A Report on Geophysical Surveys on the site of Shroton Camp at West Pimperne Farm, Pimperne. Dorset.

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Summary

This report presents the results of geophysical surveys carried out on land at West Pimperne Farm, near Blandford in Dorset between 2007 and 2013. It details the survey methodology and an interpretation and discussion of the results.

The area was surveyed as part of a research project looking at the site of an 18th century military encampment known to have existed on the site. It was hoped that it would be possible to locate features associated with the camp using geophysical survey. The camp was known as Shroton Camp and was traditionally thought to be located at Iwerne Courtney (Shroton), five kilometres north of this site (Harfield, 2004) (Figure 1). Contemporary documentary records appear to show the traditional location to be wrong and indicate that the camp was actually located in the area of West Pimperne Farm.

The area is also rich in prehistoric monuments and it was expected that features associated with prehistoric activity would be located.

The survey located features which are probably the result of Bronze Age or Iron Age settlement activity, features associated with the 18th century military encampment and post-medieval features associated with farming.

Acknowledgements

This project stemmed from the author's research interest in the archaeology of 18th century military encampments. He wishes to thank Mrs Rosamond Butler-Stoney for granting permission to work at West Pimperne Farm and to Ann Humberstone for providing local liaison, support and interest. Thanks also go to Claire Pinder, Senior Archaeologist at Dorset County Council, for providing information from the Dorset Historic Environment Record and Tracy Matthews, Historic Environment Officer (Archaeology) at Winchester City Council, for access to the unpublished results of the geophysical survey and archaeological evaluation excavations at Barton Farm near Winchester in Hampshire. Thanks to Peter Cox at AC Archaeology for access to the excavations at Camp Hill, Salisbury Wiltshire and Paul McCulloch and Thom Hayes at Pre-Construct Archaeology for access to the excavations at Barton Farm, Winchester Hampshire.

The author is grateful to staff at the British Library for providing copies of the Shroton Camp maps in their collections and to staff at the Kent History and Library Centre for providing copies of Jeffrey Amherst's correspondence relating to Shroton Camp. Thanks also go to the staff of Bryn Mawr College Library, Special Collections department for their friendliness and efficient help in providing copies of Colonel Jonathan Lafaussille's Blandford correspondence. John Rees provided help and encouragement and has a fantastic resource on his web site for researching 18th century military matters. Finally thanks to the staff at the National Archives at Kew, London for access to War Office letter books and War Office reports.

Fond thanks to my brother Matthew Barker for reading through the final draft of this report. Grateful thanks to Tim Sly and Kris Strutt for help and discussions on windy hillsides and in various pubs and cafes.

Fieldwork was directed by Dominic Barker with the help of colleagues and students from the Department of Archaeology. Particular thanks go to James Cole, Tim Sly and Kris Strutt for practical support, help and advice. Also to Abigail Coppins and Chris Russell for help and encouragement in the early days. Undergraduate and postgraduate students Karen Allen, Ollie Drew, Alex Eggington, Becky Hall, George Leader, Lizzie Richley, Rachel Sharland and Dave Underhill-Stocks helped with various stages of the fieldwork and are thanked for their hard work, enthusiasm and sense of humour.

All opinions, mistakes and omissions are the responsibility of the author.

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1 Introduction

1.1 Project Introduction

A geophysical survey was carried out at Blandford in Dorset by staff and students from the Department of Archaeology at the University of Southampton. This was in order to try and locate features associated with an army encampment known as Shroton Camp that documentary research indicated was located on the site in the summer of 1756, at the start of the Seven Years War. Magnetometer and magnetic susceptibility techniques were used and all geophysical data was georeferenced to the Ordnance Survey national grid using differential global positioning system instruments and total station surveying instruments.

1.2 Project location.

The site is centred on West Pimperne Farm at NGR ST88792 08977

The site is spread over a number of modern arable fields, lying on a south sloping ridge/plateau formed by a number of spurs. The ground drops sharply to the south-west into a number of dry valleys and the valley of the river Stour. The Higher Shaftesbury Road bounds the site to the east and east of this road the ground again drops away quite steeply towards the village of Pimperne. The ridge runs north away from the site into the north Dorset Downs, whilst to the south it runs into the modern outskirts of Blandford Forum where it is eventually terminated by the river Stour (Figure 1).

The bedrock geology on the ridges and spurs in the survey area are Seaford Chalk Formation and Newhaven Chalk Formation (undifferentiated). The drift geology consists of a capping of Clay-with-flints Formation - Clay, Silt, Sand and Gravel on top of the ridge (British Geological Survey, 2015).

A number of large depressions were observed in the field north of West Pimperne Farm. These features were visible on aerial photographs and LIDAR data, they were bowl shaped, roughly twenty five metres in diameter and about 0.60 metres deep. These are likely to be natural chalk sink-hole features which have been noted in other areas of Dorset on extensive archaeological evaluations (Wessex Archaeology, 2007, p. 7).

Figure 1 Survey location. The position of the camp and the regimental deployments are based on British Library maps: Add MS 15532; Add MS 57636 f.5; Maps K.Top.6.110 and Isaac Taylor's 1inch to the mile survey of Dorset published in 1765 (Beaton, 2001, p. 53). n.b. Wolfe's regiment (8th Foot) is that of Colonel Edward Wolfe, father of Lieutenant-Colonel James Wolfe, of Kingsley's 20th Foot.

1.3 Archaeological background (Figure 2).

1.3.1 The site is located in a nationally important archaeological landscape. Cranborne Chase with its palimpsest of prehistoric monuments stretches out north-east of Blandford Forum towards Salisbury, whilst the major monuments at Hambledon Hill and Hod Hill lie approximately 5 kilometres north-west of the site. Information was collated from the Dorset Historic Environment Record (Dorset HER) and Historic England's PastScape database (HE No.).

1.3.2 Excavations during the construction of the Blandford by-pass in 1982-83 revealed parts of a Bronze Age settlement near Kites Farm at NGR ST884083. The excavators felt this settlement was fairly extensive and also noted severe truncation of features due to ploughing (Everall, 1983, p. 143) (HE No. 888628).

1.3.3 There are two Iron Age enclosures at NGR ST891098 east of the Higher Shaftesbury Road, where geophysical survey and excavation took place in 1960-63 (Harding, Blake, & Reynolds, 1993). The northern enclosure contained a large round house whilst the southern enclosure was only sampled with a section across the enclosure ditch (HE Nos. 205413 & 205464).

1.3.4 Another probable Iron Age enclosure has been found on an oblique aerial photograph at NGR ST884087 (HE No. 1432590) and is described as 'A sub-circular enclosure….visible as cropmarks on aerial photographs taken July 11th 2003. Orientated broadly north-west to south-east, it has an outer ditch around its south-eastern end. This ditch joins the enclosure at its eastern corner, where an entrance is clearly visible. There appears to be an external feature at the north-west end of the enclosure, but its shape and size are obscured by crop damage.'

1.3.5 A large area of field systems of various dates has been observed in the western area of the survey. They have been grouped together in the Historic England database as HE Nos. 205433 & 205414 and are as follows. A set of field systems centred at ST 881089 are visible on air photographs dated to 1949. An area, centred at ST 878090, contains fairly pronounced lynchets following the contours. These lynchets are rounded, irregularly spaced and average 0.5m high. An area, centred at ST 884088, contains fragmentary lynchets. At ST 88650880 a well preserved field of the Iron Age/Romano British type has banks 6.0m wide and 0.3m high. To the south and west of Camp Down most traces of the field system have been obliterated by modern cultivation, except where the present hedges have utilized lynchets to form modern boundaries. Faint traces of 'Celtic' fields are discernible on Camp Down (around ST 881089), but they have been much altered by strip ploughing and later cultivation. Contour and up-and-down strip lynchets, now largely ploughed down, cover a large area around ST 880083. In 1838 they were in Nutford Field.

1.3.6 A copper alloy spearhead of middle-late bronze-age date was found near the verge of the Higher Shaftesbury Road at NGR ST889092 in the 1950's (Dorset HER 2043-42).

