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Test Pitting and Geophysical Survey in Fields 1-4, Verulamium, St Albans, Hertfordshire January 2000

OXFORD ARCHAEOLOGICAL UNIT

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Summary

The Oxford Archaeological Unit carried out a programme of test pitting in the north-western half of the Scheduled Ancient Monument of Verulamium Roman Town which is situated to the south-west of St Albans. The programme, carried out on behalf of English Heritage, was intended to provide data on topsoil depths across the site in order to assess the affects of ongoing ploughing. A complementary programme of sample geophysical survey, by the Ancient Monuments Laboratory, was conducted to test the response of the site to geophysical techniques in the light of ongoing plough damage and reported seeding of the site with ferrous material to deter rogue metal detectors. The combined techniques were intended to inform future management strategies for the site. Four fields were examined. Variations in ploughsoil depth were plotted, characterisation of deposits underlying the ploughsoil was attempted and artefact data were also used to define the nature of deposits and the processes affecting them. In all four fields there was some evidence that modern ploughsoil directly overlay in situ archaeological deposits. Neither the nature of below-ploughsoil deposits nor the physical condition of artefactual material suggested that the present ploughing regime has achieved stability. Deposits below the ploughsoil, whether archaeological or representing earlier ploughsoils, are being actively damaged as a result. Evidence for previously unknown Roman structures was revealed in several locations and also occurred in the geophysical survey sample. Archaeological features were most obviously concentrated in Fields 1, 3 and 4, while the north-western field (Field 2) produced less evidence of intensive activity of Roman date. The main geophysical (fluxgate gradiometer) survey proved highly successful and revealed a wealth of significant archaeological anomalies to enhance the aerial photographic record of the site. More limited earth resistance survey was conducted over the location of suspected building remains revealed by either the magnetic or aerial photographic surveys.

The results of this work are correlated with those of previous fieldwalking and trial excavation in the area.

1 INTRODUCTION

1.1 In January 2000 the Oxford Archaeological Unit (OAU) undertook a test-pitting survey in the north-western half of the Scheduled Ancient Monument of Verulamium Roman Town which is situated to the south-west of St Albans. The programme, carried out on behalf of English Heritage, was instigated by the District Archaeologist of St Albans District Council and was intended to provide data on topsoil depths across the site in order to assess the affects of ongoing ploughing. A complementary programme of sample geophysical survey, by the Ancient Monuments Laboratory (AML), was carried out to establish the potential of various geophysical survey techniques to provide further information on the nature and density of archaeological features and relate this to the overall question of plough damage, the whole being intended to inform future management strategies for the site.

1.2 The site (Fig 1, centred approximately at NGR TL 132074) consisted of four arable fields (Fields 1-4) which together cover c 34 hectares, comprising most of the north-western half of the walled area of Verulamium, lying north-west of the Hemel Hempstead Road/Bluehouse Hill (A4147). The fields form part of the Scheduled Ancient Monument of Verulamium Roman Town (SAM Hertfordshire 1) and fall within the Gorhambury estate. The site lies on a north-east facing slope which runs down to the River Ver from a high point of c 116 m OD at the southern extremity of the site to c 82 m OD at its north-eastern margin closest to the river (Fig 2). The lower-lying part (Field 1), north-east of Gorhambury Drive slopes less steeply than Fields 1-3. The geology of the site consists of Upper Chalk with deposits of Valley Gravel following the course of the river (British Geological Survey 1968). The lower-lying ground has well-drained flinty fine silty soils of the Charity 2 Association, while soils of the Carstens Association occurr on the higher ground west of the Gorhambury Drive (Soil Survey of England and Wales 1983). These overlie red clays with variable amounts of gravel above the Upper Chalk.

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 The general archaeological background for Verulamium is well documented and since the Wheelers' seminal publication (Wheeler and Wheeler 1936) and the major work of Frere (1972; 1983; 1984), has been synthesised on several occasions. Recent summaries include Bryant and Niblett 1997; Haselgrove and Millett 1997; Niblett 1987, 1993 and Wacher 1995, 214-241. The north-western part of the town is bisected by Watling Street, which runs through Field 1. A number of major and lesser structures are known from excavation and aerial photographs and are also indicated by fieldwalking evidence. The known major structures are concentrated in the eastern part of the present area of interest, broadly in the vicinity of the theatre, which fronts the south-west side of Watling Street and is currently accessible to the public. The theatre, a related temple complex to the south-west and a probable *macellum* or market hall immediately north-east of the theatre on the other side of Watling Street, were all examined by excavation in the 1930s. Domestic and workshop

buildings in Insulae XIV, XXVIII and XXVII were examined in 1955-61 by S S Frere. These lie south-east and south of the theatre building and fall just outside the area examined in the present project. Smaller-scale work was also carried out across the wider area as part of Frere's programme; features examined included an important early boundary (the 1955 ditch) and a monumental arch astride Watling Street.

2.2 Subsequent work in the area includes a survey and fieldwalking programme carried out in 1973 (Saunders 1973), a limited programme of trial excavation in Fields 1 and 2 in 1978 (Hinchliffe 1979) and further fieldwalking carried out in 1987. This was supplemented by a re-examination of all the aerial photographic evidence for Verulamium which contributed to the production of a new plan of the town (Niblett 1987).

2.3 Overall this work has suggested that there was a reasonable density of Roman buildings in the eastern corner of the area, that is to say adjacent to and east of theatre, being the part of the site which lies closest to the focus of the town. Roman features also concentrate along the line of Watling Street running up to the Chester Gate. Indications of occupation outside the line of the 1955 ditch are generally sparse except in the vicinity of Watling Street and, to a lesser extent, at the southern corner of the present site. Within the 1955 ditch, which may date to the Flavian period (Niblett 1993, 86), activity spans the whole of the Roman period, ranging from the well-known pre-Boudiccan buildings of Insula XIV to the equally well known late- to sub-Roman building sequence in Insula XXVII. Late Roman material comes from both the theatre and the adjacent temple, but the exact status of this complex in the later 4th century remains unclear. There is no clear evidence for the use of the area beyond a point sometime in the 5th century AD. The lower-lying part of the site (Field 4) appears to have been in arable cultivation in the medieval period (Hinchliffe 1979, 10) while the remainder of the area was probably not ploughed at that time. The whole of the site has been ploughed regularly in recent times.

3 AIMS AND OBJECTIVES

3.1 Aims

3.1.1 Fieldwork from the 1970s onwards was very much intended to improve understanding of the extent of damage to the archaeological resource caused by ongoing agricultural activity as well as providing new information on aspects of the Roman city. The present project was prompted by renewed concern that damage was continuing to be caused by regular ploughing. The aim of the surveys proposed in the project design was therefore to establish the effect of continuing ploughing on the existing remains of Verulamium, both on masonry and non-masonry structures and other features and deposits, thus providing information which would inform decisions on the management of the site.

3.2 Objectives

Within this broad aim a number of specific objectives were identified:

3.2.1 To establish the depth of topsoil cover above extant archaeological deposits.

3.2.2 To assess the extent of plough damage and map differential disturbance across the surveyed fields.

3.2.3 To create a topographical model of the surface of undisturbed remains.

3.2.4 To compare the results with those of earlier fieldwalking surveys conducted in 1973 and 1987, and the results of sample excavation carried out in 1978 in order to assess the rate of damage, if any.

3.2.5 To undertake a pilot study of geophysical survey methods in order to evaluate their potential for monitoring the condition of the archaeological resource.

3.2.6 To define areas where further evaluation using other methods is required.

3.2.7 To make available the results of the investigation.

4 METHODOLOGY

4.1 Test-pitting survey

4.1.1 The test pitting programme involved the excavation of three hundred and seventy-nine test pits within the four component fields of the north-western half of Verulamium (Fig. 1). The test pits were laid out on a grid at 30 m centres, the grid being established and linked to known fixed points using a Total Station instrument. The grid and test pit locations are also identified by National Grid coordinates. The pits typically measured c 1.6 m x 1 m and generally ranged in depth between 0.25 m to 0.45 m. They were excavated to the level of the top of the deposit underlying the modern topsoil/ploughsoil (as nearly as could be judged) using a seven ton 360° excavator equipped with a toothless ditching bucket working under constant archaeological supervision.

4.1.2 Machine-excavated spoil was closely monitored for archaeological artefacts. After excavation the test pits were hand cleaned. A sample section was drawn in each case and where defined archaeological features or distinct disturbances were identified a plan was also drawn. Plans were not normally drawn where a single uniform deposit lay across the entire test pit. A colour and black and white photographic record was made and recording procedures followed those laid down in the *OAU Fieldwork Manual* (ed D Wilkinson, 1992).

4.1.3 The disposition of the test pits by field was as follows:

Field 1 (8.2 hectares) Test pits 1-80 and 101-105.

Field 2 (12.1 hectares)	Test pits 81-100, 106-224 and 226-230.
Field 3 (8.9 hectares)	Test pits 231-322.
Field 4 (5.2 hectares)	Test pits 225 and 323-379.

The combined area of the 379 test pits amounts to a sample of c 0.2% of the total site area.

4.1.4 Finds, where present, were collected from all deposits by hand. Deposits were not sieved, however, so recovery of small fragments of ceramic building material, in particular, from the topsoil was not comprehensive, though these deposits were quite carefully scanned.

4.1.5 Finds of different materials were quantified by context. Most finds categories have not been recorded in detail and are not considered at length in this report, since the emphasis of the project is on issues of quantity and condition rather than detailed characterisation. The occurrence of material types which are relevant to understanding the issues of plough damage is discussed below. All artefact and other object categories have been quantified by fragment count, except for pottery and tile, which was also recorded by weight.

4.1.6 All the pottery was scanned and assigned to major periods. For the Roman pottery, which constituted the vast majority of the material, amphora sherds were recorded separately, in line with the practice on previous fieldwalking work at the site, and notes were also made of the presence of significant fabrics and forms. In a few cases, discrete groups of pottery could be assigned an approximate date range.

4.1.7 The quantity of ceramic building material (CBM) recovered precluded its examination in detail. As with the pottery, the vast majority of the material was of Roman date, with a full range of brick and tile types present. Fragments of post-medieval and (possibly) medieval date were noted. These were not quantified systematically, but it is thought most unlikely that their presence will have affected in any meaningful way the general conclusions drawn from CBM distributions.

4.2 **Geophysical survey** by Neil Linford, Ancient Monuments Laboratory

In light of previous work at the site (eg Clark 1990, 62-3; Cole 1994) magnetic and earth resistance survey were considered to be the most suitable techniques to apply.

4.2.1 ***Magnetometer survey***

Following a site meeting held at the beginning of the survey four areas of the site were identified for geophysical trial (Fig. 21). Due to the large areas to be covered and the success of the technique noted above magnetic survey was conducted over all the numbered squares in Fig. 21 using the standard method outlined in Appendix 6 section 2.

4.2.2 *Topsoil magnetic susceptibility survey*

Topsoil susceptibility measurements were made *in situ* with a Bartington MS2 meter and field coil at 30 m intervals over the area covered by the fluxgate gradiometer data to assess the possible variation in magnetic response over the differing soils found at the site.

4.2.3 *Earth resistance survey*

A more limited earth resistance survey was conducted over areas of suspected building remains indicated by either the magnetic results or the presence of an anomaly in the AP record. Measurements were collected with a Geoscan RM15 resistance meter and PA5 mobile probe array in the twin-electrode configuration with a 0.5 m mobile probe spacing at a sample interval of 1.0 m x 1.0 m. Due to the quantity of Roman building material and natural gravel ploughed into the topsoil the acquisition of earth resistance data over certain areas proved extremely time consuming.

5 RESULTS: GENERAL

5.1 Presentation of results

5.1.1 The deposits in each test pit are tabulated in numerical order for each of the four fields examined (Appendices 1-4). The tabulated descriptions are interpretative and are given with a summary of the finds from each context (the presence of post-Roman material is indicated by an asterisk against the appropriate artefact type in the **Finds** column). Full context descriptions were made in the original records which are in the project archive and a quantified summary (by period) of the pottery and ceramic building material (CBM) in each context is given in Appendix 5. Selected test pit plans and sections are illustrated where they provide significant information additional to that contained in Appendices 1-4.

5.1.2 The locational data for each test pit have been used to generate contour plans of the present day ground surface (Fig. 2) and of variations in the depth of topsoil/ploughsoil in relation to these modern surface contours (Fig. 3).

5.1.3 An attempt has been to categorise systematically the general nature of the deposit sequence in each test pit. This is presented as a simple series of letter codes in the **Status** column of Appendices 1-4. The codes define as far as possible the nature of deposits underlying the modern topsoil/ploughsoil, but since most of these deposits were only seen in plan confident interpretation is often not possible. For this reason a large number of deposit sequences fall into an uncertain category. The categories used are:

A Modern ploughsoil/topsoil overlies natural subsoil directly. Archaeological deposits, if ever present, have been completely removed (though features cut into the natural may survive in part).

B Modern ploughsoil/topsoil overlies *in situ* archaeological deposits directly. These deposits are either being actively eroded or are at immediate risk of such erosion.

C Modern ploughsoil/topsoil overlies a deposit or deposits thought likely to lie close to natural subsoil. Such deposits usually contain a significant admixture of redeposited natural subsoil. They may possibly mask underlying archaeological features, particularly where these are cut into the natural subsoil, but it is likely that general deposits, if ever present, would have lain higher up the stratigraphic sequence and have been largely or completely removed.

D Modern ploughsoil/topsoil overlies probable earlier ploughsoil. Such deposits, of uncertain date, may shield underlying archaeological deposits and features, though the earlier ploughing may also have caused damage to them, as is indicated by the presence of fragments of artefactual and other material in such deposits.

U Modern ploughsoil/topsoil overlies deposits of uncertain character. The uncertainty derives largely from the observation of these deposits in plan only. They could be of any of the above types (A-D), though in practice they are most likely to be either B or D.

5.1.4 The figures for deposit depth given in Appendices 1 to 4 are maxima and may vary slightly. Where there is significant variation in depth this is shown.

5.2 Geophysical Survey

5.2.1 The results of the magnetometer survey are presented as a greytone image of the data superimposed over the Ordnance Survey map of the site at a scale of 1:3000 (Fig. 22). The detailed results from each field are shown separately at 1:1250 as both a greytone image of the data and an XY traceplot of the raw data (Plans A-D after Fig. 24). The only correction to the measured values displayed in the XY traceplot was to zero-mean each instrument traverse to remove heading errors. In addition, the greytone image of the data has been further enhanced to reduce the detrimental effects produced by surface iron objects through the application of a 2 m by 2 m thresholding median filter (Scollar *et al* 1990).

5.2.2 Magnetic susceptibility data is represented graphically in Fig. 23, where it is superimposed over the OS map of the site.

5.2.3 The data from the earth resistance survey is presented as insets in Plans A-D as both an XY traceplot of the raw data and a greytone image following processing with a contrast enhancing Wallis filter (radius = 15 m) to better define linear anomalies.

5.2.4 Figure 24 provides a graphical summary of significant anomalies identified in both the magnetic and earth resistance data discussed in section 7 below.

6 RESULTS: TEST-PITTING

6.1 Soil and excavation conditions

6.1.1 The natural subsoil, where exposed, was usually clay with flint gravel, but the proportion of gravel varied considerably. Patches of chalky clay were also encountered occasionally. The main ploughsoil type varied slightly across the site but was usually a dark brown to mid-brown silty loam. Excavation conditions were generally good despite periodically poor weather. The interpretative categorisation of deposits revealed beneath the ploughsoil has been described above. In descriptive terms the deposits assigned to interpretative categories D and U were often very similar to the overlying ploughsoil, though they were generally characterised by being very slightly lighter in colour and by containing small flecks of tile, mortar and (less commonly) chalk. The distinction between these deposits and the ploughsoil, while relatively slight, was thus usually recognisable. Nevertheless, although the aim in excavating the test pits was to remove topsoil only, it was inevitable with machine excavation that in some cases the pits actually cut slightly into the underlying deposit(s), where these consisted of layers which were not readily distinguished from the overlying topsoil/ploughsoil.

