this stream. The relatively strong magnetic response of this anomaly may be the result of deliberate infilling of these features. Within the 'meander' several relatively strong magnetic anomalies indicate possible archaeology. Several linear positive anomalies occur in the southern field (A29) along with discrete moderate positive anomalies (A30). These may represent cut features such as pits and ditches. However, these anomalies may also relate to in filled natural features. Areas of magnetic debris (e.g. A31, A32) may relate to a scattering of near surface ferrous material, ground disturbance or made ground, and are found across Area D. Areas of magnetic debris in the north west of Area D (A32) correspond to the location of *Bushlags* observed on the 1875 25-inch Ordnance Survey map and later known as *Bush Cottage*. Moderate and weak positive amorphous anomalies (A33, A34) may relate to cut archaeological features, but are much more likely to represent geological formations. In both instances these are probably palaeochannels or responses caused by the presence of river terrace gravels. Dipolar anomalies (A35) are observed across the area. These anomalies may relate to thermoremanent material such as that due to kilns and furnaces or near surface ferrous objects.

8.2 Geophysical Survey - Overview

8.2.1 Throughout the survey anomalies of possible archaeological origin are characterised by linear and discrete positive anomalies indicating cut features such as pits and ditches. These anomalies are generally sparse and often coincide with former enclosure boundaries. However, more significant indicators of archaeological features are noted at several locations. A probable former building is suggested in Area C adjacent to the earthwork known as 'The Castle' and may be medieval or early post medieval in date. Areas of magnetic debris in the north west of Area D correspond to the location of Bushlags observed on the 1875 25-inch Ordnance Survey map and later known as Bush Cottage. Also noted in Area D are possible channels and river terrace gravels. A number of these anomalies appear to represent the pre-canalised route of Channells Brook and possible archaeological activity is noted within the largest of these 'meanders'.

8.2.2 Physical obstructions encountered on site included trees and heavily waterlogged ground. Obstructions for each area are noted in the results. In addition, the effectiveness of magnetometer surveys depends on a contrast between the absolute magnetic susceptibility of the topsoil to the underlying subsoil (Clark 1996). Features may also be difficult to detect where there has been significant primary silting and development of significant

overburden. Areas where physical obstructions form a barrier to survey, or a health and safety issue, have been omitted. The site lies over mudstone geology. An average response to magnetometer is possible, although results may be variable (English Heritage 2008).

8.3 Fieldwalking Survey - Area by Area

Area A

8.3.1 Only a limited part of Area A was available for fieldwalking. There were no obvious concentrations of artefacts of any period; prehistoric and medieval material was rare, Romano-British material was absent, and post-medieval material was common, especially CBM, which was almost ubiquitous.

Area B

8.3.2 There were no obvious concentrations of artefacts of any period despite the apparent presence of buried features; the periods represented were similar to those seen in Area A.

Area C

8.3.3 There were no obvious concentrations of artefacts of any period despite the apparent presence of buried features, including a possible sizeable buried structure close to *'The Castle'*. Again, the periods represented were similar to those seen in Area A.

Area D

8.3.4 As the largest of the fieldwalked zones, Area D produced the largest assemblage of finds (especially CBM). However, with the exception of a possible concentration of fire cracked flint in the south-central part of the area, there were no obvious concentrations of artefacts of any period, despite the apparent presence of buried features. The periods represented were similar to those seen in Area A.

8.4 Fieldwalking Survey - Overview

8.4.1 In summary, despite conditions that were generally favourable for the recovery of artefacts, results were disappointing across all of the areas; there were no obvious concentrations of material of any period and therefore no correlation between identified geophysical anomalies and the fieldwalking results.

8.4.2 The paucity of flintwork across the majority of the site may reflect only limited hunter/gatherer activity and later prehistoric settlement. Similarly the complete absence of Romano-British material and the dearth of medieval pottery suggest little or no widescale occupation in the vicinities during those eras. There has been much deposition of post-medieval material over the areas, hinting at more widespread local occupation.

8.4.3 However, this does not explain the clear lack of correlation between the

limited number of detected buried features and concentrations of material in the ploughsoil. It is possible that there has been comparatively little plough damage/truncation to the detected buried features, or that they belong to periods when finds are themselves scarce, or simply that the features did not contain datable material in any disturbed fills. Based on currently available evidence, this remains unexplained.

8.5 Combined Results - Overview

8.5.1 In conclusion, despite the identification of a number of geophysical anomalies, some tangible and some more enigmatic, there was absolutely no correlation between them and identified concentrations of archaeological artefacts in the ploughsoil, none of which were identified in any of the fieldwalked areas.

Bibliography

ASE 2015a. *Land North of Horsham, West Sussex: Historic Environment Desk-Based Assessment (Heritage Statement).* Unpub ASE report.

ASE 2015b. *Land North of Horsham, West Sussex: Written Scheme of Investigation for Magnetometer Survey and Fieldwalking*. Unpub. ASE method statement.

BGS 2015a. *Geology of Britain Viewer*
http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html?src=topNav
Accessed 19th November 2015

BGS 2015b. British Geological Survey, *Borehole Scans*
http://www.bgs.ac.uk/data/boreholescans/home.html
Accessed 19th November 2015

Chapman, J. & Seeliger, S. 2001. *Enclosure, Environment and Landscape in Southern England.* Tempus.

Clark, A. 1996. *Seeing Beneath the Soil.* (2nd edition). London: Routledge.

Cleere, H. & Crossley, D. 1995. *The Iron Industry of the Weald*. Cardiff: Merton Priory Press.

Darby, H.C. & Campbell, E.M.J. 1962. *The Domesday Geography of South-East England.* Cambridge University Press.

English Heritage 2008. *Geophysical Survey in Archaeological Field Evaluation 2nd Edition* Swindon: English Heritage

Gardiner, M., 1990. The Archaeology of the Weald – A Survey and a Review, *Sussex Archaeological Collections* 128, 33-53

Hudson, T.P. 1986. *Victoria County History,* vol. 6/2. Oxford University Press.

Hurst, D. 1868. *Horsham: its History and Antiquities.* William MacIntosh.

Pope, M. 2014. *The Upper Palaeolithic and Mesolithic: South East Region Research Framework*. Kent County Council.

Rackham, O. 1986. *The History of the Countryside.* Dent.

Rudling, D. 1999. Roman Sussex, in K. Leslie, & B. Short, (eds.), *An Historical Atlas of Sussex.* Phillimore.

Acknowledgements

ASE would like to thank Liberty Property Trust UK Ltd for commissioning the work and for their assistance throughout the project, and Martin Brown of WYG Archaeological Advisor to Horsham District, for his input. Additionally, ASE would like to thank the landowners and tenants for their cooperation during the project.

HER Summary

Site Code	LHO15					
Identification Name and Address	Land North of Horsham					
County, District &/or Borough	Horsham District, West Sussex					
OS Grid Refs.	519000 134000					
Geology	Weald Clay					
Arch. South-East Project Number	7884					
Type of Fieldwork	GP ✓	FW ✓				
Type of Site	Green Field ✓					
Dates of Fieldwork	Eval. 04.11.2015 - 02.12.2015					
Sponsor/Client	Liberty Property Trust UK Ltd.					
Project Manager	Darryl Palmer					
Project Supervisor	Simon Stevens					
Period Summary			Meso ✓	Neo ✓	BA ✓	
		Med ✓	PM ✓			

Summary

Throughout the geophysical survey anomalies of possible archaeological origin are characterised by linear and discrete positive anomalies indicating cut features such as pits and ditches. These anomalies are generally sparse and often coincide with former enclosure boundaries. However, more significant indicators of archaeological features are noted at several locations. A probable former building is suggested in Area C adjacent to the earthwork known as 'The Castle' and may be medieval or early post medieval in date. Areas of magnetic debris in the north west of Area D correspond to the location of Bushlags observed on the 1875 25-inch Ordnance Survey map and later known as Bush Cottage. Also noted in Area D are possible channels and river terrace gravels. A number of these anomalies appear to represent the pre-canalised route of Channells Brook and possible archaeological activity is noted within the largest of these meanders.

Prehistoric, medieval and post-medieval material was recovered in varying quantities from the four areas during the surface artefacts collection. Fieldwalking Areas A and D were smaller than those available for the magnetometry survey. There were no clear concentrations of prehistoric or medieval material, and a thin scatter of ironworking slag could contain bloomery waste varying in date from the Iron Age to the end of the medieval period. Similarly there was a thin spread of post-medieval blast furnace slag, but the majority of material from that period consisted of ceramic building material (CBM) and pottery, most (if not all) the result of manuring/nightsoiling.

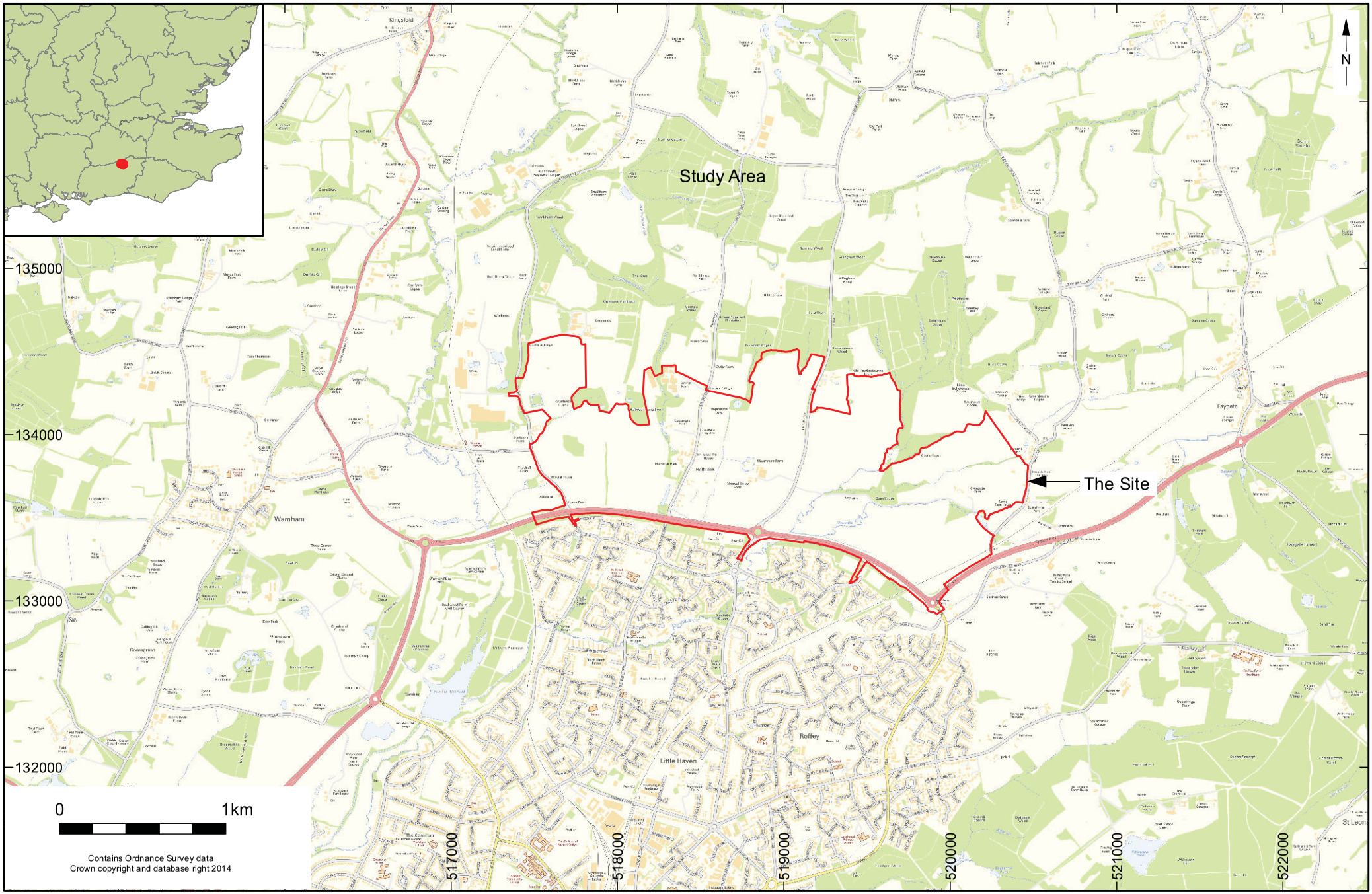
OASIS Form

OASIS ID: archaeol6-234727

Project details	
Project name	Land North of Horsham, West Sussex
Short description of the project	Throughout the geophysical survey anomalies of possible archaeological origin are characterised by linear and discrete positive anomalies indicating cut features such as pits and ditches. These anomalies are generally sparse and often coincide with former enclosure boundaries. However, more significant indicators of archaeological features are noted at several locations. A probable former building is suggested in Area C adjacent to the earthwork known as 'The Castle' and may be medieval or early post medieval in date. Areas of magnetic debris in the north west of Area D correspond to the location of Bushlags observed on the 1875 25-inch Ordnance Survey map and later known as Bush Cottage. Also noted in Area D are possible channels and river terrace gravels. A number of these anomalies appear to represent the pre-canalised route of Channells Brook and possible archaeological activity is noted within the largest of these meanders. Prehistoric, medieval and post-medieval material was recovered in varying quantities from the four areas during the surface artefacts collection. Fieldwalking Areas A and D were smaller than those available for the magnetometry survey. There were no clear concentrations of prehistoric or medieval material, and a thin scatter of ironworking slag could contain bloomery waste varying in date from the Iron Age to the end of the medieval period. Similarly there was a thin spread of post-medieval blast furnace slag, but the majority of material from that period consisted of ceramic building material (CBM) and pottery, most (if not all) the result of manuring/nightsoiling.
Project dates	Start: 04-11-2015 End: 02-12-2015
Previous/future work	Yes / Not known
Any associated project reference codes	7884 - Contracting Unit No.
Any associated project reference codes	LHO15 - Sitecode
Type of project	Field evaluation
Site status	None
Monument type	NONE None
Significant Finds	FLINTWORK Early Prehistoric
Significant Finds	POTTERY Medieval
Significant Finds	POTTERY Post Medieval
Methods &	"""Fieldwalking""","""Geophysical Survey"""

techniques	
Development type	Rural residential
Prompt	Direction from Local Planning Authority - PPS
Position in the planning process	Pre-application
Solid geology	WEALD CLAY
Drift geology	Unknown
Techniques	Magnetometry
Project location	
Country	England
Site location	WEST SUSSEX HORSHAM RUSPER Land North of Horsham
Study area	50 Hectares
Site coordinates	TQ 19000 34000 51.092408161868 -0.300515135852 51 05 32 N 000 18 01 W Point
Project creators	
Name of Organisation	Archaeology South-East
Project brief originator	Archaeology South-East
Project design originator	Archaeology South-East
Project director/manager	Darryl Palmer
Project supervisor	Ed Blinkhorn/John Cook/Simon Stevens
Type of sponsor/funding body	client
Name of sponsor/funding body	Liberty Property Trust UK
Project archives	
Physical Archive recipient	Horsham Museum
Physical Contents	"Worked stone/lithics","Ceramics"
Digital Archive recipient	Horsham Museum
Digital Contents	"other"
Digital Media available	"Geophysics","Images raster / digital photography","Survey","Text"
Paper Archive recipient	Horsham Museum
Paper Contents	"other"

Paper Media available	"Miscellaneous Material","Notebook - Excavation"," Research"," General Notes","Report","Unpublished Text"
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	Integrated Magnetometry and Fieldwalking Survey - Land North of Horsham, West Sussex
Author(s)/Editor(s)	Blinkhorn, E., Cook, J. and Stevens, S.
Other bibliographic details	ASE Report No. 2015463
Date	2015
Issuer or publisher	Archaeology South-East
Place of issue or publication	Portslade, East Sussex
Description	Standard ASE client report - A4-sized with cover logos
Entered by	Simon Stevens (simon.stevens@ucl.ac.uk)
Entered on	16 December 2015



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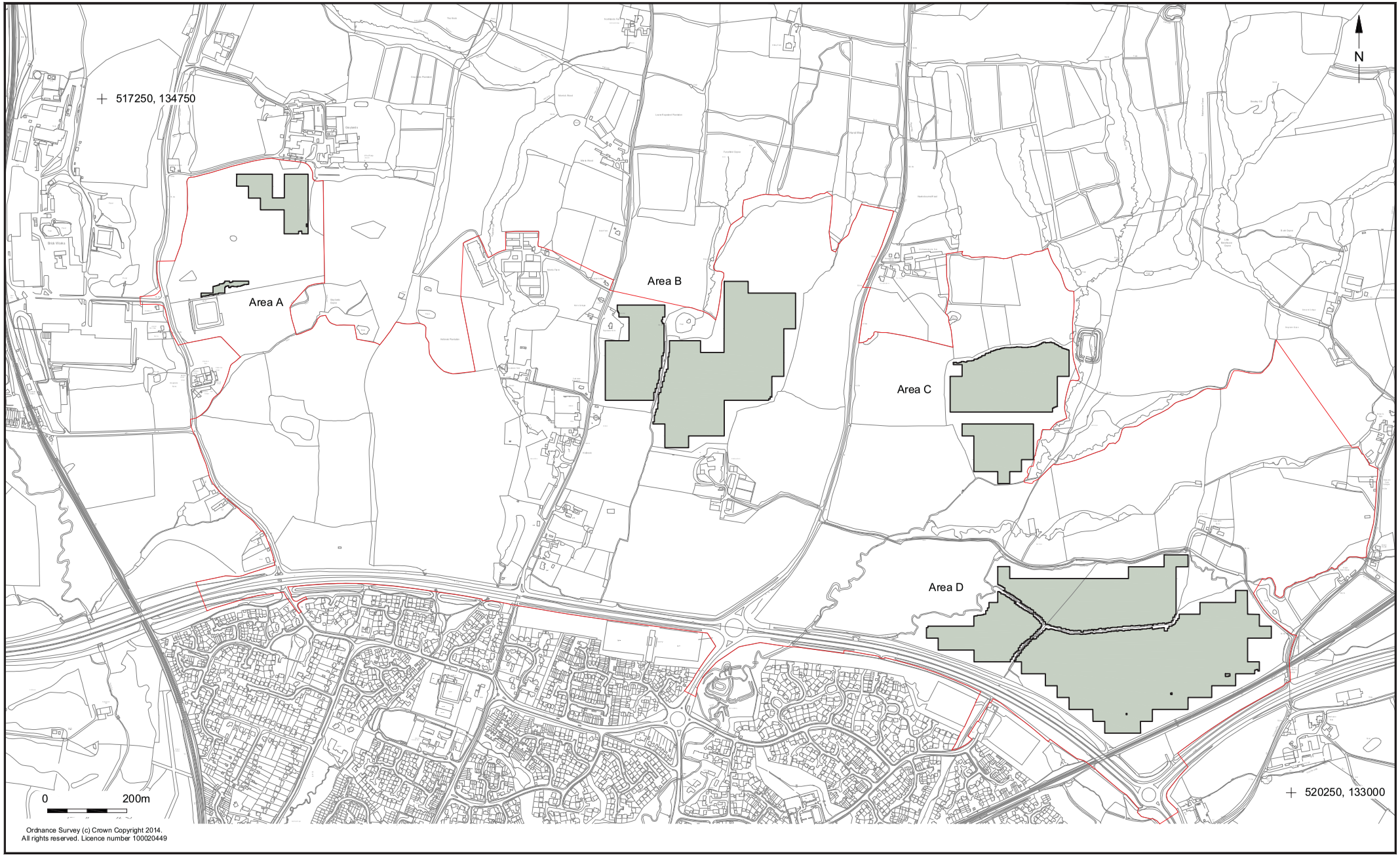
Report Ref: 2015463	Drawn by: JLR		