1.3.7 A probable bowl barrow lies on the parish boundary with Stourpaine at NGR ST 88280967 (HE No. 205412).

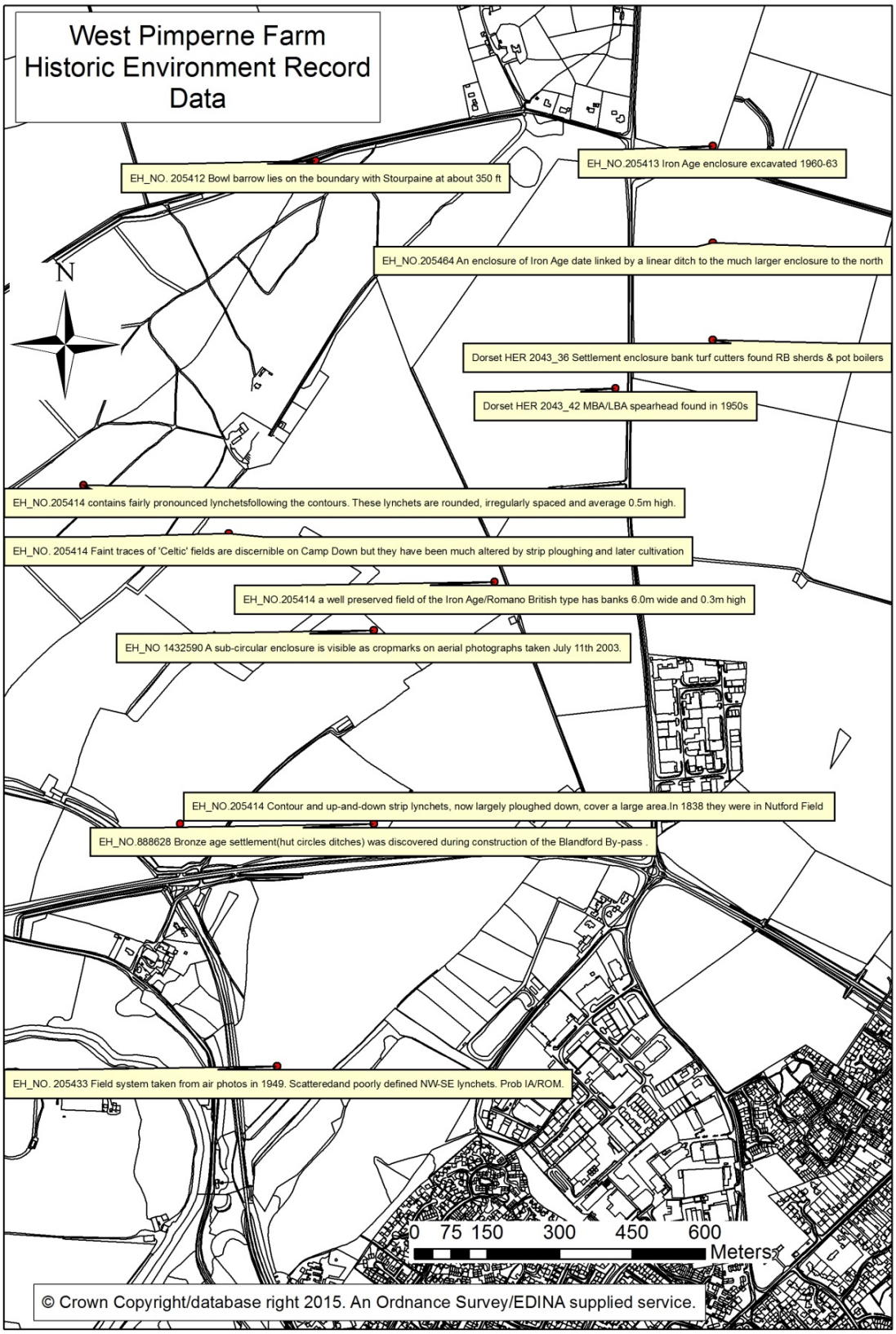

Figure 2. Historic Environment data, a combination of data from Pastscape and the Dorset HER.

1.4 Historical background

1.4.1 The survey area lies within the parish of Pimperne, to the north of Blandford Forum. The parish has increased in size since 1886 due to boundary revisions (Royal Commission on Historic Monuments, 1972, p. 54). The original, pre-revision boundaries, pre-enclosure open field system and common down land are shown in figure 3.

1.4.2 The parish open fields and common land were enclosed by act of Parliament in 1814 (Royal Commission on Historic Monuments, 1972, p. 54). The land is divided into an eastern, lowland area of open fields to the west of the village of Pimperne and a western, upland area of pasture for sheep grazing (see figure 3).

1.4.3 There is an interesting extension of the parish boundary to south which gives the parish access to the river Stour for watering people, livestock and for milling at the site of Whitecliff Mill.

1.4.4 In May 1756 Britain declared war on France at the beginning of what would become the Seven Years War. To meet the anticipated threat of a French invasion, the British government formed large tented camps with large bodies of infantry and cavalry at points behind the south coast. These contingents trained together with live ammunition and could move to counter any invasion of the coast on the south or south-east sections of southern England (Houlding, 1981, pp. 322-346).

1.4.5 Quarter-Master General David Watson carried out a survey of the vulnerable south coast and any likely spots which could be used for such camps. He recommended only three sites in Dorset; Bradford Down to the west of Dorchester; the downs between and to west of Charlton Marshall and Spetisbury; and on Pimperne Down, to the west of the Shaftesbury Higher Road, south of Stourpaine Bushes. There was no mention of Iwerne Courtney (Shroton), the site traditionally thought to have been the location of Shroton Camp, showing that it was never considered by Watson as a site for military camps. The report describes the Pimperne site as follows; '*About 1 ½ mile north from Blandford on the east side of the river* [Stour] *there is very good ground for a camp on the top of Pimpern Down having the high road to Shaftesbury, the village of Pimpern and extensive downs on the front and the river Stour ½ a mile in the rear. The river Stour is a deep running river with high banks. The communication upon both sides is across swampy meadows which render the access to the water very inconvenient, but there is a commodious watering place for the cavalry at a mill in the rear of the camp'*. (NA: WO 30/54, 39).

1.4.6 Two letters written by David Watson confirm that the camp was located at his recommended site at Pimperne but also mention an initial attempt to establish the camp at his Charlton Marshall site. The first was written to Colonel Jonathan Lafaussille of the 8th regiment of foot; *'Dear Colo*[nel] *I take this first opportunity of acquainting you the camp near Blandford, in place of Charlton as at first intended, is now ordered to be upon Pemperdon Common* [Pimperne Down Common], *tho' I am persuaded the alteration of ground will no ways vary your plan of economy, yet I could not help giving my good friend this first notice & intelligence of the change. Compliments to Mrs Lafaussille & believe me with truth dear Colo*[nel] *your most obedient servant David Watson. London July 6th 1756.' (*Watson to Lafaussille 6 July 1756, Bryn Mawr).

1.4.7 Watson's second letter was to Lord Barrington, the secretary at war; *'London 15th September 1756. Sir, It was first proposed to have encampt the corps under Lieut. Gen. Sir John Mordaunt's command near the village of Carleton* [Charlton Marshall], *upon some base fields that had been fallow some years, but the proprietor beginning to dung and plough those fields, the encampment was ordered to Pimperne Common where the troops did encamp without any hindrance or representation of the losses and hardships the proprietor might suffer from the troops occupying their ground. I should imagine the damage done or value of the ground very inconsiderable and sufficiently made up to the proprietor if he gets the dung of the camp as a recompense for the loss he has sustained. I have the honour to be your lordships most obedient and most humble servant David Watson Q.M.G.'* (NA: WO 4/52, 245)

1.4.8 The camp site was also mentioned twice by John Hutchins in his great history of Dorset. In the introduction his says *'In 1756 a camp of six regiments of foot, and two of dragoons, was formed on Pimperne down near Blandford; and another near Dorchester the year following'* (Hutchins, 1774, p. xxix). In his section on Blandford Forum he says *'July 23-Oct. 20, 1756 was a camp near this town , in Pimpern, consisting of two regiments of dragoons, six of foot, commanded by Sir John Mordaunt, lieutenant general, and the Duke of Bedford, major general'* (Hutchins, 1774, p. 79).

1.4.9 A number of contemporary manuscript maps show the position of the camp, its proximity to Blandford Forum and the arrangements of the regiments (figure 1).

1.4.10 The camp lasted from the end of July until early October 1756, when the camp broke up and the regiments dispersed into winter billets all over the south and south-west of England. A number of the senior regimental commanders at the camp were destined for high military command and civil administrative duties in the ensuing war, particularly in the North American theatre, including Jeffrey Amherst, John Forbes, James Murray and James Wolfe.

1.4.11 Figure 3 shows how constrained the camp was by local topography and land boundaries. To the south lay the sensitively productive open fields of Blandford Forum; to the west lay the parish boundary with Stourpaine and to the north and east lay the route of the Shaftesbury Higher Road. The camp was physically located on turf down land with a ready source of water to the south-west at Whitecliff Mill on the river Stour (see Watson's reference to *'a commodious watering place for the cavalry at a mill in the rear of the camp'* above and figure1).

1.4.12 All this contemporary documentary evidence contradicts the tradition that Shroton Camp was located at a site known as Shroton Lines in the parish of Iwerne Courtney (Shroton) (Harfield, 2004). The only reason for thinking the camp was at Shroton was its name-and this clearly seems to be a misnomer.