6.1.2 A small number of deposits were interpreted in the field as being colluvial in nature, earlier than the modern ploughsoil. It is difficult to categorise deposits revealed only in plan in this way, and in all cases deposits interpreted as colluvium have been classified as category U. It was notable that where such deposits might most reasonably have been expected, in the steep north-east facing hollows in Field 2, they were not encountered, though a greater than average depth of ploughsoil was noted here. A similar lack of evidence for down-slope soil movement was also noted by Hinchliffe (1979, 26).

6.2 Distribution of features and deposit types (Fig. 4)

6.2.1 Archaeological features, deposits and artefacts were located and retrieved in all four fields. The occurrence by field of deposit types, as defined in section 5 above, is summarised in tabular form below.

Table 1: Occurrence of below-ploughsoil deposit type by field

	Numbers of Test Pits				
Deposit Type	Field 1	Field 2	Field 3	Field 4	TOTAL
Category A	-	48	3	1	52
Category B	15	10	23	18	66
Category C	1	24	3	-	28
Category D	3	1	2	3	9
Category U	66	61	61	36	224
Total	85	144	92	58	379

6.2.2 In Field 1 a particularly high proportion of the test pits revealed category U deposits beneath the ploughsoil. Distinct archaeological deposits (category B) concentrated at the south-east end of the field and in a band which followed

the line of Watling Street. Concentrations of flint gravel and cobbles, presumably derived from the surfaces of Watling Street, were evident along its line on the surface of the field, particularly in the central area. A marked concentration of building material, including much tile, was apparent on the field surface at the south-east end, particularly in the vicinity of the *macellum* opposite the theatre. Finds from the test pits were also concentrated at the south-eastern end of the field. Structural remains (walls) were encountered in Test Pits 37 and 45 (in the latter case sealed beneath a thin probable earlier ploughsoil), and a possible robber trench occurred in Test Pit 18. Probable or possible surfaces were noted in Test Pits 1, 15, 18, 38, 43, 44, 54, 57, 62, 75, 78 and 101. In the last five cases it is likely that these were related to Watling Street itself. The Test Pit 18 features presumably related to the *macellum* building. At no point was natural subsoil revealed in this field.

6.2.3 Field 2, occupying the western part of the site, produced the lowest density of finds and archaeological features. In a large proportion of test pits the ploughsoil overlay either natural gravel (category A) or a gravelly clay (category C) deposit considered to be a subsoil very close to the natural. A high concentration of redeposited natural flint gravel was seen on the surface of the field towards its northern corner. Structural features (walls) were encountered in Test Pits 161 and 213 and possible surfaces in Test Pits 122 and 182. The majority of archaeological features revealed were linear cut features.

6.2.4 A number of test pits in Field 3, at the south end of the site, also revealed natural subsoil directly beneath the ploughsoil. A higher proportion of pits contained category B archaeological features or deposits beneath the ploughsoil, however, and a few pits produced significant quantities of artefacts. Structural remains (walls or foundations) occurred in Test Pits 265, 268, 301 and linear deposits which might have been fills of robber trenches rather than features of other types were noted in Test Pits 258 and 272. Possible surfaces were seen in Test Pits 245, 258, 268, 269, 271, 272. 273, 289, 291, 292, 301, 302, 311. In Test Pits 268, 269, 271, 272 and 273 these surfaces may have related to the north-west - south-east aligned road between Insulae XXVI and XXV.

6.2.5 Field 4, lying immediately south and west of the theatre, contained the highest proportion of category B deposits encountered across the site, these being confidently identified in 18 (31%) of the 58 test pits. In addition, the status of a clay deposit in Test Pit 378, interpreted as natural, is uncertain and it is possible that this was an archaeological layer. Walls or wall foundations were encountered in Test Pits 323, 329, 356, 358, 371 and possibly 376, while floor or surface layers were noted in Test Pits 323, 330, 334, 341, 352, 361, 362, 371 and 374. That in Test Pit 330 was a fragment of a tessellated floor, only partly protected by a thin layer of demolition debris up to 0.08 m thick. Part of the floor and its mortar bedding were exposed at the base of the ploughsoil. Significant concentrations of ceramic building material and other finds were recovered from this field.

6.3 Finds (General)

6.3.1 The categories of finds present in each individual context are noted in the field by field context inventories tabulated as Appendices 1-4 on a presence/absence basis. As indicated above, most finds categories were not examined in any detail, but their overall quantities by field are given in the table below.

Table 2: Summary of finds categories by field

	Fragment numbers				
Finds type	Field 1	Field 2	Field 3	Field 4	TOTAL
Cu alloy coin	1				1
Fe object/nails	7	2	5	16	30
Slag			1	4	5
Glass	1		2	4	7
Struck flint	1	4	5	4	14
Stone 'slates'			8	10	18
Lava quern	2				2
Clay pipe	1		1		2
Pottery uncertain	1	2	2	2	7
Pottery Roman (amphora)		1	13	55	69
Pottery Roman (other)	48	26	273	629	976
Pottery medieval	8			3	11
Pottery post-medieval	4		2	5	11
Ceramic building material (CBM)	190	54	867	1446	2557
Fired clay			51		51
Bone	44	45	74	285	448
Oyster shell	12	6	40	204	262

6.3.2 The finds distributions by field demonstrate a generally low level of material in Field 2 and high concentrations of most material types in Field 4. There were very few significant individual finds. For example only a single copper alloy object was recovered, this being a late 3rd century radiate coin from Test Pit 28. Two fragments of lava, probably from a quern stone, came from Test Pit 30. Certain types of finds, such as iron nails and slag, fired clay, stone roofing material, animal bone and oyster shell, are not intrinsically datable. The generally low levels of demonstrably post-Roman material (pottery, tile, glass and clay pipe) strongly suggest, however, that the great majority of undated finds can be assigned to the Roman period.

6.3.3 Such material was often quite widely distributed, with the exception of fired clay, which was recovered from only two contexts, in Test Pits 276 and 318 in Field 3. Concentrations (more than 10 fragments) of animal bone and shell were recovered in Test Pits 222, 231, 330, 348, 355, 358, 365, 370 and 375 (bone) and 245, 251, 348, 365, 366, 370 and 375 (shell). Stone 'slate' fragments came from Test Pits 231, 245, 248, 330, 340 and 348, a relatively localised area covering the northern corner of Field 3 and the western side of Field 4. Most of these test pits produced definite or probable structural features, and there is no doubt that the stone roofing material was associated with these features and was of Roman date.

6.4 Ceramics

6.4.1 Pottery and tile were treated more extensively than other finds categories because of the importance of these materials for the assessment of deposit character (see sections 4.3.3 and 4.3.4 above). Quantities of these materials by context are listed in Appendix 5 and their quantities, with average fragment weight, are tabulated here grouped by the type of deposit from which they derive.

Table 3: Average sherd weights of Roman pottery and tile by generalised context type

	Amphora			Other Roman pottery			Ceramic Building Material		
Context Type	No. sh	Weight	Ave. wt	No. sh.	Weight	Ave. wt	No. sh	Weight	Ave. wt
Ploughsoil	32	2240	70.0	531	6791	12.8	1874	153481	81.9
Subsoil/uncertain deposits	36	1962	54.5	263	2873	10.9	509	46948	92.2
Archaeological features/deposits	1	15	15	113	1649	14.6	174	24338	139.9
TOTAL	69	4217	61.1	907	11313	12.5	2557	224767	87.9

6.4.2 The interpretation of these figures is slightly uncertain, though it is clear that, as might be expected, the average weight of material from confidently identified archaeological deposits (category B deposits) is greater than that of finds in the ploughsoil. Nevertheless the average weight of the latter is still quite high - certainly for pottery, and it is therefore very unlikely that this includes a high proportion of material that has been subject to continual reworking by the plough over an extended period of time. In support of this the condition of the sherds is also relevant. While time constraints did not permit precise measurements of sherd abrasion to be made, condition was one of the characteristics which were noted when the material was scanned. This showed that the great majority of the pottery (including that from the ploughsoil) was in moderate to good condition in terms of abrasion. This is a subjective assessment (as it was not precisely quantified) but where heavily abraded sherds did occur they were very distinct from the remainder of the pottery. It is estimated that such sherds amounted to barely 1% of the total pottery recovered.

6.4.3 The average weight of pottery from the confidently identified archaeological deposits, almost 15 g, is again a fairly substantial figure and suggests that these deposits do not generally contain large amounts of extensively reworked material. Assessment of the ceramics from the category D and U deposits (essentially from deposits of category U) is more problematic, though the general character of this material, in terms of average weights, is closer to that from the ploughsoil than that from category B deposits. This might suggest that a high proportion of these deposits are in fact ploughsoils rather than *in situ* archaeological deposits of undiagnostic character, but such an interpretation is uncertain.

7 RESULTS: GEOPHYSICAL SURVEY

7.1 Magnetic and earth resistance survey: General response and modern interference

The site has responded extremely well to magnetic techniques with significant anomalies occurring in all four of the test areas. Of particular note are the negative anomalies apparently related to wall footings of buildings and roadside drains which are often only revealed through more time consuming earth resistance measurements. Modern interference is limited to the field boundaries, particularly in squares 23-26 and there is little evidence of the suspected ferrous seeding of the site by the land owner.

7.2 Magnetic and earth resistance survey: Significant anomalies

Field 1: Squares 1-26 (Figs 21, 22, 24 and Plan A)

7.2.1 This area was chosen to investigate the response of the clayey soils adjacent to the River Ver and was set out to encompass the course of Watling Street and various building anomalies identified in previous APs. Three areas of earth resistance survey were conducted to test the magnetic response to apparent building remains, particularly in the vicinity of the suspected Roman temple obscured by ferrous disturbance from the boundary fence in squares 25 and 26.

7.2.2 The most obvious magnetic anomaly in this area is related to the course of Watling Street and consists of two linear negative responses [1] (for these numbers see Fig. 24) running parallel to each other through squares 1, 3, 5, 7 and 9. Earth resistance survey over squares 7 and 9 replicates [1] as linear high resistance anomalies (Plan A3 and A6) suggesting the stone foundation of a drain or kerb either side of an approximately 6 m wide road. The magnetic response of [1] fades to the north of the survey area in squares 1 and 2 which may represent either an increased soil depth or, conversely, an increased vulnerability to plough damage. To the east of Watling Street there would appear to be a second negative magnetic response running parallel to the road side separated by positive ditch-type anomaly.

7.2.3 Evidence for the buildings to the E of Watling Street interpreted from the AP record are found at [2] and [3] which consist of a series of rectilinear negative magnetic anomalies enclosing a number of intense magnetic responses (>50nT). These anomalies are again replicated as high resistance responses in the earth resistance data and it is reasonable to suggest that they represent buildings including a thermoremanent feature (such as a hearth, hypocaust or semi-industrial activity) producing the intense magnetic anomalies noted above. Further occupation activity is represented by a scatter of pit-type responses throughout squares 1-10 although the density of these anomalies decreases to the east of Watling Street.

7.2.4 An additional negative magnetic anomaly [4] runs orthogonal to [1] in square 6 and possibly represents the course of the roadway separating Insula XXII from XXIII with some evidence for another building-type response immediately to the north at [5]. However, interpretation of [5] as a building is tentative as the anomaly is not particularly well defined and lies beyond the area covered by the earth resistance survey. Squares 6, 8 and 10 contain a further negative magnetic anomaly [6] running parallel to Watling Street south from [4] along the edge of the survey area which again is likely to represent the course of a former roadway.

7.2.5 A curious group of magnetic anomalies [7] is found in squares 11 and 13 together with a wider area of amorphous magnetic disturbance. This activity lies to the east of the presumed course of Watling Street and again may well represent forming building remains supported by the location of anomalies within the AP record. Further to the south a series of linear anomalies [8] in both the magnetic and earth resistance data (Plan A4 and A7) are apparently related to the course of the roadway leading from the amphitheatre to the North Gate. It is of interest to note the response of [8] in the earth resistance data which appears as a continuous band of high resistance suggesting the presence of a metalled surface. This is in contrast to the data collected over Watling Street (Plan A3 and A6) which does not, apparently, differ from the low resistance background response. Whilst this may reflect the differing construction of the two road sections it may also indicate a greater degree of plough damage to the north of the survey area.

7.2.6 Further, more speculative evidence for buildings, [9] and [10], is concentrated in squares 17 and 19 close to the junction of the two roadways with partial replication in the corresponding earth resistance data. Whilst the geophysical data is not particularly convincing [9] and [10] would appear to correlate with the location of large formal buildings immediately E of Watling Street identified from the AP evidence.

7.2.7 Ferrous disturbance from the boundary fence obscures the magnetic data in square 25 in the vicinity of two Roman temples identified from the AP record. Earth resistance measurements over squares 25 and 26 {Plan A5 and A8) reveal the presence of at least one rectilinear high resistance anomaly [11] of approximately the same dimensions as the recorded temples (8 m x 8 m) and evidence for some additional activity that is not fully described by the limited survey area.

Field 2: Squares 27-38 (Figs 21, 22, 24 and Plan B)

7.2.8 This area consists of a single strip of 30 m survey squares located to the north of the presumed course of the 1955 ditch in Insula XXXVII. The current AP record provides no evidence for substantial remains in this area and it was presumed that little significant activity had occurred.

7.2.9 In contrast to this initial interpretation the magnetic data (Plan B1 and B2) contains a number of occupation related anomalies including both pit-type and linear ditch-type responses concentrated to the north of the survey area. The most prominent of these are two positive linear magnetic anomalies [13] and [14] in

squares 35-37 and a segment of a further linear response [15] in square 36. Unfortunately due to the limited area of the survey the entire extent of these latter anomalies can not be gauged. However, as their orientation would appear to be at odds with the Roman Street plan it seems reasonable to suggest that they may, perhaps, they reflect an alternative period of activity.

7.2.10 An apparent linear distribution of pit-type anomalies are found at [16] in square 38 and a more intense possibly thermoremanent response [17] in square 36. Again it is difficult to suggest a more precise interpretation but these anomalies may, for example, represent some form of semi-industrial activity conducted beyond the main settlement of the Roman town.

7.2.11 Due to the absence of suspected building remains in both the AP record and the magnetic data no earth resistance survey was conducted in this area of the site.

Field 3: Squares 39-52 (Figs 21, 22, 24 and Plan C)

7.2.12 This area was positioned to cross the 1955 ditch and the substantial building indicated in the AP evidence in the centre of Insula XXVI. The 1955 ditch is clearly visible as a positive magnetic anomaly [18] in Plan C1 and C2 and demonstrates a varying magnitude of response from ~2nT to a maximum of >30nT. This extreme response may well be related to the scatter of intense, possibly thermoremanent pit-type anomalies found throughout this area both inside and beyond the 1955 ditch. The intensity of many of these anomalies is suggestive of semi-industrial activity in this area and it is plausible that magnetically-enhanced material may well have concentrated in sections of the 1955 ditch producing the increased magnitude of response.

7.2.13 More subtle magnetic anomalies within this area include a negative response to a rectilinear building outline [19] where it is possible, apparently, to discern internal room divisions and a tentative positive arcuate anomaly [20] to the south of [18].

7.2.14 More surprisingly, there is no evidence for the large building suggested in the centre of Insula XXVI in either the magnetic or earth resistance data (Plan C3 and C4) although it is possible that the location of the survey area may have just missed the building. The earth resistance data does contain a number of high resistance anomalies [21] and [22]. However, it is difficult to confidently interpret these incomplete anomalies as building remains or to identify any corresponding response within the magnetic data.

Field 4: Squares 53-66 (Figs 21, 22, 24 and Plan D)

7.2.15 This area was positioned to cover an area of buildings in the centre of Insula XXXI and further AP anomalies found to the south at the intersection with neighbouring Insula XXX. The geophysical data provides corroborative evidence for both of the latter AP anomalies with building-type responses recorded in the magnetic (Plan D1 and D2) and earth resistance data (Plan D3 and D4). Squares 61 and 62 provide evidence for a building [23] containing an internal thermoremanent (hypocaust?) response apparently abutting the insula road that

appears as a pair of faint magnetic anomalies [24]. This building is replicated in the earth resistance data that contains broken high resistance readings over the negative magnetic anomalies and an additional arcuate response possibly forming an apsidal end.