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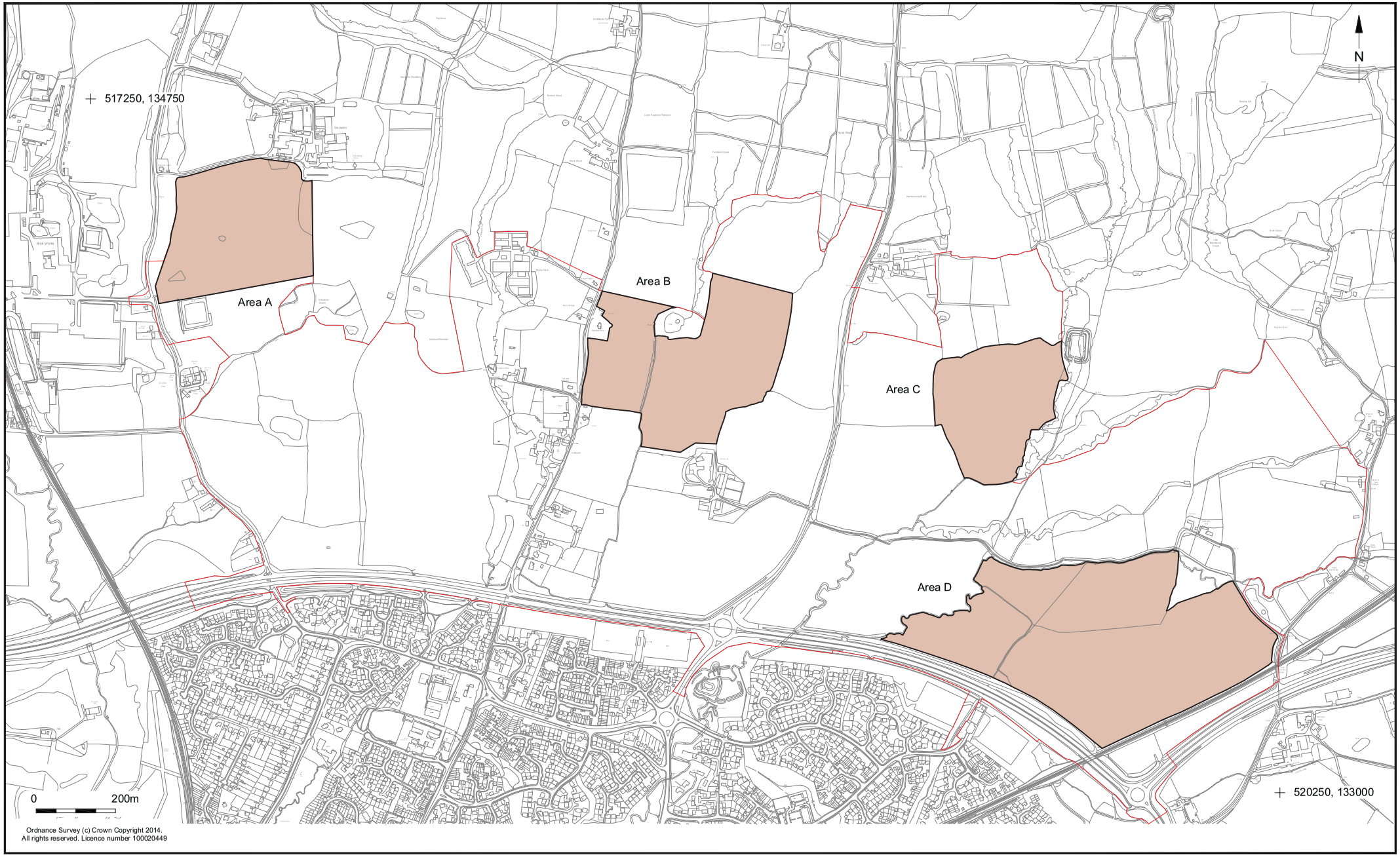
Report Ref: 2015463	Drawn by: JC		



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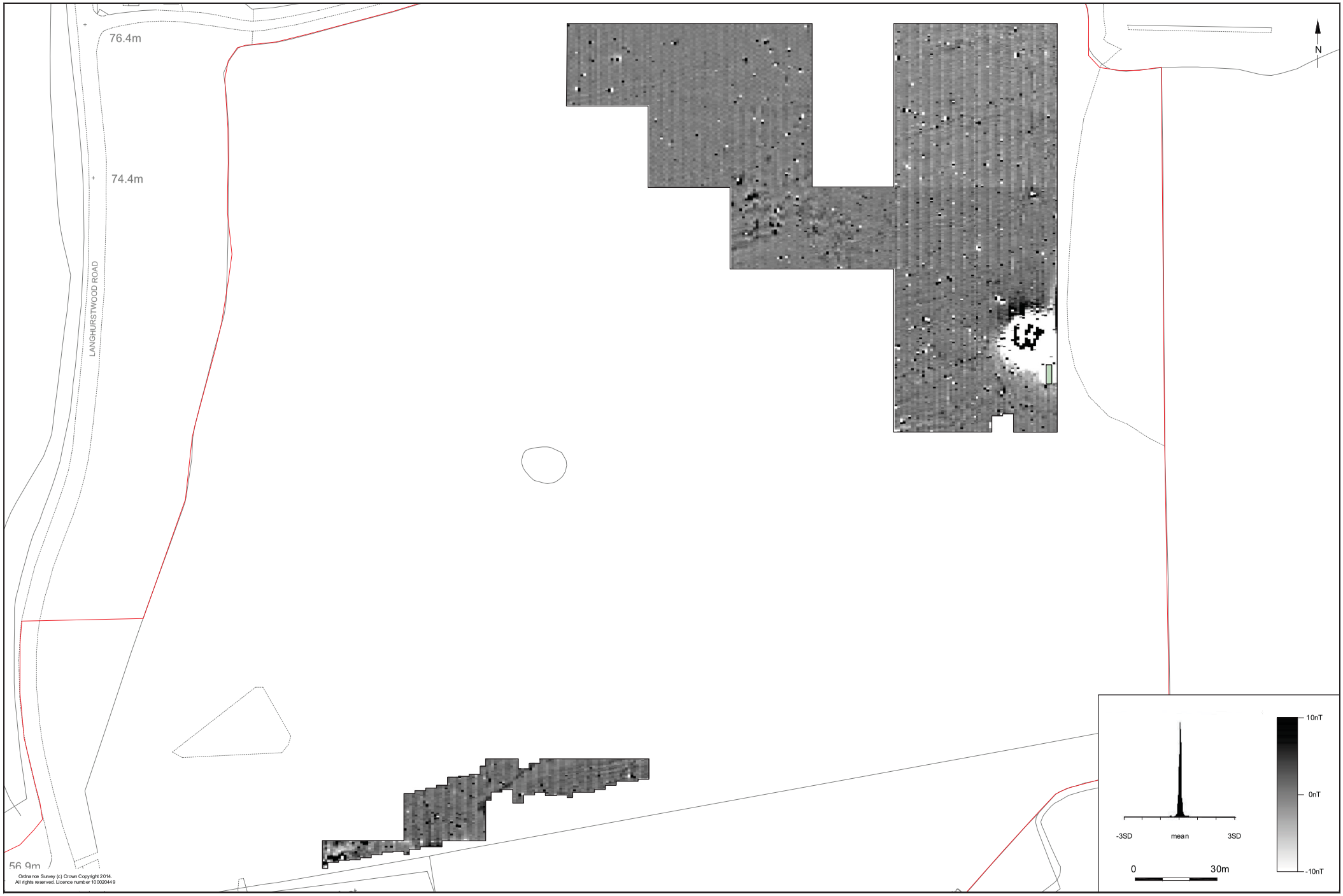

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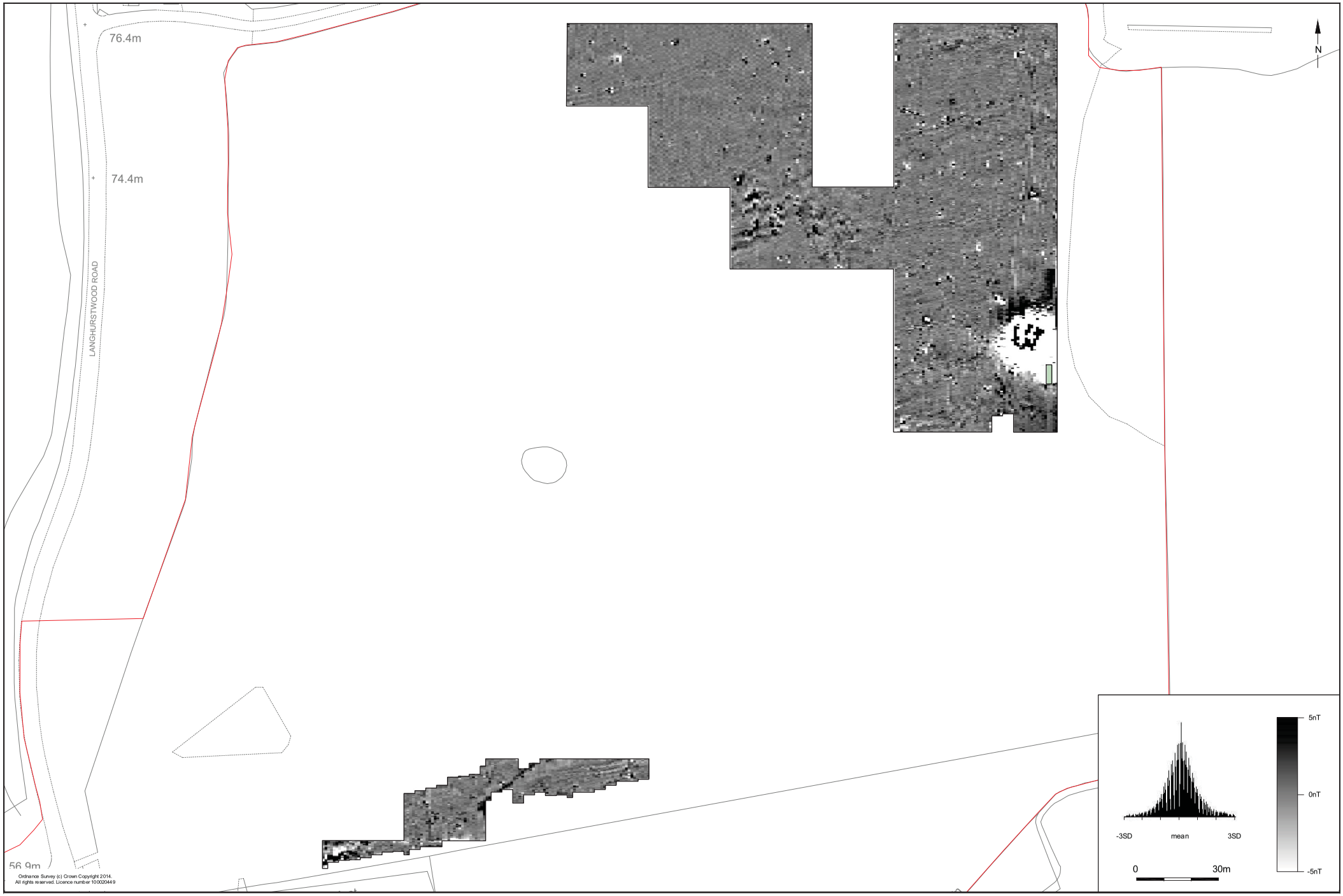

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Report Ref: 2015463	Drawn by: JC		

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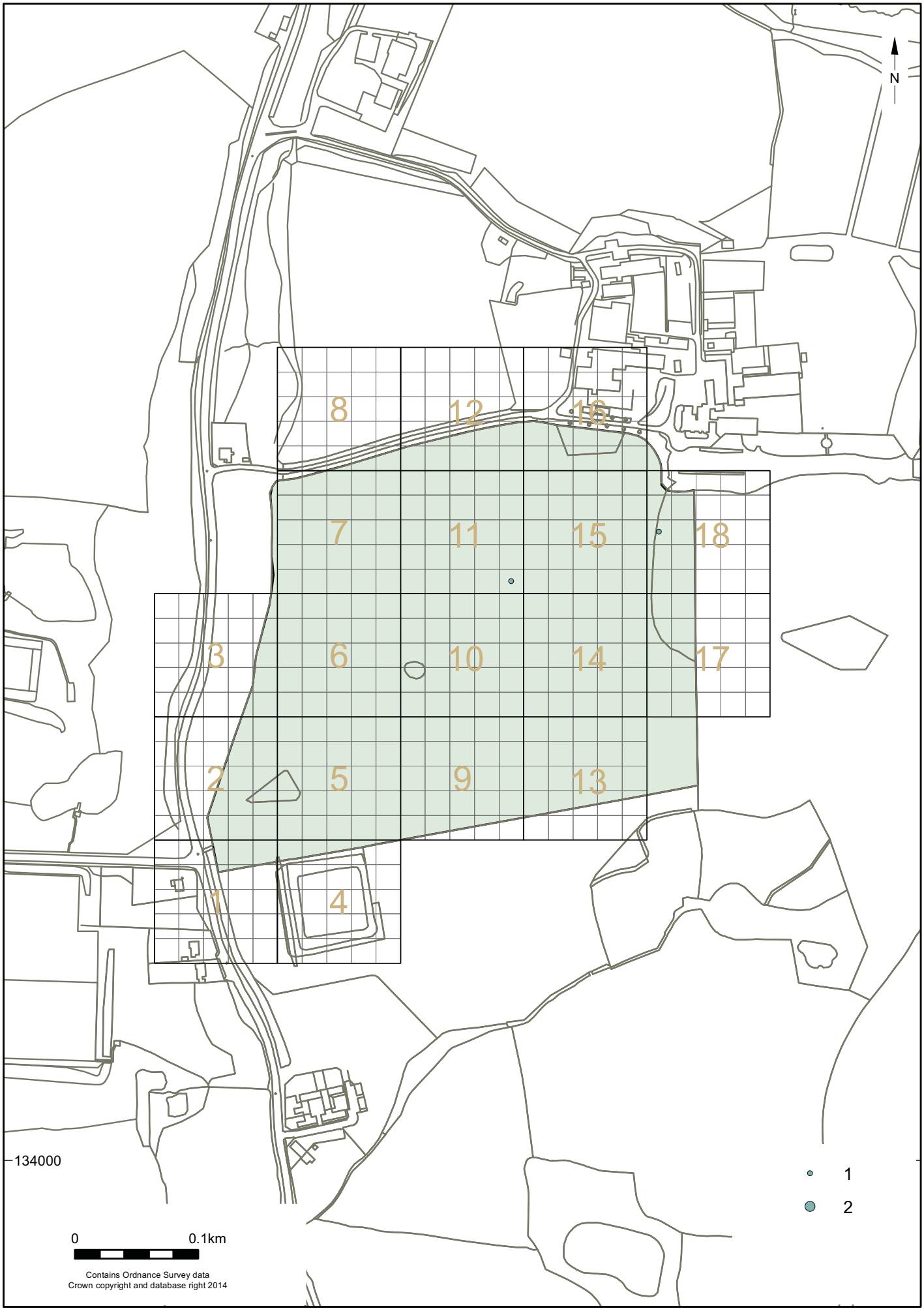
Project Ref: 7884	Dec 2015	Area A Fieldwalking: Distribution of fire-cracked flint	
Report Ref: 2015463	Drawn by: JLR		



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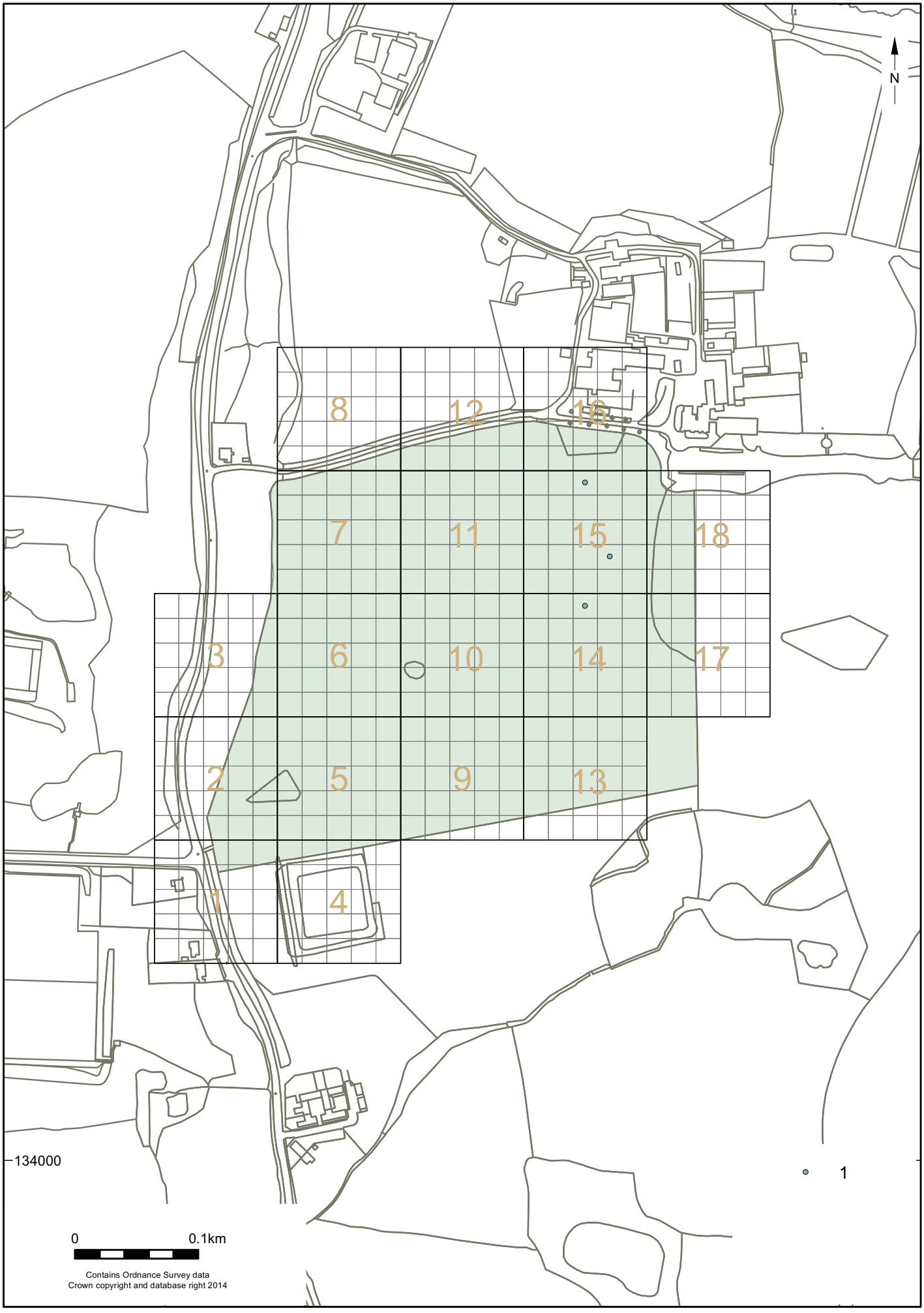

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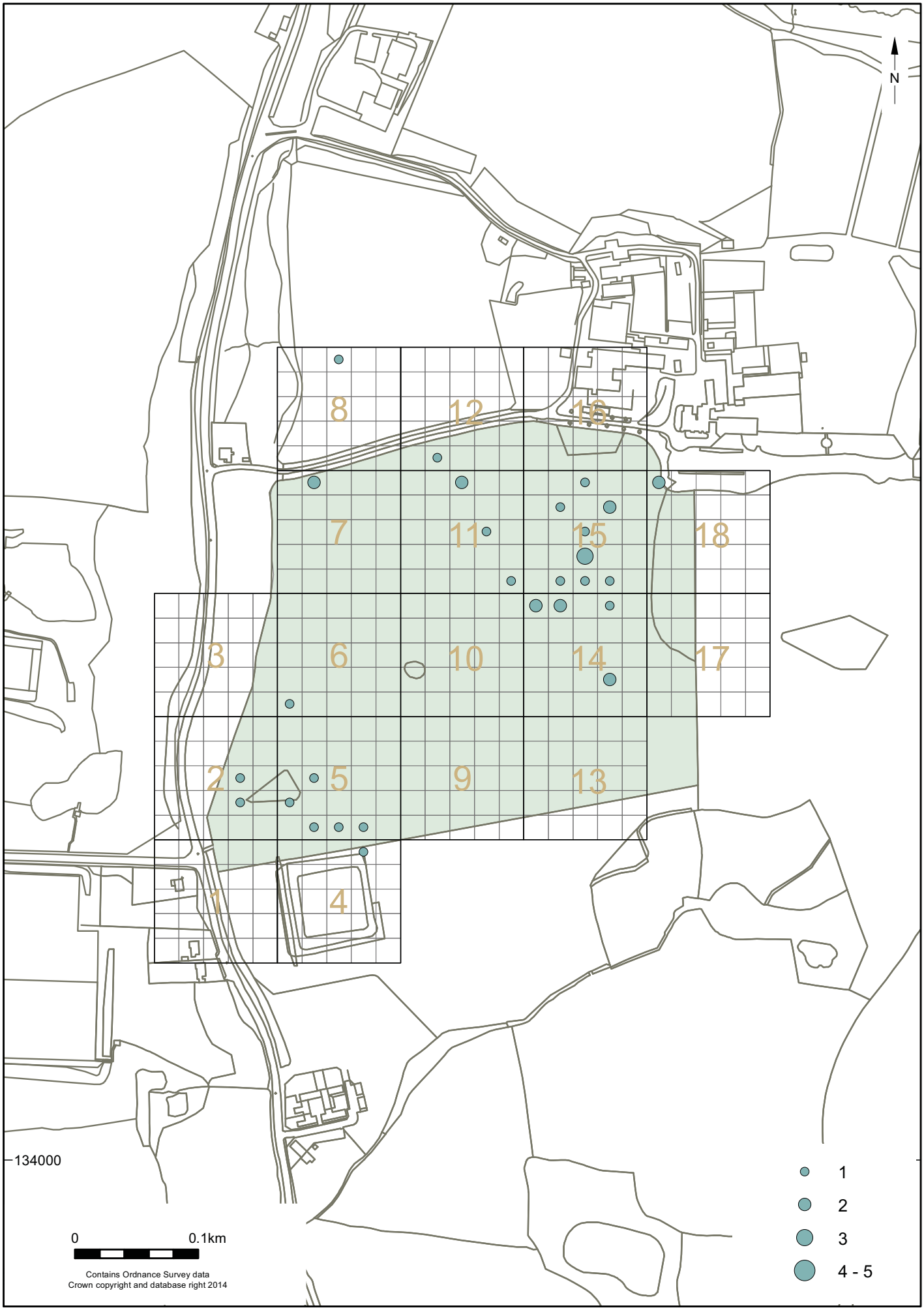