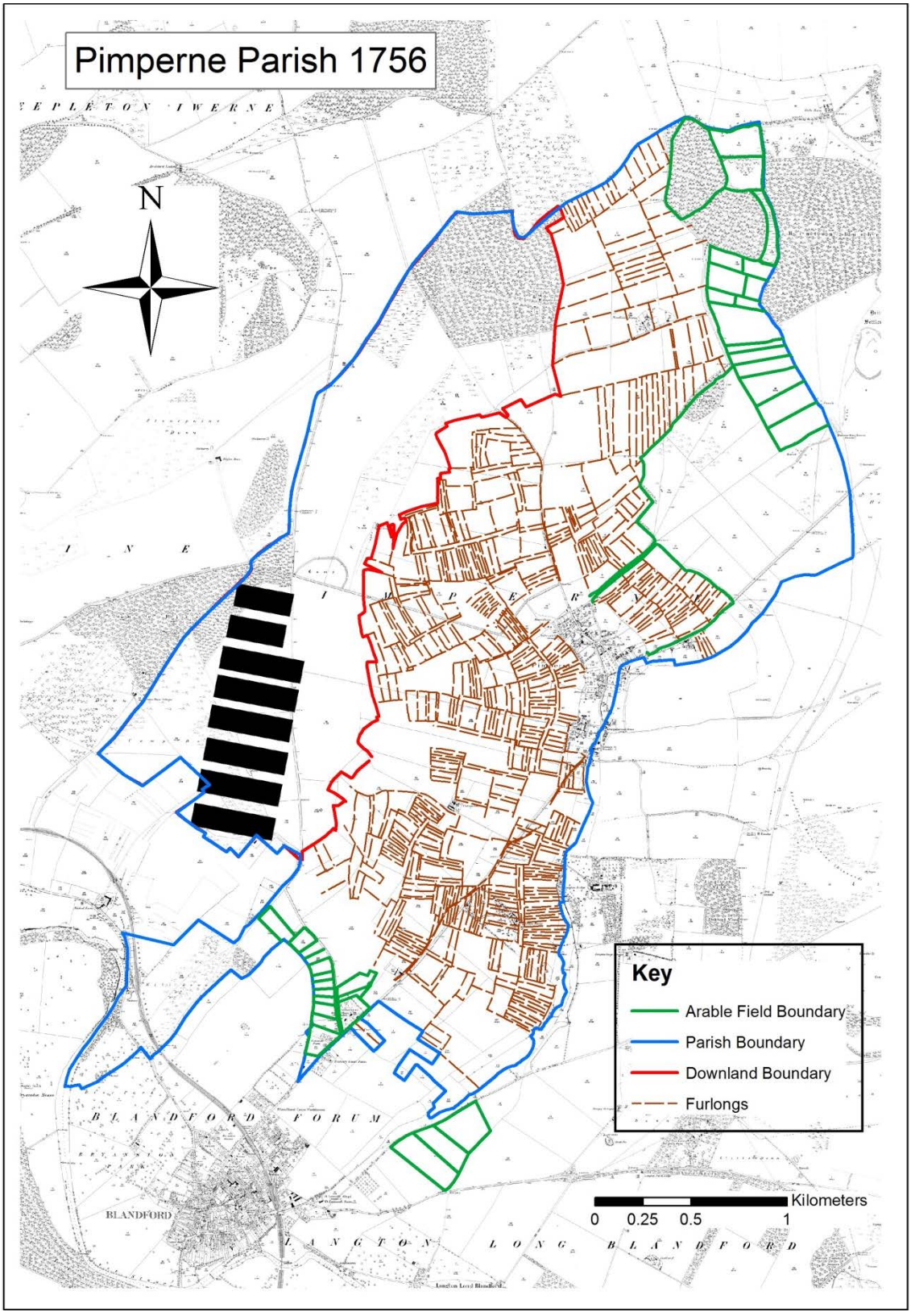

Figure 3 Map showing Pimperne parish boundary, down land and open fields in 1756. Digitized from National Archives enclosure map of Pimperne parish dated 1814 MPEE 1/143. Base map Ordnance Survey 1:2500 1887-1888 © Crown Copyright and Landmark Information Group Limited 2015. All rights reserved.

1.5 Survey method

An initial assessment of archaeological features likely to be associated with an 18th century tented encampment identified the field kitchens as the most characteristic and large scale structures likely to survive underground or leave recoverable traces in the ground. These kitchens were circular ditched features cut into the ground, with fire boxes cut into the inner face (Bland, 1743, pp. 244-245) (Rees, 1998) (Margary, 1965). These features would be highly fired and magnetically enhanced and provide good targets for large scale magnetometer survey. Magnetometer surveys on the site of the 1756 Hessian camp at Barton Farm near Winchester have successfully located field kitchens of a similar type (Chadwick & Dicks, 1998) (Foundations Archaeology, 2003) (author's site visit courtesy of Pre-Construct Archaeology April 2015)

The other characteristic features were large numbers of latrine pits and rubbish pits. There were strict orders on how long either could be left open before they had to be backfilled and new replacements dug (Bland, 1743, pp. 247-248). As a result of this it was likely that there would be an area/s of negative, cut features and phosphate enhancement where the pits were located, due to the dislodging and exposure of waste material from the pits by later ploughing. Studies have shown that these phosphate deposits can be magnetically enhanced and that they remain remain detectable in topsoil layers (Clarke, 1996, pp. 106-107.). It was decided to try and locate any areas of enhancement using a coarse resolution magnetic susceptibility survey (Clarke, 1996, p. 110). It is hoped that a geochemical survey for phosphate enhancement, using auger sampling may be possible at a later date. The magnetic susceptibility survey may also locate other magnetically enhanced materials associated with the field kitchens.

Of the two techniques used for the survey at West Pimperne Farm, the magnetometer techniques are extremely dependent on the geology of the particular area, and whether the archaeological remains are derived from the same materials. Magnetometer survey is a passive technique which uses sensors to measure variations in the strength of the Earth's magnetic field in nanotesla (nT). Magnetometer survey was chosen as a relatively time-saving and efficient survey technique suitable for locating pits, kilns, hearths, ovens and ditches (Gaffney, 1991) .

To summarize it was hoped that the magnetometer survey would show up a line of circular, ditched features running approximately south-west to north-east, possibly with pit like features around them, representing the field kitchens and the latrine/rubbish pits. It was hoped that the magnetic susceptibility survey would show a linear area of enhancement running approximately south-west to north-east across the site, possibly in the western half of the site, representing enhancement by latrine and rubbish pits.

1.6 Survey strategy

The strategy chosen for the magnetometer survey was to run transects of 30 metre grids west to east, on randomly chosen areas in the northern, central and southern areas of the site (see figure 4). These transects were laid out using a Leica TCR307 total station in the northern area and a Leica Viva Global Positioning System, using SmartNet correction data

for real time Ordnance Survey coordinates, in the central and southern areas. The geophysical survey was then carried out using a Bartington Grad 601 Single Axis Magnetic Gradiometer. The data generated was processed using TerraSurveyor 2 software from DW Consulting Ltd.

The sampling strategy for the magnetic susceptibility survey was a variation of the methodology described by Clarke (Clarke, 1996, p. 110). Readings were taken roughly every 10 metres using a Bartington MS2 meter fitted with an MS2D field coil. Each reading was located using Leica 1200 Global Positioning System using SmartNet correction data. Transects were walked across the field using ranging rods at either end as a guide. The surveyor's pace was used to estimate distance and in this way it was possible to zigzag across the field and cover a large area relatively quickly. The positional data was downloaded in to a spread sheet and the susceptibility readings were added. This was exported as a tab delimited text file which could then be imported into the Terrasurveyor 2 software package. This has a facility for dealing with irregular X and Y data produced from this type of methodology and can interpolate across the irregular spacing in the data. The track data from the GPS also allowed a check on ground coverage and regularity across the survey. A useful by product of the GPS data was the production of a topographical survey data set that could be used to produce digital terrain models and contour surveys.

2 Results

2.1 The magnetometer results

2.1.1 Area 1 (northern area figures 5 and 6)

The results from the northern area of the survey are relatively quiet and dominated by two large positive anomalies **[m1]** & **[m2]**. These features also manifest themselves on the ground as large saucer shaped depressions, approximately 16 meters in diameter. This type of feature occurs in other chalk downland areas and they appear to be natural, geological features (Wessex Archaeology, 2007, p. 7). The linear features **[m3]**, **[m4]** and **[m5]** probably represent parts of a single feature running down the west side of the field. It is likely they are the result of ploughing activities and form part of a headland feature where the ploughs turn and drop extra soil at this side of the field.