7.2.16 Further intense magnetic anomalies are found immediately north of [23] but do not form such convincing rectilinear structures that may be interpreted as buildings with any degree of confidence. However, a series of negative magnetic anomalies [24] in squares 63 and 64 are more convincing and replicated in the earth resistance data to form another range of buildings. A final series of three negative magnetic anomalies run parallel to each other across square 57 and form part of either a larger building or roadway that has not appeared on the AP record.

7.2.17 A curious positive magnetic anomaly is found at [25] crossing square 58 at a peculiar angle with respect to the orientation of the Roman town. Again, this latter anomaly is not fully described within this limited survey area and it is difficult to provide a definite interpretation. However, it may possibly represent a differing phase of occupation at the site. It is also impossible to establish whether [25] is associated with either the group of three intense magnetic responses at [26] or the area of increased magnetic disturbance (see trace plot Plan D1) immediately to the north.

7.3 **Topsoil susceptibility survey** (Fig. 23)

7.3.1 Topsoil magnetic susceptibility results (volume specific) are presented graphically in Figure 23 and fall within a range between 19 -145 x 10^{-5}. The soils to the north of Gorhambury Drive towards the River Ver would appear to demonstrate a greater degree of magnetic enhancement than those developed over the higher ground. Whilst this apparent increase may well reflect the differing properties of the two soil types the high degree of variability encountered at individual sample locations during the acquisition of this data suggests that much of the enhancement is due to burnt material ploughed into the topsoil from the archaeological horizons.

8 **CORRELATION OF RESULTS WITH EARLIER WORK** by Rosalind Niblett

There are three related aspects to consider.

8.1 **Concentrations of archaeological material in ploughsoil/topsoil**

8.1.1 Fieldwalking surveys in 1973 and 1987 in Field 1 demonstrated that by 1987 the extent of several concentrations of material recorded in the ploughsoil in 1973, had increased. In 1987 'new' concentrations were recorded in areas which had not produced significant concentrations in 1973. Several of these 'new' concentrations were dominated by particular types of material - pottery, food remains or building debris; this suggested that *in situ* deposits such as

middens were being affected. A field walking survey in Field 3 in 1987 revealed similar differential distributions of material. No fieldwalking has ever been undertaken in Field 4.

8.1.2 The different collection technique employed in the present survey does not allow precise comparisons with earlier work to be made, even in the fields where earlier data is available. Nevertheless the present survey has located a large number of concentrations of different types of archaeological material occurring in the ploughsoil. Several of these included distinct concentrations of different categories of material - tile, pottery and amphorae - and are in addition to the dense scatter of material found during the survey generally, particularly in Fields 1, 3 and 4. Together with the records of the 1973 and 1987 work the data collected in the current survey can therefore be used as a reliable indication of the effects of ploughing on *in situ* deposits.

8.1.3 Large quantities of Romano-British pottery and building material were found in all areas of in the course of the survey. Finds were particularly numerous in Field 4, in the south-eastern parts of Fields 1 and 2 (within the area enclosed by the '1955 ditch') and in the north-western and southern parts of Field 3. In addition to this general dense scatter of material, the current survey recorded what appear to be new or very much enlarged concentrations of material in six areas: one in Field 1, one in Field 2 and four in Field 3.

8.1.4 In 1987 differential concentrations of pottery, food debris, building rubble and tesserae strongly suggested that stratified levels, including midden deposits adjacent to buildings, were being disturbed. The sampling technique used in the present survey did not allow this type of data to be collected. The fresh, unabraded appearance of fragments of tile and pottery generally, both from the present test-pitting and from previous fieldwalking, also strongly suggests that the material is derived from *in situ* deposits that have been disturbed comparatively recently

8.1.5 The majority of these new concentrations overlay, or were close to, buildings identified from aerial photography. The foundations of these buildings are likely to have been of flint and mortar (hence their paler appearance on air photographs). The suggestion that the plough is normally 'raised' over areas of masonry, thus safeguarding archaeological deposits, cannot therefore be substantiated.

8.2 The apparent absence of previously recorded concentrations

8.2.1 Several concentrations of material recorded in 1987, particularly in Fields 1 and 2, are not reflected in the current results. This may very well be due to the different sampling techniques employed in the two surveys. It is quite possible however, that concentrations freshly ploughed up in 1987 have since been dispersed and not replaced by new material. This may be an indication that the particular deposit has been completely ploughed away since 1987. Particularly notable 'absences' are in Insulae XXXII and XXXVII, both near the northern end of Field 1. Exceptionally high concentrations of material over the sites of

the northern monumental arch and the large town house were recorded here in 1978 and 1987 but are not reflected in the current survey.

8.3 The existing state of features identified by past excavation or aerial survey

8.3.1 In addition to the theatre in Insula XV, earlier work has located at least 46 Roman buildings in the area surveyed. Field 1 contains 23, Field 2 - 2, Field 3 - 5 and Field 4 - 16. The positions of 8 of these buildings have been confirmed by excavation. The only building completely excavated however is the northern monumental arch, which straddles Watling Street between Insulae XXXIII and XXXIV. The upper surface of this was completely exposed in 1961 and 1978 (Hinchliffe 1979). Extensive excavations were carried out in 1938 on the later Roman *macellum* in the south-west corner of Insula XVII (Richardson 1944). The building's late 1st-century predecessor however extended further north-east, and this was only located in a few trenches; much of it may remain *in situ*, and is probably reflected in the anomalies recorded by the geophysical survey in this area. The temple in Insula XVI was also partially excavated in the 1930s (Lowther 1937), but here work was restricted to comparatively few trenches, and the temple court remains virtually unexcavated. Air photography in 1955 revealed what appears to be an outer precinct wall to the west of the temple in Insula XXXI. This has not been confirmed by excavation. In Field 1 a trial trench confirmed the position of a large town house (possibly a *mansio*) in the centre of Insula XXXVII close to Test Pit 69 of the current survey (Hinchliffe 1979 13). The 1961 excavation of the northern monumental arch pinpointed the positions of two adjacent houses (Frere 1983, 75-82). In Field 2 trial trenches in 1978 revealed evidence of a masonry building that had been terraced into the hill side close to Test Pits 168 and 178 (Hinchliffe 1979, 14). In 1869 part of a masonry town house with tessellated floors was located in Field 3, in the east corner of Insula XXX (Grover 1869). The remaining buildings in the survey area were identified from aerial photography between 1955 and 1981. (For detailed references to these buildings see Niblett 1987).

8.3.2 Although aerial surveys continued until 1993 no additional buildings have been identified since 1981; buildings visible from the air in Insula XV, east of the temple have not shown up on air photographs since, and many buildings in Fields 1 and 3 have not been visible since 1977. In the absence of modern excavation, information on the current state of preservation of buildings across the whole survey area remains minimal. The current survey indicates that there are at least 24 areas which give rise to particular concern. These are tabulated below.

Table 4: Areas of particular sensitivity

	Test Pits	Deposit type	Plough soil depth	Reason for particular concern
	FIELD 1			
1	1, 2, 3	B and U	27cm	Close to temples seen from the air, a possible pre-Roman focus of occupation. Previous surveys have suggested a steady increase in the amount of debris occurring in ploughsoil.
2	9-11	B and U	28cm	South-east of the *macellum*; occupation in area of possible late 4th-5th century occupation. Concentration of animal bone (?denoting *in situ* midden deposits) were recorded here in 1987.
3	16-17	B and U	0.27 m	Area to the west of the *macellum*
4	26, 29	U	0.26 m	Concentrations of material were recorded here in previous surveys, suggesting a steady increase in the amount of material occurring in ploughsoil.
5	36-38, 42-45, 46-47	B, D and U	0.28 m	Concentrations of material were recorded here in previous surveys, suggesting a steady increase in the amount of material occurring in ploughsoil. The geophysical survey suggests that further parts of the (?)courtyard building identified from the air in the centre of Insula XX survive on its south-west side
6	54-55	B and C	0.31 m	Air photographs have shown the existence of an unusual courtyard building on the south-west side of Watling Street in Insula XXXIV. A concentration of pottery and building debris was recorded over the building in 1987 but the presence of C category deposits over the southern part of the building suggest that stratified deposits within it are either in the process of being destroyed, or have already been removed.
7	56-57	B and U	0.27 m	These pits lie close to the northern monumental arch. The upper surface of the arch was exposed by Hinchliffe in 1978 when deposits of earlier ploughsoil (type D deposits of the current survey) were found overlying the arch and below the contemporary ploughsoil. There was no sign of type D deposits in the area in January 2000, while the maximum depth of ploughsoil over type B and U deposits was only 0.30 m, in contrast to 0.40 m depth recorded in 1978. Hinchliffe concluded that *'Any deeper penetration by the plough would certainly result in further damage to the upper surface of the arch.'* (Hinchliffe, 1979, 14)
8	62	B	0.26 m	In 1978 Hincliffe recorded a 0.60 m depth of ploughsoil/topsoil/colluvium in this area. The current ploughsoil depth combined with the absence of type D deposits or colluvium suggests that significant erosion may be taking place in this area. (Hinchliffe 1979, 22-3)
9	69	U	0.20 m	This lies over the large town house (?*mansio*) in the centre of Insula XXXVII. In 1978 type D deposits were recorded over this building (Hinchliffe 1979, 13 layer 81/3). The current survey found no evidence for type D deposits in this area.
	FIELD 2			
10	96-98	A, B and U	0.21 m	A concentration of building debris was recorded here in 1973, but the very shallow depth of ploughsoil must mean that any surviving *in situ* deposits are at extreme risk.
11	111, 123-125, 136-137	A and U	0. 31m	The geophysical survey has revealed possible indications of property boundaries on a different alignment to the normal street alignment of the Roman town. These do not conform to any medieval or post-medieval system of land division in the area, and they are more likely to pre-date the construction of the 3rd century town wall. In this case they could be of great importance to the early development of the pre-Roman and Roman settlement. The widespread existence of type A deposits in this area suggest that even cut features such as these are likely to be at risk.

	Test Pits	Deposit type	Plough soil depth	Reason for particular concern
12	161-162, 171-172	B and C	0.29 m	The geophysical survey has revealed possible indications of pit alignments on a different alignment to the street grid of the Roman town. These do not conform to any medieval or post-medieval system of land division in the area, and they are more likely to predate the construction of the 3rd century town wall. They are potentially of great importance to the early development of the pre-Roman and Roman settlement. The widespread existence of type C deposits in this area suggest that even cut features such as these are likely to be at risk. Tile concentration recorded near TP161 in 1973.
13	168, 178	C	0.24 m	Part of a masonry town house was revealed here in a 1978 trial trench (Hinchliffe 1979, 14). The current survey revealed a nearby concentration of building debris, which, together with the presence of type C deposits suggests that any surviving deposits are at severe risk
14	187	U	0.29 m	Part of a substantial town house was recorded here in 1869. The absence of any concentration of debris in the area suggests that it may already have been largely destroyed.
	FIELD 3			
15	241, 251, 261	U/C	0.24 m	A differential concentration (of shell fish) was noted in this area in 1987; this has been replaced by a larger, mixed concentration.
16	244, 245, 254, 255	B and U	0.31 m	New concentrations of material were noted here in the current survey. The area is close to a building recorded from the air in 1976/7
17	247, 257	U	0.29 m	A concentration of material recorded in this area in 1987 appears to have been enlarged
18	284, 294	A and U	0.28 m	The current survey suggests a new concentration in this area. No concentration was noted in 1987
19	269	B	0.34 m	The current survey suggests a new concentration of tile in this area. No concentration was noted in 1987
20	280	U	0.28 m	Anomalies on the geophysical survey suggest the presence of cut features overlying the fill of the 1955 ditch. These are likely to be of great importance to the understanding of the development of the town's defence, but their shallow depth means they are at great risk
21	290-292,	A or B and C	0.13 m	The geophysical survey shows a large number of anomalies in this area where ploughsoil is exceptionally shallow. A concentration of material was noted in the area in 1987, but this appears to have now become dispersed.
22	318	Possibly natural	0.28 m	The geophysical survey showed anomalies which may reflect the presence of a pit alignment.
	FIELD 4			
23	325, 329, 330, 335, 339-341	B and D	0.26 m	The geophysical survey shows numerous anomalies in this area, including a previously unconfirmed road dividing Insula XXXI
24	323, 361, 369, 371	B and U	0.27 m	The area contains numerous buildings seen from the air in 1955. Although the buildings were not visible in the 1970s and 80s, the geophysical survey suggest that numerous archaeological remains survive in this area. This is supported by the concentrations of tile and pottery noted in the area during the current survey.

8.4 Summary

8.4.1 Combined with previous surveys, including the evidence of aerial photography, the current survey suggests continuing damage to archaeological deposits for the following reasons.

8.4.2 Trial trenches in 1978 in Field 1, outside the line of the 1955 ditch, showed the presence of a layer of old ploughsoil beneath the modern ploughsoil and overlying the latest surviving Roman levels. The current survey found no positive indication that these layers still existed in this part of Field 1

8.4.3 Extensive 'new' concentrations of material were noted on areas without them in 1987. This is particularly noticeable in Field 3. Some 'new' concentrations show evidence for the differential distribution of different categories of material within them, suggesting the disturbance of stratified deposits. This is particularly the case in Fields 3 and 4.

8.4.4 In Field 2 the absence of the spreads of tile and building debris recorded in 1973 suggests substantial loss of deposits in an area which may never have contained as many masonry buildings as other parts of the walled area. The geophysical survey suggests that cut features may survive, although the extensive areas where ploughsoil directly overlies natural subsoil must render such features vulnerable to further erosion. The potential importance of such features to understanding the character of the Roman and pre-Roman settlement is probably as great as that of masonry remains.

9 GENERAL DISCUSSION

9.1 Ploughsoil depth and deposit categorisation

9.1.1 The test pitting exercise revealed a considerable variation in topsoil depth and potentially in the survival of archaeological features across the site. Recorded topsoil/ploughsoil depths ranged from c 0.20-0.38 m, though it may be questioned if some of the thickest recorded deposits did not include part of a similar underlying layer which was not distinguished. Some strikingly high recorded topsoil thicknesses, for example in Test Pits 295 and 298 in Field 3, are not easily explained. Be that as it may, it was notable that there was no particular correlation of ploughsoil depth with topography. For example, while there was some thickening of ploughsoil in the bottom of the fairly steep sided gully in Field 2 this was not particularly pronounced. There is also a slight suggestion that ploughsoil depth may have increased toward the north-east side of Field 1, at the bottom of the slope on which the site lies, particularly at the east end of the field, but even here ploughsoil depth was not consistent. Places where increases in ploughsoil thickness were noted were at the south-east and south-west margins of Field 4. This clearly reflects the protection afforded to deposits by the presence of boundaries. The boundary between Fields 2 and 4 was removed in the 1970s but its former presence is still indicated in places by increased topsoil thickness along its line. Since this boundary was originally, however, a quite substantial bank feature, its denudation has been rapid.

9.1.2 Systematic characterisation of the deposits revealed beneath the ploughsoil has been attempted and five main deposit categories have been identified. The significance of some of these is discussed further below. In broad terms,

however, the distribution of categories A, B and C relates to variation in the density of archaeological features and deposits across the site, which in itself indicates that deposits beneath the ploughsoil have been significantly impacted by agricultural activity. There is much less certainty about the distribution of category D deposits. Such deposits were difficult to identify with confidence, and this was rarely achieved except in section where test pits were inadvertently dug slightly deeper than the base of the overlying modern ploughsoil. Where present, however, a significant number of category D deposits were located adjacent to modern or former field boundaries, including an occurrence on the line of the former boundary between Fields 2 and 4, ploughed out since the 1970s. This suggests that category D deposits might once have been widespread across the site, but that while they tend to be preserved in these marginal locations where they are less easily disturbed by the plough, elsewhere they have been more severely impacted.