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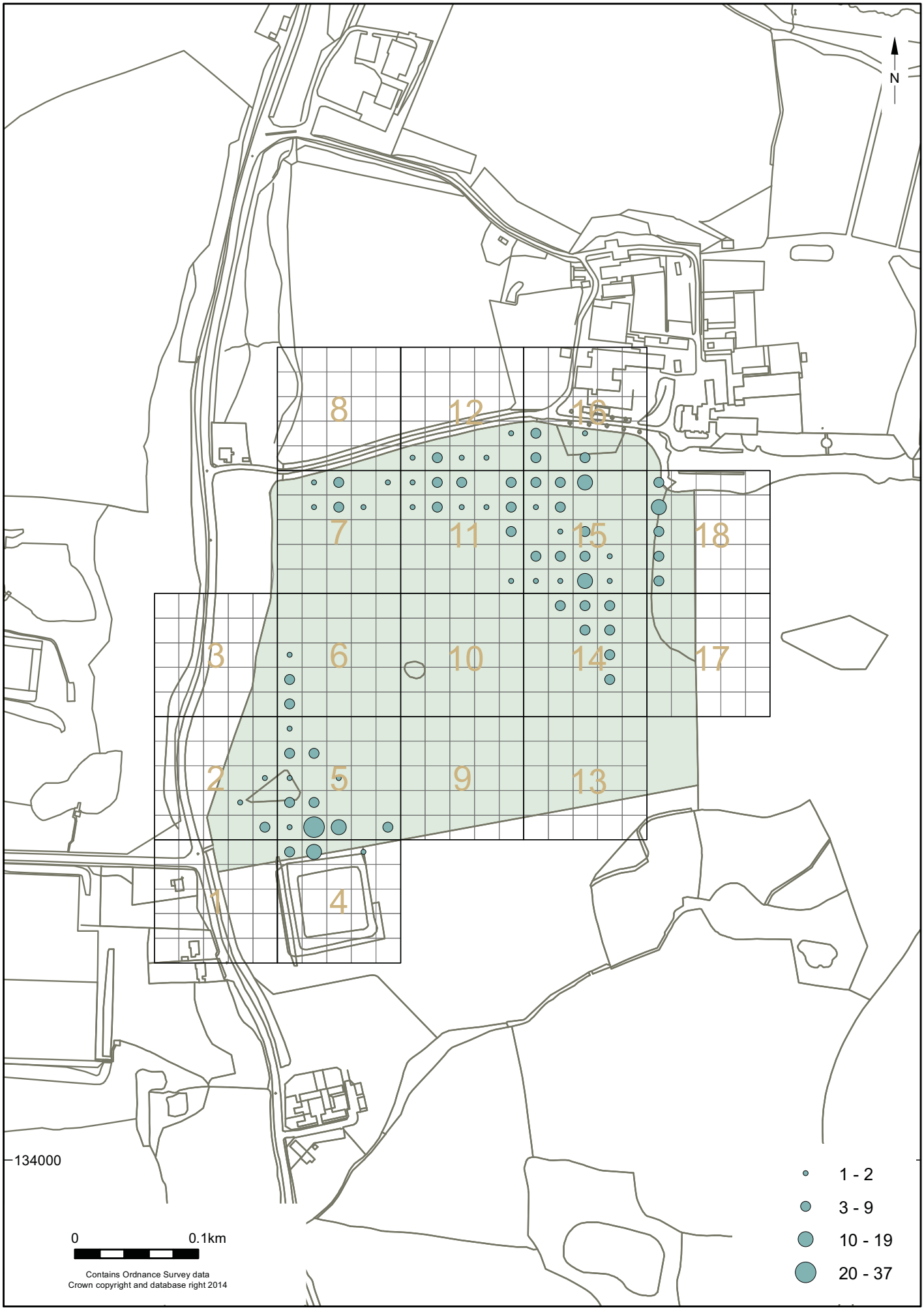

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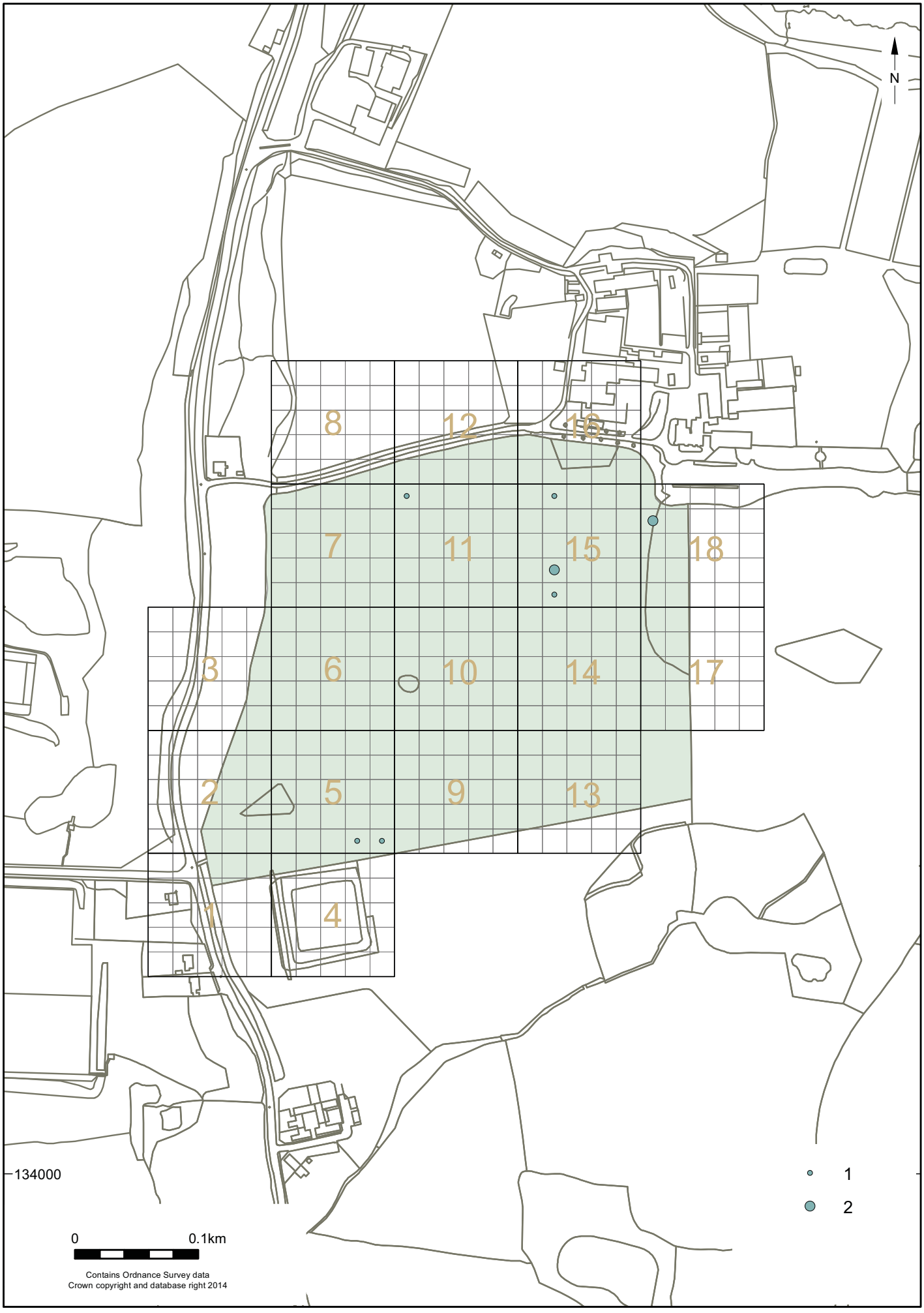

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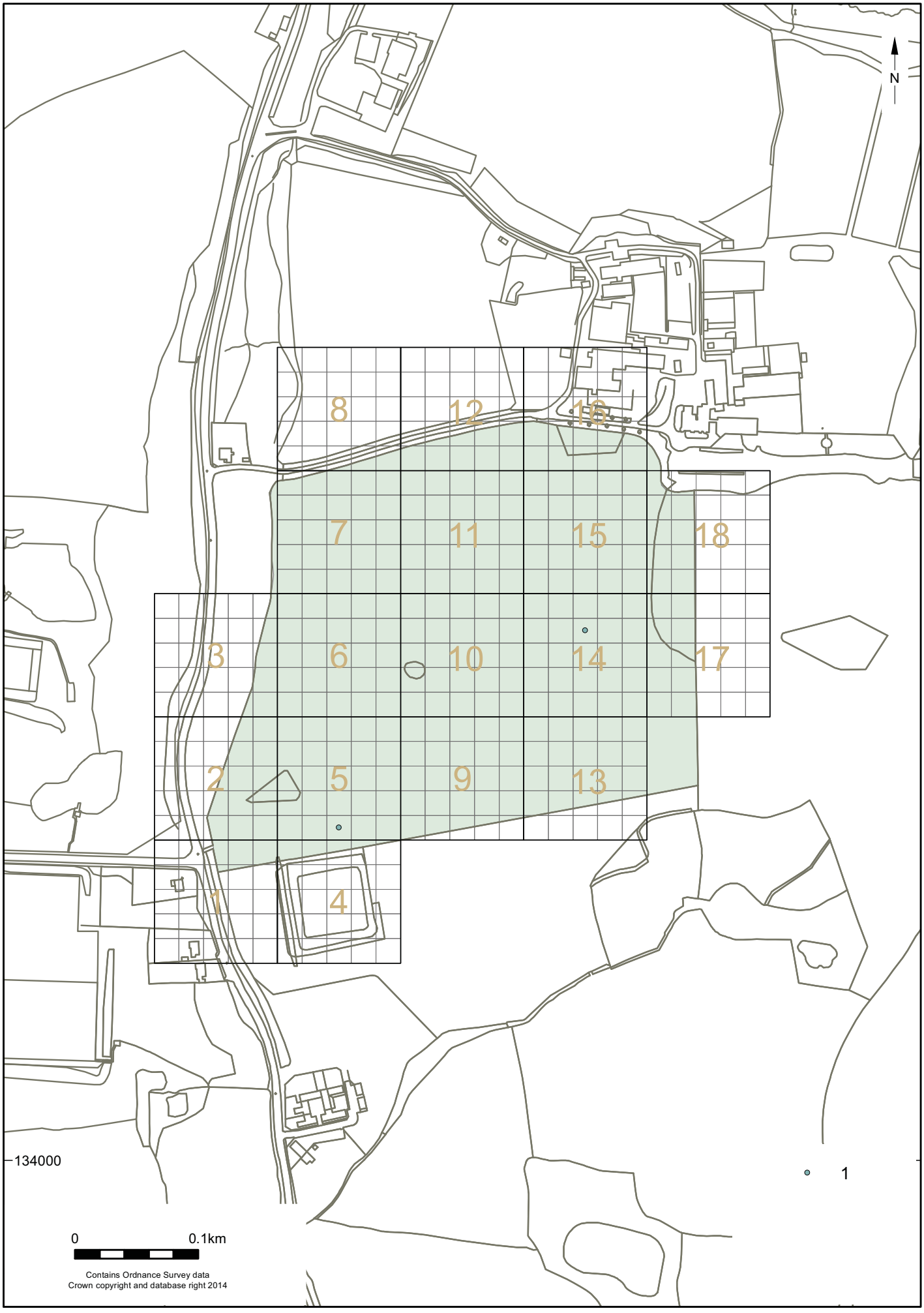

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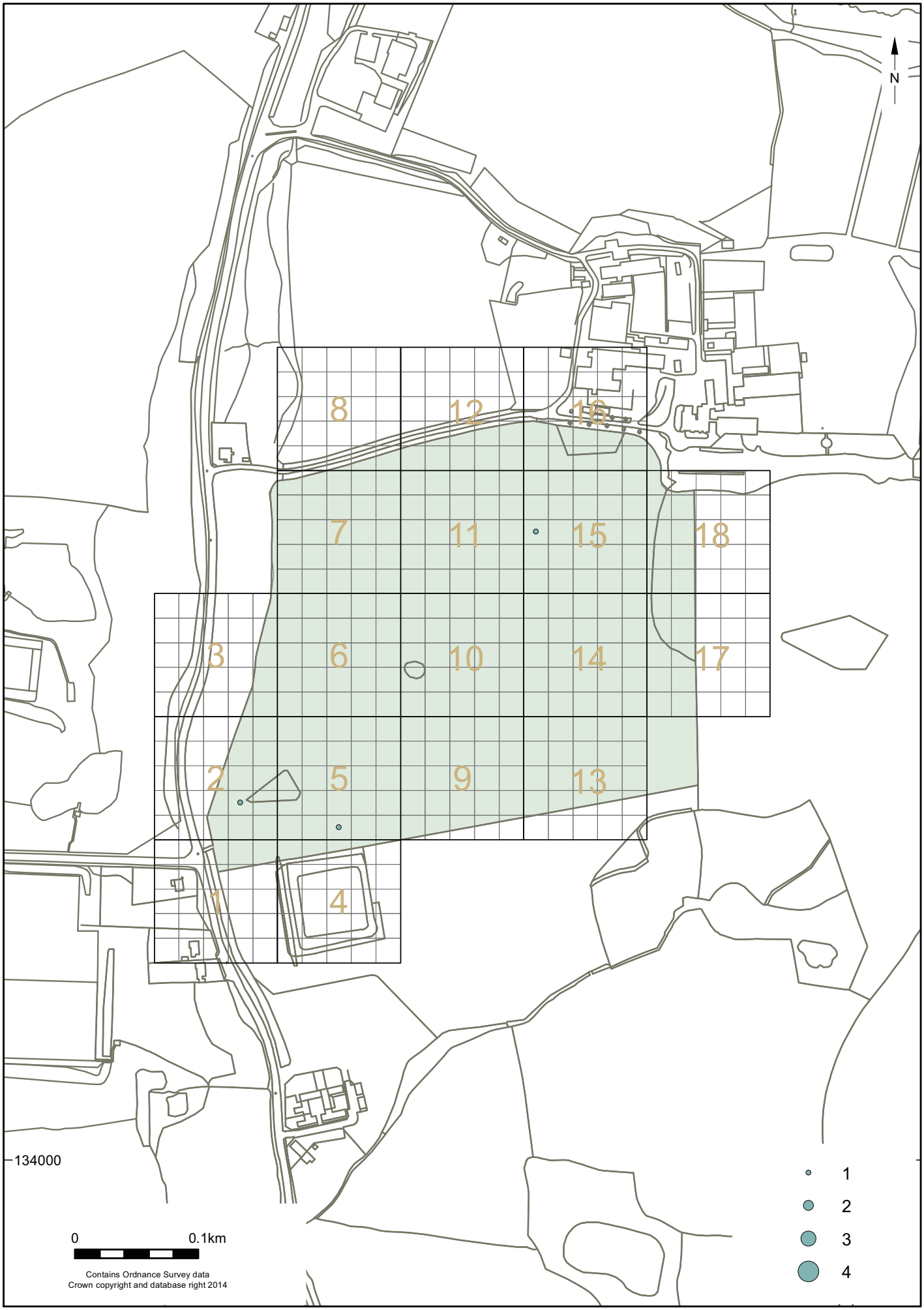

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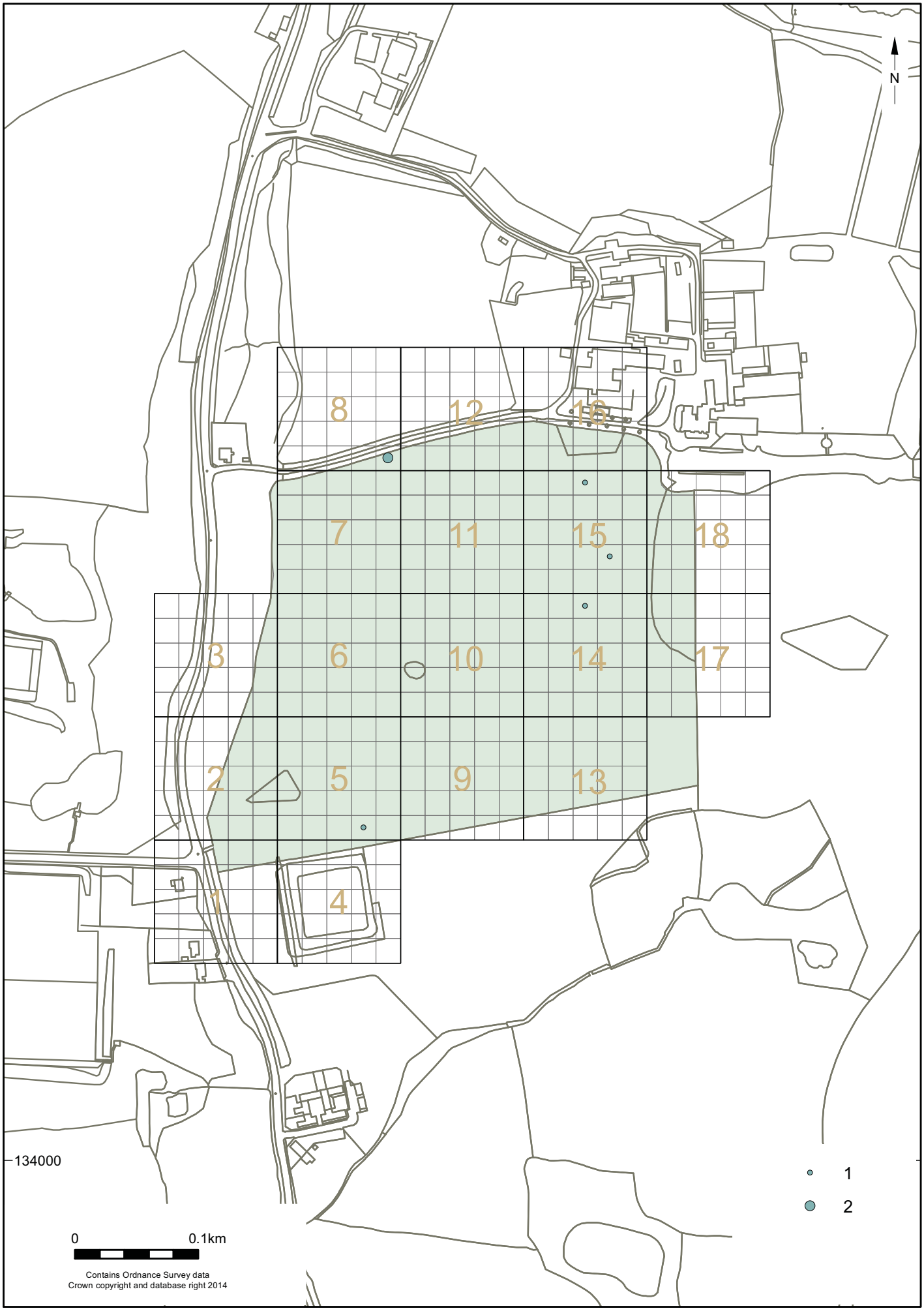

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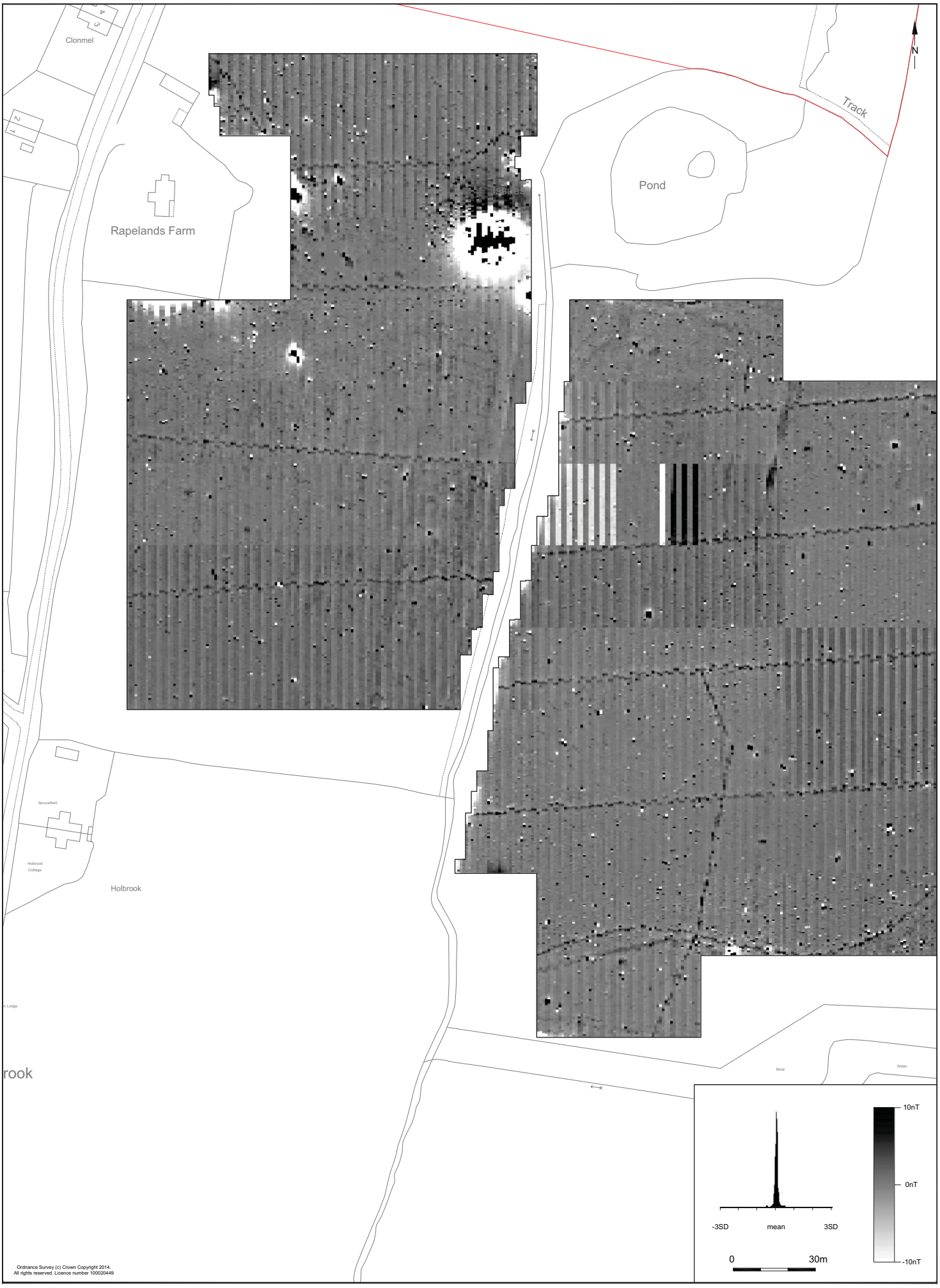