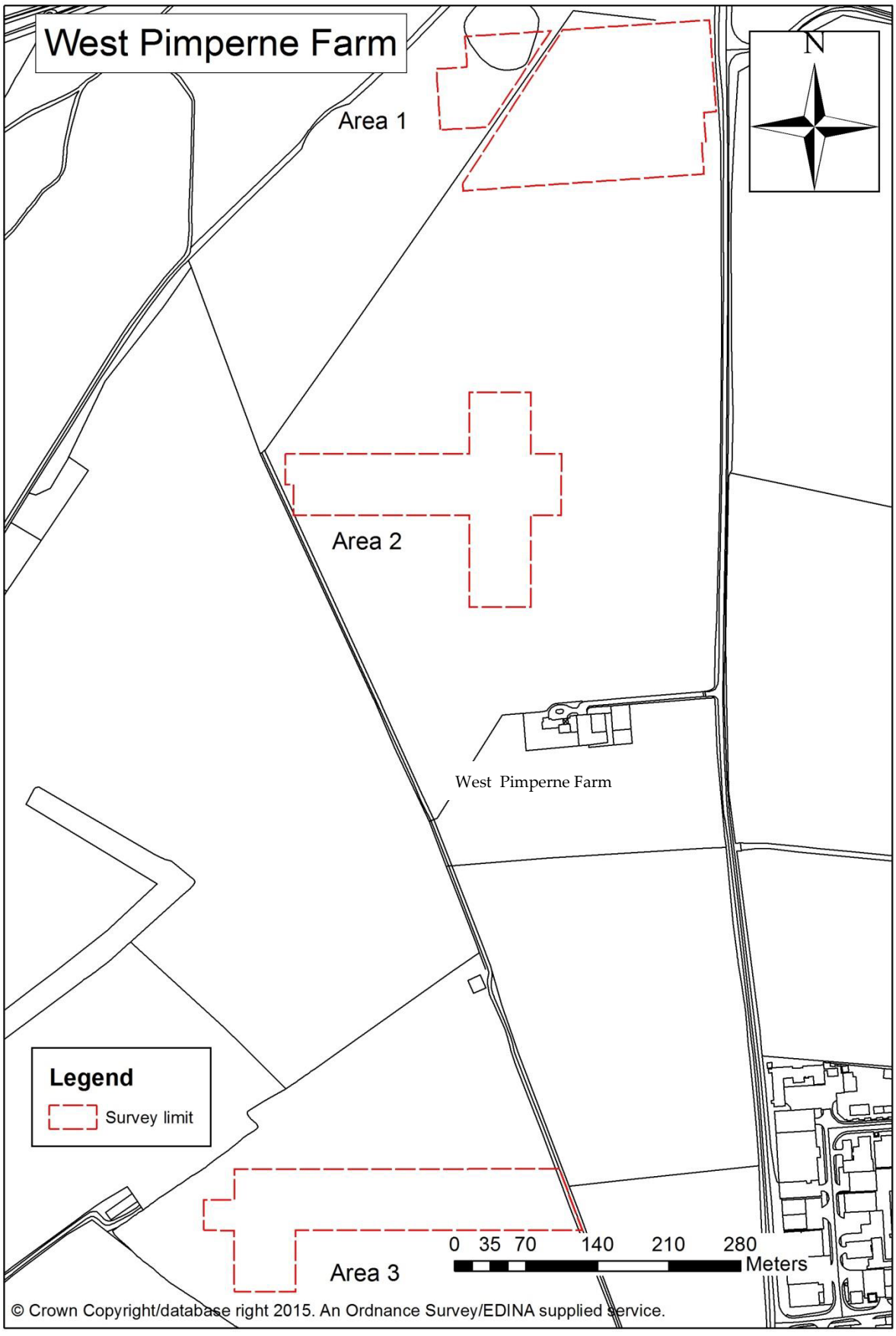

Figure 4 Magnetometer survey areas

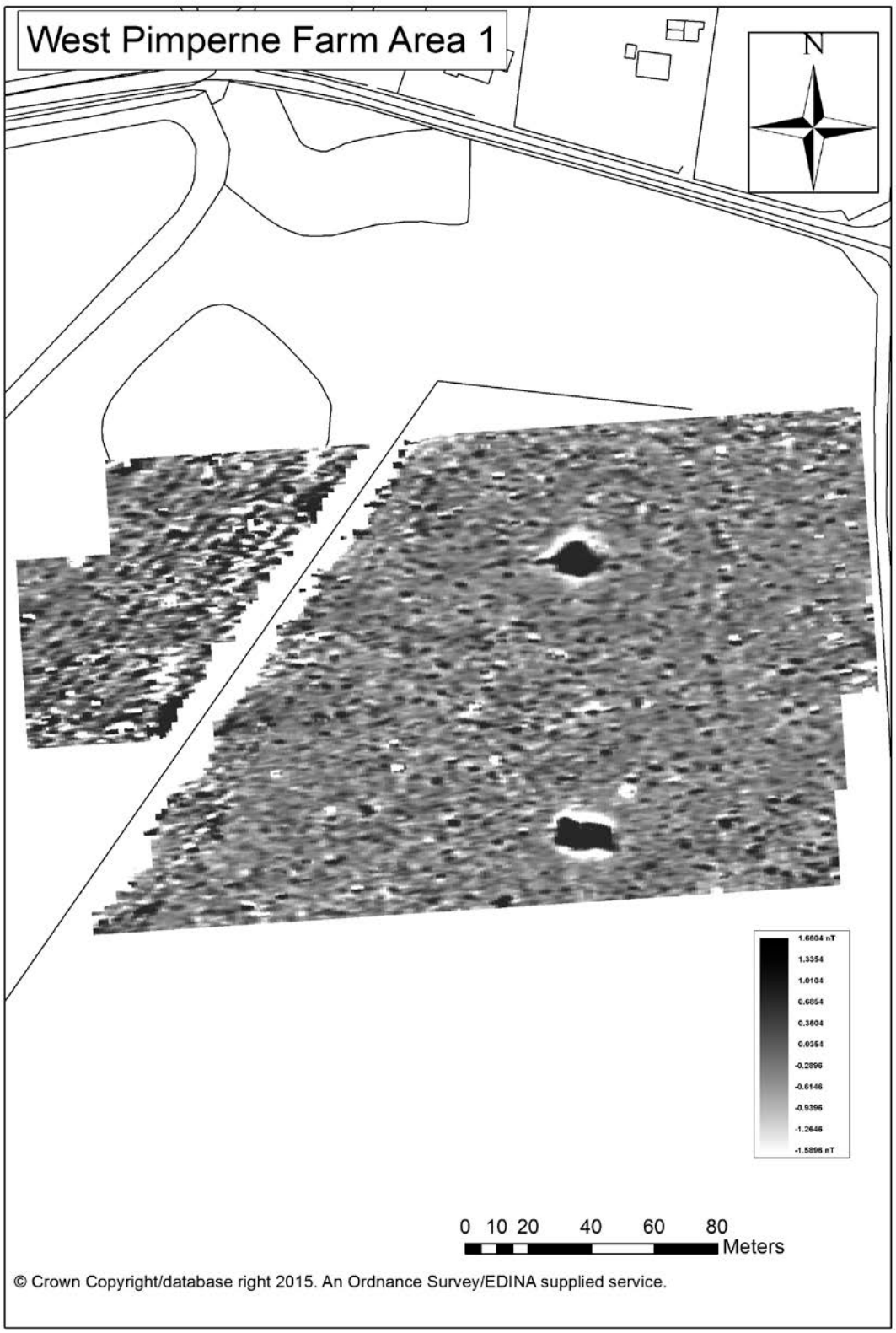

Figure 5 Area 1 magnetometer survey

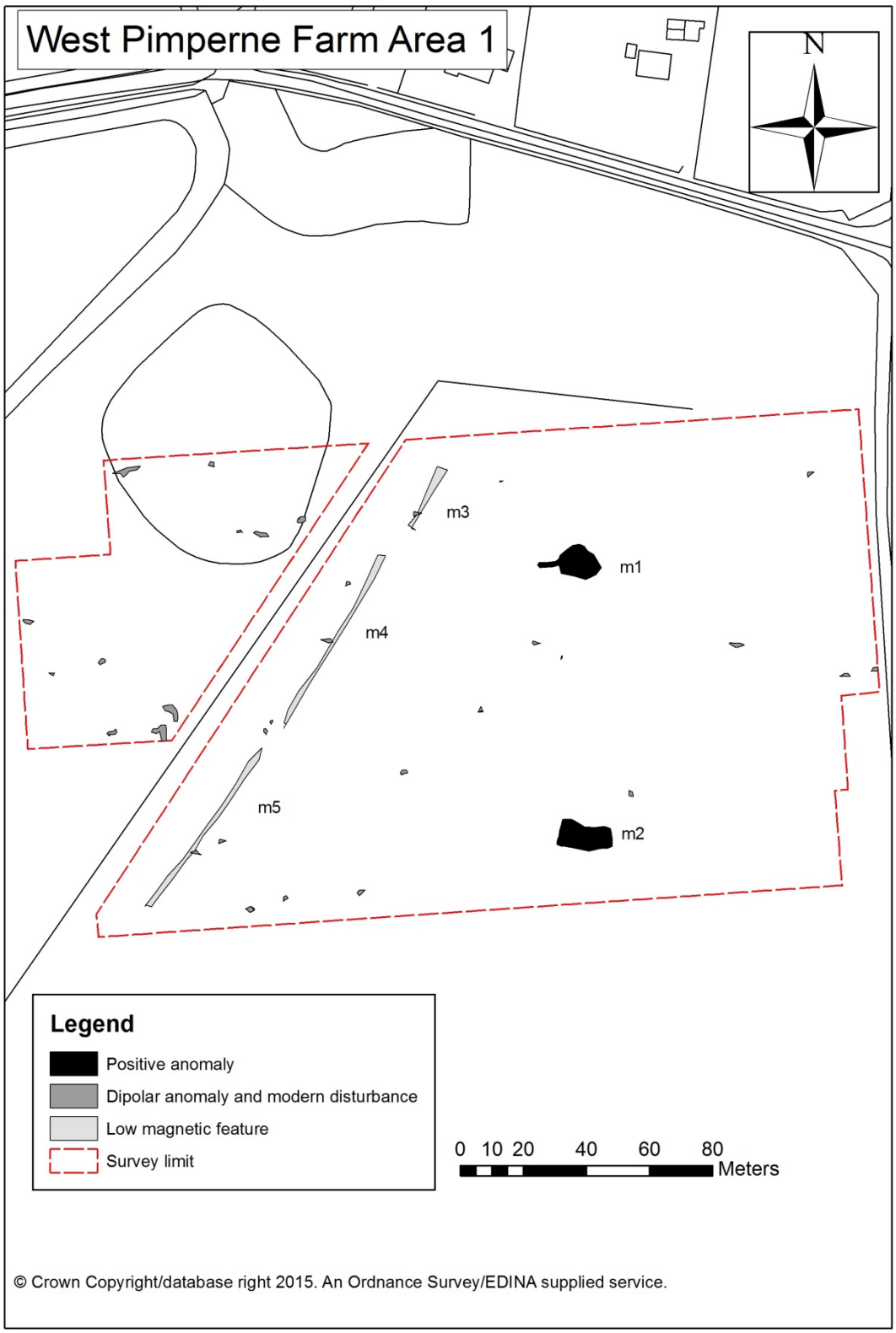

Figure 6 Area 1 Interpretation plan of magnetometer survey

2.1.2 **Area 2 (central area figures 7 and 8)**

This area is dominated by the linear dipolar anomaly **[m12]** , that runs south-west to north-east across the area and is the classic return of a metal pipe line. It probably represents a water pipe that fed a water trough in the corner of a field to the north shown on the 1962 1:2500 Ordnance Survey map as it does not run as far as the northern area 1. The linear features **[m6]**, **[m7]** and **[m8]** on the west side of the area are probably the same type of soil accumulated ploughing headland discussed above. Positive anomaly **[m9]** is probably the same type of natural depression mentioned above in area 1. It appears to interrupt a linear, ditched feature represented by positive features **[m10]** and **[m11]**. This ditch is approximately 1.5 meters wide and is most likely to be a prehistoric feature.

The linear feature marked as **[m13]** is actually an area of magnetic 'noise' and is probably an area of concentrated magnetic material in the topsoil such as metal wire, nails etc. It coincides with a now vanished fence line marked on the 1962 1:2500 Ordnance Survey map.