9.1.3 Uncertain (category U) deposits were from the beginning considered most likely to represent either categories B or D. The artefactual evidence hints at a greater similarity with category D than category B deposits, and it is possible that a majority of category U deposits were in fact of category D. The distribution of such deposits is still relatively erratic, however, except perhaps in some parts of Field 1 where category U deposits were particularly common. In no part of the site are such possible/potential category D deposits sufficiently widespread and consistently distributed to suggest that they provide a reliable buffer zone against the effects of ploughing, however.

9.1.4 As would be expected, there was a broad correlation between ploughsoil depth and the occurrence of category B deposits – the latter were most clearly concentrated in areas where ploughsoil coverage was no more than 'average', typically around 0.25 m deep. Inevitably, however, category B deposits were identified most clearly in those areas, particularly in Field 4 and in parts of Fields 1 and 3, where Roman activity was already known or suspected to be concentrated. The present test pitting programme has confirmed that the density of archaeological features outside the 1955 ditch appears to be relatively low, and this conclusion was also confirmed by the geophysical survey sample.

9.2 Field 1 summary

9.2.1 Field 1 produced strongly contrasted evidence, with category B deposits concentrated at the south-east end of the field and in a band which followed the line of Watling Street, while elsewhere category U deposits were particularly widespread. Structural remains, in Test Pits 37 and 45, were associated with the Watling Street frontages and a surface in Test Pit 18 almost certainly related to the *macellum*, and surface material, particularly tile, was also very evident on the surface of the field at this point. Test pit finds also concentrated in this part of the field. Unfortunately there are no data on levels from the 1938 excavation of the *macellum* which would allow direct comparison with present information. The sample geophysical survey transect lay close to the line of Watling Street and showed intensive activity across most of the surveyed area.

9.3 Field 2 summary

9.3.1 A striking characteristic of Field 2 was the high incidence of test pits in which topsoil directly overlay natural subsoil (category A deposits); moreover redeposited natural gravel was noted on the surface of this field. Several inferences can be drawn from the prevalence of category A deposits here; first that there may never have been a particularly significant build up of archaeological deposits and features in this area, which is consistent with the general assessment of its character mentioned above; second, that whatever deposits may have originally existed in this part of the site have for the most part been completely removed, leaving only cut features surviving. The way in which the natural gravel is being disturbed makes it clear that the fills of remaining cut features will be subject to ongoing erosion at the same time. The geophysical survey sample in this field confirmed the general (but not total) absence of archaeological features outside the line of the 1955 ditch.

9.4 Field 3 summary

9.4.1 Category B deposits were widespread here. Structural features, perhaps in as many as five test pits, tended to concentrate in the vicinity of the road dividing Insulae XXVI and XXV, and surfaces probably relating to the road itself were also encountered. Additionally, the road formed a very pronounced feature in the geophysical survey sample in this field. Other geophysical anomalies were more pronounced in Insula XXVI than XXV. A concentration of category B deposits in the south-eastern corner of the field might again relate to the proximity of the road defining the south-eastern side of Insula XXV. Concentrations of finds from test pits were more noticeable in Insulae XXVI and XXX than further south-west, again perhaps indicating the difference between areas within and outside the line of the 1955 ditch.

9.5 Field 4 summary

9.5.1 Field 4 produced both the highest proportion of category B deposits encountered across the site and the greatest incidence of structural features, in 18 and 6 of the 58 test pits respectively. The highest concentrations of pottery and tile found across the whole site also occurred in this field. The location of a fragment of tessellated floor in Test Pit 330 was also notable, as this must have belonged to a previously unknown building lying immediately west of the theatre. Significant structures were also revealed in the geophysical survey sample, which examined a strip of land west of the theatre and its associated temple complex. Relatively deep ploughsoil deposits occurred at the margins of the field but ploughsoil depths within it were generally shallow and the significant structural and other remains here appear particularly vulnerable.

9.6 New archaeological information

9.6.1 Both test pitting and geophysics have produced evidence for previously unknown structures. While the generation of such information was not a primary objective of the project the new evidence nevertheless makes a useful

contribution to knowledge of the Roman city. Structural features (i.e. walls, wall foundations or robber trenches) were encountered in a total of 16 test pits, 3 in Field 1, 2 in Field 2 (at its eastern side), 5 in Field 3 and 6 in Field 4, while part of a tessellated pavement was also found in Field 4. Surfaces were more widely encountered, but in most cases it was uncertain whether these represented floor layers, external yards or street surfaces, so they were not grouped with the 'structural' features. Preservation of structures was generally poor and a majority of 'walls' were represented either by robber trenches or, more significantly, by chalk foundations with no surviving superstructures. The surviving dating evidence suggests that 4th century features, deposits and material were generally quite scarce, with the implication that where present such deposits have been largely removed.

9.7 Geophysics

9.7.1 The survey has successfully demonstrated that both magnetic and earth resistance techniques can identify significant archaeological anomalies at this site. In particular, the suspected ferrous seeding of the site has not, apparently, hampered the magnetic survey that in addition to revealing the expected pit and ditch-type anomalies has also provided convincing evidence for the location of building remains some of which contain thermoremanent responses. It is noted, however, that the geophysical response to suspected buildings identified in the AP record is highly variable with some corroborated by both magnetic and earth resistance responses and others not appearing at all. Whilst this may well be due to the differing construction or function of the original buildings it may also, perhaps, indicate the varying degree of survival of the remains.

9.7.2 In addition, the limited survey in Field 2 has revealed significant archaeological activity beyond the 1955 ditch in an area that was apparently devoid of activity. Extension of the magnetic survey to encompass the entire threatened area would fully define this activity and expand upon the current AP record. The data also suggests that testing the fidelity of the AP record with magnetic data may indicate areas of increased plough damage. However, due to the varying response noted above targeted earth resistance survey should also be deployed over areas of suspected building remains.

9.8 Ploughing

9.8.1 It is clear that over the years substantial parts of the Scheduled Ancient Monument in the north-western half of Verulamium have been significantly affected by ploughing. An assessment of the situation in the late 1970s, comparing the results of trial trenching with those of excavations in the 1950s and fieldwalking in 1973, suggested that 'a position of stability would seem to have been achieved', i.e. that damage was not actively occurring at that time (Hinchliffe 1979, 26), but this no longer seems to be the case.

9.8.2 That plough damage is an ongoing process can be shown in several ways. First, the character of the ploughsoil itself and the fill of individual plough marks which were recorded cutting into archaeological deposits is identical, whereas if the plough scars themselves were not recent the material contained

within them would become distinct from the modern ploughsoil, both in texture and in colour. This was not the case. Second, the character of the artefactual and other material contained within the ploughsoil itself is significant. This includes a quantity of ceramic material, most of which has clearly not been reworked within the ploughsoil over an extended period of time, since this would have resulted in a characteristic abrasion pattern on the sherds, a pattern which is almost entirely absent. Instead the material, consisting of relatively unabraded sherds with a fairly high average weight, suggests that much of it has been incorporated in the ploughsoil relatively recently. Such a rate of incorporation cannot be quantified precisely, but on a subjective assessment this is likely to have taken place over a matter of years rather than decades. Third, concentrations of surface finds, particularly ceramic building material but also structural flint, were very noticeable at certain points within the site, perhaps most clearly in Field 1. Much of the ceramic building material was, like the pottery mentioned above, in relatively fresh condition suggesting disturbance in relatively recent times. Fourth, the occurrence of defined streaks of natural gravel subsoil on the surface of parts of Field 2 can only have resulted from the deposition of this material during the most recent episode of ploughing. This provides the clearest evidence for current disturbance by the plough of deposits at the base of the ploughsoil. This situation does not arise simply because the ploughsoil in Field 2 is thinner than average, therefore increasing the chances of impact on underlying materials here; rather, the relative absence of archaeological layers here exposes a sharply contrastive material to the plough, so that newly upturned material is readily identifiable on the field surface. Comparable damage elsewhere will not be so readily detectable unless very distinct deposits are affected. An example of the latter would be the occurrence on field surfaces of flecks of chalk, which in much of Fields 3 and 4, for example, are likely to indicate the disturbance of floors or wall foundations.

9.8.3 The full spatial extent of current plough damage is not known, since it is quite possible that there are parts of the site which are not being impacted by the plough at present. Variables which will affect this include differences in ploughsoil thickness, which do seem to be apparent across much of the site, and the presence of a 'buffer zone' between the modern plough soils and archaeological deposits, potentially represented by category D deposits. The extent of the latter remains unclear, though the present distribution of a few definitely-identified deposits of this kind, concentrated in field margin locations, suggests that they themselves are subject to erosion and cannot therefore be regarded as a secure protection to underlying deposits in the medium term, even if their extent could be more reliably established. On the most optimistic view all the deposits assigned to category U could be reassigned to category D. Even so, this 'best case' scenario indicates only very partial protection for deposits in Fields 2, 3 and 4, with perhaps rather more extensive blanketing of deposits in Field 1, though even here it is very clear that in some areas, along the line of Watling Street in general and in the vicinity of the *macellum* (for example) in particular, significant damage has been caused in very recent times. It is therefore impossible to define reliably areas in which medium to long term preservation of archaeological deposits could be confidently predicted on the basis of the presence of a substantial

buffer zone of category D deposits. Such areas almost certainly exist, but they are likely to be quite restricted in extent and cannot be identified on the basis of present evidence – more detailed examination of category U deposits would be required before this could be done. Meanwhile, it seems clear that vulnerable deposits in extremely important core areas of the Roman town, particularly across much of Field 4 and parts of Field 1, are suffering active degradation.

10 CONCLUSIONS

10.1 Active erosion of the archaeological resource through continued ploughing can be demonstrated both from present evidence and by comparison of this with earlier data from excavation, fieldwalking and aerial survey, and is ongoing across many parts of the site, including important core areas.

10.2 In Field 1 active erosion is particularly apparent along the line of Watling Street and its adjacent frontages and at the south-eastern end of the field. In Field 2 the density of archaeological deposits was probably always significantly less than elsewhere, but across much of the field only cut features now survive and these continue to be eroded. A high density of structural remains and other vulnerable deposits is apparent in Field 4 and (to a slightly lesser extent) in Field 3. Again, erosion by ploughing appears to be ongoing in these fields.

10.3 The extent and distribution of potential 'buffer' layers which might afford protection to underlying archaeological deposits are insufficiently clearly defined to allow identification of such layers as a mitigation measure. Present evidence would suggest, however, that only in parts of Field 1 might there be a significant occurrence of such layers, but this suggestion would require further detailed work to test it. Any 'buffer' deposits are, of course, themselves potentially susceptible to erosion through continuing ploughing.

10.4 A close correlation between artefact concentrations and significant structural remains is apparent, as has been noted in relation to previous work, but a close comparison of the evidence from the present work and from previous surveys reveals differences as well as points of similarity. This indicates that artefact scatters are not static and that they, and the underlying deposits from which they derive, are subject to ongoing modification by the plough.

10.5 The potential of geophysical survey to produce good results, both enhancing understanding of the plan of Verulamium and providing data which can be used alongside that generated by the test pitting and other means, has been clearly established.

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Appendix 1: Test-pitting-Context inventory Field 1

Test Pit	Cont-ext	Type	Width	Depth (m)	Comment	Finds	Status
001	0011	Deposit	-	0.22	Topsoil	CBM, pot* bone	**U**
	0012	Deposit	-	0.10+	Layer	-	
	0013	Deposit	-	-	Layer ?surface	-	
002	0021	Deposit	-	0.31	Topsoil	-	**B**
	0022	Deposit	-	-	?Feature fill	Pot	
	0023	Deposit	-	-	Layer	-	
003	0031	Deposit	-	0.28	Topsoil	-	**U**
	0032	Deposit	-	-	Layer	-	
004	0041	Deposit	-	0.28	Topsoil	-	**U**
	0042	Deposit	-	-	Layer	-	
005	0051	Deposit	-	0.30	Topsoil	CBM, pot*, glass	**U**
	0052	Deposit	-	-	Layer	-	
006	0061	Deposit	-	0.29	Topsoil	-	**U**
	0062	Deposit	-	0.07+	Layer	-	
007	0071	Deposit	-	0.24	Topsoil	CBM, pot*, clay pipe	**U**
	0072	Deposit	-	0.09+	Layer	-	
008	0081	Deposit	-	0.35	Topsoil	CBM, pot, Fe spike, bone	**U**
	0082	Deposit	-	-	Layer	-	
009	0091	Deposit	-	0.26	Topsoil	CBM, pot, bone	**B***
	0092	Deposit	-	-	Layer	-	
	0093	Deposit	-	-	?Fill of feature	-	
010	0101	Deposit	-	0.33	Topsoil	-	**B**
	0102	Deposit	-	-	Layer	-	
	0103	Deposit	-	-	Fill of feature	-	
011	0111	Deposit	-	0.22	Topsoil	CBM, pot*, bone	**U**
	0112	Deposit	-	0.09+	Layer	CBM, pot	
012	0121	Deposit	-	0.30	Topsoil	CBM	**U**
	0122	Deposit	-	-	?Fill of feature	CBM, pot, bone, shell	
	0123	Deposit	-	0.09+	Layer		
013	0131	Deposit	-	0.40	Topsoil	CBM	**U**
	0132	Deposit	-	0.04+	Layer		
014	0141	Deposit	-	0.30	Topsoil	CBM	**U**
	0142	Deposit	-	-	Layer		
015	0151	Deposit	-	0.32	Topsoil	CBM, pot	**U**
	0152	Deposit	-	0.14	Layer	Pot, bone	
	0153	Deposit	-	-	Surface or poss. wall		
016	0161	Deposit	-	0.20-0.28	Topsoil	CBM, Fe nail	**B**
	0162	Deposit	-	0.10+	?Fill of feature	CBM. Pot	
017	0171	Deposit	-	0.34	Topsoil		**U**
	0172	Deposit	-	-	Layer	CBM, pot*, bone	
018	0181	Deposit	-	0.35	Topsoil	CBM	**B**
	0182	Deposit	-	0.03+	Gravel surface		
	0183	Deposit	-	0.04+	?Fill of feature - poss. robber trench		
	0184	Deposit	-	-	?Gravel surface		
019	0191	Deposit	-	0.30	Topsoil	CBM, pot*, bone	**U**
	0192	Deposit	-	0.05+	Layer		

020	0201	Deposit	-	0.38	Topsoil	CBM, pot	**U**
	0202	Deposit	-	-	Layer		
021	0211	Deposit	-	0.25	Topsoil		**U**
	0212	Deposit	-	0.11+	Layer	CBM, pot, Fe nail, flint	
022	0221	Deposit	-	0.31	Topsoil		**U**
	0222	Deposit	-	0.06+	Layer		
023	0231	Deposit	-	0.32	Topsoil	CBM	**U**
	0232	Deposit	-	-	Layer	Pot, nail, bone	
024	0241	Deposit	-	0.35	Topsoil		**U**
	0242	Deposit	-	0.07+	Layer		
025	0251	Deposit	-	0.30	Topsoil	Pot	**U**
	0252	Deposit	-	0.08+	Layer		
026	0261	Deposit	-	0.24	Topsoil		**U**
	0262	Deposit	-	0.08+	Layer	CBM, Fe nail	
027	0271	Deposit	-	0.30	Topsoil		**U**
	0272	Deposit	-	-	Layer		
028	0281	Deposit	-	0.30	Topsoil	CBM, pot, glass*	**U**
	0282	Deposit	-	-	Layer	Coin (late 3rd cent.)	
029	0291	Deposit	-	0.28	Topsoil		**U***
	0292	Deposit	-	-	Layer		
030	0301	Deposit	-	0.26	Topsoil	CBM, pot*, shell	**U**
	0302	Deposit	-	-	Layer	?Quern frags (lava), bone	
031	0311	Deposit	-	0.28	Topsoil		**U**
	0312	Deposit	-	0.04+	Layer		
032	0321	Deposit	-	0.34	Topsoil	CBM, pot	**U**
	0322	Deposit	-	0.12+	Layer		
033	0331	Deposit	-	0.26-0.34	Topsoil		**U**
	0332	Deposit	-	0.10+	Layer		
034	0341	Deposit	-	0.22-0.28	Topsoil	CBM, pot	**U**
	0342	Deposit	-	0.12+	Layer	CBM, pot*, bone	
035	0351	Deposit	-	0.28	Topsoil		**U**
	0352	Deposit	-	-	Layer	CBM, Fe fragment	
036	0361	Deposit	-	0.23	Topsoil		**U**
	0362	Deposit	-	0.03+	Layer		
037	0371	Deposit	-	0.25	Topsoil		**B***
	0372	Deposit	-	-	Layer, poss. demolition deposit		
	0373	Structure	0.66	-	Wall		
038	0381	Deposit	-	0.30	Topsoil		**B**
	0382	Deposit	-	-	Layer		
	0383	Deposit	-	-	Mortar ?surface		
039	0391	Deposit	-	0.30	Topsoil		**U**
	0392	Deposit	-	0.20+	Layer		
040	0401	Deposit	-	0.26	Topsoil		**U**
	0402	Deposit	-	0.09+	Layer		
041	0411	Deposit	-	0.28	Topsoil		**U**
	0412	Deposit	-	0.09+	Layer	CBM, Fe nail, bone	
042	0421	Deposit	-	0.32	Topsoil		**U**
	0422	Deposit	-	-	Layer		
043	0431	Deposit	-	0.19	Topsoil	Pot	**D**
	0432	Deposit	-	0.08	Layer		
	0433	Deposit	-	-	Mortar surface		
044	0441	Deposit	-	0.30	Topsoil		**U**