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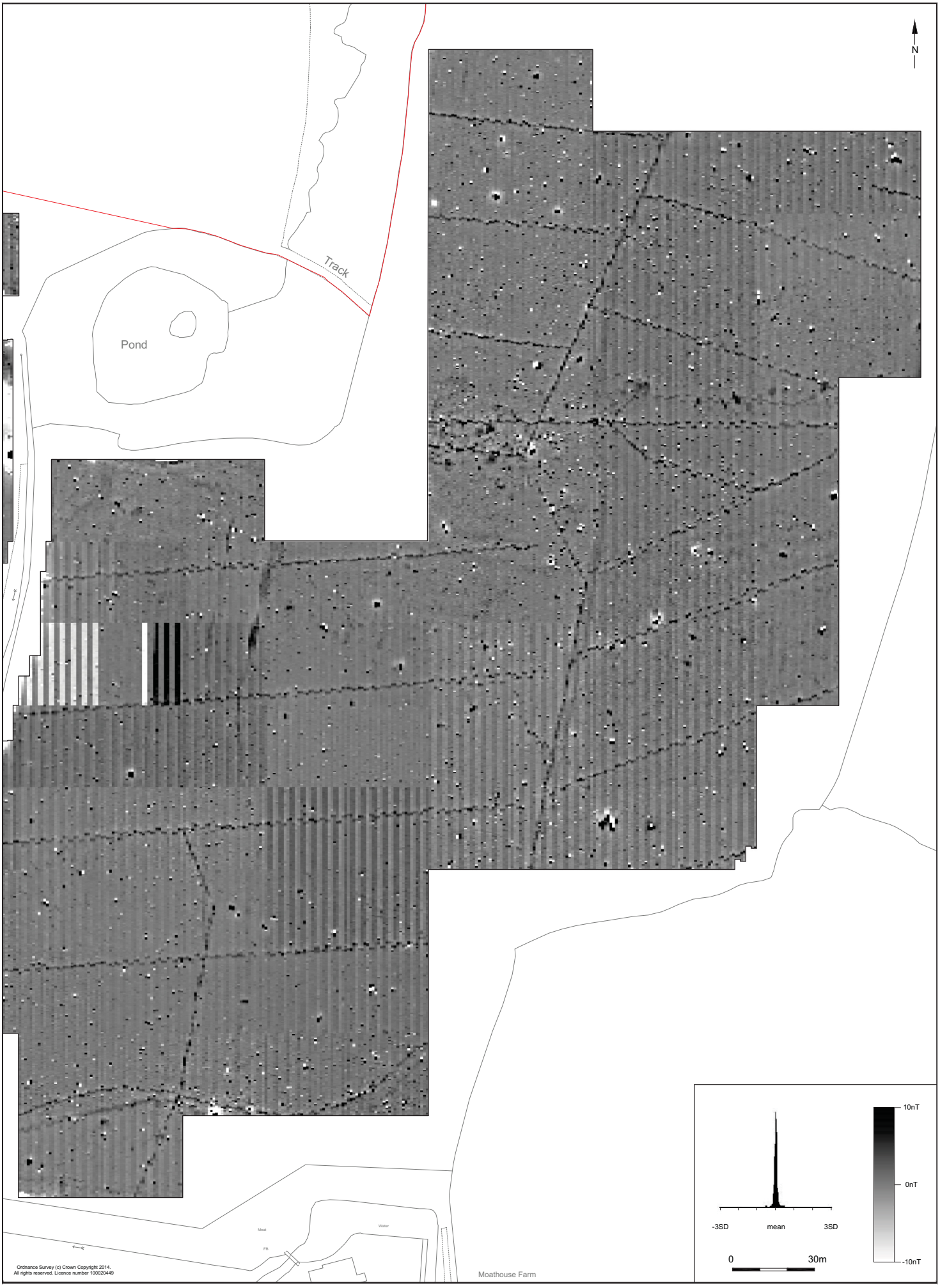

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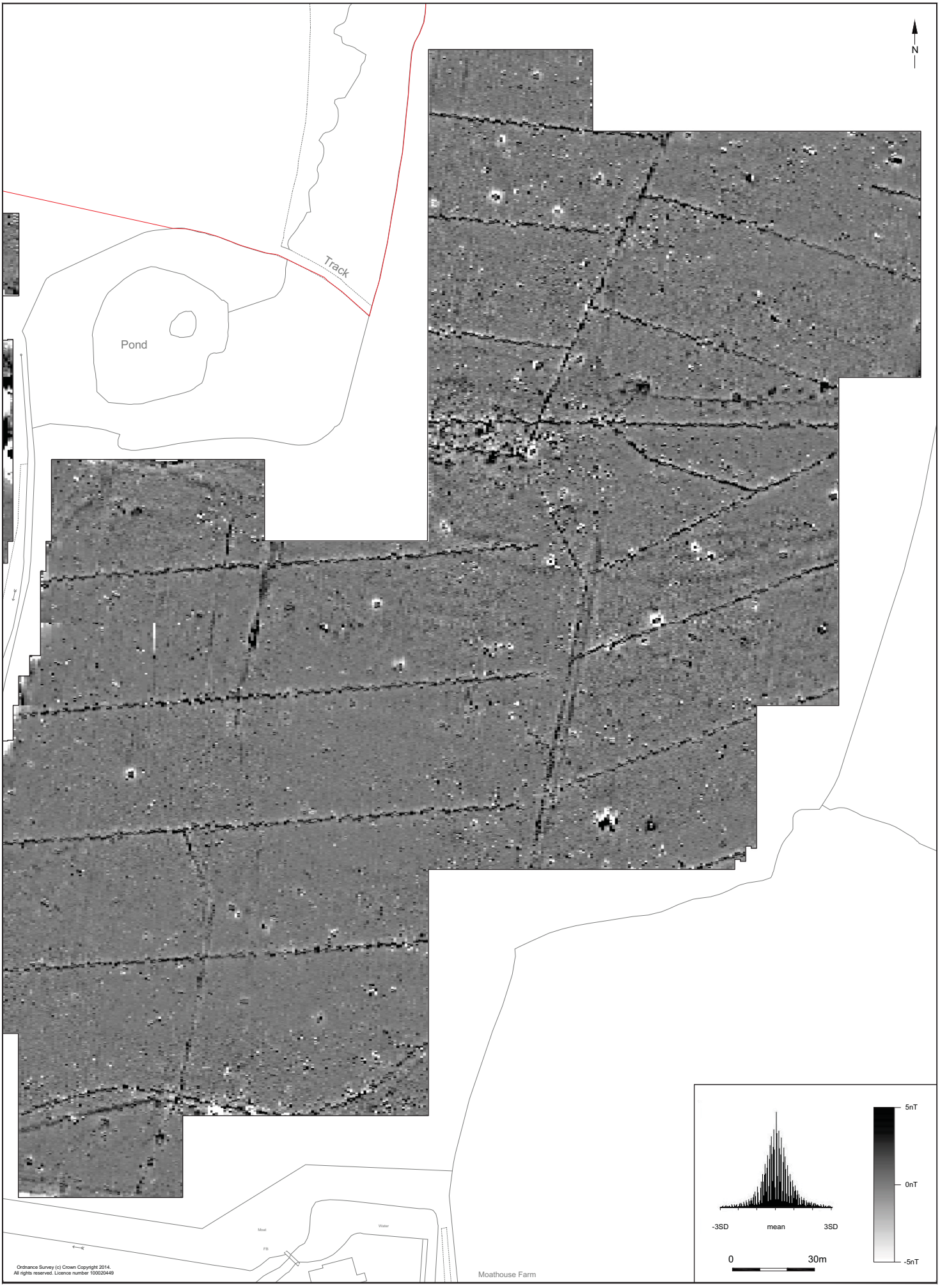

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Project Ref: 7884	December 2015	Area B east Geophysical survey: Interpretation	
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Project Ref: 7884	Dec 2015	Area B Fieldwalking: Distribution of fire-cracked flint	
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Project Ref: 7884	Dec 2015	Area B Fieldwalking: Distribution of medieval pottery	
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Project Ref: 7884	Dec 2015	Area B Fieldwalking: Distribution of post-medieval pottery	
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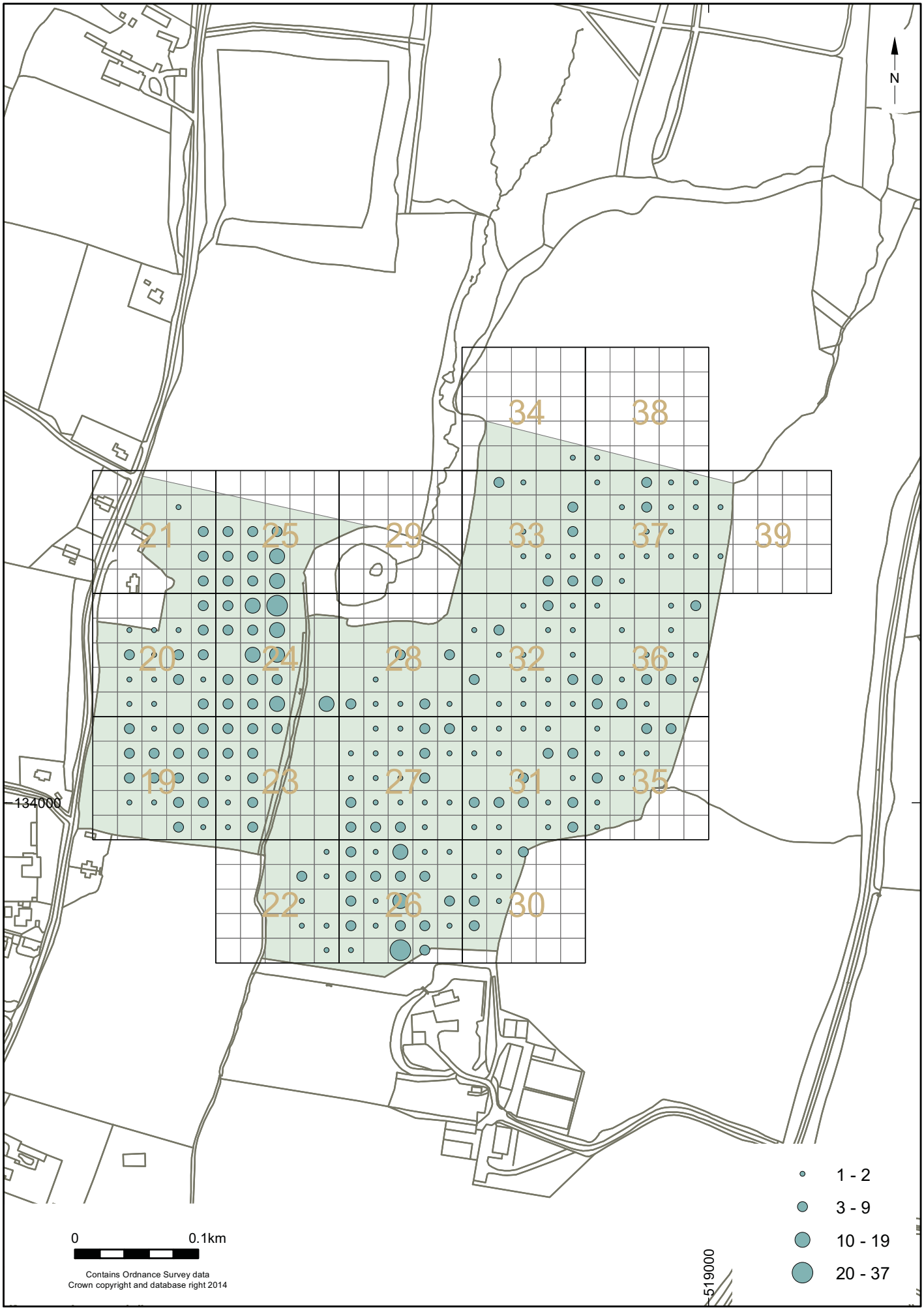

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Project Ref: 7884	Dec 2015	Area B Fieldwalking: Distribution of CBM	
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Project Ref: 7884	Dec 2015	Area B Fieldwalking: Distribution of clay pipe	
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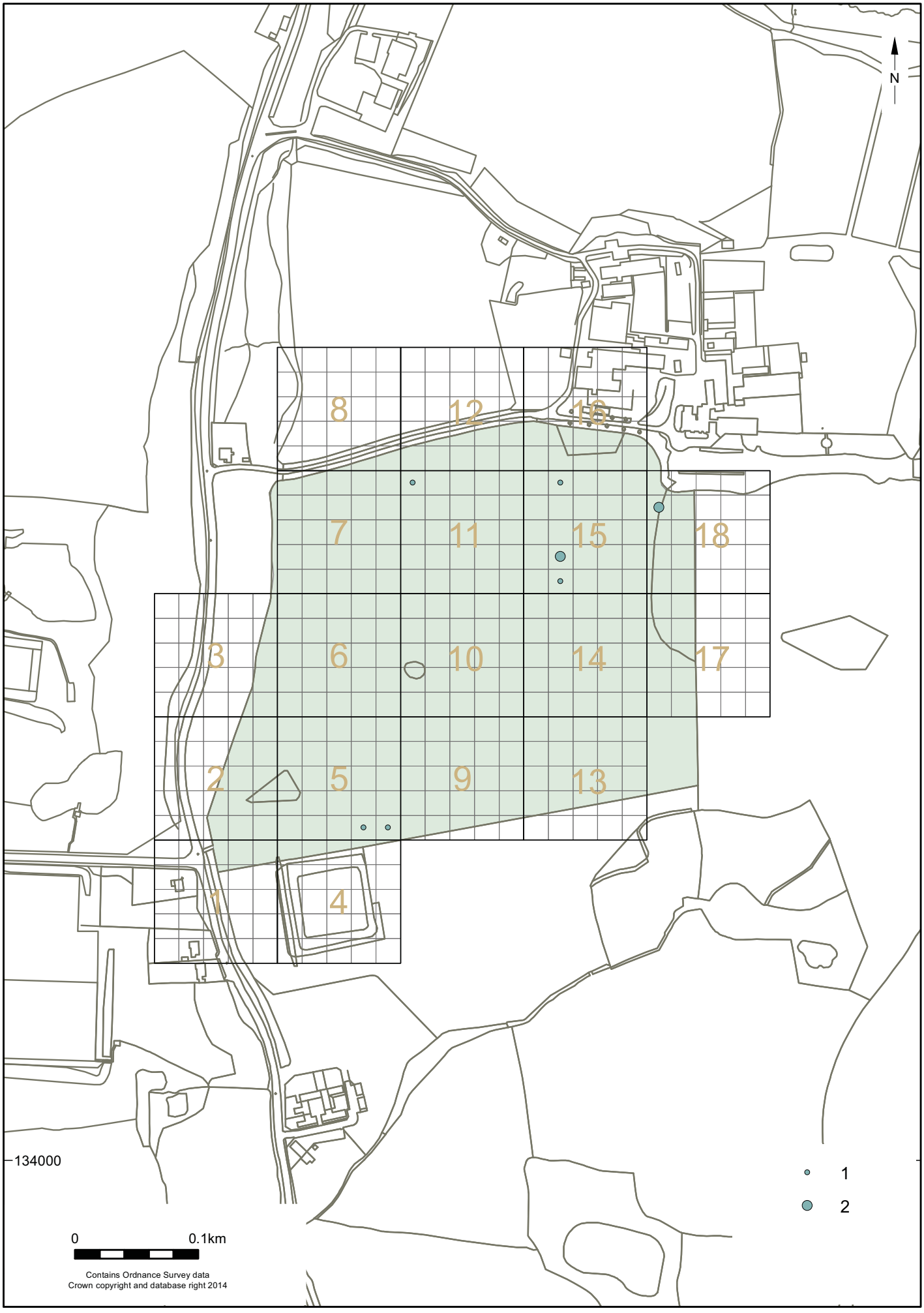

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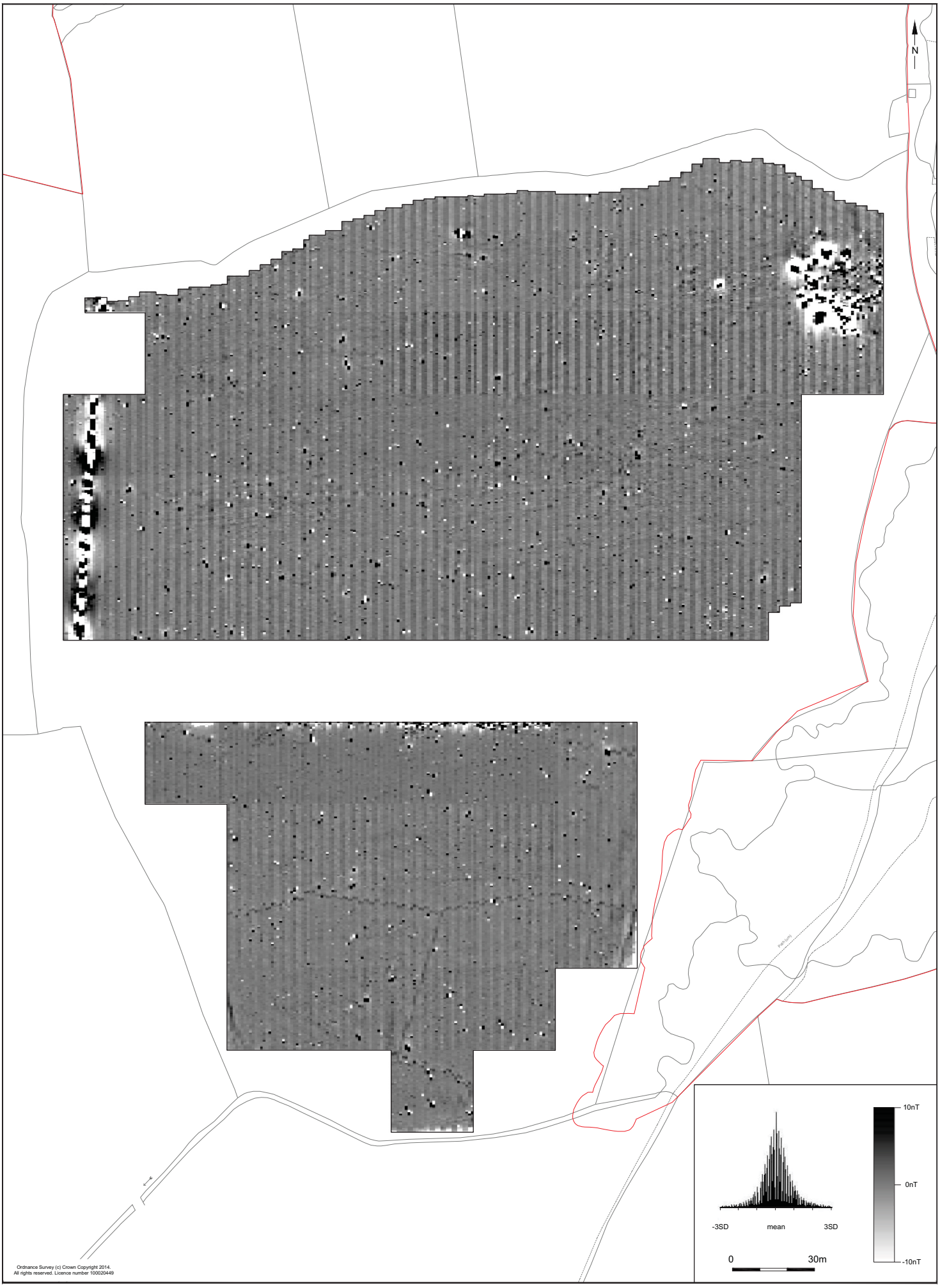