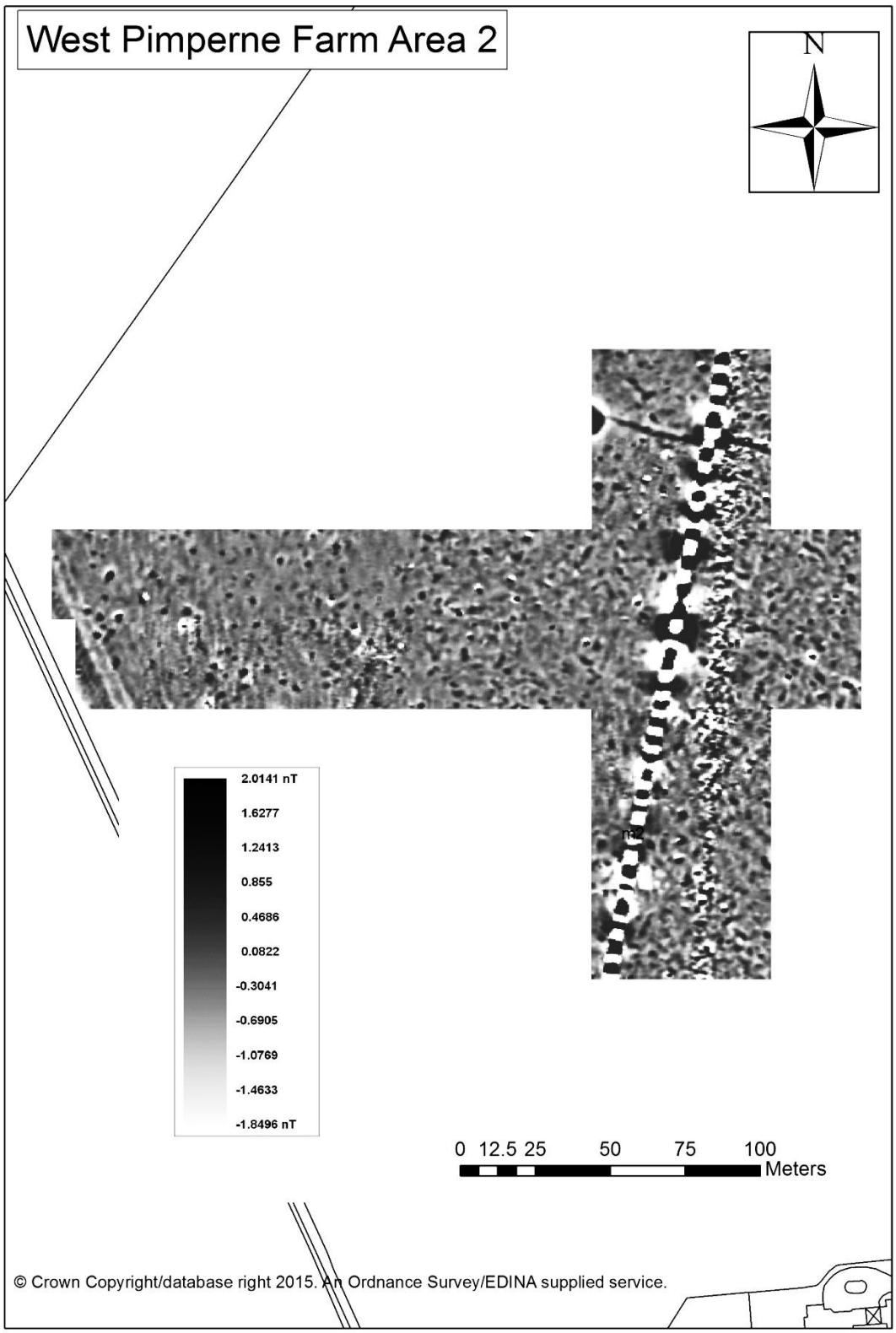

Figure 7 Area 2 magnetometer survey.

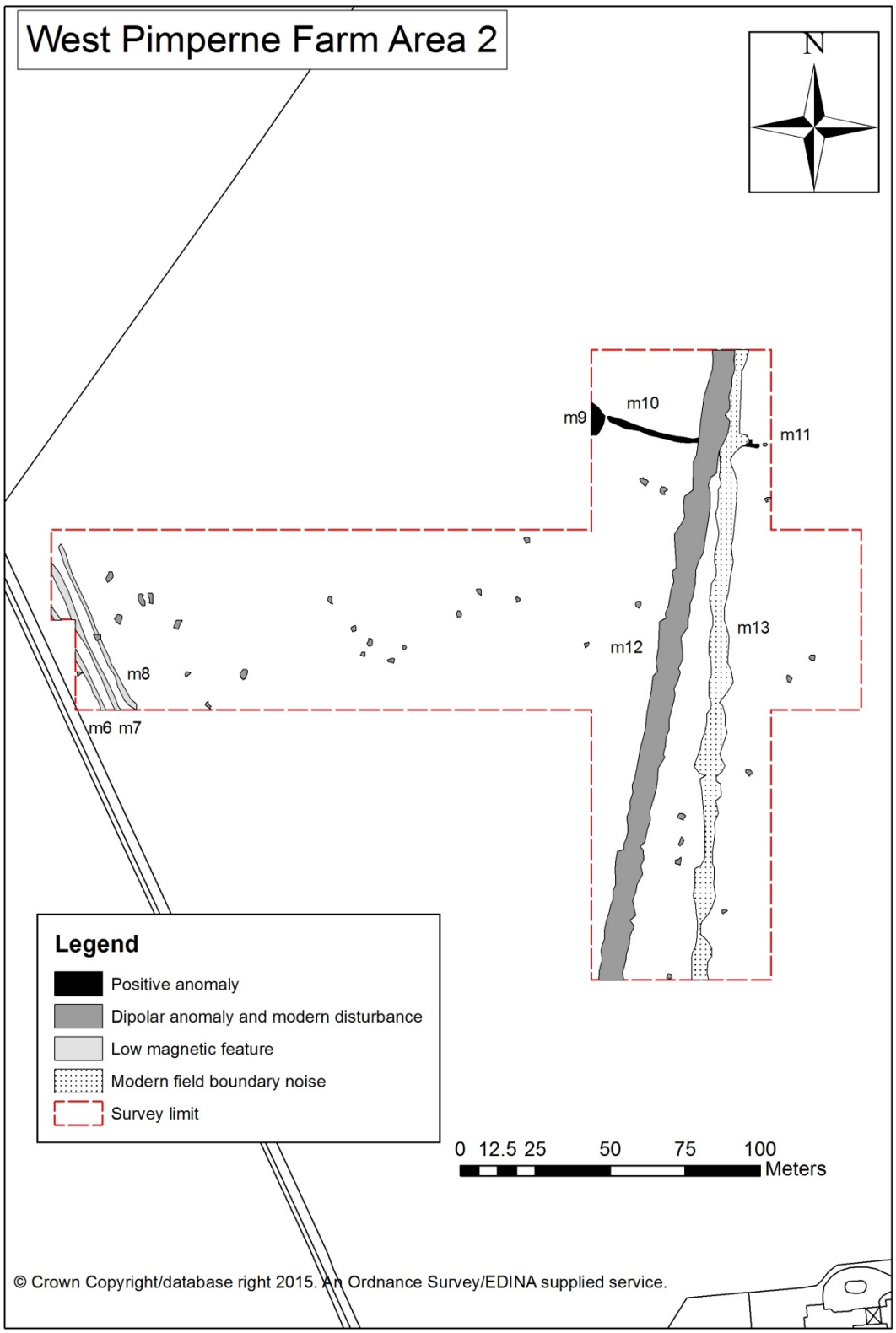

Figure 8 Area 2 Interpretation plan of magnetometer survey

2.1.3 **Area 3 (southern area figures 9 and 10).**

Area 3 has a number of interesting features and is the busiest part of the site identified so far. The linear dipolar feature [m14] is probably either a buried modern metal pipe or the effect of metal fencing in the hedge line forming the eastern side of the field. The positive anomaly **[m15]** is probably another large geological feature, similar to those already encountered in areas 1 and 2.

The positive anomaly **[m16]** is probably a ditch about 3 meters wide that forms an enclosure about 44 meters on its long axis and 35 meters on its short axis. This is probably a prehistoric enclosure of either bronze or iron-age in date and fits into the local pattern of prehistoric settlement to the north and south of the site (see archaeological background above). Anomaly **[m17]** appears to be a quarry type feature on the side of the valley slope.

The positive anomaly features **[m18]**, **[m19]**, **[m20]**, **[m21]**, **[m22]**, **[m23]**, **[m24]** and **[m25]** are similar in structure and form a linear alignment, suggesting they were laid out and constructed at the same time as a single formation. They consist of a probable ditch about 1.5 meters wide and forming a circular feature about 5.5 meters in diameter. Their form and alignment match descriptions and military manuals characterizations of field kitchens which were ditched features cut in to the ground with fire boxes dug on the inside face of the ditch (Bland, 1743, pp. 244-245) (Rees, 1998) (Margary, 1965). A number of features **[m26]** have been put together because of their disjointed nature, their position and comparison with camp plans suggests they could be associated with regimental sutlers tents. The sutlers were traders who were licenced by the regiment to supply extra food and drink to the soldiers and had a carefully delineated area in the rear of the camp where their tents were surrounded by ditched enclosures. They were subject to military discipline and were carefully regulated by the regiment's non-commissioned officers (Bland, 1743, pp. 248-249).