	0442	Deposit	-	0.06	Layer	CBM, pot, bone, shell	
	0443	Deposit	-	-	Gravel surface		
045	0451	Deposit	-	0.20-0.25	Topsoil	Pot, bone	**D**
	0452	Deposit	-	0.10	Layer	Pot, bone	
	0453	Structure	0.90+	-	Wall face		
	0454	Deposit	-	-	Layer		
	0455	Deposit	Structure	-	Part of 0453		
046	0461	Deposit	-	0.25	Topsoil	CBM	**U**
	0462	Deposit	-	0.07+	Layer	CBM, pot	
047	0471	Deposit	-	0.24	Topsoil		**B**
	0472	Deposit	1 m	-	Fill of pit or possibly structural feature		
	0473	Deposit	-	-	Layer		
048	0481	Deposit	-	0.26	Topsoil	CBM, pot, shell	**D**
	0482	Deposit	-	-	Layer	CBM, bone	
	0483	Deposit	-	-	Layer/feature fill		
049	0491	Deposit	-	0.26	Topsoil	CBM	**U**
	0492	Deposit	-	0.10+	Layer	CBM, pot, bone, shell	
050	0501	Deposit	-	0.28	Topsoil	CBM, pot, Fe nail	**U**
	0502	Deposit	-	0.08+	Layer		
051	0511	Deposit	-	0.26	Topsoil		**U**
	0512	Deposit	-	0.07+	Layer		
052	0521	Deposit	-	0.27	Topsoil		**U**
	0522	Deposit	-	0.14+	Layer		
053	0531	Deposit	-	0.26	Topsoil		**U**
	0532	Deposit	-	0.10+	Layer		
054	0541	Deposit	-	0.28	Topsoil		**B**
	0542	Deposit	-	-	Layer		
	0543	Deposit	-	-	Mortar ?surface		
055	0551	Deposit	-	0.33	Topsoil		**C**
	0552	Deposit	-	0.21	Layer		
	0553	Natural	-	-	?Natural gravel		
056	0561	Deposit	-	0.26	Topsoil		**U**
	0562	Deposit	-	0.10+	Layer	CBM, bone	
057	0571	Deposit	-	0.30	Topsoil		**B***
	0572	Deposit	-	-	?Mortar/sand surface		
058	0581	Deposit	-	0.30	Topsoil		**U**
	0582	Deposit	-	0.03+	Layer		
059	0591	Deposit	-	0.30	Topsoil		**U**
	0592	Deposit	-	0.04+	Layer		
060	0601	Deposit	-	0.29	Topsoil	CBM	**U**
	0602	Deposit	-	0.09+	Layer		
061	0611	Deposit	-	0.25	Topsoil		**U**
	0612	Deposit	-	0.10+	Layer		
062	0621	Deposit	-	0.26	Topsoil		**B**
	0622	Deposit	-	0.03+	Layer cf 0572		
063	0631	Deposit	-	0.26	Topsoil		**U**
	0632	Deposit	-	0.06+	Layer		
064	0641	Deposit	-	0.24	Topsoil		**U**
	0642	Deposit	-	0.06+	Layer		
065	0651	Deposit	-	0.25	Topsoil		**U**
	0652	Deposit	-	-	Layer		

066	0661	Deposit	-	0.26	Topsoil		**U**
	0662	Deposit	-	-	Layer		
067	0671	Deposit	-	0.28	Topsoil		**U**
	0672	Deposit	-	0.07+	Layer		
068	0681	Deposit	-	0.23	Topsoil		**U**
	0682	Deposit	-	0.04+	Layer		
069	0691	Deposit	-	0.20	Topsoil		**U**
	0692	Deposit	-	0.05+	Layer		
070	0701	Deposit	-	0.28	Topsoil		**U**
	0702	Deposit	-	-	Layer		
071	0711	Deposit	-	0.28	Topsoil		**U**
	0712	Deposit	-	-	Layer		
072	0721	Deposit	-	0.25	Topsoil		**U**
	0722	Deposit	-	0.09+	Layer		
073	0731	Deposit	-	0.24	Topsoil		**U**
	0732	Deposit	-	0.10+	Layer		
074	0741	Deposit	-	0.25	Topsoil		**U**
	0742	Deposit	-	0.12+	Layer		
075	0751	Deposit	-	0.20-0.30	Topsoil		**B***
	0752	Deposit	-	0.06+	Sandy layer, ?degraded mortar surface	CBM	
076	0761	Deposit	-	0.35	Topsoil	Pot	**U**
	0762	Deposit	-	-	Layer		
077	0771	Deposit	-	0.30	Topsoil		**U**
	0772	Deposit	-	-	Layer		
078	0781	Deposit	-	0.24	Topsoil		**B***
	0782	Cut/ deposit	-	-	Plough marks		
	0783	Deposit	-	-	Layer as 0752		
079	0791	Deposit	-	0.29	Topsoil	CBM	**U**
	0792	Deposit	-	-	Layer		
080	0801	Deposit	-	0.33	Topsoil		**U**
	0802	Deposit	-	-	Layer	Pot	
101	1011	Deposit	-	0.26	Topsoil		**?B**
	1012	Deposit	-	-	Layer as 0752		
102	1021	Deposit	-	0.26	Topsoil		**B***
	1022	Deposit	-	0.04+	Layer		
	1023	Deposit	-	-	Poss. fragment of surface		
103	1031	Deposit	-	0.32	Topsoil		**U**
	1032	Deposit	-	-	Layer		
104	1041	Deposit	-	0.26	Topsoil		**U**
	1042	Deposit	-	-	Layer		
105	1051	Deposit	-	0.32	Topsoil		**U**
	1052	Deposit	-	0.05+	Layer		

Appendix 2: Test-pitting-Context inventory Field 2

Test pit	Cont-ext	Type	Width	Depth (m)	Comment	Finds	Status
081	0811	Deposit	-	0.28	Topsoil		**U**
	0812	Deposit	-	0.03+	Layer		
082	0821	Deposit	-	0.28	Topsoil		**U**
	0822	Deposit	-	0.03+	Layer		
083	0831	Deposit	-	0.28	Topsoil		**U**
	0832	Deposit	-	0.05+	Layer		
084	0841	Deposit	-	0.28	Topsoil		**U**
	0842	Deposit	-	0.08+	Layer		
085	0851	Deposit	-	0.37	Topsoil		**U**
	0852	Deposit	-	-	Layer		
086	0861	Deposit	-	0.27	Topsoil		**U**
	0862	Deposit	-	0.05+	Layer		
087	0871	Deposit	-	0.18	Topsoil		**U**
	0872	Deposit	-	0.10+	Layer		
088	0881	Deposit	-	0.28	Topsoil		**A**
	0882	Natural	-	-	Gravelly clay		
	0883	Natural	-	-	Gravelly clay		
089	0891	Deposit	-	0.26	Topsoil		**U**
	0892	Deposit	-	0.07+	Layer		
090	0901	Deposit	-	0.20	Topsoil		**C**
	0902	Deposit	-	0.05+	Layer		
091	0911	Deposit	-	0.28	Topsoil		**C**
	0912	Deposit	-	-	Layer		
092	0921	Deposit	-	0.32	Topsoil	CBM, pot	**A**
	0922	Natural	-	-	Gravelly clay		
093	0931	Deposit	-	0.28	Topsoil		**A**
	0932	Deposit	-	-	?Fill of natural feature		
	0933	Natural	-	-	Gravelly clay		
094	0941	Deposit	-	0.30	Topsoil	CBM, flint	**C**
	0942	Deposit	-	-	?Layer		
	0943	Natural	-	-	Gravel		
095	0951	Deposit	-	0.22	Topsoil	Pot	**U**
	0952	Deposit	-	0.04+	Layer	CBM	
096	0961	Deposit	-	0.27-0.38	Topsoil		**U**
	0962	Deposit	-	0.09+	Layer		
097	0971	Deposit	-	0.26	Topsoil		**AB**
	0972	Deposit	-	-	?Fill of feature		
	0973	Deposit	-	-	?Fill of feature		
	0974	Natural	-	-	Gravelly clay		
098	0981	Deposit	-	0.30	Topsoil	CBM	**U**
	0982	Deposit	-	-	Layer		
099	0991	Deposit	-	0.28	Topsoil		**A**
	0992	Natural	-	-	Gravelly clay		
100	1001	Deposit	-	0.26	Topsoil		**U**
	1002	Deposit	-	0.06+	Layer		
106	1061	Deposit	-	0.30	Topsoil		**U**
	1062	Deposit	-	0.09+	Layer		
107	1071	Deposit	-	0.30	Topsoil		**U**
	1072	Deposit	-	-	Layer	CBM, pot	
108	1081	Deposit	-	0.30	Topsoil	CBM	**U**
	1082	Deposit	-	-	Layer	CBM, Fe nail	

109	1091	Deposit	-	0.27	Topsoil	CBM	**U**
	1092	Deposit	-	0.03+	Layer		
110	1101	Deposit	-	0.27	Topsoil		**A**
	1102	?Natural	-	-	Gravelly clay		
111	1111	Deposit	-	0.30	Topsoil	CBM	**A**
	1112	Natural	-	-	Gravel		
112	1121	Deposit	-	0.23	Topsoil		**A***
	1122	Cut/ deposit	-	-	Plough marks		
	1123	Natural	-	-	Gravelly clay		
113	1131	Deposit	-	0.30	Topsoil		**C***
	1132	Natural	-	-	Gravelly clay		
	1133	Deposit	-	-	?Disturbed natural		
114	1141	Deposit	-	0.28	Topsoil	Pot	**AB***
	1142	Natural	-	-	Gravelly clay		
	1143	Deposit	-	-	?Fill of feature		
115	1151	Deposit	-	0.25	Topsoil		**U**
	1152	Deposit	-	0.03+	Layer	CBM, pot, shell	
116	1161	Deposit	-	0.30	Topsoil		**A**
	1162	Natural	-	-	Gravelly clay		
117	1171	Deposit	-	0.23	Topsoil		**A**
	1172	Natural	-	-	Gravelly clay		
118	1181	Deposit	-	0.28	Topsoil		**U**
	1182	Deposit	-	-	Layer		
119	1191	Deposit	-	0.40	Topsoil	CBM	**U**
	1192	Deposit	-	-	Layer		
120	1201	Deposit	-	0.30	Topsoil		**A**
	1202	Natural	-	-	Clayey gravel		
121	1211	Deposit	-	0.26	Topsoil		**U**
	1212	Deposit	-	0.06+	Layer	CBM, pot, Fe nail, bone	
122	1221	Deposit	-	0.28	Topsoil		**?B**
	1222	Deposit	-	-	?Gravel surface		
123	1231	Deposit	-	0.28	Topsoil		**U**
	1232	Deposit	-	0.05+	Layer		
124	1241	Deposit	-	0.33	Topsoil		**U**
	1242	Deposit	-	-	Layer		
125	1251	Deposit	-	0.35	Topsoil		**U**
	1252	Deposit	-	-	Layer	CBM, pot, bone	
126	1261	Deposit	-	0.32	Topsoil	CBM, pot, flint	**C**
	1262	Deposit	-	-	Layer		
127	1271	Deposit	-	0.30	Topsoil		**AB**
	1272	Natural	-	-	Clayey gravel		
	1273	Deposit	-	-	?Fill of feature	Pot	
128	1281	Deposit	-	0.26	Topsoil	CBM	**A**
	1282	Natural	-	-	Clayey gravel		
129	1291	Deposit	-	0.28	Topsoil		**A**
	1292	Natural	-	-	Gravelly clay		
130	1301	Deposit	-	0.22	Topsoil		**A**
	1302	Natural	-	-	Gravelly clay		
131	1311	Deposit	-	0.27	Topsoil		**A**
	1312	Natural	-	-	Gravelly clay		
132	1321	Deposit	-	0.35	Topsoil		**U**
	1322	Deposit	-	-	Layer		
133	1331	Deposit	-	0.34	Topsoil		**A**
	1332	Natural	-	-	Clayey gravel		
134	1341	Deposit	-	0.28	Topsoil		**A**
	1342	Natural	-	-	Clayey gravel		

135	1351	Deposit	-	0.32	Topsoil		**A**
	1352	Natural	-	-	Clayey gravel		
136	1361	Deposit	-	0.34	Topsoil		**A**
	1362	?Natural	-	-	Gravelly clay		
137	1371	Deposit	-	0.28	Topsoil		**A**
	1372	?Natural	-	-	Gravelly clay		
138	1381	Deposit	-	0.32	Topsoil		**A**
	1382	?Natural	-	-	Gravelly clay		
139	1391	Deposit	-	0.32	Topsoil		**A**
	1392	?Natural	-	-	Gravelly clay		
140	1401	Deposit	-	0.25	Topsoil		**A**
	1402	Natural	-	-	Gravelly clay		
141	1411	Deposit	-	0.26	Topsoil		**A**
	1412	Natural	-	-	Gravelly clay		
142	1421	Deposit	-	0.26	Topsoil		**A**
	1422	Natural	-	-	Gravelly clay		
143	1431	Deposit	-	0.26	Topsoil		**A**
	1432	Natural	-	-	Gravelly clay with chalk		
144	1441	Deposit	-	0.36	Topsoil		**A**
	1442	Natural	-	-	Gravelly clay		
145	1451	Deposit	-	0.32	Topsoil		**A**
	1452	Natural	-	-	Gravelly clay		
146	1461	Deposit	-	0.33	Topsoil		**A**
	1462	Natural	-	-	Gravelly clay		
147	1471	Deposit	-	0.32	Topsoil		**A**
	1472	Natural	-	-	Gravelly clay		
148	1481	Deposit	-	0.32	Topsoil		**U**
	1482	Deposit			?Layer		
149	1491	Deposit	-	0.26	Topsoil		**A**
	1492	?Natural	-	-	Gravelly clay		
150	1501	Deposit	-	0.36	Topsoil		**U**
	1502	Deposit	-	-	Poss. colluvial layer		
151	1511	Deposit	-	0.32	Topsoil		**U**
	1512	Deposit	-	-	Poss. colluvial layer		
152	1521	Deposit	-	0.30	Topsoil		**A**
	1522	Natural	-	-	Gravelly clay		
153	1531	Deposit	-	0.22	Topsoil		**A**
	1532	Natural	-	-	Gravelly clay		
154	1541	Deposit	-	0.28	Topsoil		**A**
	1542	Natural	-	-	Gravelly clay		
155	1551	Deposit	-	0.26	Topsoil		**A**
	1552	?Natural	-	-	Gravelly clay		
156	1561	Deposit	-	0.26	Topsoil		**D**
	1562	Deposit	-	0.09	Layer	CBM, pot, bone, shell	
	1563	Deposit	-	-	Fill of linear feature		
	1564	Deposit	-	-	Layer		
157	1571	Deposit	-	0.29	Topsoil		**U**
	1572	Deposit	-	-	Layer		
158	1581	Deposit	-	0.27	Topsoil		**U**
	1582	Deposit	-	-	Layer		
159	1591	Deposit	-	0.27	Topsoil		**U**
	1592	Deposit	-	-	Layer		
160	1601	Deposit	-	0.28	Topsoil		**U**