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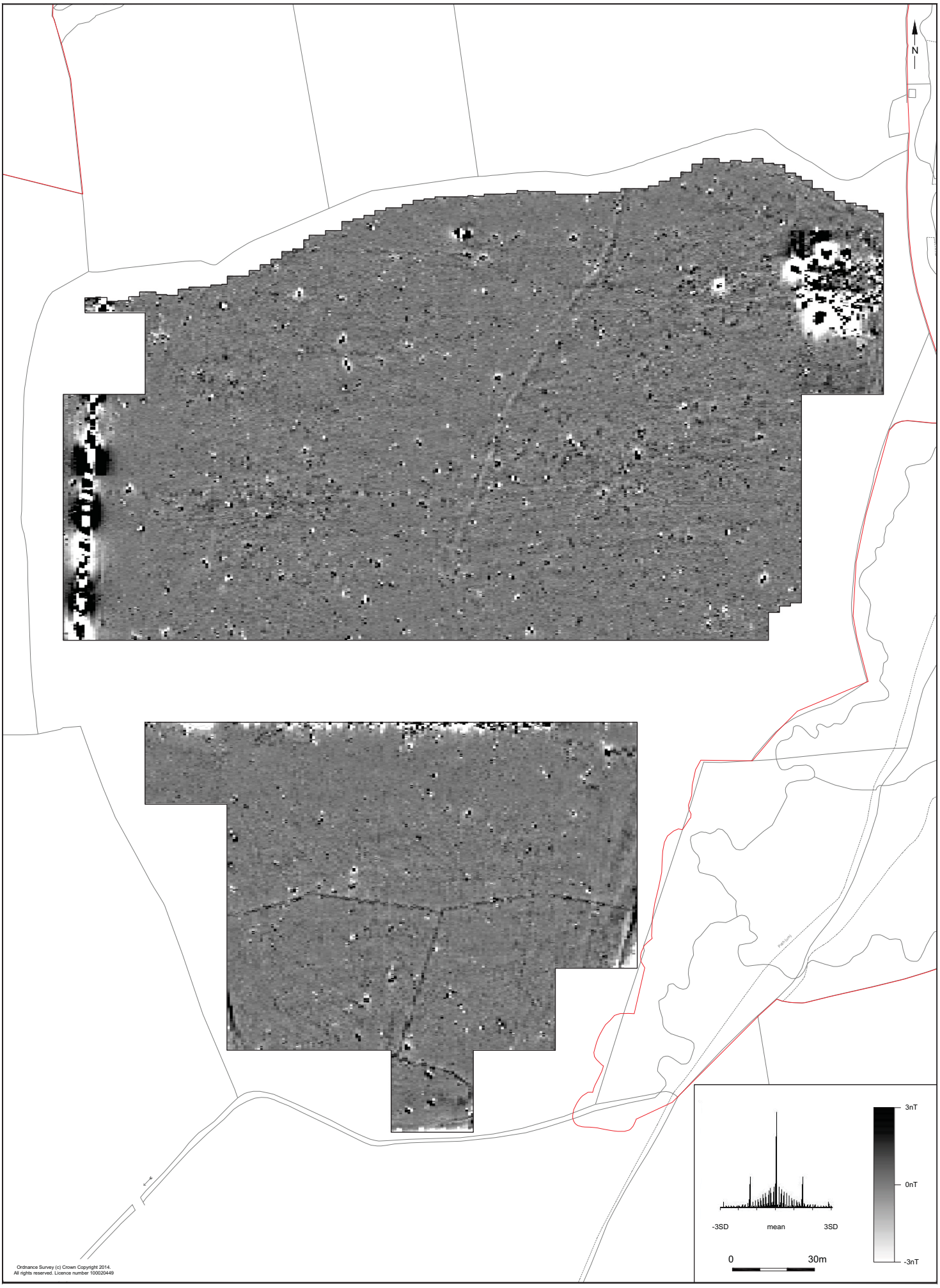

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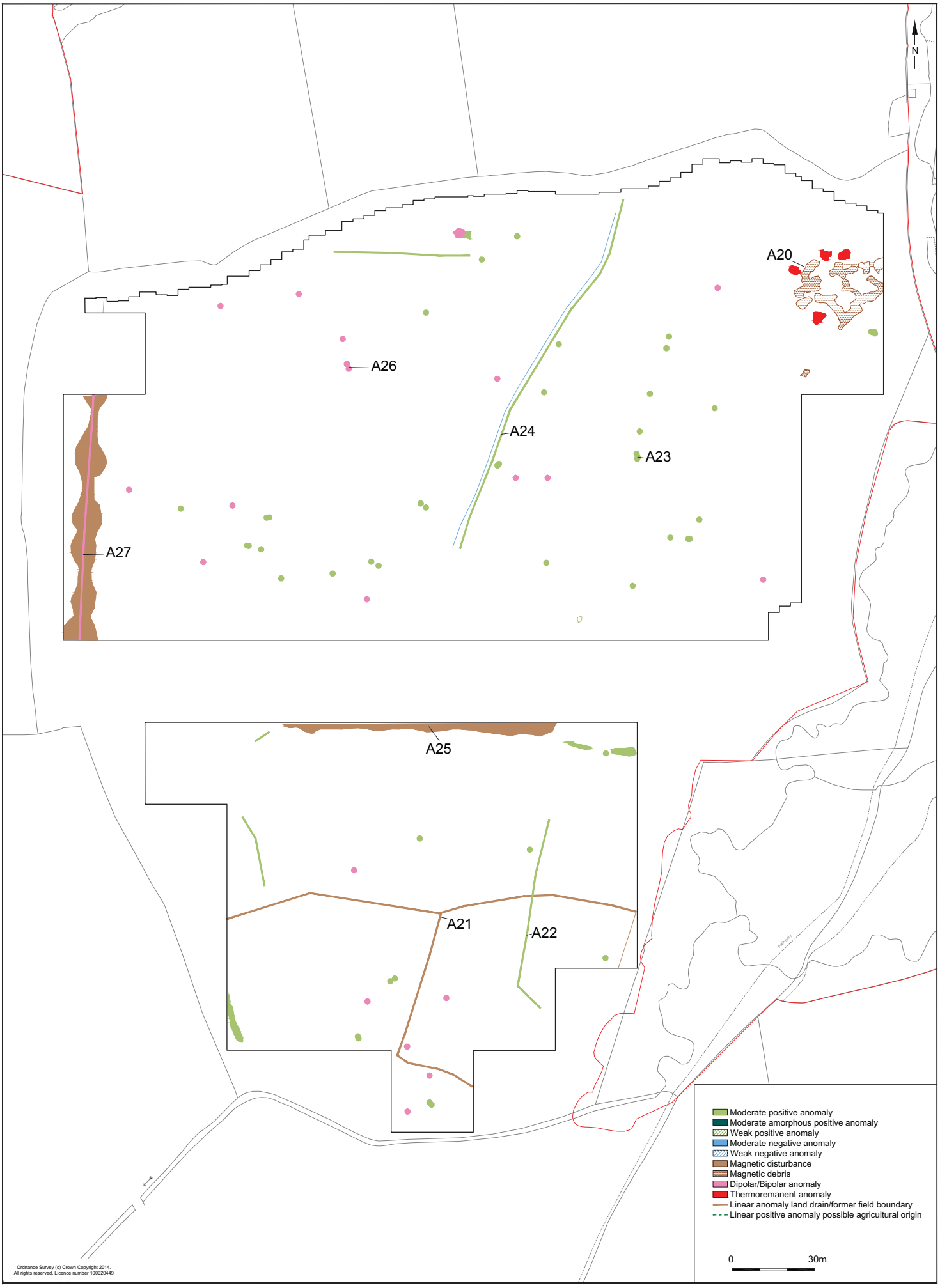

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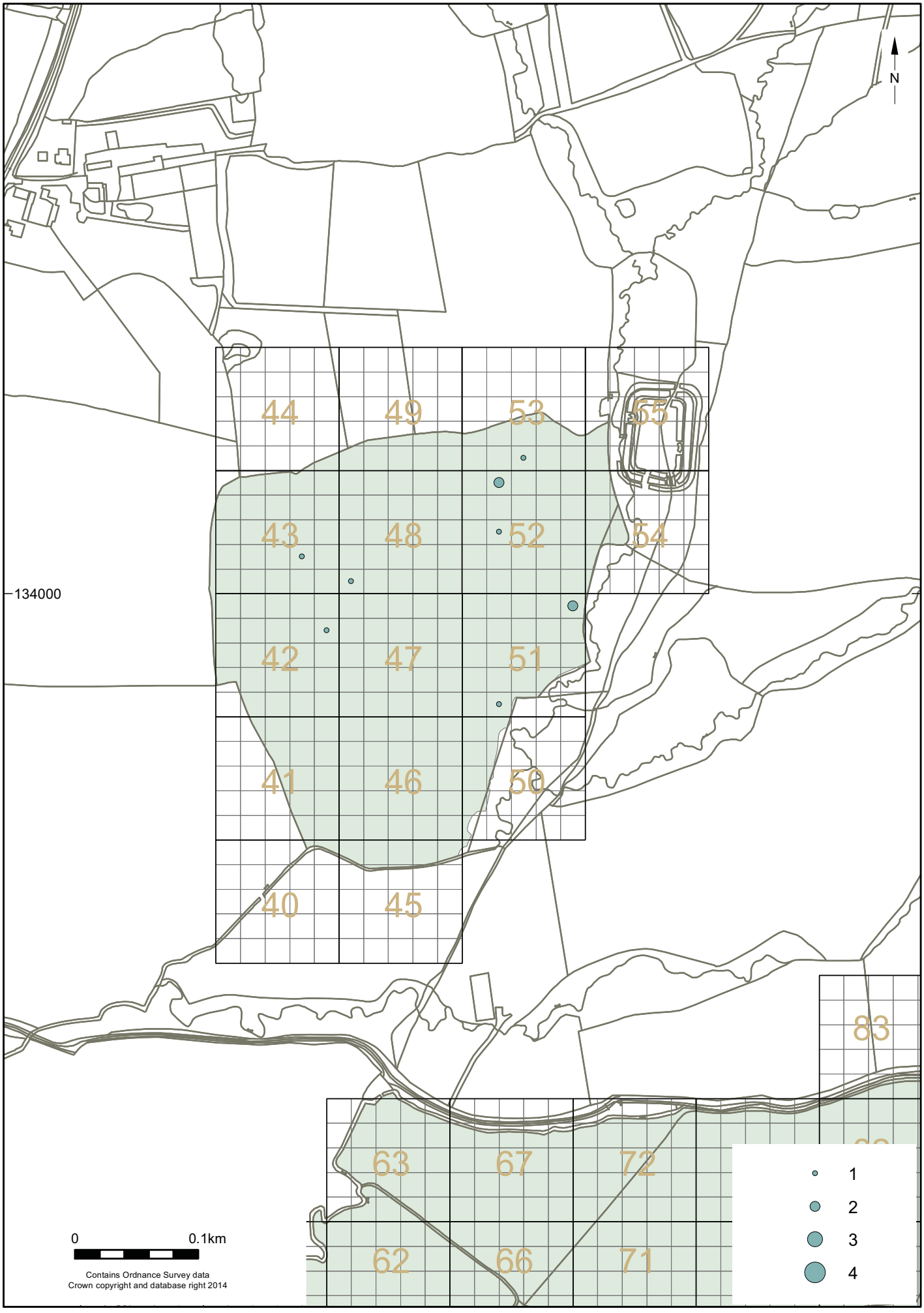

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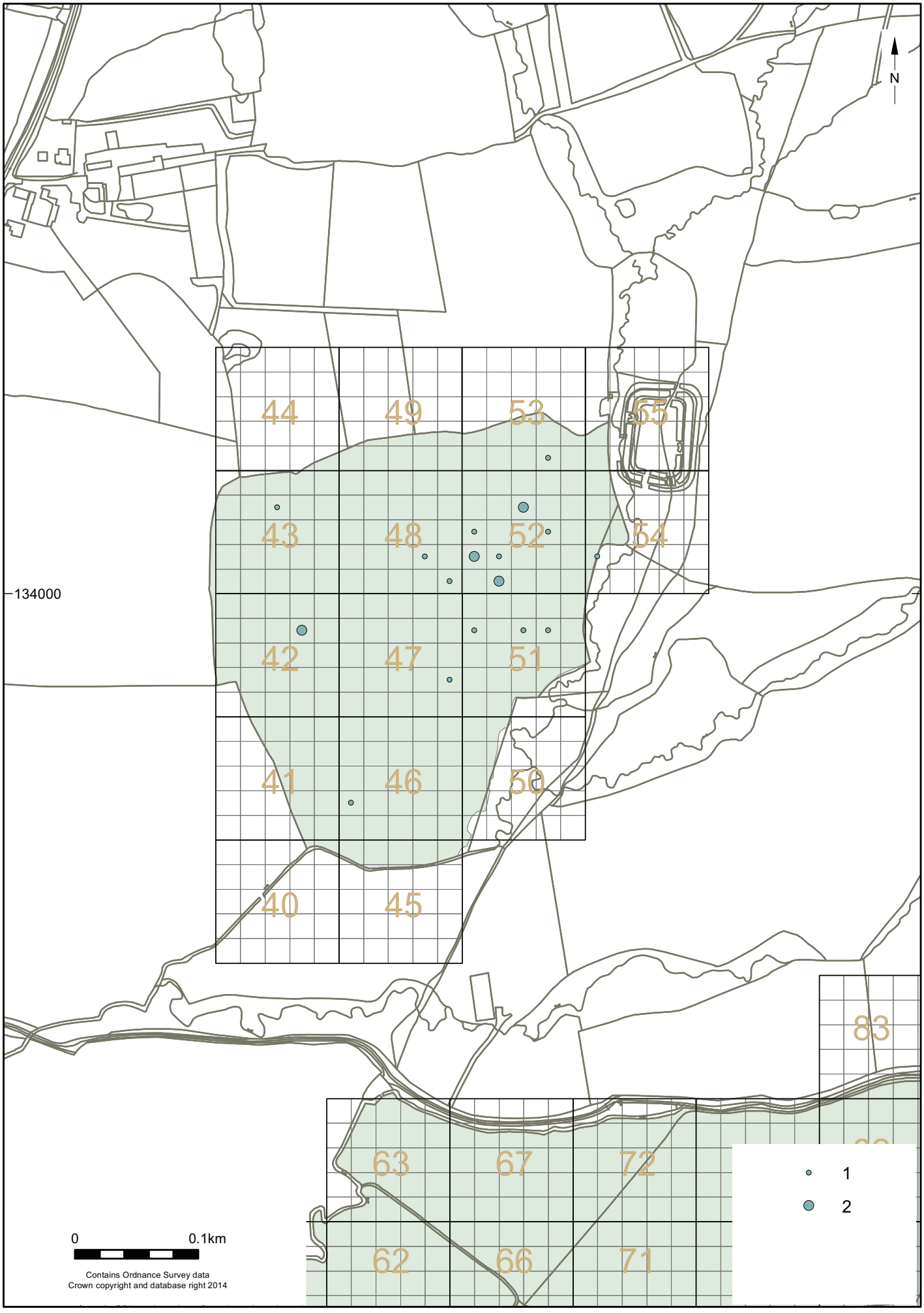

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Project Ref: 7884	Dec 2015	Area C Fieldwalking: Distribution of struck flint	
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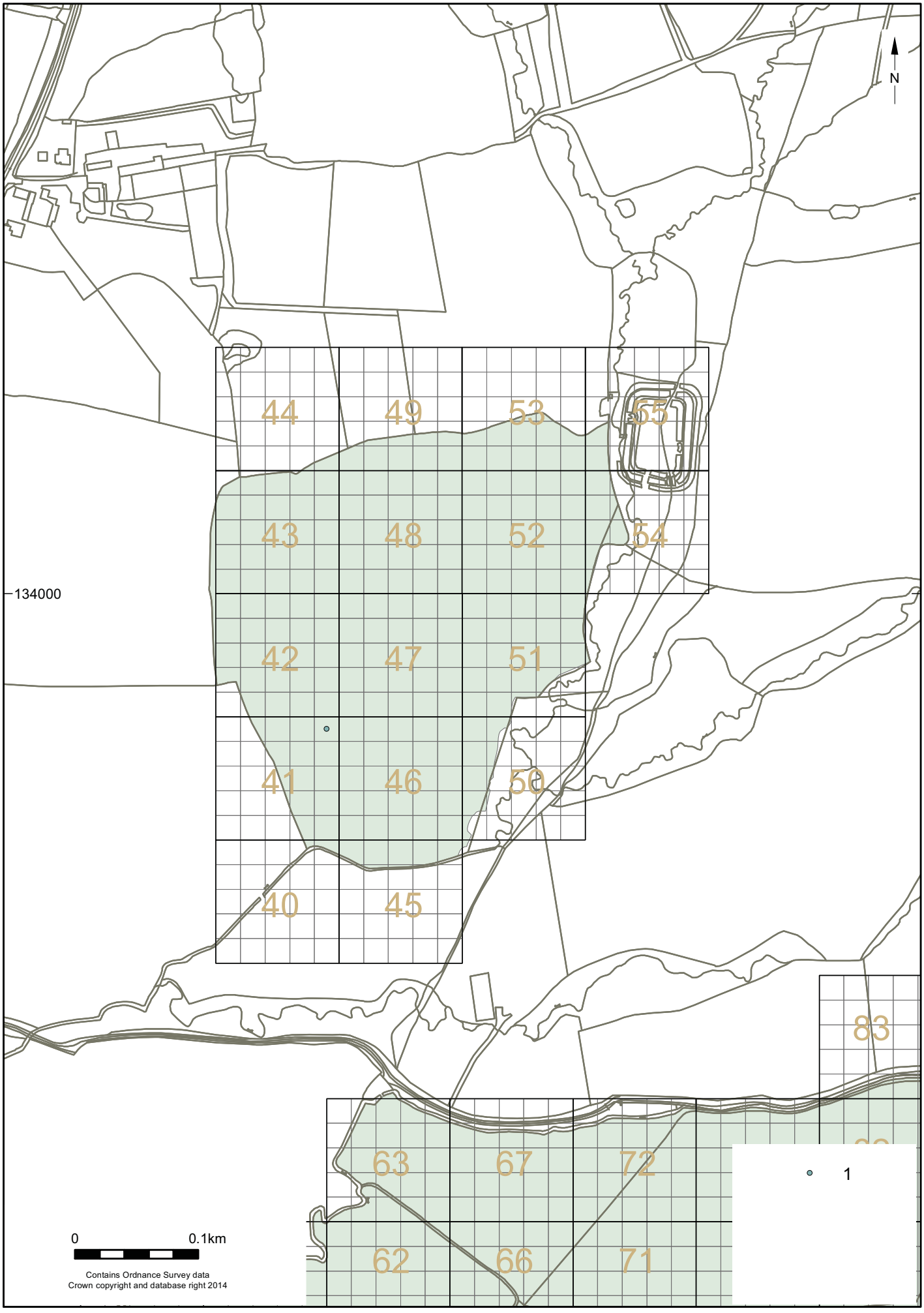

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Project Ref: 7884	Dec 2015	Area C Fieldwalking: Distribution of medieval pottery	
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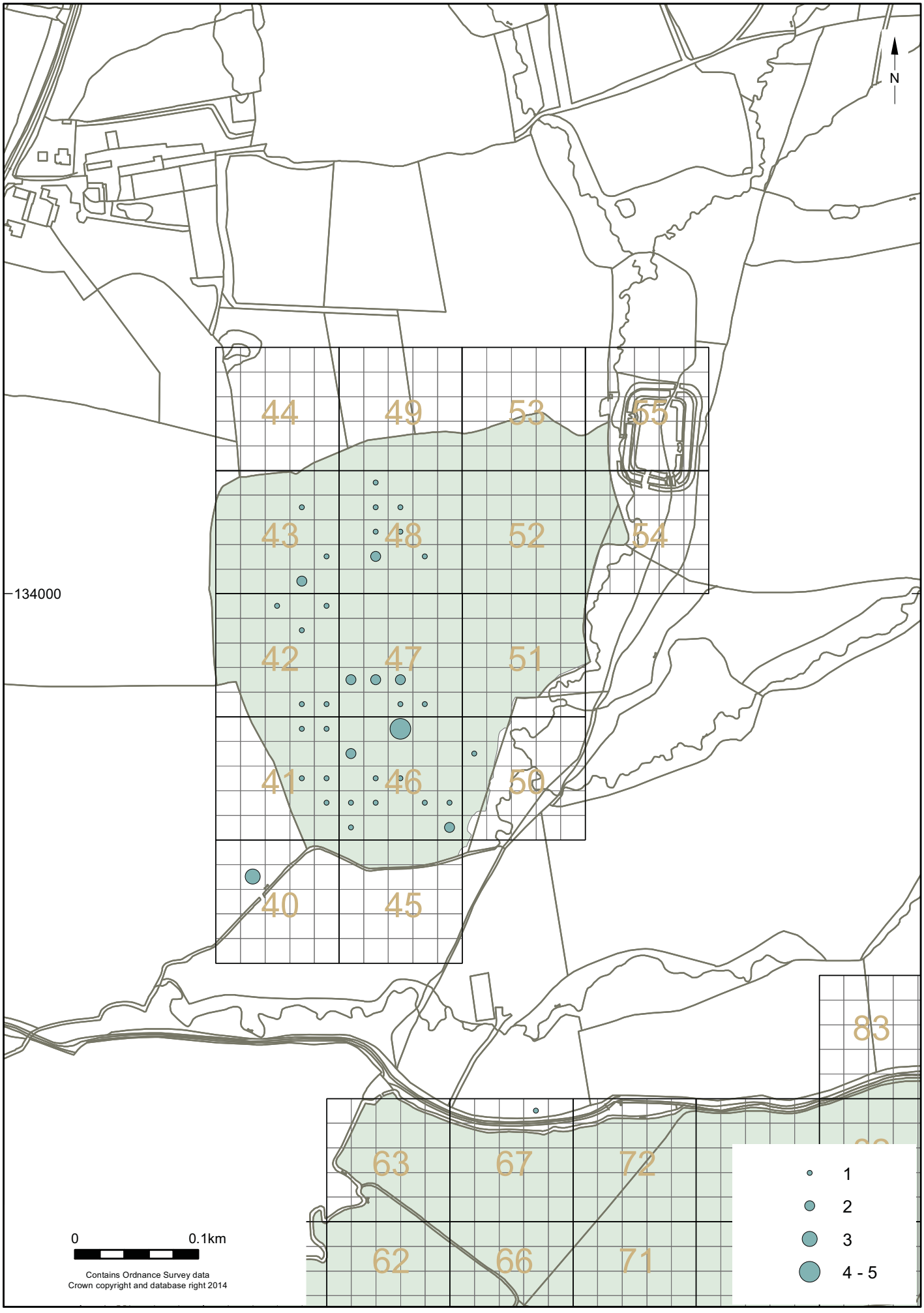