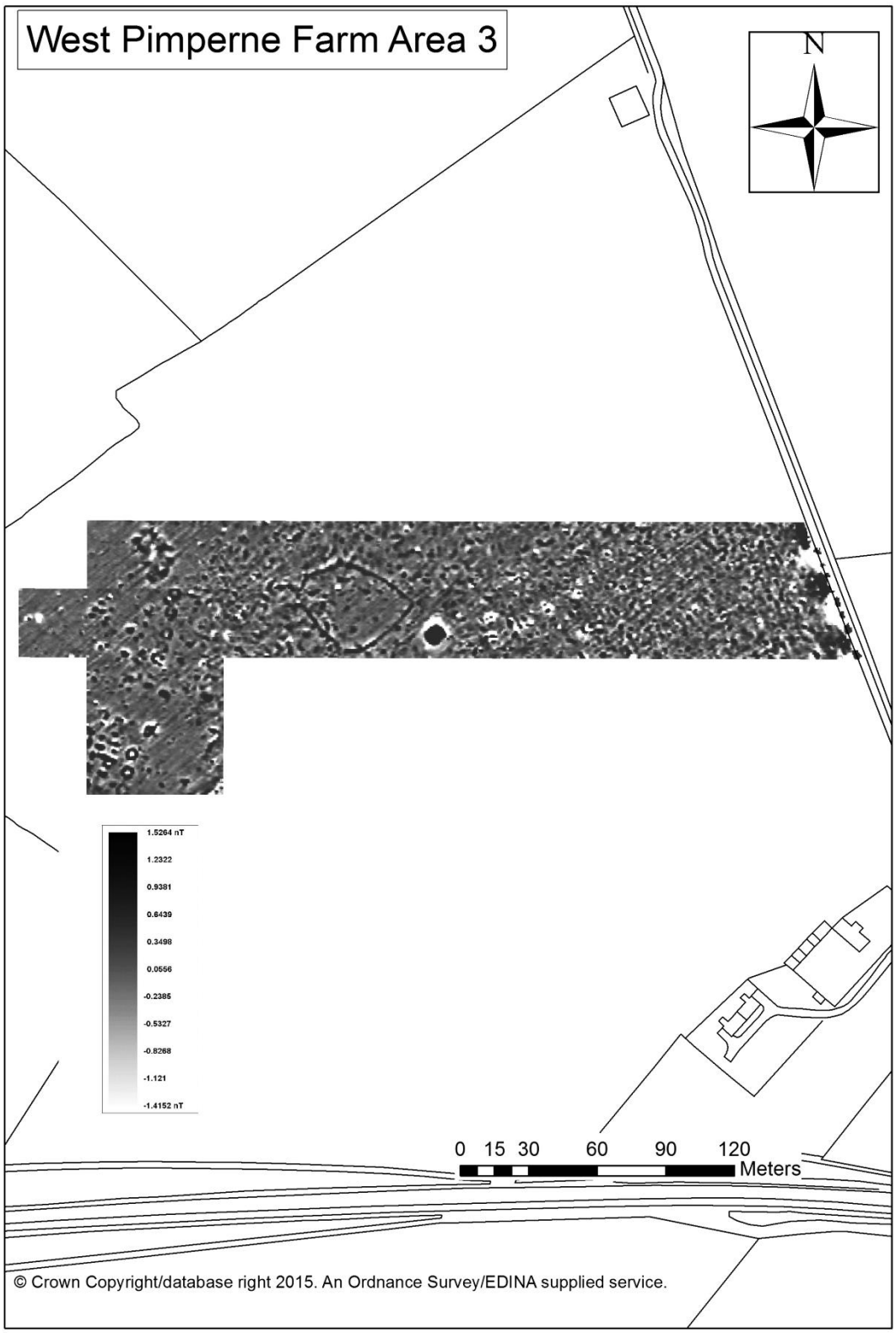

Figure 9 Area 3 magnetometer survey

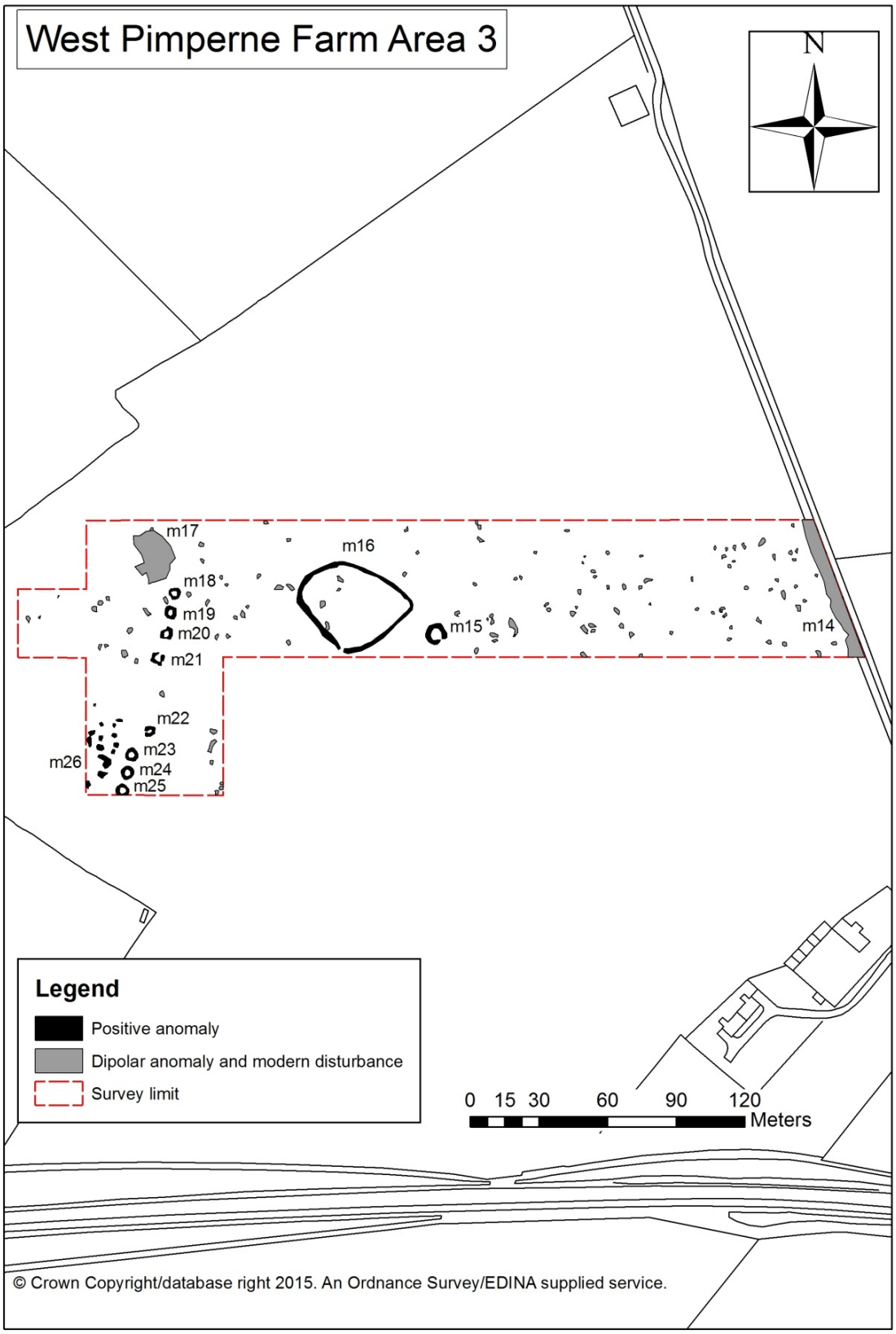

Figure 10 Area 3 Interpretation plan of magnetometer survey

2.2 Magnetic susceptibility

2.2.1 North area (Figure 11)

The magnetic susceptibility results from the north and central area are shown in figure 11. There is an interesting linear character to the results shown by an area of enhanced magnetic susceptibility running down the east side of the field, with an area of low magnetic susceptibility running immediately to the west of it **[ms1]**. This coincides with a broad linear depressions running approximately north-south on this side of the field. There could be two explanations for this.

The first is that it is known that roads and the materials they are built with can have an effect on magnetic susceptibility readings (Hoffmann, Knab, & Appel, 1999). Surveys have shown a magnetic susceptibility enhancement of up to 10 times greater than background readings up to 5 meters either side of a main road. This enhancement is due to pollutant exhaust material from car engines and road construction material-particularly bitumen from tarmac surfaces. The concentration is locally moderated and dependent on effects produced by factors such as traffic density, meteorological conditions and roadside maintenance e.g. verge cutting, weed spraying etc. (Hoffmann, Knab, & Appel, 1999, pp. 322-324)

The second explanation may be that the magnetic susceptibility patterning and linear depression may represent an earlier alignment of the Higher Shaftesbury Road. It is possible that this alignment became unusable (the underlying geology here is clay and flint) and the course was shifted east to the current course of the road. It is interesting to note that north of the Pimperne crossroads the parish boundary runs out in the field, in a similar situation to that of the current survey area (figure3). This parish boundary may have originally been laid out on an earlier road alignment and as such fossilized the position of the original road.

On the west side of the field **[ms2]** marks an area of enhanced magnetic susceptibility that occurs in an area sloping into the dry valley to the south west. It may mark a concentration of anthropogenically derived material from either archaeological features in the area or from material moving down slope from the east by plough and general erosion activity.

The linear concentration of enhanced material marked **[ms3]** coincides with the magnetometer 'clutter' noted as anomaly **[m13]** above. It has clearly accumulated next to or in association with the fence line shown of the 1962 1:2500 Ordnance Survey map.

2.2.2 **Southern area (Figure 12)**

The magnetic susceptibility survey in the southern area only covered the northern half of a large field due to the cropping regime at the time of the survey. Concentration **[ms4]** clearly continued south out of the survey area and does not appear to coincide with the kitchen features found in the magnetometer results. It is more likely to be related to the prehistoric settlement activity associated with the features found during the construction of the Blandford by-pass to the south (Everall, 1983). The low readings at **[ms5]** provide an interesting contrast to **[ms2]** above. This is again a steep down slope area but there is not the same high readings noted at **[ms2]** suggesting other processes may be at work here.