	1602	Deposit	-	-	Layer		
161	1611	Deposit	-	0.25	Topsoil		**B**
	1612	Deposit	-	-	Layer		
	1613	Structure	0.46	-	Wall ?foundation		
162	1621	Deposit	-	0.27	Topsoil		**C**
	1622	Deposit	-	-	Layer		
163	1631	Deposit	-	0.30	Topsoil		**C**
	1632	Deposit	-	-	Layer		
164	1641	Deposit	-	0.30	Topsoil		**C**
	1642	Deposit	-	-	Layer		
165	1651	Deposit	-	0.27	Topsoil		**A**
	1652	?Natural	-	-	Gravelly clay		
166	1661	Deposit	-	0.29	Topsoil		**A**
	1662	?Natural	-	-	Gravelly clay		
167	1671	Deposit	-	0.40	Topsoil		**C**
	1672	Deposit	-	0.10+	Layer		
168	1681	Deposit	-	0.30	Topsoil		**C**
	1682	Deposit	-	0.03+	Layer	CBM, pot	
169	1691	Deposit	-	0.30	Topsoil		**C**
	1692	Deposit	-	0.05+	Layer		
170	1701	Deposit	-	0.26	Topsoil	CBM, pot	**C**
	1702	Deposit	-	0.04+	Layer		
171	1711	Deposit	-	0.32	Topsoil		**C**
	1712	Deposit	-	0.03+	Layer		
172	1721	Deposit	-	0.32	Topsoil		**C**
	1722	Deposit	-	0.03+	Layer		
173	1731	Deposit	-	0.22	Topsoil		**A**
	1732	Natural	-	-	Gravelly clay		
174	1741	Deposit	-	0.27	Topsoil		**U**
	1742	Deposit	-	-	Poss. colluvial layer		
175	1751	Deposit	-	0.24	Topsoil		**U**
	1752	Deposit	-	0.08+	Poss. colluvial layer		
176	1761	Deposit	-	0.26	Topsoil		**A**
	1762	Natural	-	-	Gravelly clay		
177	1771	Deposit	-	0.23	Topsoil		**C**
	1772	Deposit	-	0.05+	Layer		
178	1781	Deposit	-	0.18	Topsoil		**C**
	1782	Deposit	-	0.08+	Layer	CBM, pot, bone	
179	1791	Deposit	-	0.20	Topsoil		**C**
	1792	Deposit	-	0.10	Layer		
	1793	?Natural	-	-	Gravelly clay		
180	1801	Deposit	-	0.24	Topsoil		**U**
	1802	Deposit	-	-	Layer		
181	1811	Deposit	-	0.28	Topsoil		**C**
	1812	Deposit	-	-	Layer		
182	1821	Deposit	-	0.26	Topsoil		**B**
	1822	Deposit	-	0.10	Layer (poss. damaged gravel surface)		
	1823	Deposit	-	-	Layer		
183	1831	Deposit	-	0.23	Topsoil		**A**
	1832	Natural	-	-	Gravelly clay with chalk		
184	1841	Deposit	-	0.27	Topsoil		**A**
	1842	Natural	-	-	Chalk/clay		
185	1851	Deposit	-	0.26	Topsoil		**U**

	1852	Deposit	-	-	Layer	Bone	
186	1861	Deposit	-	0.28	Topsoil		**U**
	1862	Deposit	-	-	Layer poss. part of rampart		
187	1871	Deposit	-	0.29	Topsoil		**U**
	1872	Deposit	-	-	Layer		
188	1881	Deposit	-	0.32	Topsoil		**U**
	1882	Deposit	-	-	Layer		
189	1891	Deposit	-	0.30	Topsoil		**U**
	1892	Deposit	-	-	Layer		
190	1901	Deposit	-	0.30	Topsoil		**AB**
	1902	Natural	-	-	Slightly gravelly clay		
	1903	Deposit	-	-	?Fill of feature		
191	1911	Deposit	-	0.32	Topsoil		**U**
	1912	Deposit	-	-	Layer		
192	1921	Deposit	-	0.33	Topsoil		**U**
	1922	Deposit	-	-	Layer		
193	1931	Deposit	-	0.33	Topsoil		**A**
	1932	Natural	-	-	Clay/chalk		
194	1941	Deposit	-	0.27	Topsoil		**U**
	1942	Deposit	-	-	Poss. colluvial layer		
195	1951	Deposit	-	0.33	Topsoil		**U**
	1952	Deposit	-	-	Poss. colluvial layer		
196	1961	Deposit	-	0.27	Topsoil		**U**
	1962	Deposit	-	0.04+	Layer	CBM	
197	1971	Deposit	-	0.30	Topsoil		**U**
	1972	Deposit	-	0.03+	Layer		
198	1981	Deposit	-	0.29	Topsoil		**A**
	1982	Natural	-	-	Clay/chalk with flint		
199	1991	Deposit	-	0.27	Topsoil		**A**
	1992	Natural	-	-	Clay/chalk with flint		
200	2001	Deposit	-	0.23	Topsoil		**A**
	2002	Natural	-	-	Clay/chalk with flint		
201	2011	Deposit	-	0.28	Topsoil		**U**
	2012	Deposit	-	0.03+	Layer		
202	2021	Deposit	-	0.32	Topsoil		**U**
	2022	Deposit	-	0.05+	Layer, ?includes disturbed natural		
203	2031	Deposit	-	0.30	Topsoil		**A**
	2032	Natural	-	-	Clay/chalk		
204	2041	Deposit	-	0.31	Topsoil		**A**
	2042	Natural	-	-	Clay/chalk		
205	2051	Deposit	-	0.30	Topsoil		**U**
	2052	Deposit	-	-	Layer		
206	2061	Deposit	-	0.30	Topsoil		**B**
	2062	Deposit	-	-	Gravel layer		
207	2071	Deposit	-	0.28	Topsoil		**U**
	2072	Deposit	-	-	Layer		
208	2081	Deposit	-	0.27	Topsoil		**A**
	2082	Natural	-	-	Clayey gravel		
209	2091	Deposit	-	0.28	Topsoil		**A**
	2092	Natural	-	-	Gravelly clay		

210	2101	Deposit	-	0.30	Topsoil		**U**
	2102	Deposit	-	-	Layer		
211	2111	Deposit	-	0.25	Topsoil		**C**
	2112	Deposit	-	-	Layer (?disturbed natural)		
212	2121	Deposit	-	0.37	Topsoil		**U**
	2122	Deposit	-	-	Layer		
213	2131	Deposit	-	0.36	Topsoil		**B**
	2132	Structure	0.60+	-	Wall		
	2133	Deposit	-	-	Layer		
214	2141	Deposit	-	0.26	Topsoil		**C**
	2142	Deposit	-	-	Layer		
215	2151	Deposit	-	0.26	Topsoil		**C**
	2152	Deposit	-	-	Layer		
216	2161	Deposit	-	0.36	Topsoil		**AB**
	2162	Deposit	0.60	-	Fill of ?BA ditch/gully	Pot, flint	
	2163	Natural	-	-	Gravelly clay		
217	2171	Deposit	-	0.22	Topsoil		**C**
	2172	Deposit	-	-	Layer (?disturbed natural)		
218	2181	Deposit	-	0.30	Topsoil		**B**
	2182	Deposit	0.31	-	Fill of gully		
	2183	Deposit	-	-	Layer		
219	2191	Deposit	-	0.30	Topsoil		**U**
	2192	Deposit	-	-	Layer		
220	2201	Deposit	-	0.22	Topsoil		**U**
	2202	Deposit	-	0.10+	Layer		
221	2211	Deposit	-	0.30	Topsoil		**U**
	2212	Deposit	-	0.06+	Layer		
222	2221	Deposit	-	0.22	Topsoil		**U**
	2222	Deposit	-	0.09+	Layer	Pot, bone	
223	2231	Deposit	-	0.33	Topsoil		**A**
	2232	Natural	-	-	Gravelly clay		
224	2241	Deposit	-	0.28	Topsoil		**A**
	2242	Natural	-	-	Gravelly clay		
226	2261	Deposit	-	0.28	Topsoil		**U**
	2262	Deposit	-	-	Layer		
227	2271	Deposit	-	0.28	Topsoil		**U**
	2272	Deposit	-	-	Layer		
228	2281	Deposit	-	0.33	Topsoil		**A**
	2282	Natural	-	-	Gravelly clay		
229	2291	Deposit	-	0.33	Topsoil		**C**
	2292	Deposit	-	-	Layer, very gravelly		
230	2301	Deposit	-	0.23	Topsoil		**C**
	2302	Deposit	-	-	Layer, very gravelly		

Appendix 3: Test-pitting- Context inventory Field 3

Test pit	Cont-ext	Type	Width	Depth (m)	Comment	Finds	Status
231	2311	Deposit	-	0.35	Topsoil	CBM, pot, stone 'slate', bone, shell	**U**
	2312	Deposit	-	-	Layer		
232	2321	Deposit	-	0.32	Topsoil	CBM	**U**
	2322	Deposit	-	-	Layer		
233	2331	Deposit	-	0.30	Topsoil	CBM, pot	**U**
	2332	Deposit	-	-	Layer		
234	2341	Deposit	-	0.28	Topsoil		**U**
	2342	Deposit	-	0.10+	Layer	CBM, pot	
235	2351	Deposit	-	0.32	Topsoil		**U**
	2352	Deposit	-	0.06+	Layer	CBM, pot	
236	2361	Deposit	-	0.34	Topsoil		**U**
	2362	Deposit	-	-	Layer		
237	2371	Deposit	-	0.34	Topsoil		**U**
	2372	Deposit	-	-	Layer		
238	2381	Deposit	-	0.32	Topsoil		**U**
	2382	Deposit	-	0.04+	Layer		
239	2391	Deposit	-	0.34	Topsoil		**U**
	2392	Deposit	-	0.03+	Layer		
240	2401	Deposit	-	0.32	Topsoil		**U**
	2402	Deposit	-	0.03+	Layer		
241	2411	Deposit	-	0.30	Topsoil		**UC***
	2412	Deposit	-	0.02+	Layer		
242	2421	Deposit	-	0.32	Topsoil		**U**
	2422	Deposit	-	0.03+	Layer		
243	2431	Deposit	-	0.38	Topsoil		**U**
	2432	Deposit	-	0.04+	Layer		
244	2441	Deposit	-	0.28	Topsoil	CBM, pot, bone	**?B**
	2442	Deposit	-	0.03+	Layer - poss. demolition deposit	CBM, pot, bone	
245	2451	Deposit	-	0.37	Topsoil	CBM, pot, stone 'slate', Fe nails, flint, bone, shell	**B**
	2452	Deposit	0.95+	0.03+	Fill of linear feature	CBM, pot, stone 'slate', tessera, bone, shell	
	2453	Deposit	-	0.07+	Fill of linear feature		
	2454	Deposit	-	-	Gravel layer - poss. surface		
246	2461	Deposit	-	0.30	Topsoil	CBM, clay pipe	**?B**
	2462	Deposit	-	0.03+	Layer - poss. demolition deposit		
247	2471	Deposit	-	0.30	Topsoil	CBM, pot	**U**
	2472	Deposit	-	0.08+	Layer		
248	2481	Deposit	-	0.27	Topsoil	CBM, pot	**B**
	2482	Deposit	0.45	-	Fill of linear feature - poss. robber trench	CBM, pot, stone 'slate', bone, shell	
	2483	Deposit	0.50	-	Fill of linear feature - poss. robber trench	CBM, pot	
	2484	Deposit	0.45	-	Fill of pit or		

					posthole		
	2485	Deposit	-	-	Layer - poss. floor surface	CBM, pot	
	2486	Deposit	-	-	Layer		
	2487	Natural	-	-	Orange clay		
249	2491	Deposit	-	0.26	Topsoil		**AB**
	2492	Deposit	-	-	Layer		
	2493	Natural	-	-	Gravelly clay		
250	2501	Deposit	-	0.27	Topsoil	CBM, pot	**U**
	2502	Deposit	-	0.06+	Layer		
251	2511	Deposit	-	0.33	Topsoil	CBM, pot, glass, bone, shell	**U**
	2512	Deposit	-	-	Layer	CBM, pot	
252	2521	Deposit	-	0.34	Topsoil		**U**
	2522	Deposit	-	-	Layer		
253	2531	Deposit	-	0.27	Topsoil	CBM	**U**
	2532	Deposit	-	-	Layer		
254	2541	Deposit	-	0.23	Topsoil	CBM, pot, bone, shell	**U**
	2542	Deposit	-	-	Layer		
255	2551	Deposit	-	0.26	Topsoil	CBM, pot, Fe nail, bone, shell	**U**
	2552	Deposit	-	0.06+	Layer	CBM, pot, bone	
256	2561	Deposit	-	0.30	Topsoil	CBM	**U**
	2562	Deposit	-	0.10+	Layer		
257	2571	Deposit	-	0.28	Topsoil	CBM, pot, flint	**U**
	2572	Deposit	-	0.07+	Layer		
258	2581	Deposit	-	0.31	Topsoil	CBM, pot, bone	**B**
	2582	Deposit	0.50	-	?Fill of wall trench		
	2583	Deposit	-	-	?Floor surface		
	2584	Deposit	-	-	?Floor surface		
259	2591	Deposit	-	0.27	Topsoil		**A**
	2592	Natural	-	-	Clayey gravel		
260	2601	Deposit	-	0.24	Topsoil		**U**
	2602	Deposit	-	-	Layer		
261	2611	Deposit	-	0.23	Topsoil	CBM, pot	**U**
	2612	Deposit	-	0.07+	Layer		
262	2621	Deposit	-	0.22	Topsoil	CBM, pot	**U**
	2622	Deposit	-	0.07+	Layer		
263	2631	Deposit	-	0.26	Topsoil		**U**
	2632	Deposit	-	-	Layer	Pot	
264	2641	Deposit	-	0.22	Topsoil	CBM, pot	**U**
	2642	Deposit	-	0.06+	Layer		
265	2651	Deposit	-	0.28	Topsoil	CBM, pot	**B**
	2652	Structure	0.40+	-	Wall foundation (chalk)		
	2653	Structure	0.44+		Flint wall	CBM, pot, Fe nail	
	2654	Deposit			Layer	CBM	
266	2661	Deposit	-	0.27	Topsoil		**U**
	2662	Deposit	-	-	Layer		
267	2671	Deposit	-	0.23	Topsoil		**U**
	2672	Deposit	-	0.05+	Layer	CBM, pot	
268	2681	Deposit	-	0.32	Topsoil	CBM	**B**
	2682	Deposit	-	-	Layer - poss. floor surface		
	2683	Structure	0.70+	-	Wall foundation (chalk)		