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Project Ref: 7884	Dec 2015	Area C Fieldwalking: Distribution of post-medieval pottery	
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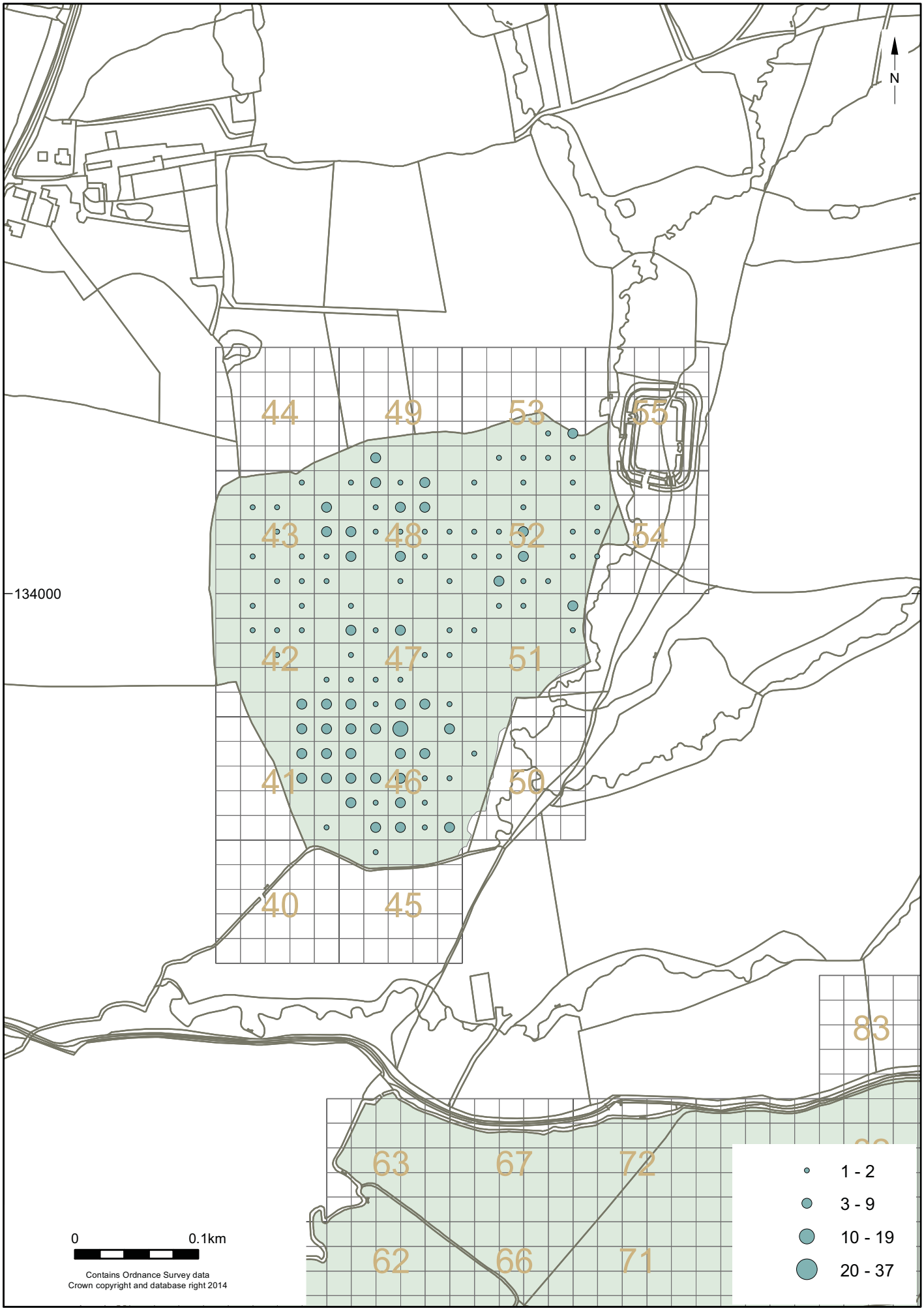

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Project Ref: 7884	Dec 2015	Area C Fieldwalking: Distribution of CBM	
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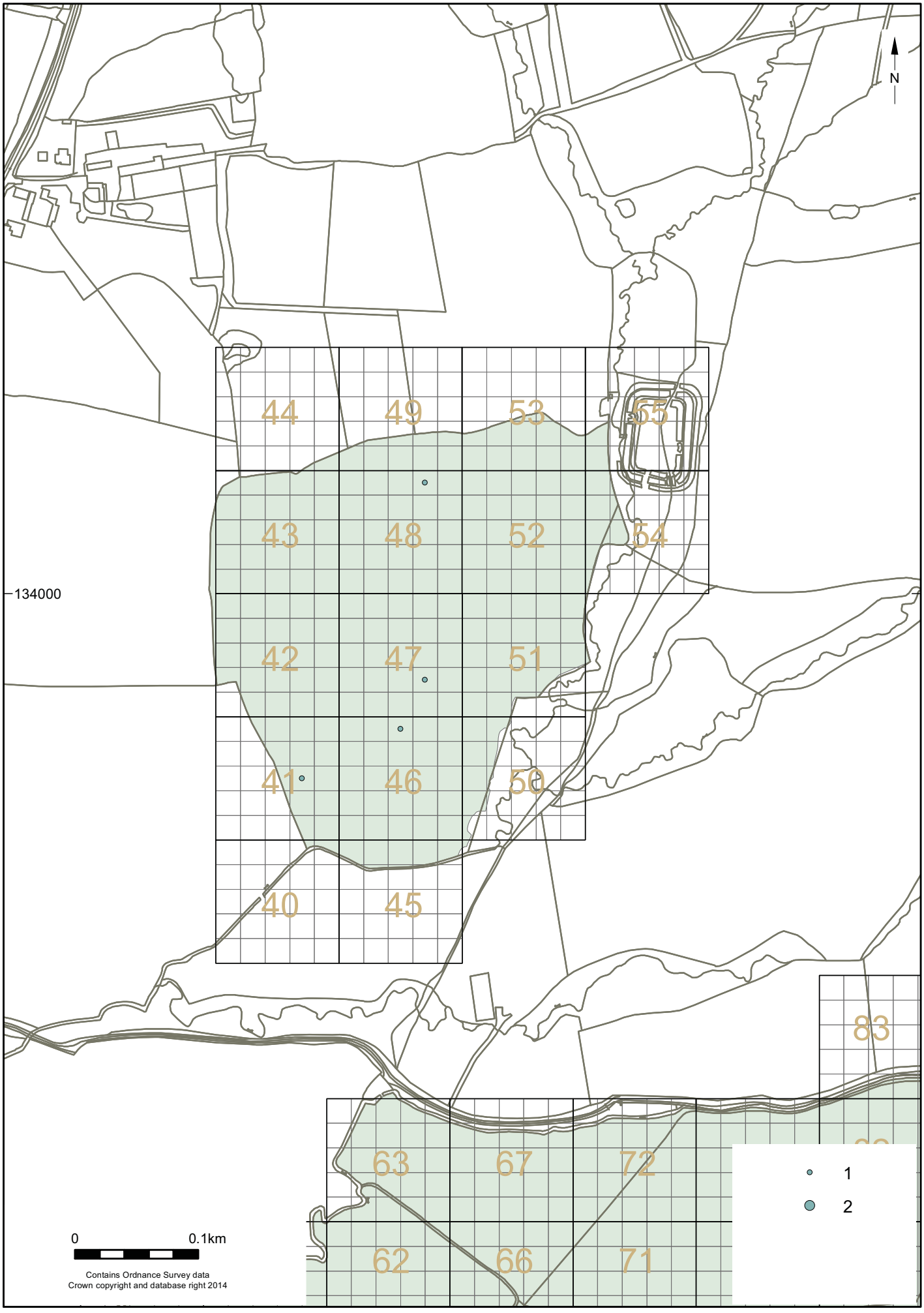

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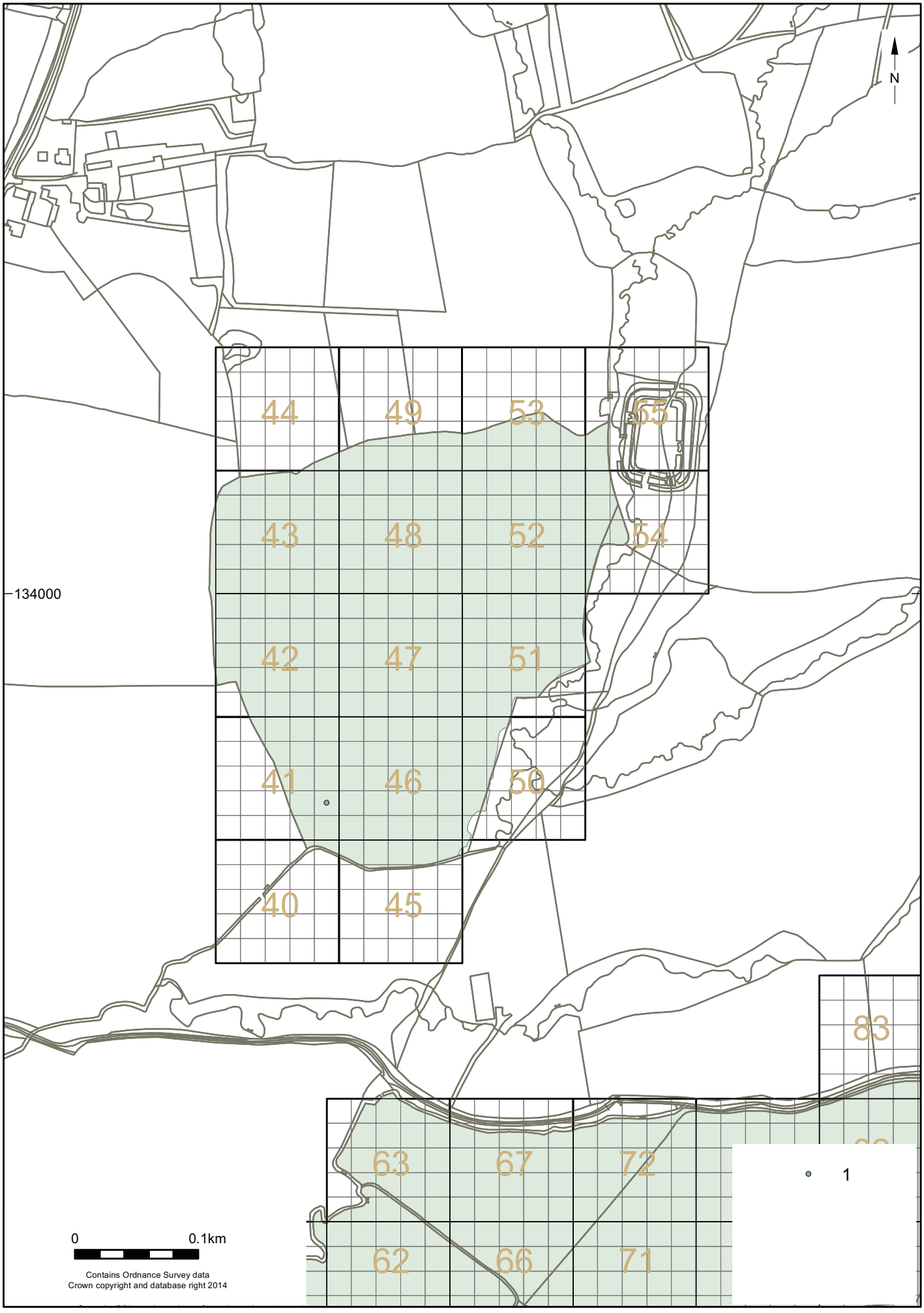
Project Ref: 7884	Dec 2015	Area C Fieldwalking: Distribution of glass	
Report Ref: 2015463	Drawn by: JLR		



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Project Ref: 7884	Dec 2015	Area C Fieldwalking: Distribution of metalwork	
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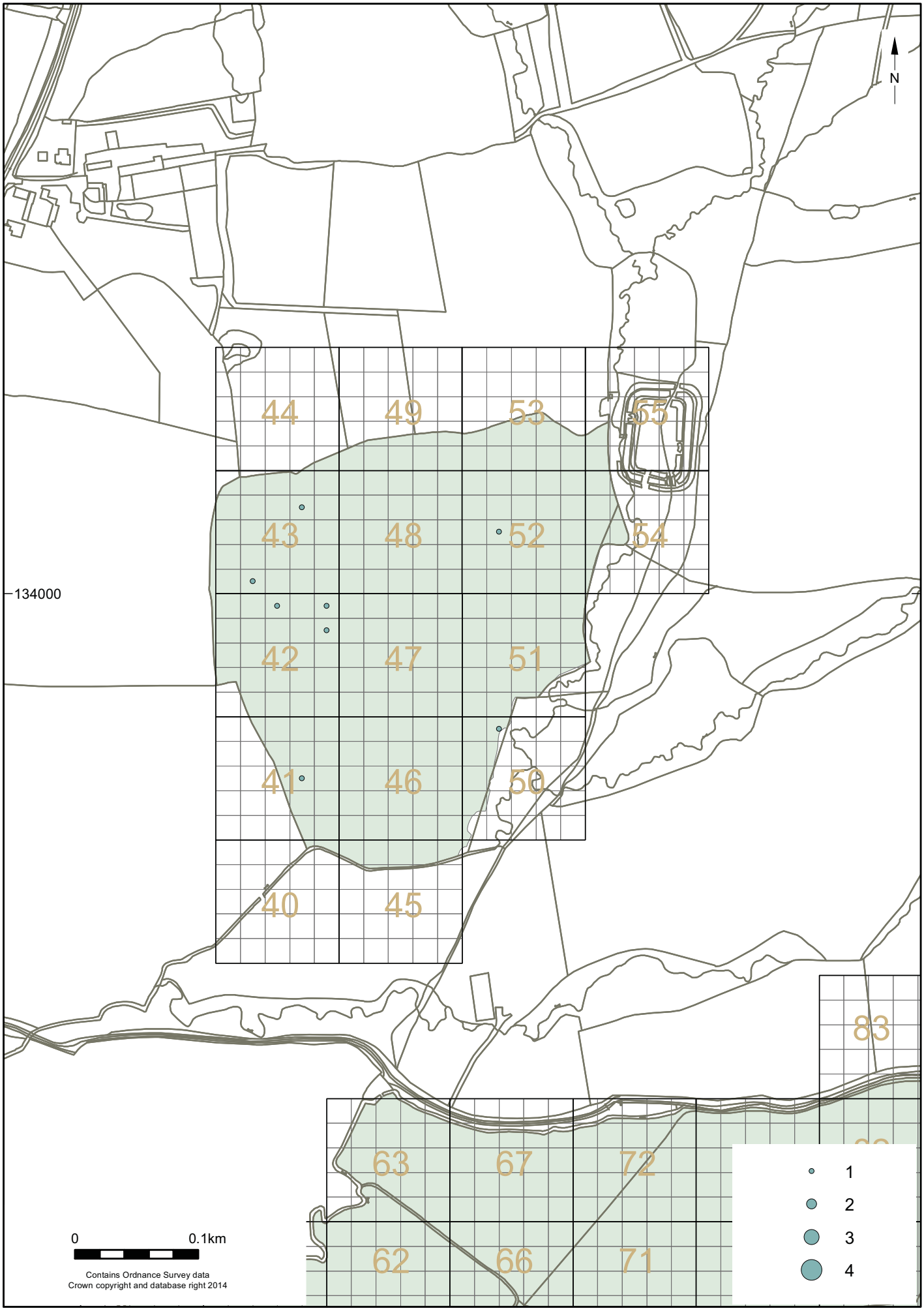

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Project Ref: 7884	Dec 2015	Area C Fieldwalking: Distribution of slag	
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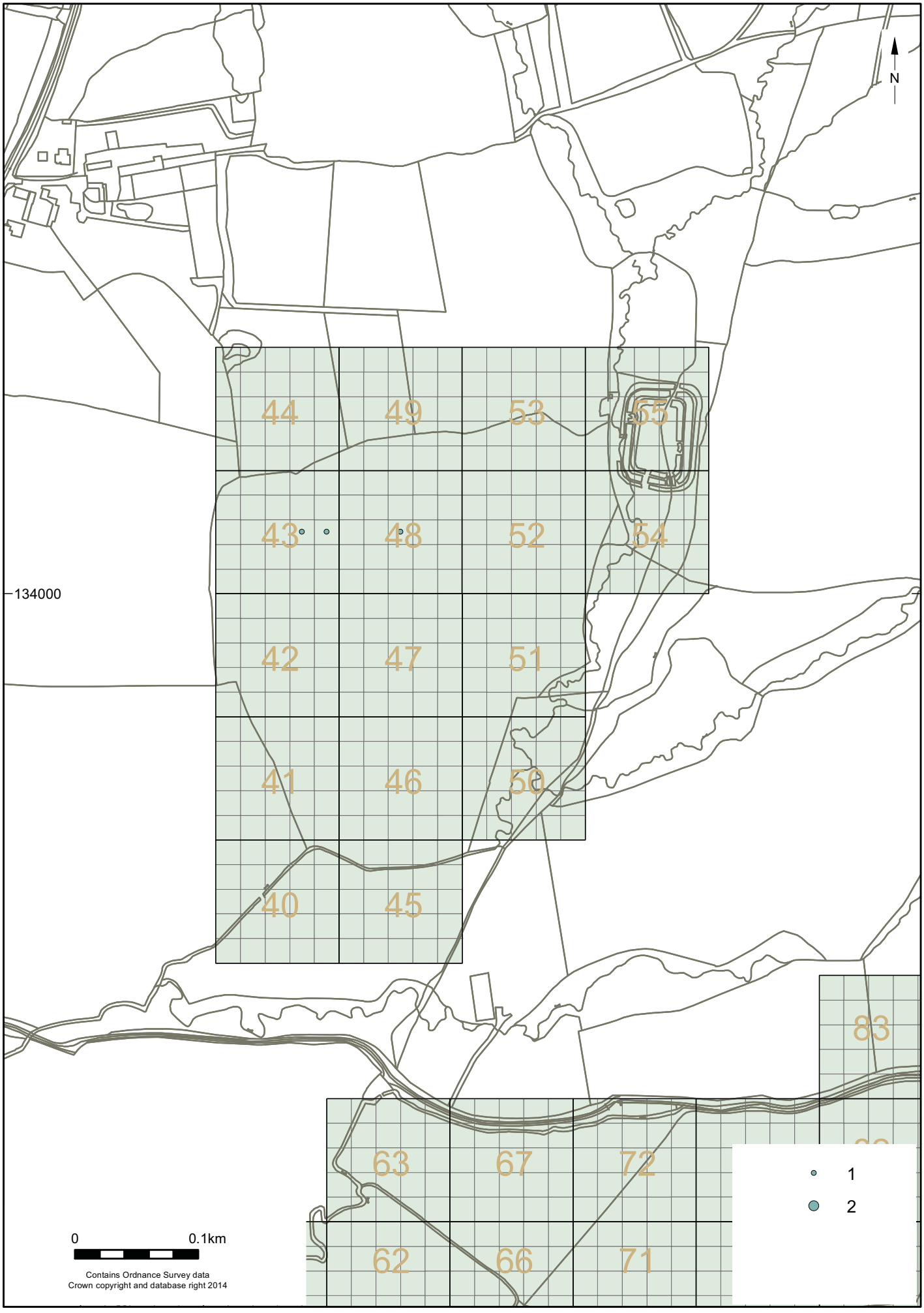