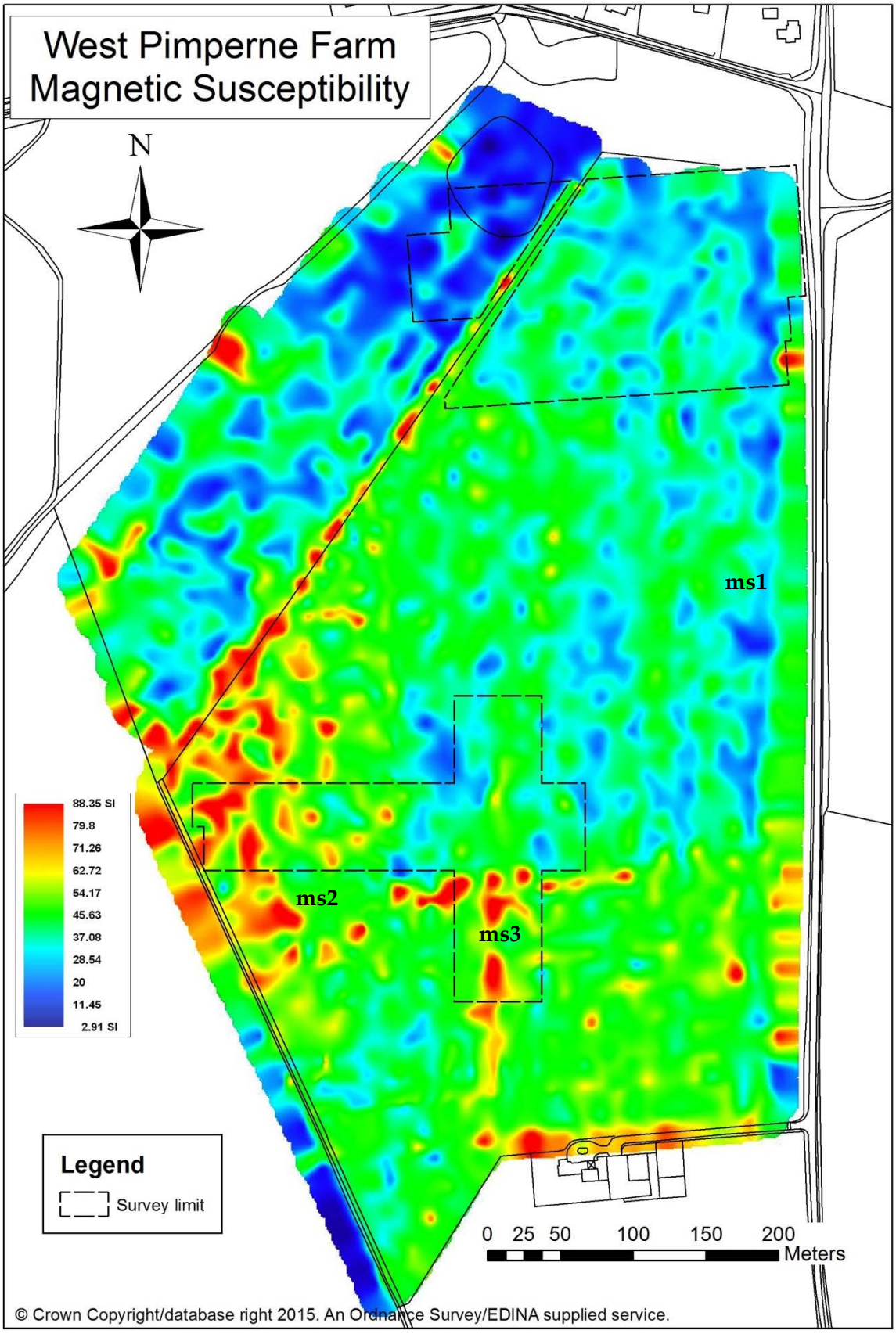

Figure 11 Magnetic susceptibility survey, north area

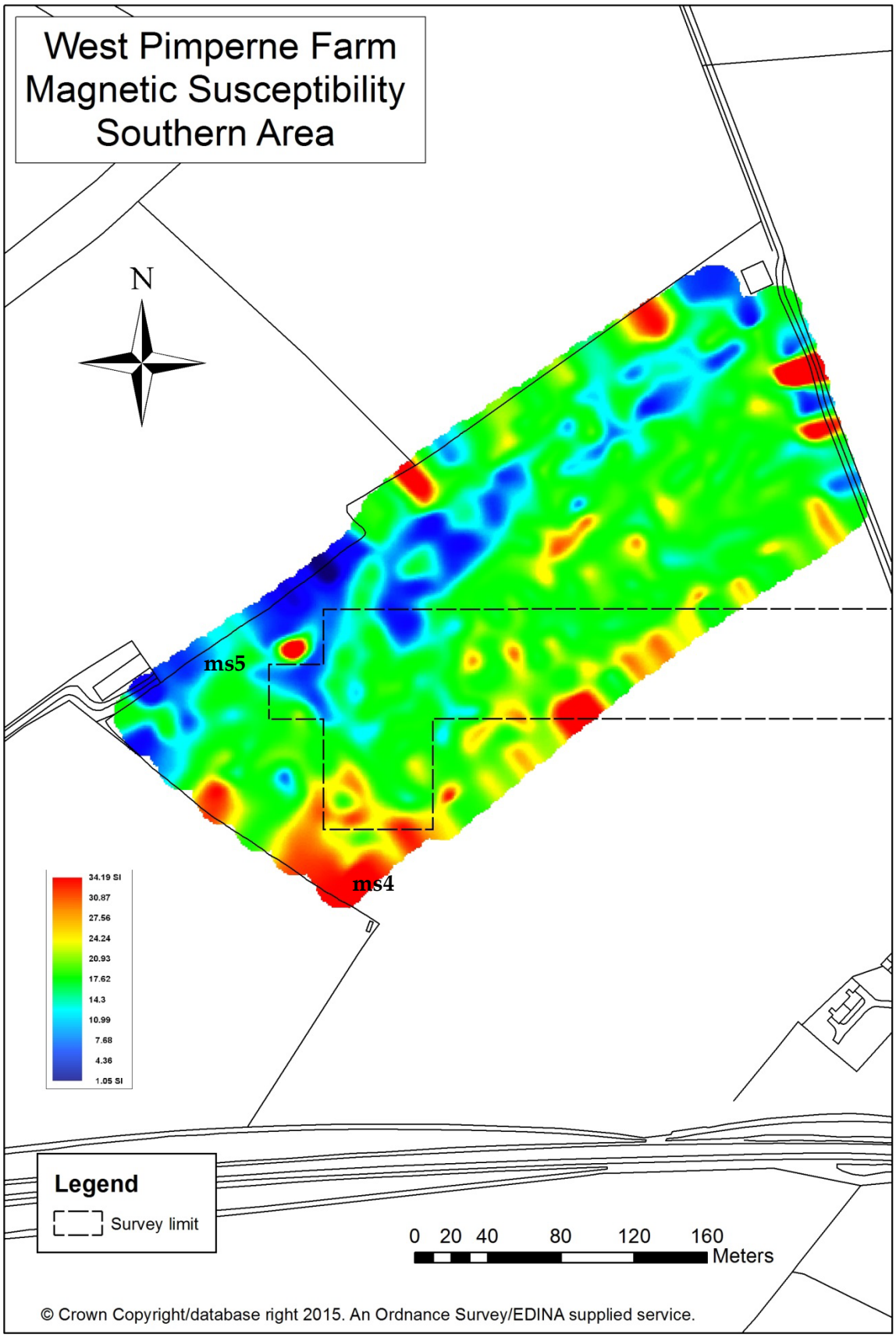

Figure 12 Magnetic susceptibility Survey, south area

3 Discussion

3.1 Magnetometer survey methodology

3.1.1 North and central areas

The strategy of using extensive magnetometer transects was broadly successful. Clearly more work needs to be done in the central and northern areas in order to ascertain why field kitchen features were not found in these areas. The major problem here might be the change in alignment and camp lay-out associated with the differences in size and structure of infantry and cavalry areas. It is possible that the cavalry kitchen areas may lie under the hedge line at the north end of the site or that the kitchens simply do not survive in this area. Another possibility is that there was an irregular arrangement at the north end in order to accommodate the constricted area produced as a result of the Higher Shaftesbury Road to the east and the deep, dry valley to the west. However recent (2014) excavation and survey at the site of the 1757 cavalry camp at Camp Hill near Salisbury, Wiltshire shows that camp planners were not averse to laying out camps across public roads (author's site visit courtesy of AC Archaeology September 2014). Here the camp straddled the Salisbury to Devizes road and is shown doing so on a plan of the camp (Add MS 15532 f12r), a similar situation to that at Blandford where the camp is shown crossing the Shaftesbury road. The presence of the road on the east side may not, therefore, have presented any obstacle to the laying out of the camp.

The magnetometer was less successful at locating pit and latrine features, but this may be due to a lack of magnetically enhanced material going into the backfill and the short period of use and rapidity of backfilling. This was also seen at Barton farm near Winchester where latrines, pits and subterranean tent cellars where located in the excavation of the site but appear not to have manifested themselves in the magnetometer survey (Foundations Archaeology, 2003) (author's site visit courtesy of Pre-Construct Archaeology April 2015).

3.1.2 Southern area

The magnetometer strategy in the southern area proved entirely satisfactory in terms of locating features associated with the camp and earlier, prehistoric features. It is possible that the other features located near the kitchens may represent the ditched enclosures dug around the sutler's tents mentioned in military manuals. It is clear that expansion of the survey along the line of these features north and south may locate more such structures and help clarify the extent and limits of the camp at this south end.

3.2 Magnetic susceptibility survey methodology

Technically the magnetic susceptibility worked well, the survey strategy and methodology proved that a large area could be covered relatively quickly and results could be generated relatively easily. The results themselves are more difficult to interpret in terms of zoning of activities and possible causes and effects. Clearly there are some underlying effects produced as a result of now non-existent field boundaries in the central area. The concentration of high susceptibility material in the dry valley area to the west of the central area may reflect some latrine/rubbish activity associated with the camp or may reflect the concentration of material moving downslope. There was no evidence of the hoped for zone of phosphate enhancement associated with a broad area of latrine activity. A broad scale application of geochemical analysis may help to identify such areas and amplify these trends and aid a more considered interpretation of these areas.

The concentration of high susceptibility in the southern area probably reflects a combination of the camp activities in this area and the presence of the newly located prehistoric enclosure and the bronze-age settlement to the south that was located during the construction of the by-pass.

These results would also benefit from the application of this methodology to a site of similar date and underlying geology in order to compare and contrast results. It may prove possible to recognise broad similarities in the results across a number of such sites. However recent opinion seems to emphasize the variable, sometimes inconclusive nature of large scale magnetic susceptibility surveys (Armstrong, van Leusen, & de Neef, 2015).

3.3 Camp layout and regimental deployments

The presence of field kitchens in the correct general area and orientation suggested by the documentary sources leads to the inevitable question of whether it is possible to demonstrate which regiment's kitchens might be represented in the magnetometer results?

A further documentary source in the form of a letter sent by Colonel Jeffrey Amherst to his wife may shed light on this problem. Amherst was Colonel of the 15th Regiment of foot and spent the whole period of July to October 1756 camped at Blandford (Lowe, 2010). He wrote a number of letters to his wife that provide fascinating insights into camp life and personalities. On one occasion he wrote to his wife as follows;

'*Camp near Blandford August 14th 1756….I don't think I have told you the Regts that are here & how encamped. Howard's Regt that is on the right looks down to the river & to Mr Portman's house & the town of Blandford which is about a mile in the front of the right and Mr Portman's gardens are very pretty….' (*U1350/C75)

Amherst included a very simple ink sketch plan of the camp in this letter which matches the regimental deployments shown in Figure 1.