269	2691	Deposit	-	0.34	Topsoil		**B**
	2692	Deposit	-	-	Gravel surface		
	2693	Deposit	-	-	?Fill of feature	Pot	
270	2701	Deposit	-	0.26	Topsoil	CBM, pot	**U**
	2702	Deposit	-	0.04+	Layer	CBM, pot, slag	
271	2711	Deposit	-	0.26	Topsoil		**B**
	2712	Deposit	-	-	Gravel surface		
272	2721	Deposit	-	0.30	Topsoil	CBM, pot, bone	**B**
	2722	Deposit	-	-	Fill of linear features - poss. wall trenches		
	2723	Deposit	-	-	Gravel surface		
273	2731	Deposit	-	0.22	Topsoil	CBM	**D**
	2732	Deposit	-	0.10	Layer		
	2733	Deposit	-	-	Poss. gravel surface		
274	2741	Deposit	-	0.23	Topsoil	CBM	**U**
	2742	Deposit	-	0.08+	Layer		
275	2751	Deposit	-	0.24	Topsoil	CBM, pot*	**U**
	2752	Deposit	-	0.08+	Layer		
276	2761	Deposit	-	0.24	Topsoil	CBM, pot, flint, bone	**U**
	2762	Deposit	-	0.04+	Layer	CBM	
277	2771	Deposit	-	0.26	Topsoil	CBM, pot*	**U**
	2772	Deposit	-	0.08+	Layer		
278	2781	Deposit	-	0.25	Topsoil	CBM, pot, bone	**U**
	2782	Deposit	-	0.04+	Layer	CBM, pot, bone	
279	2791	Deposit	-	0.28	Topsoil	CBM, pot	**U**
	2792	Deposit	-	0.04+	Layer		
280	2801	Deposit	-	0.35	Topsoil		**U**
	2802	Deposit	-	0.03+	Layer		
281	2811	Deposit	-	0.30	Topsoil	CBM, pot	**U**
	2812	Deposit	-	0.03+	Layer		
282	2821	Deposit	-	0.30	Topsoil		**U**
	2822	Deposit	-	0.02+	Layer		
283	2831	Deposit	-	0.40	Topsoil	CBM	**U**
	2832	Deposit	-	0.03+	Layer		
284	2841	Deposit	-	0.30	Topsoil		**AB**
	2842	Deposit	1.00+	0.04+	Fill of linear feature		
	2843	Natural	-	-	Gravel		
	2844	Deposit	-	-	Fill of linear feature		
285	2851	Deposit	-	0.33	Topsoil		**A***
	2852	Natural	-	-	Clay/gravel		
286	2861	Deposit	-	0.35	Topsoil		**U**
	2862	Deposit	-	-	Layer		
287	2871	Deposit	-	0.35	Topsoil		**C**
	2872	Deposit	-	-	Layer		
288	2881	Deposit	-	0.35	Topsoil	CBM, pot	**C**
	2882	Deposit	-	-	Layer		
289	2891	Deposit	-	0.28	Topsoil		
	2892	Deposit	-	0.09+	Gravel layer, poss. surface or perhaps natural		**A or B**
290	2901	Deposit	-	0.28	Topsoil		**C**
	2902	Deposit	-	-	Layer		
291	2911	Deposit	-	0.26	Topsoil	CBM, pot	**A or B**

	2912	Deposit	-	-	Gravel layer, poss. surface or perhaps natural		
292	2921	Deposit	-	0.26	Topsoil		**A or B**
	2922	Deposit	-	0.09+	Gravel layer, poss. surface or perhaps natural		
293	2931	Deposit	-	0.25	Topsoil		**U**
	2932	Deposit	-	0.05+	Layer	Pot	
294	2941	Deposit	-	0.28	Topsoil		**AB**
	2942	Natural	-	-	Gravel	Pot	
	2943	Deposit	0.50	-	Fill of ditch/gully	Pot (LIA), bone	
295	2951	Deposit	-	0.40	Topsoil		**U**
	2952	Deposit	-	-	Layer		
296	2961	Deposit	-	0.36	Topsoil		**U**
	2962	Deposit	-	-	Layer		
297	2971	Deposit	-	0.32	Topsoil		**U**
	2972	Deposit	-	-	Layer		
298	2981	Deposit	-	0.40	Topsoil		**U**
	2982	Deposit	-	-	Layer		
299	2991	Deposit	-	0.36	Topsoil	CBM, glass*	**U**
	2992	Deposit	-	-	Layer	CBM	
300	3001	Deposit	-	0.35	Topsoil	CBM	**U**
	3002	Deposit	-	-	Layer	CBM	
301	3011	Deposit	-	0.28	Topsoil	CBM, pot, bone	**B**
	3012	Structure	0.22+	-	Wall (mortared flint)		
	3013	Deposit	-	-	Gravel layer, poss. surface or perhaps natural		
302	3021	Deposit	-	0.30	Topsoil		**A or B**
	3022	Deposit	-	-	Gravel layer, poss. surface or perhaps natural		
	3023	Natural	-	-	Clayey gravel		
303	3031	Deposit	-	0.24	Topsoil	CBM	**U**
	3032	Deposit	-	0.11+	Layer	CBM, flint	
304	3041	Deposit	-	0.22	Topsoil		**U**
	3042	Deposit	-	0.08+	Layer		
305	3051	Deposit	-	0.26	Topsoil	Flint	**U**
	3052	Deposit	-	0.04+	Layer		
306	3061	Deposit	-	0.28	Topsoil	CBM	**U**
	3062	Deposit	-	0.04+	Layer		
307	3071	Deposit	-	0.34	Topsoil	CBM	**U**
	3072	Deposit	-	0.04	Layer	CBM	
	3073	Deposit	-	-	Layer		
308	3081	Deposit	-	0.30	Topsoil		**B**
	3082	Deposit	0.60+	-	Fill of linear feature		
	3083	Deposit	-	-	Layer, poss. natural		
309	3091	Deposit	-	0.26	Topsoil	CBM, pot	**U**
	3092	Deposit	-	0.08+	Layer	CBM, pot	
310	3101	Deposit	-	0.26	Topsoil		**U**
	3102	Deposit	-	-	Layer		
311	3111	Deposit	-	0.36	Topsoil	CBM, pot	**?B**
	3112	Deposit	-	0.04	Layer - poss. gravel surface		

	3113	Natural	-	-	Gravelly clay		
312	3121	Deposit	-	0.29	Topsoil		**AB**
	3122	Natural	-	-	Gravel		
	3123	Deposit	0.20	-	Fill of ?gully		
313	3131	Deposit	-	0.25	Topsoil	CBM	**U**
	3132	Deposit	-	-	Layer		
314	3141	Deposit	-	0.25	Topsoil	CBM, pot	**U**
	3142	Deposit	-	-	Layer		
315	3151	Deposit	-	0.26	Topsoil		**U**
	3152	Deposit	-	-	Layer		
316	3161	Deposit	-	0.26	Topsoil		**U**
	3162	Deposit	-	0.07+	Layer		
317	3171	Deposit	-	0.30	Topsoil		**U**
	3172	Deposit	-	-	Layer		
318	3181	Deposit	-	0.28	Topsoil	CBM, pot, Fe nail	**D**
	3182	Deposit	-	0.05	Layer	Flint	
	3183	Deposit	-	-	Layer, poss. natural		
	3184	Deposit	0.70-	-	Fill of linear feature containing burnt material		
319	3191	Deposit	-	0.25	Topsoil		**A**
	3192	Natural	-	-	Sandy gravel		
320	3201	Deposit	-	0.26	Topsoil		**UB**
	3202	Deposit	-	0.06+	Layer, ?rampart material	CBM	
321	3211	Deposit	-	0.25	Topsoil		**UB**
	3212	Deposit	-	-	Layer, ?rampart material	CBM	
322	3221	Deposit	-	0.27	Topsoil		**UB**
	3222	Deposit	-	-	Layer, ?rampart material		

Appendix 4: Test-pitting- Context inventory Field 4

Test pit	Cont-ext	Type	Width	Depth (m)	Comment	Finds	Status
225	2251	Deposit	-	0.33	Topsoil		**U**
	2252	Deposit	-	0.03+	Layer		
323	3231	Deposit	-	0.24	Topsoil		**B**
	3232	Structure	-	-	Possible flint wall		
	3233	Deposit	-	-	Layer	CBM, pot, Fe nails, bone, shell	
	3234	Deposit	-	-	Burnt clay patch		
	3235	Deposit	0.30	-	Fill of linear feature		
	3236	Structure	0.50+	-	?Foundation (chalk and flint)		
	3237	Deposit	-	-	Layer - poss. surface		
324	3241	Deposit	-	0.32	Topsoil	CBM	**U**
	3242	Deposit	-	0.08+	Layer	CBM, pot, bone	
325	3251	Deposit	-	0.26	Topsoil		**D**
	3252	Deposit	-	0.06-0.19	Layer	CBM, pot	
	3253	Deposit	-	0.16+	Layer?	CBM	
326	3261	Deposit	-	0.28	Topsoil		**U**
	3262	Deposit	-	0.11+	Layer	CBM, pot	
327	3271	Deposit	-	0.30	Topsoil	CBM, pot, ?tessera	**U**
	3272	Deposit	-	-	Layer		
328	3281	Deposit	-	0.28	Topsoil	CBM, pot	**U**
	3282	Deposit	-	-	Layer		
329	3291	Deposit	-	0.29	Topsoil	CBM, pot, slag, bone, shell	**B**
	3292	Deposit	-	-	Layer		
	3293	Deposit	-	-	Demolition spread		
	3294	Deposit	-	-	Demolition spread		
	3295	Structure	0.52	-	?Wall (flint and tile)		
330	3301	Deposit	-	0.27	Topsoil	CBM, pot, stone 'slate', Fe nail, bone, shell	**B**
	3302	Deposit	-	0.08	Demolition debris	CBM, pot*, bone, shell	
	3303	Structure	-	-	Tessellated floor		
	3304	Structure	-	-	Mortar bedding for 3303		
331	3311	Deposit	-	0.32	Topsoil	CBM	**U**
	3312	Deposit	-	0.07+	Layer	CBM	
332	3321	Deposit	-	0.30	Topsoil	CBM, pot	**U**
	3322	Deposit	-	0.16+	Layer	CBM, pot, ?Fe nail, bone	
333	3331	Deposit	-	0.26	Topsoil	CBM	**U**
	3332	Deposit	-	0.10+	Layer	CBM, pot, bone	
334	3341	Deposit	-	0.28	Topsoil	CBM, pot	**B***
	3342	Cut/deposit	-	-	Modern plough intrusion		
	3343	Deposit	-	-	Gravel surface		
	3344	Deposit	-	-	Layer - poss. surface		
	3345	Deposit	-	-	?Layer		

335	3351	Deposit	-	0.27	Topsoil	CBM, pot, slag, bone, shell	**B**
	3352	Deposit	-	-	Layer - ?demolition debris	CBM	
336	3361	Deposit	-	0.26	Topsoil		**?D**
	3362	Deposit	-	0.05+	Layer		
337	3371	Deposit	-	0.28	Topsoil		**U**
	3372	Deposit	-	-	Layer		
338	3381	Deposit	-	0.32	Topsoil		**U**
	3382	Deposit	-	-	?Layer	CBM, pot	
	3383	Deposit	-	-	?Layer		
339	3391	Deposit	-	0.25	Topsoil	CBM, pot, Fe nail	**B***
	3392	Deposit	-	-	Layer		
340	3401	Deposit	-	0.25	Topsoil	CBM, pot*, stone 'slate', bone, shell	**B**
	3402	Deposit	-	-	Layer	CBM, pot, Fe nail, glass*, bone, shell	
	3403	Deposit	0.65	-	Chalk spread		
	3404	Deposit	0.35	-	Fill of posthole cut into 3403		
341	3411	Deposit	-	0.25	Topsoil	CBM, pot, Fe nails, flint, bone	**D**
	3412	Deposit	-	0.08	Layer		
	3413	Deposit	-	0.10	Layer		
	3414	Deposit	-	-	Poss. gravel surface		
	3415	Deposit	-	-	Layer of burnt material		
342	3421	Deposit	-	0.27	Topsoil		**U**
	3422	Deposit	-	0.14+	Layer	CBM, pot	
343	3431	Deposit	-	0.26	Topsoil		**U**
	3432	Deposit	-	0.07+	Layer	CBM, pot	
344	3441	Deposit	-	0.28	Topsoil	CBM, pot*	**U**
	3442	Deposit	-	0.14+	Layer	CBM, pot*, bone	
345	3451	Deposit	-	0.32	Topsoil		**U**
	3452	Deposit	-	0.06+	Layer	CBM, pot	
346	3461	Deposit	-	0.28	Topsoil	CBM, pot, shell	**U**
	3462	Deposit	-	0.07+	Layer		
347	3471	Deposit	-	0.30	Topsoil	CBM, pot	**U**
	3472	Deposit	-	0.04+	Layer		
348	3481	Deposit	-	0.27	Topsoil	CBM, pot, stone 'slates', slag, glass*, flint, bone, shell	**U**
	3482	Deposit	-	0.14+	Layer	CBM, pot, flint, bone, shell	
349	3491	Deposit	-	0.25	Topsoil	CBM, pot	**U**
	3492	Deposit	-	0.07+	Layer	CBM, bone	
350	3501	Deposit	-	0.23	Topsoil	CBM	**U**
	3502	Deposit	-	0.08+	Layer		
351	3511	Deposit	-	0.26	Topsoil		**U**
	3512	Deposit	-	0.10+	Layer		
352	3521	Deposit	-	0.30	Topsoil	CBM, pot	**B**
	3522	Deposit	-	0.05+	Layer	CBM, pot, bone	
	3523	Deposit	-	-	Gravel surface		
353	3531	Deposit	-	0.30	Topsoil	CBM, pot, Fe nail, bone	**B**

	3532	Deposit	-	-	Gravel surface	Pot	
354	3541	Deposit	-	0.33	Topsoil	CBM, pot	**U**
	3542	Deposit	-	0.10+	Layer		
355	3551	Deposit	-	0.34	Topsoil	CBM, pot, bone	**B**
	3552	Deposit	-	-	Layer	Shell	
	3553	Deposit	-	-	Layer		
	3554	Deposit	0.55	-	Fill of linear feature		
	3555	Deposit	-	-	Layer		
356	3561	Deposit	-	0.26	Topsoil		**B***
	3562	Structure	0.80	-	Wall foundation (chalk)		
	3563	Structure	0.45+	-	Wall foundation (chalk)		
	3564	Deposit	-	-	Layer - poss. natural		
	3565	Deposit	-	-	Layer		
357	3571	Deposit	-	0.24	Topsoil	CBM, pot	**U**
	3572	Deposit	-	0.10+	Layer		
358	3581	Deposit	-	0.26	Topsoil	CBM, pot*, bone, shell	**B***
	3582	Deposit	-	-	Layer	CBM, bone	
	3583	Structure	0.48+	-	?Wall foundation (chalk)		
359	3591	Deposit	-	0.31	Topsoil	CBM, pot	**U**
	3592	Deposit	-	0.12+	Layer		
360	3601	Deposit	-	0.30	Topsoil	CBM	**U**
	3602	Deposit	-	0.10+	Layer	CBM	
361	3611	Deposit	-	0.28	Topsoil	CBM	**B**
	3612	Deposit	-	0.06+	?Feature fill		
	3613	Deposit	-	0.04+	?Gravel surface		
362	3621	Deposit	-	0.33	Topsoil	CBM, pot, bone	**B**
	3622	Deposit	-	-	Fill of poss. linear feature		
	3623	Deposit	-	-	Fill of poss. linear feature		
	3624	Deposit	-	-	Gravel ?surface		
363	3631	Deposit	-	0.34	Topsoil		**U**
	3632	Deposit	-	-	Layer		
364	3641	Deposit	-	0.31	Topsoil	CBM	**U**
	3642	Deposit	-	-	Layer		
365	3651	Deposit	-	0.30	Topsoil	CBM, pot, Fe nails, slag, bone, shell	**U**
	3652	Deposit	-	0.10+	Layer	CBM, pot, Fe frag., bone, shell	
366	3661	Deposit	-	0.30	Topsoil	CBM, pot, glass, bone, shell	**U**
	3662	Deposit	-	0.12+	Layer	CBM, pot, Fe nail, bone, shell	
367	3671	Deposit	-	0.32	Topsoil	CBM, pot, glass*, bone	**U**
	3672	Deposit	-	0.05+	Layer	CBM, pot*, bone	
368	3681	Deposit	-	0.29	Topsoil	CBM	**U**
	3682	Deposit	-	0.06+	Layer	CBM, pot*	
369	3691	Deposit	-	0.22	Topsoil		**U**
	3692	Deposit	-	0.04+	Layer		
370	3701	Deposit	-	0.24	Topsoil	CBM, pot, Fe nail, bone, shell	**U**