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Project Ref: 7884	Dec 2015	Area C Fieldwalking: Distribution of geological material	
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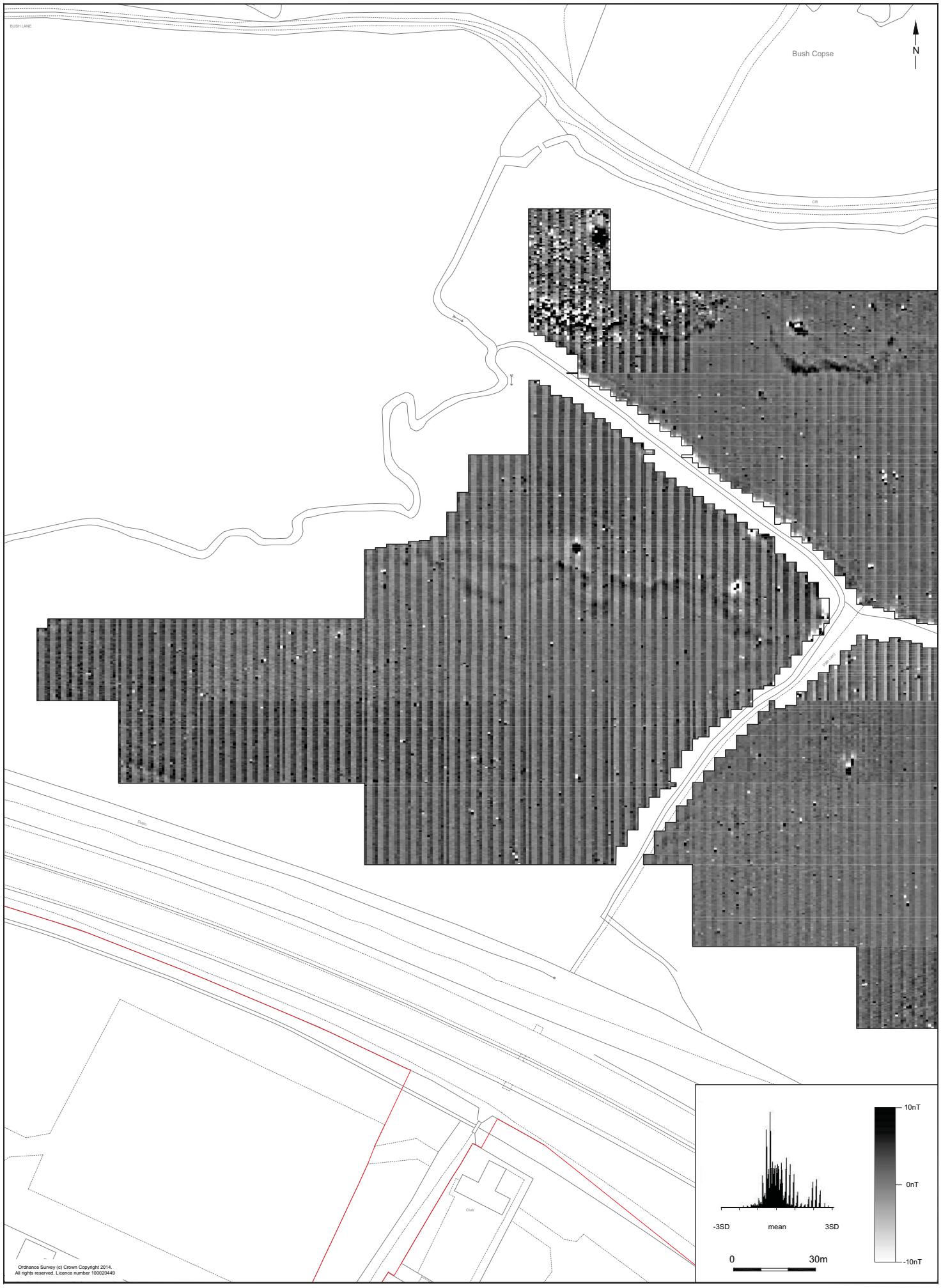

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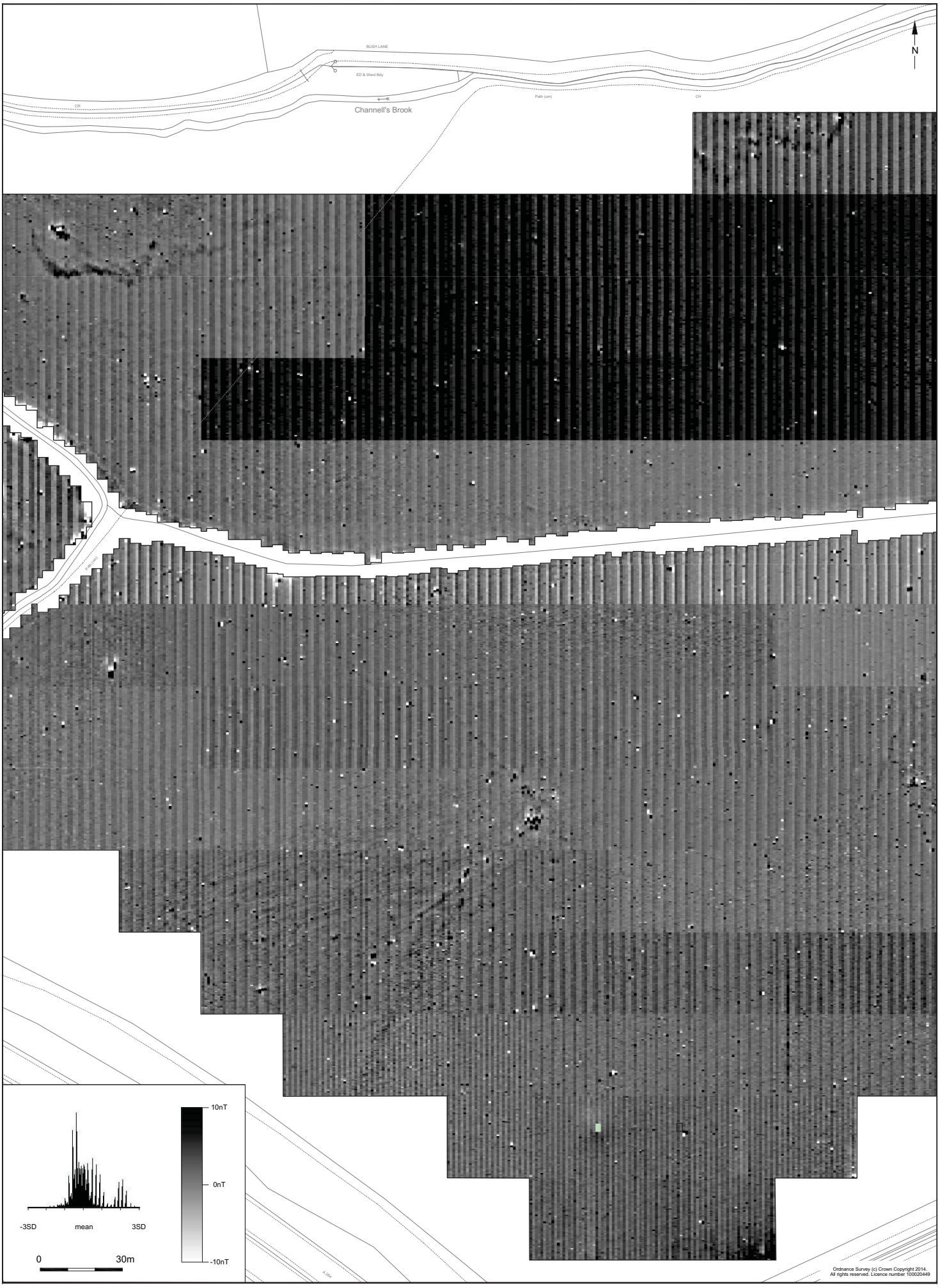
Project Ref: 7884	December 2015	Area D west Geophysical survey: Raw data	
Report Ref: 2015463	Drawn by: JC		



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Project Ref: 7884	December 2015	Area D central Geophysical survey: Raw data	
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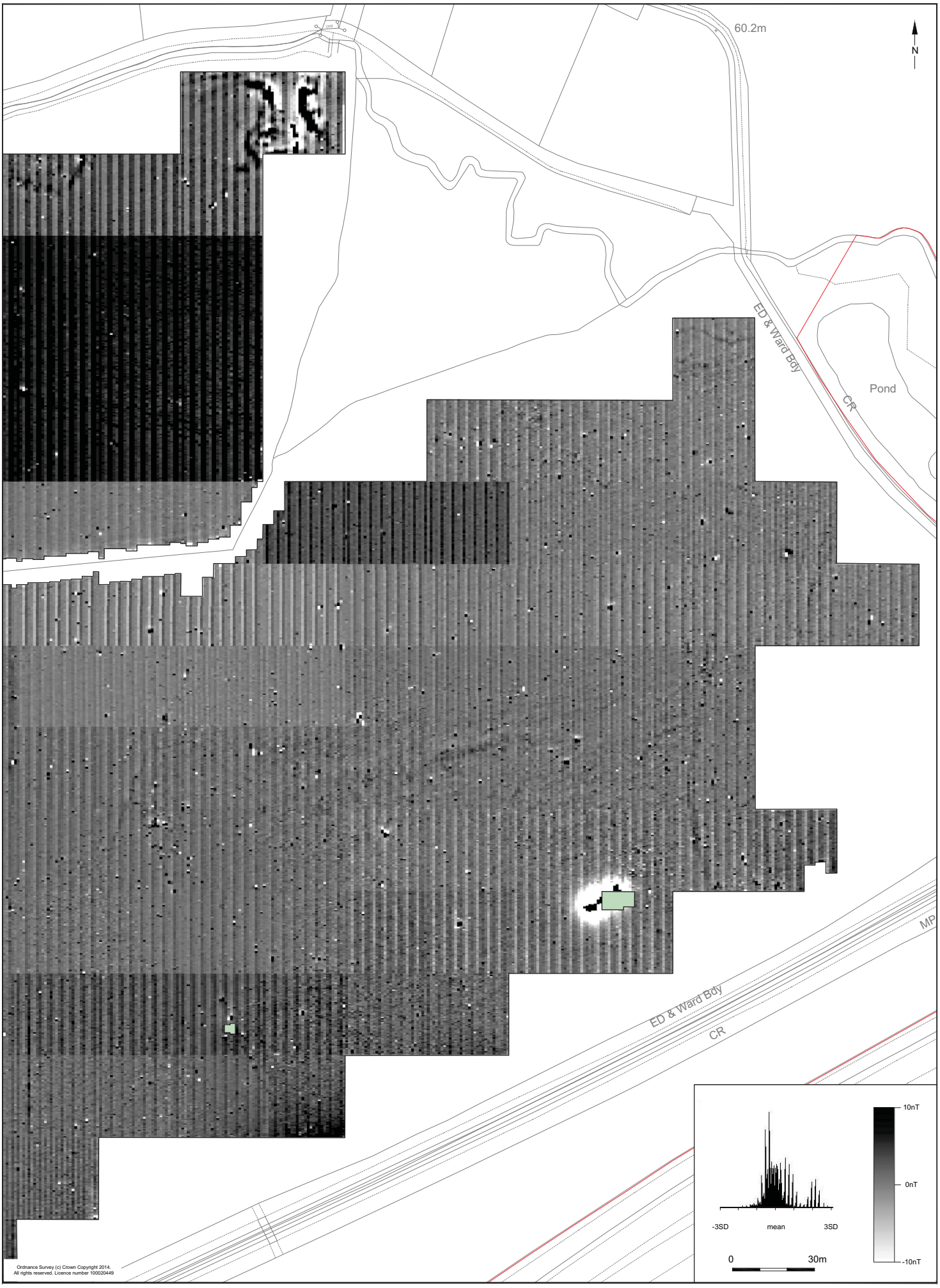

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Project Ref: 7884	December 2015	Area D east Geophysical survey: Raw data	
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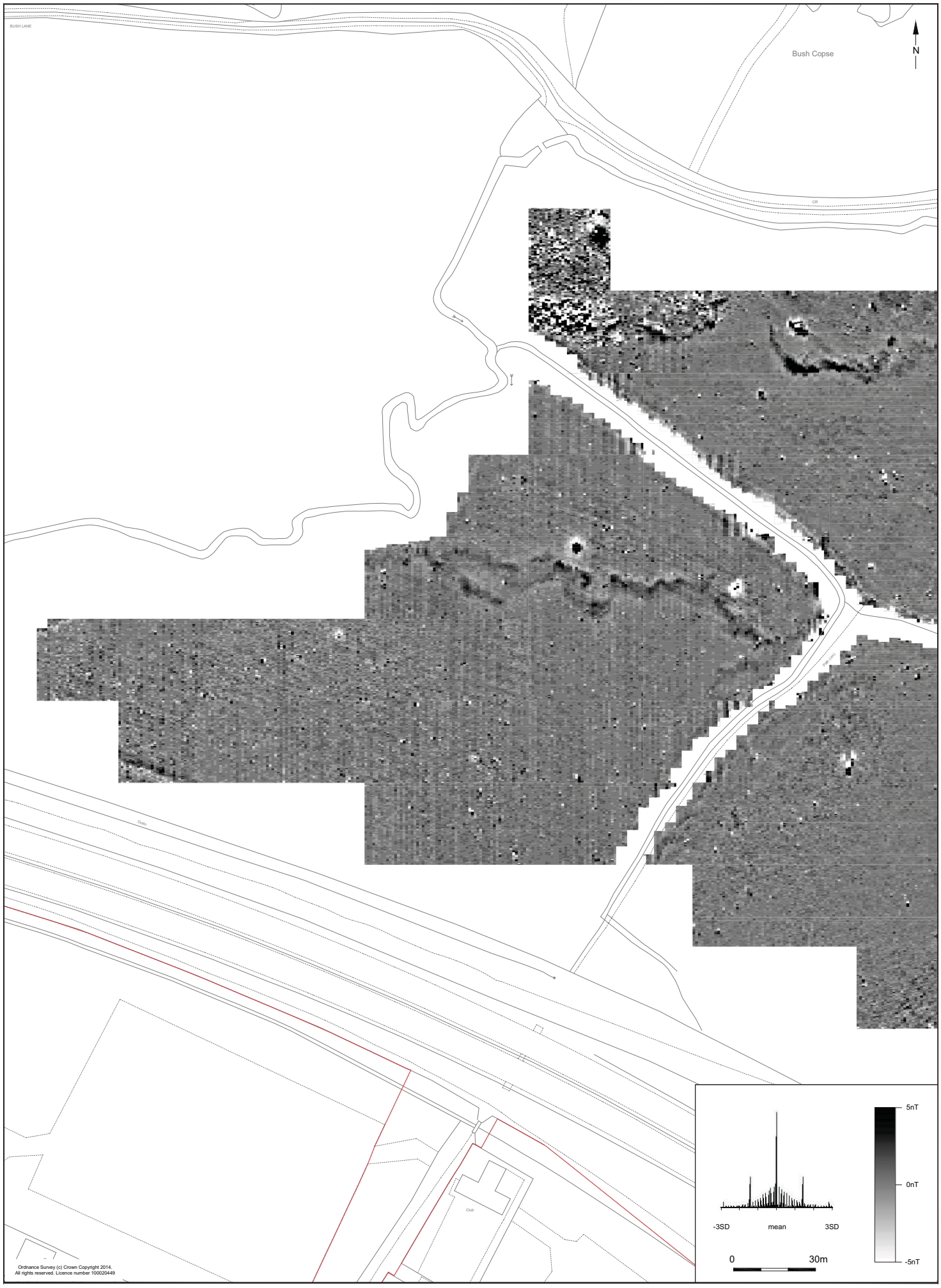

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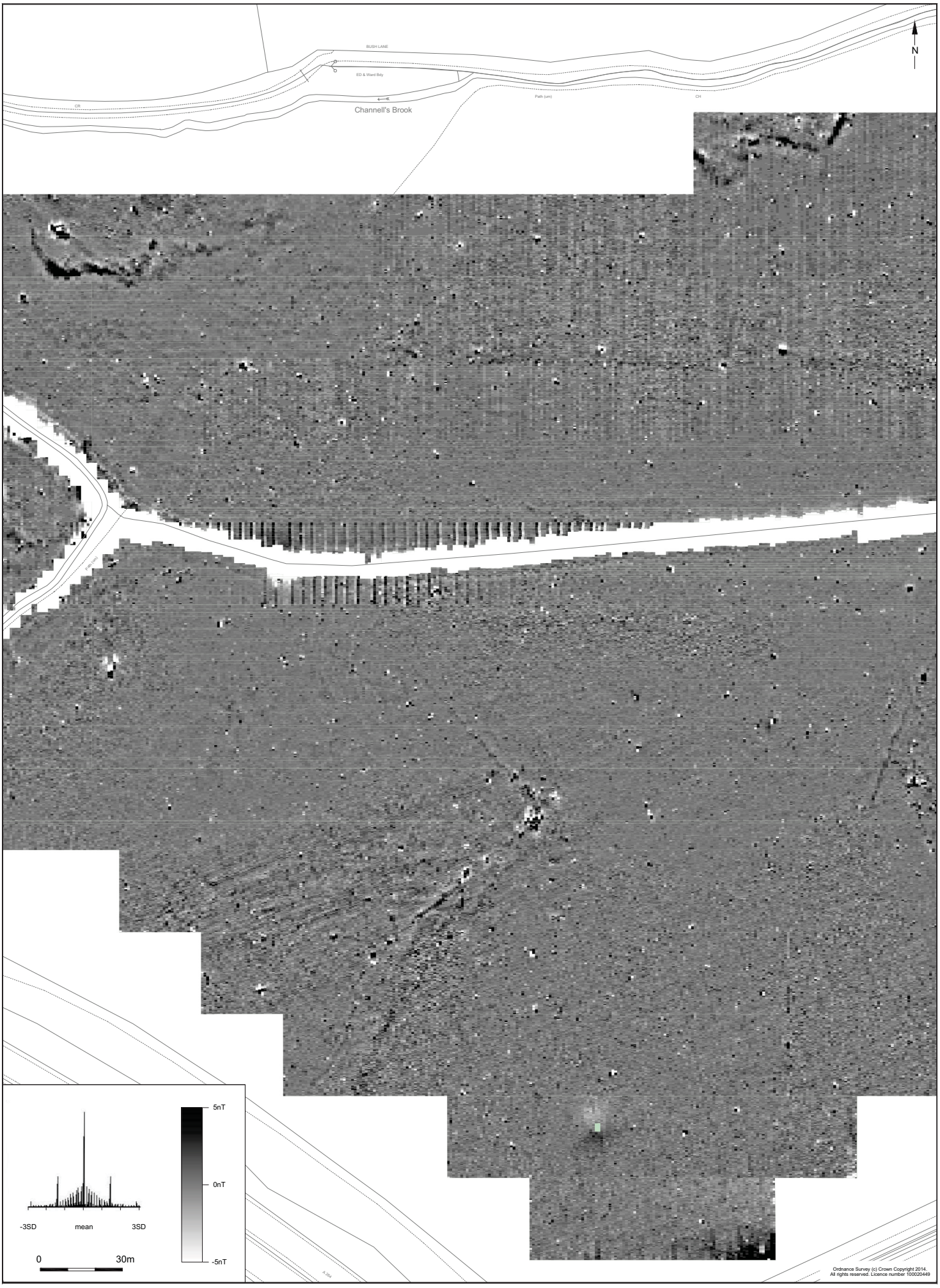

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Project Ref: 7884	December 2015	Area D west Geophysical survey: Interpretation	
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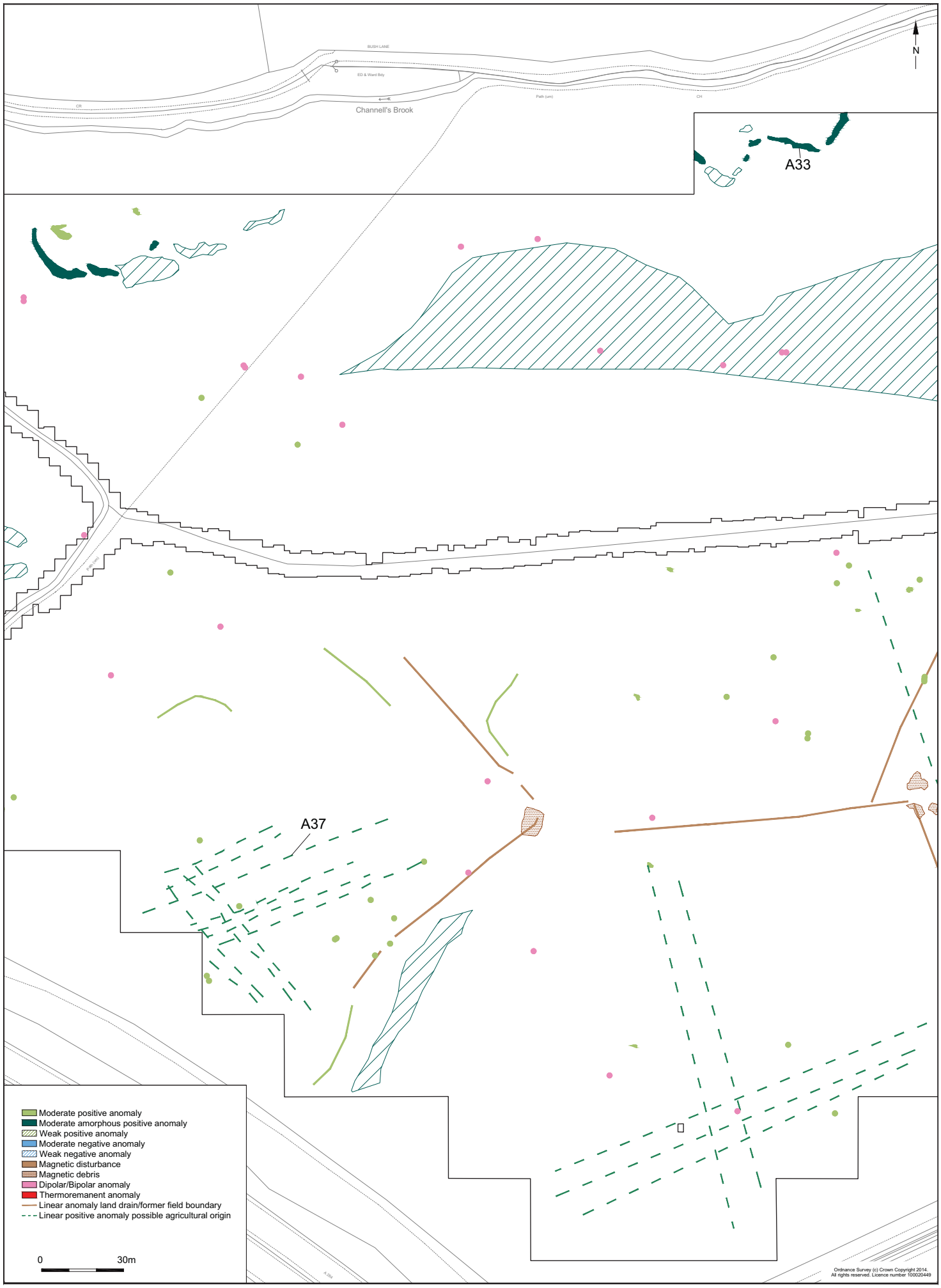