Amherst's description confirms the location of the camp was Pimperne Down and not at Iwerne Courtney (Shroton). He describes how the camp was only a mile outside Blandford and that Howard's regiment overlooked the River Stour and Henry Portman's gardens at Bryanston, on the south bank of the river (Matthews, 2015). It is most likely that the field kitchens found in the survey were constructed in the regimental area of the 3rd foot (Howard's regiment; see Figure 1).

4 Conclusions

The geophysical survey at West Pimperne Farm confirmed that significant prehistoric archaeology and archaeology associated with Shroton Camp survive in areas of the site. More work needs to be done in order to ascertain if the current pattern of survival of features, with more archaeology of both types occurring in the southern area, is the result of differential attrition by agricultural activity or reflects some other process.

The prehistoric enclosure is a major addition to a complex of such monuments grouped in close proximity to the west and north-east. It is likely to be a settlement enclosure associated with the extensive field systems to the north and west, possibly containing a round house or other settlement archaeology (Harding, Blake, & Reynolds, 1993).

The results confirm the documentary research done in terms of the location of Shroton Camp and the accuracy of the cartographic sources at the British Library. The question has to be asked, why was this camp known as Shroton Camp when the camp lay 5 kilometres south-east of Shroton village? The most likely explanation is that the camp commander, Sir John Mordaunt, took lodgings at Shroton and that this became the source of the camp's name, since most official correspondence would be addressed there. A similar circumstance took place a year later when Mordaunt commanded the camp 3 kilometres west of Dorchester at Bradford Down. In some records this is described as Wolveton camp, despite the fact that the camp was nearly 3 kilometres from Wolveton/Wolfeton House, where Mordaunt was presumably billeted.

This locational error appears to have occurred in the early 20th century when James Wolfe's letters were published (Willson, 1909). People saw the name 'Shroton Camp', ignored or were unaware of all the cartographic and documentary evidence discussed above and assumed it was at Shroton. This basic mistake has spawned a whole series of myths and errors including James Wolfe being the camp commander and training men for the storming of Quebec on Hambledon Hill.

There is currently no surviving documentary evidence to confirm the theory that Mordaunt's address provided the name for the camp, nor identify exactly where Mordaunt was billeted. There are some clues, for example Jeffrey Amherst stated in a letter to his wife as follows *'July 28th Camp of Shroton near Blandford Dorsetshire …after I had encamped my people I left John & co. to do the best they could with my tent & I went three miles to make my report to my*

General where I got some tea' (U1350) indicating that Mordaunt (the General) was staying away from the camp. This is confirmed and amplified by James Wolfe in a letter written to his father, on 4th August 1756 from 'Blandford Camp' '*The Lt.-General lives about 3 miles off, and the Major-General about 5; but the Duke of Bedford has got a house at Blandford, which brings him within a mile and a half of the army*' (Willson, 1909, p. 301) Here again Wolfe is another who confirms the camp was only 1 ½ miles from Blandford. He also says Mordaunt (the Lt.-General) lived 3 miles from the camp, the same distance Amherst mentions.

5 Recommendations

It is clear that more magnetometer survey needs to be done in order to follow the alignment of kitchens discovered at the south end of the site, to see if more exist to the north. This will help clarify the physical limits of the site and highlight any areas of destruction.

A gridded metal detector survey of different areas would also produce useful assemblages of artefacts and help delineate other activity areas such as firing ranges or butts for both flintlock weapons side arms (muskets and pistols) and artillery weapons (battalion guns), both of which are known to have been exercised during the period of the camp.

A broad scale, geochemical survey of the site may help to clarify the patterning shown in the magnetic susceptibility survey and act a test situation for sites of this type.

More documentary research is needed to try and identify where the camp commander, Sir John Mordaunt, lived and to clarify the name 'Shroton Camp'.

6 Statement of Indemnity

Whilst every effort has been made to ensure that interpretation of the survey presents an accurate indication of the nature of sub-surface remains, any conclusions derived from the results form an entirely subjective assessment of the data. Geophysical survey facilitates the collection of data relating to variations in the form and nature of the soil. This may only reveal certain archaeological features, and may not record all the material present. Similarly any interpretation is only ever provisional and never definitive.

7 Works Cited

7.1 Primary Sources

Manuscripts

British Library, London.

Add MS 15532 *'Plan of the Encampment near Blandford call'd Shroton Camp. 1756'.* Colored Plans of Encampments for the Army in Great Britain, from the year 1756 to 1771.

Add MS 15532 f12r *'Plan of the Encampment near Salisbury 1757'*. Colored Plans of Encampments for the Army in Great Britain, from the year 1756 to 1771.

Add MS 57636 f.5 *'Sketch of the Incampment on Pemphorn Down near Blandford Sept. 5th 1756'* Royal United Services Institute Maps (1672-1919).

Maps K.Top.6.110 *'A sketch of the country from Dorchester to Salisbury, as reconnoitred by Col. David Watson, Quarter-master General of his Majesty's forces; drawn by Lieut. Wm. Roy [afterwards Major-General], June 10th, 1756, on a scale of one inch to a mile.'*

Seymour Adelman Letters and Documents Collection, Bryn Mawr College Library, USA.

Box 16, La Faussille, Jonathan, Col. Letters: Maidstone, Canterbury, Dover, Basingstoke, Marlborough, Blandford, to Hestor Baron, Wells, Somersetshire

Kent History and Library Centre, Maidstone.

U1350 - Amherst Manuscripts

National Archives, London.

MPEE 1: Maps and plans extracted to extra-large flat storage from various series of records of the Office of Land Revenue Records and Enrolments

WO 4: Out-letters, Secretary at War.

WO 30: Defence Papers.

7.2 Secondary Sources

Armstrong, K., van Leusen, M., & de Neef, W. (2015). Going over old ground: what can landscape-scale magnetic susceptibility data do for me? *Archaeologia Polona, 53*, 417-421.

Beaton, D. (2001). *Dorset Maps.* Dovecote Press.

Bland, H. (1743). *A System of Military Discipline.* Dublin: P.Crampton.

British Geological Survey. (2015). *Geology of Britian Viewer*. Retrieved October 27, 2015, from http://mapapps.bgs.ac.uk/geologyofbritain/home.html

Chadwick , P., & Dicks, S. (1998). *Archaeological desk based assessment: Barton Farm Winchester Hampshire.* CgMs Consulting. Unpublished client report. .

Clarke, A. (1996). *Seeing Beneath the Soil, Prospecting Methods in Archaeology.* London: B.T. Batsford.

Everall, H. (1983). Rescue Excavation Blandford By-Pass 1983. *Proceedings of the Dorset Natural History & Archaeological Society, 105*, 143.

Foundations Archaeology. (2003). *Land at Barton Farm, Winchester. Archaeological Evaluation.* Unpublished client report No.283.

Gaffney, C. G. (1991). *The Use of Geophysical Survey Techniques in Archaeological Evaluations.* Institute of Field Archaeologists Technical Paper No.9.

Harding, D., Blake, I., & Reynolds, P. (1993). *An Iron Age settlement in Dorset : excavation and reconstruction.* Edinburgh: University of Edinburgh.

Harfield, A. (2004). General James Wolfe—of Shroton! *Journal of the Society for Army Historical Research, 82*, 7-20.

Hoffmann, V., Knab, M., & Appel, E. (1999). Magnetic susceptibility mapping of roadside pollution. *Journal of Geochemical Exploration, 66*, 313-326.

Houlding, J. (1981). *Fit For Service. The training of the British Army 1715-1795.* Oxford: Clarendon Press.

Hutchins, J. (1774). *The History and Antiquities of the County of Dorset. Volume 1.* London: W. Bowyer and J. Nichols.

Lowe, W. C. (2010). *Amherst, Jeffrey, first Baron Amherst (1717–1797)*. Retrieved October 16, 2015, from Oxford Dictionary of National Biography, Oxford University Press, 2004; online edn: http://www.oxforddnb.com/view/article/443?docPos=3

Margary, I. D. (1965). Military Field Kitchens of the Eighteenth Century. *Sussex Archaeological Collections Relating to the History and Antiquities of the County, 103*, 60-66.

Matthews, S. (2015). *PORTMAN, Henry William (c.1709-61), of Bryanston, Dorset and Orchard Portman, Som.Published in The History of Parliament: the House of Commons 1715-1754, ed. R. Sedgwick,*. Retrieved October 16, 2015, from The History of Parliament online:

http://www.historyofparliamentonline.org/volume/1715-1754/member/portman-henry-william-1709-61

Rees, J. U. (1998). *"As many fireplaces as you have tents..." Earthen Camp Kitchens.* Retrieved November 30, 2015, from http://revwar75.com/library/rees/kitchen.htm

Royal Commission on Historic Monuments. (1972). *An Inventory of the Historical Monuments in the County of Dorset. Volume IV. North Dorset.* London.

Wessex Archaeology. (2007). *Portland Gas Pipeline, Dorset. Archaeological Evaluation.* Unpublished client report reference: 60715.03.

Willson, B. (1909). *The Life and Letters of James Wolfe.* William Heinemann.

8 Appendix-- Details of Survey Strategy

Dates of Survey: 2007-2013

Site: West Pimperne Farm

District Parish: Pimperne

County: Dorset

Grid Reference: ST88792 08977

Surveyor: University of Southampton

Personnel: Dominic Barker, Tim Sly, Kristian Strutt, students of the University

Geology: Chalk, clay and flint.

Survey Type 1: Magnetic susceptibility

Approximate area: 37 hectares

Sample interval: 10m

Instrument: Bartington MS2 fitted with MS2D field coil.

Survey Type 2: Magnetometer

Approximate area: 9 hectares

Grid size: 30m

Traverse Interval: 0.5m

Reading Interval: 0.25m

Threshold: 100nT

Instrument: Bartington Grad 601 Single Axis Magnetic Gradiometer.