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Project Ref: 7884	December 2015	Area D central Geophysical survey: Interpretation	
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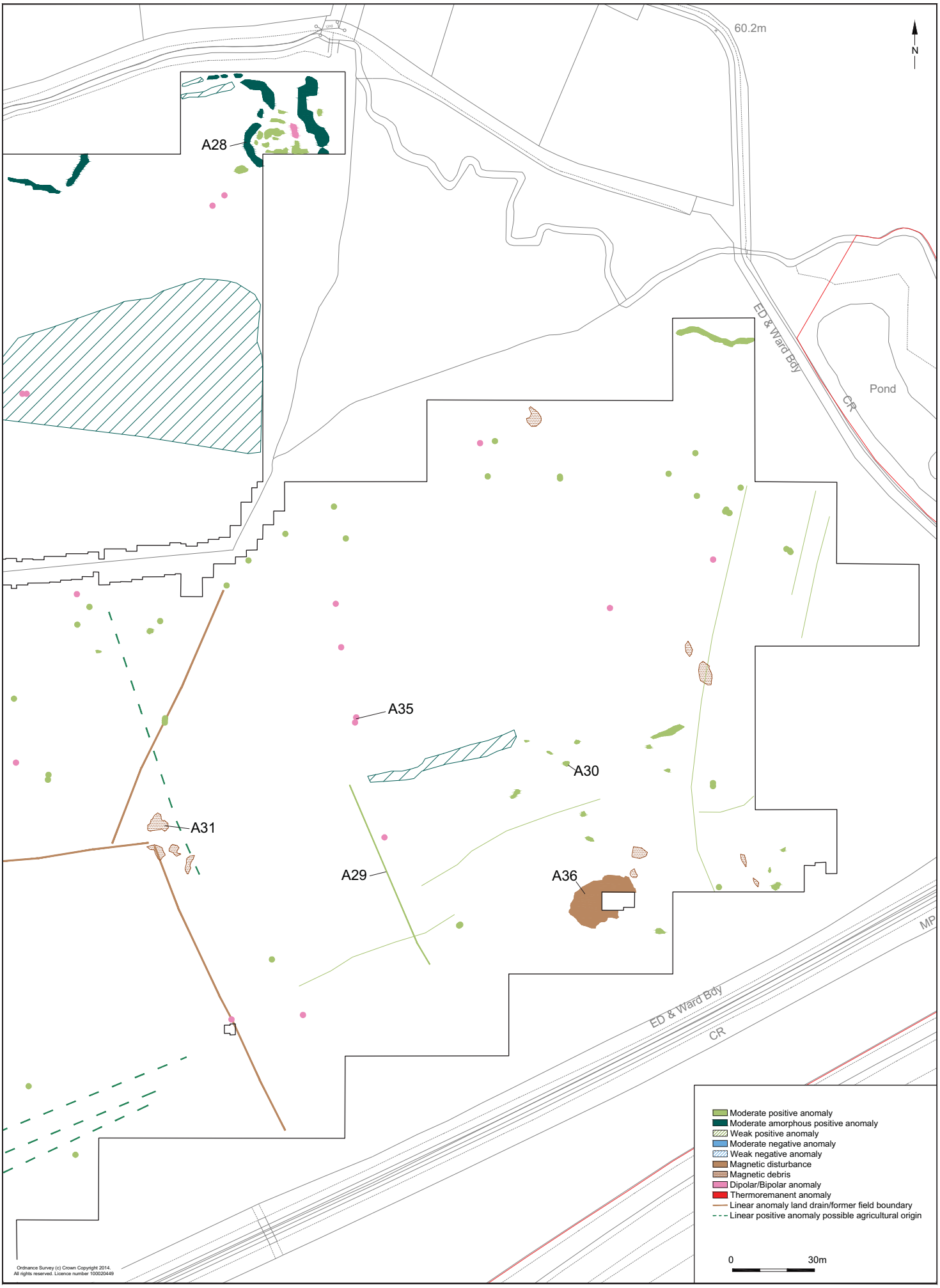

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Project Ref: 7884	December 2015	Area D east Geophysical survey: Interpretation	
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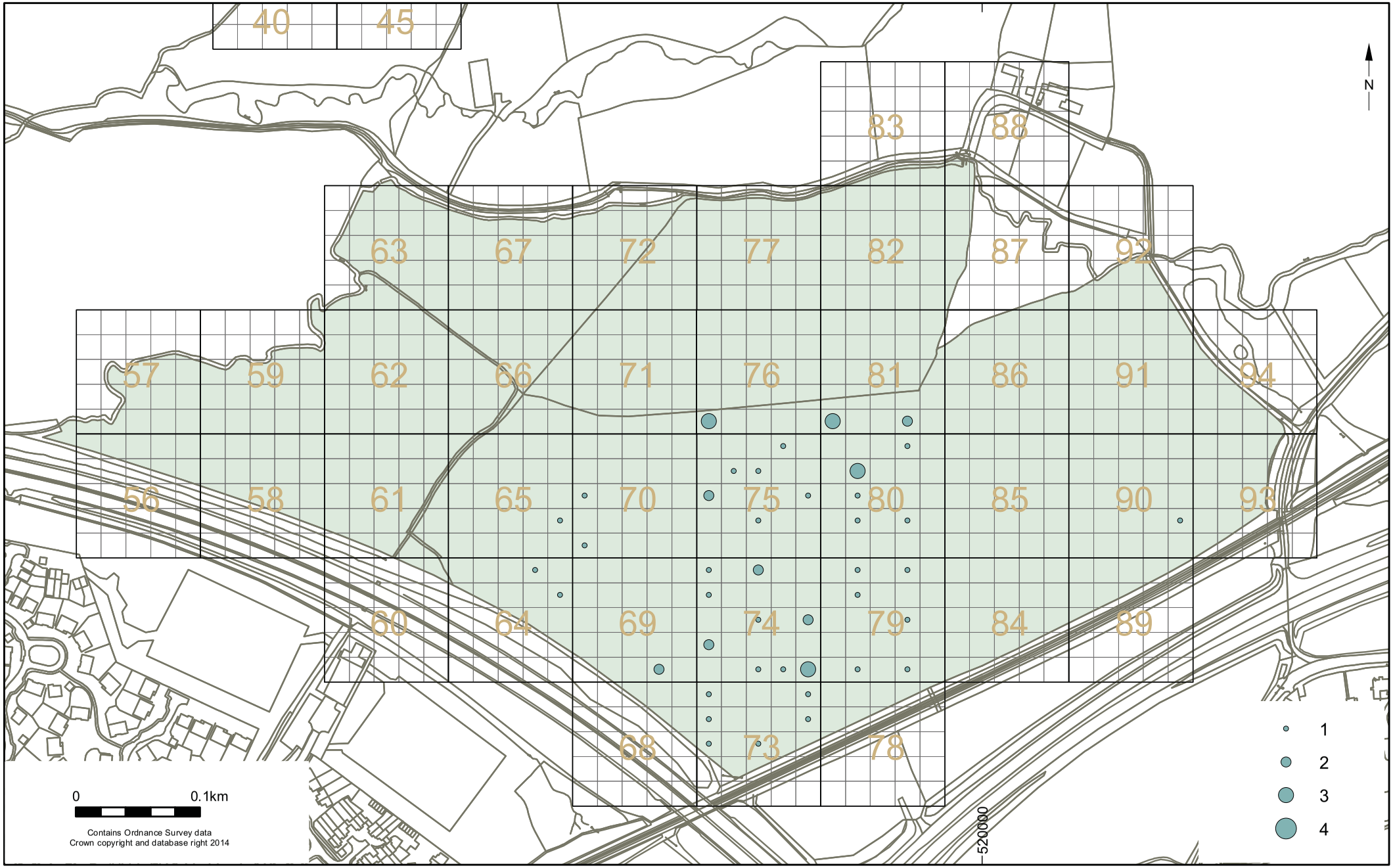

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Project Ref: 7884	Dec 2015	Area D Fieldwalking: Distribution of fire-cracked flint	
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Project Ref: 7884	Dec 2015	Area D Fieldwalking: Distribution of struck flint	
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Project Ref: 7884	Dec 2015	Area D Fieldwalking: Distribution of medieval pottery	
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Project Ref: 7884	Dec 2015	Area D Fieldwalking: Distribution of post-medieval pottery	
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Project Ref: 7884	Dec 2015	Area D Fieldwalking: Distribution of CBM	
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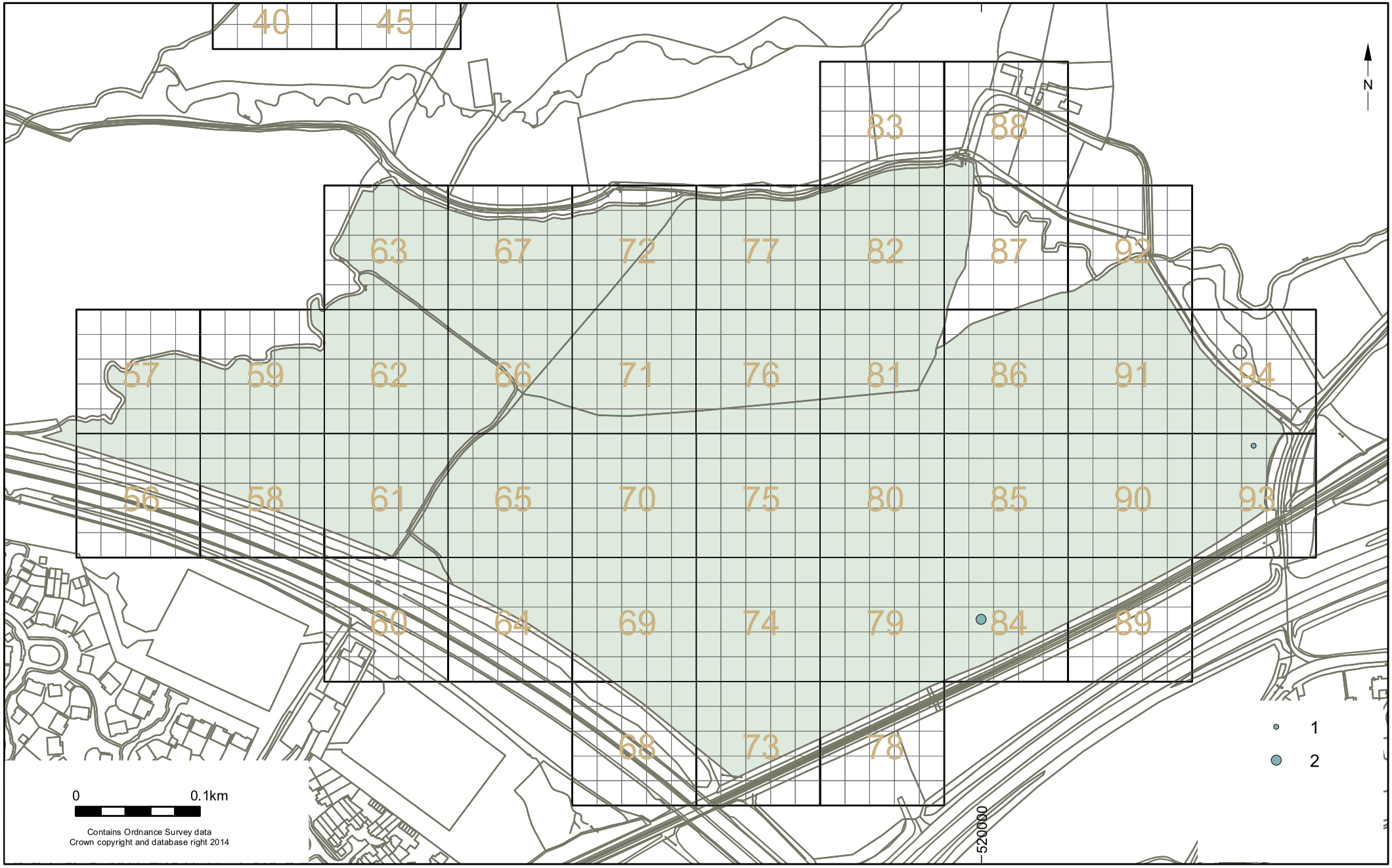

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Project Ref: 7884	Dec 2015	Area D Fieldwalking: Distribution of glass	
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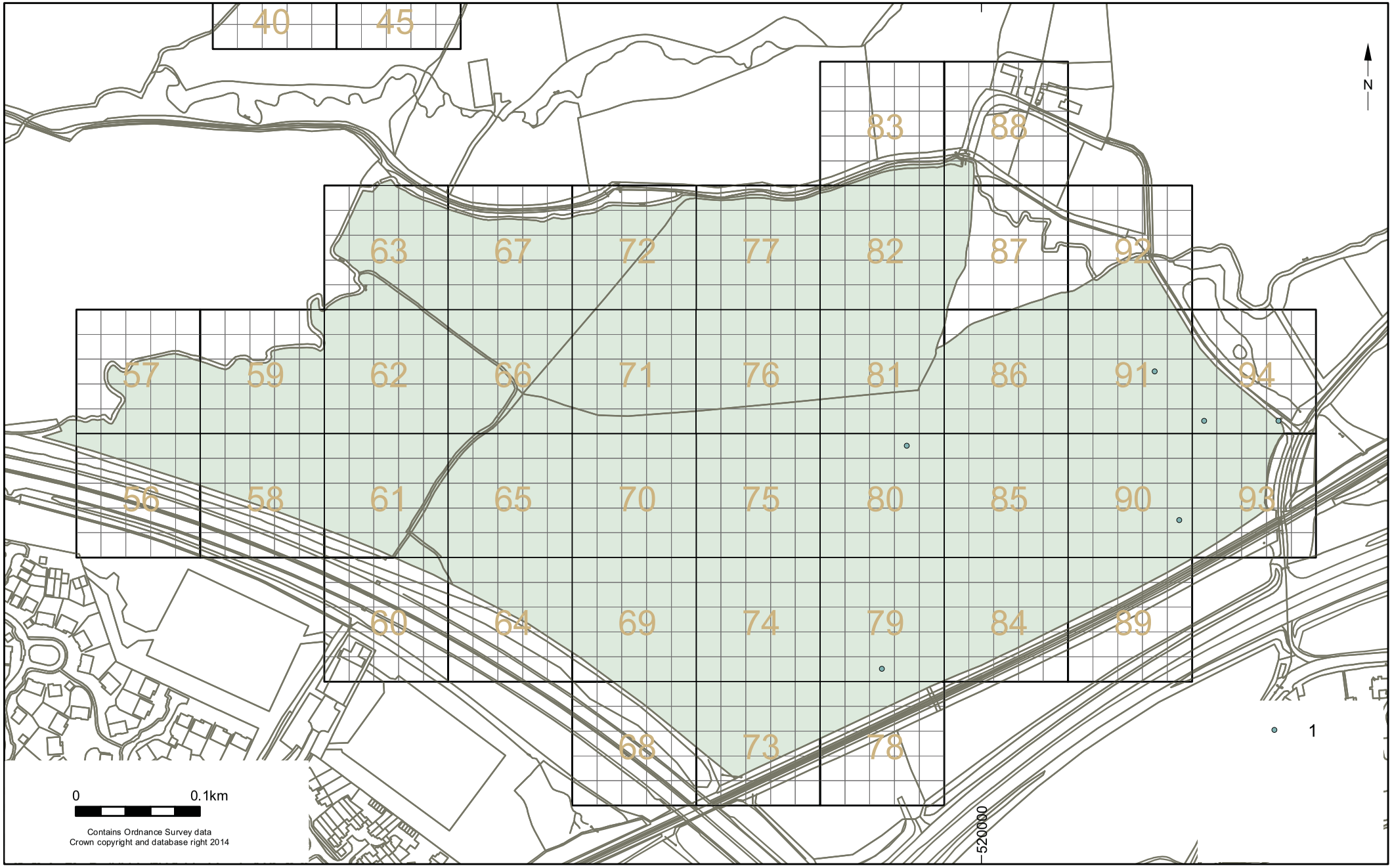

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Project Ref: 7884	Dec 2015	Area D Fieldwalking: Distribution of metalwork	
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Project Ref: 7884	Dec 2015	Area D Fieldwalking: Distribution of slag	
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Project Ref: 7884	Dec 2015	Area D Fieldwalking: Distribution of geological material	
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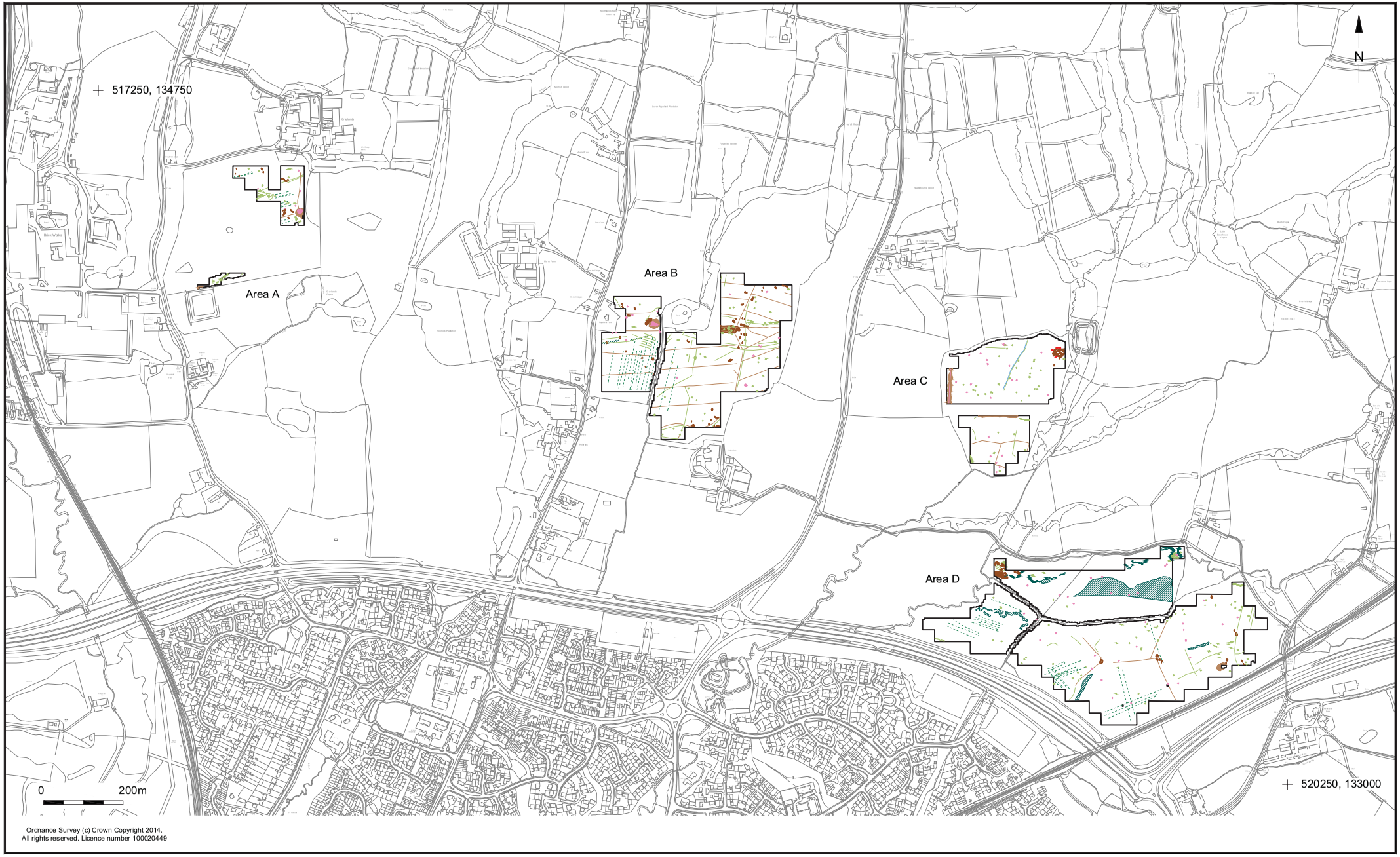

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