	3702	Deposit	-	0.04+	Layer	CBM, pot, Fe nail, bone, shell	
371	3711	Deposit	-	0.25	Topsoil		**B**
	3712	Structure	0.64	-	Wall foundation (chalk)		
	3713	Structure	0.15+	-	Wall foundation (chalk)		
	3714	Deposit	-	-	Gravel surface		
	3715	Deposit	-	-	Gravel surface		
	3716	Deposit	-	-	Fill of probable feature cutting 3715		
372	3721	Deposit	-	0.34	Topsoil		**U**
	3722	Deposit	-	-	Layer		
373	3731	Deposit	-	0.36	Topsoil		**U**
	3732	Deposit	-	0.05+	Layer		
374	3741	Deposit	-	0.24	Topsoil		**B**
	3742	Deposit	-	0.07	Layer		
	3743	Deposit	-	0.05+	Mortar ?floor		
375	3751	Deposit	-	0.22	Topsoil		**U**
	3752	Deposit	-	0.06	Layer	CBM, pot, bone, shell	
376	3761	Deposit	-	0.28	Topsoil		**B**
	3762	Deposit	-	-	Layer		
	3763	Deposit	0.60	-	Fill of linear feature, ditch or poss. robber trench		
377	3771	Deposit	-	0.30	Topsoil	CBM, pot, bone, shell	**U**
	3772	Deposit	-	-	Layer		
378	3781	Deposit	-	0.35	Topsoil		**AB**
	3782	Natural?	-	-	Gravelly clay		
379	3791	Deposit	-	0.34	Topsoil		**AB**
	3792	Natural	-	-	Gravelly Clay		
	3793	Deposit	-	-	Layer or possible feature fill		

Appendix 5: Pottery and tile quantification per context by period

	Uncertain		Roman				Medieval		Post-medieval		Tile	
			Amphorae		Other fabrics							
Context	No. sh.	Wt.	No. sh.	Wt.	No. sh.	Wt.	No. sh	Wt.	No. sh.	Wt.	No. sh.	Wt.
0011					1	10	2	21	1	2	3	153
0022					1	9						
0051							1	12	1	7	6	528
0071					1	9			1	18	8	280
0081					2	10					14	327
0091					1	45					7	659
0111					2	11	1	8			4	334
0112					2	8					2	246
0121											6	817
0122					4	65					7	1292
0131											3	139
0141											4	65
0151					2	34					1	372
0152					1	5						
0161											4	73
0162					1	21					10	1829
0172					1	28			1	8	5	1922
0181											1	218
0191					3	37	2	34			3	62
0201					1	47					1	89
0212					3	77					3	140
0221					1	5					3	216
0231											3	107
0232					2	14						
0251					2	21						
0262											6	2000
0281					2	10					6	906
0301							1	6			5	406
0321	1	4									8	198
0341					1	3					5	605
0342					1	7	1	38			4	169
0352											4	255
0412											1	111
0431					1	2						
0442					1	6					2	71
0451					2	37						
0452					2	79						
0461											11	295
0462					1	6					1	3
0481					2	4					3	157
0482											2	386
0491											8	210
0492					1	9					6	144
0501					1	29					6	199
0562											1	40
0601											3	91
0752											2	267
0761					1	2						
0792											8	140
0802					1	5						
0921					2	9					3	134
0941											2	125

	Uncertain		Roman				Medieval		Post-medieval		Tile	
			Amphorae		Other fabrics							
Context	No. sh.	Wt.	No. sh.	Wt.	No. sh.	Wt.	No. sh	Wt.	No. sh.	Wt.	No. sh.	Wt.
0951					1	9						
0952											1	30
0981											4	294
1072					1	30					3	435
1081											3	175
1082											3	178
1091											1	95
1111											2	110
1141					2	42						
1152					6	112					2	433
1191											4	270
1212					3	10					8	970
1252					1	17					1	67
1261					1	12					1	31
1273					1	54						
1281											1	47
1562					3	290					7	2995
1682					1	15					4	1287
1701	1	13	1	30							2	42
1782					2	51					1	41
1962											2	89
2162	1	1										
2222					2	93						
2311			1	3	14	355					19	978
2321											5	457
2331					1	7					1	18
2342					1	15					5	125
2352					3	87					9	1580
2441					6	68					22	1674
2442					20	235					12	1345
2451					7	49					192	16252
2452			1	64	7	72					69	6167
2461											14	667
2471					4	65					17	927
2481			1	271	1	14					17	1916
2482					3	48					5	2005
2483					1	50					3	357
2485					1	8					2	13
2501			1	8	3	55					14	688
2511					29	378					68	7907
2512					15	245					23	3693
2531											5	141
2541					3	37					5	374
2551			5	207	22	347					36	2615
2552					2	7					8	396
2561											8	168
2571			2	29	7	112					40	3286
2581					1	3					13	739
2611					2	11					12	456
2621					4	46					9	315
2632					2	27						
2641					8	64					5	695
2651			1	98	2	14					7	825
2653			1	15	3	46					1	591

	Uncertain		Roman				Medieval		Post-medieval		Tile	
			Amphorae		Other fabrics							
Context	No. sh.	Wt.	No. sh.	Wt.	No. sh.	Wt.	No. sh	Wt.	No. sh.	Wt.	No. sh.	Wt.
2654											3	728
2672					1	7					5	294
2681											23	1877
2693					3	319						
2701					1	15					4	170
2702					2	17					3	226
2721					4	68					5	540
2731											2	70
2741											4	183
2751					1	5			1	4	2	55
2761					8	62					14	1628
2762											4	448
2771					1	21			1	4	11	249
2781	1	3	1	309	15	121					35	1734
2782					1	6					9	152
2791					3	16					13	826
2811					1	6					2	61
2831											10	317
2881					3	20					7	1381
2911					1	12					4	60
2932					6	38						
2942					1	2						
2943					39	418						
2991											1	12
2992											1	56
3001											5	357
3002											3	94
3011					1	8					6	848
3031											8	343
3032											4	134
3061											2	55
3071											4	289
3091					3	41					7	453
3092					1	3					2	42
3111					1	194					5	139
3131											4	195
3141					1	9					1	14
3181	1	9			3	50					1	8
3202											6	147
3212											1	6
3233					20	261					3	93
3241											7	1384
3242					1	8					24	2258
3252					3	15					3	512
3253											10	1270
3262					4	73					1	2
3271					2	11					6	956
3281					2	26					6	1273
3291					5	492					125	16635
3301					6	59					80	3179
3302					2	11			1	10	1	1655
3311											2	135
3312											2	168
3321			1	198							3	133

	Uncertain		Roman				Medieval		Post-medieval		Tile	
			Amphorae		Other fabrics							
Context	No. sh.	Wt.	No. sh.	Wt.	No. sh.	Wt.	No. sh	Wt.	No. sh.	Wt.	No. sh.	Wt.
3322					3	30					8	766
3331											5	362
3332			1	69	14	223					11	1085
3341					1	22					35	876
3351					6	44					28	2899
3352											8	567
3382			1	38	2	109					28	1856
3391					1	15					16	1637
3401					9	65			1	17	13	2108
3402					3	11					11	122
3411			7	474	31	287					33	5824
3422					2	14					26	2640
3432					1	9					38	2573
3441					3	42	2	17			15	1146
3442							1	5			6	280
3452					3	37					23	3058
3461					5	62					13	370
3471					2	40					25	2050
3481			5	266	40	445					226	15716
3482			2	137	35	1041					98	8299
3491					1	6					14	1308
3492											7	188
3501											6	1279
3521					1	4					9	833
3522					1	6					15	531
3531					37	266					25	1888
3532					1	13						
3541					1	12					19	1499
3551			3	238	8	96					25	1922
3571					1	16					27	1266
3581					4	38			1	21	69	6133
3582											12	5506
3591					2	11					12	352
3601											10	667
3602											6	291
3611											10	1069
3621					3	33					21	1769
3641											11	2084
3651			3	109	103	1311					47	5143
3652			3	313	17	140					11	735
3661					22	222					14	875
3662					3	24					1	25
3671					1	16					27	1239
3672	1	11			7	120			1	5	14	531
3681											3	174
3682	1	1	1	24	4	16			1	17	13	847
3701					11	291					44	5120
3702			28	1381	67	784					14	467
3752					26	649					15	822
3771					1	7					5	387

Appendix 6: Geophysical Survey Notes on Standard Procedures

1) **Resistivity Survey:** Each 30 metre square is surveyed by making repeated parallel traverses across it, all aligned parallel to one pair of the square's edges, and each separated by a distance of 1 metre from the last; the first and last traverses being 0.5 metres from the nearest parallel square edge. Readings are taken along each traverse at 1 metre intervals, the first and last readings being 0.5 metres from the nearest square edge.

Unless otherwise stated the measurements are made with a Geoscan RM15 earth resistance meter incorporating a built-in data logger, using the twin electrode configuration with a 0.5 metre mobile electrode separation. As it is usually only relative changes in resistivity that are of interest in archaeological prospecting, no attempt is made to correct these measurements for the geometry of the twin electrode array to produce an estimate of the true apparent resistivity. Thus, the readings presented in plots will be the actual values of earth resistance recorded by the meter, measured in Ohms (Ω). Where correction to apparent resistivity has been made, for comparison with other electrical prospecting techniques, the results are quoted in the units of apparent resistivity, Ohm-m (Ωm).

Measurements are recorded digitally by the RM15 meter and subsequently transferred to a portable laptop computer for permanent storage and preliminary processing. Additional processing is performed on return to the Ancient Monuments Laboratory using desktop workstations.

2) **Magnetometer Survey:** Each 30 metre square is surveyed by making repeated parallel traverses across it, all parallel to that pair of square edges most closely aligned with the direction of magnetic North. Each traverse is separated by a distance of 1 metre from the last; the first and last traverses being 0.5 metre from the nearest parallel square edge. Readings are taken along each traverse at 0.25 metre intervals, the first and last readings being 0.125 metre from the nearest square edge.

These traverses are walked in so called 'zig-zag' fashion, in which the direction of travel alternates between adjacent traverses to maximise survey speed. However, the magnetometer is always kept facing in the same direction, regardless of the direction of travel, to minimise heading error.

Unless otherwise stated the measurements are made with a Geoscan FM36 fluxgate gradiometer which incorporates two vertically aligned fluxgates, one situated 0.5 metres above the other; the bottom fluxgate is carried at a height of approximately 0.2 metres above the ground surface. The FM36 incorporates a built-in data logger that records measurements digitally; these are subsequently transferred to a portable laptop computer for permanent storage and preliminary processing. Additional processing is performed on return to the Ancient Monuments Laboratory using desktop workstations.

It is the opinion of the manufacturer of the Geoscan instrument that two sensors placed 0.5 metres apart cannot produce a true estimate of vertical magnetic

gradient unless the bottom sensor is far removed from the ground surface. Hence, when results are presented, the difference between the field intensity measured by the top and bottom sensors is quoted in units of nano-Tesla (nT) rather than in the units of magnetic gradient, nano-Tesla per metre (nT/m).

3) **Resistivity Profiling:** This technique measures the electrical resistivity of the subsurface in a similar manner to the standard resistivity mapping method outlined in note 1. However, instead of mapping changes in the near surface resistivity over an area, it produces a vertical section, illustrating how resistivity varies with increasing depth. This is possible because the resistivity meter becomes sensitive to more deeply buried anomalies as the separation between the measurement electrodes is increased. Hence, instead of using a single, fixed electrode separation as in resistivity mapping, readings are repeated over the same point with increasing separations to investigate the resistivity at greater depths. It should be noted that the relationship between electrode separation and depth sensitivity is complex so the vertical scale quoted for the section is only approximate. Furthermore, as depth of investigation increases the size of the smallest anomaly that can be resolved also increases.

Typically a line of 25 electrodes is laid out separated by 1 or 0.5 metre intervals. The resistivity of a vertical section is measured by selecting successive four electrode subsets at increasing separations and making a resistivity measurement with each. Several different schemes may be employed to determine which electrode subsets to use, of which the Wenner and Dipole-Dipole are typical examples. A Campus Geopulse earth resistance meter, with built in multiplexer, is used to make the measurements and the Campus Imager software is used to automate reading collection and construct a resistivity section from the results.

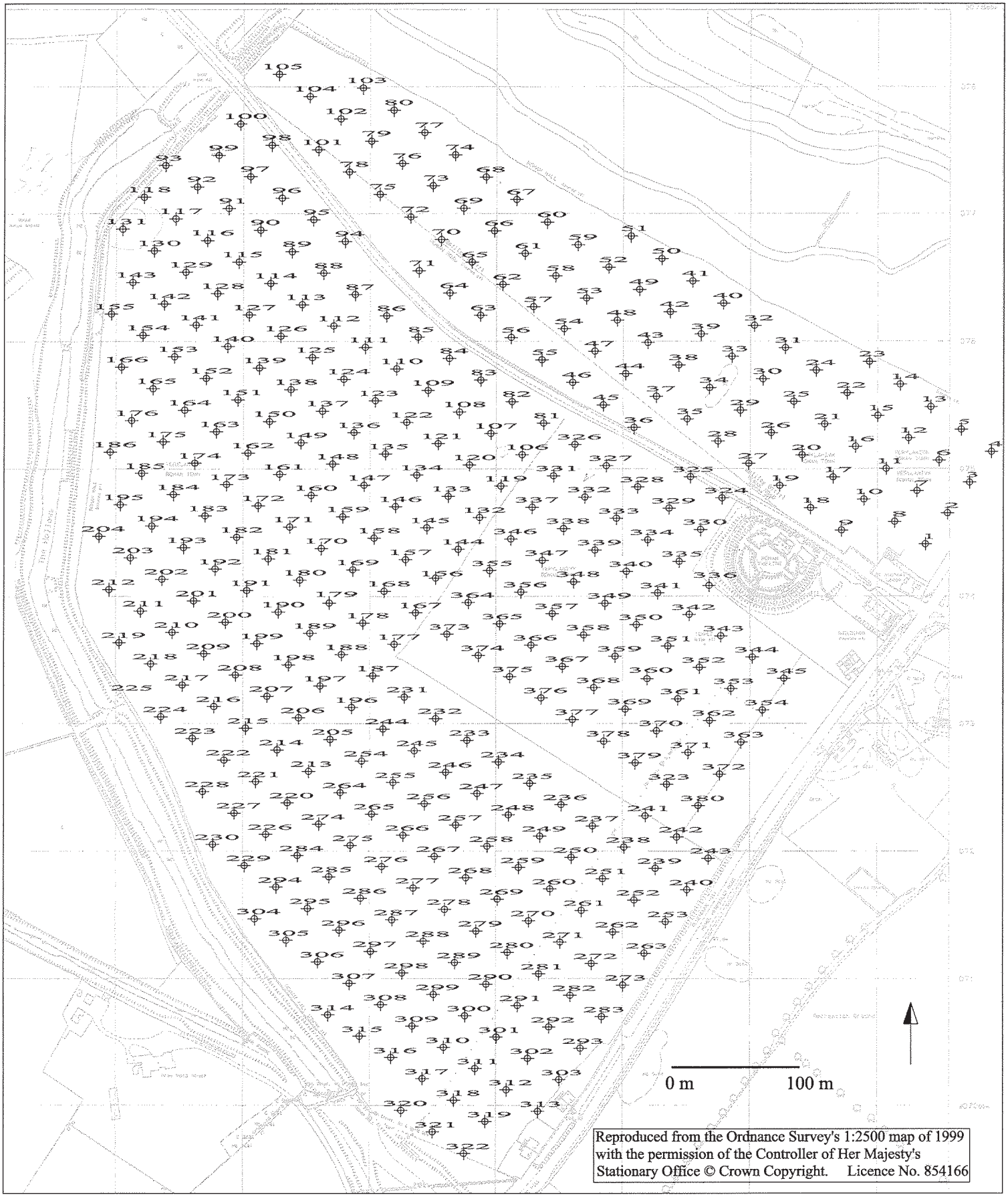


Figure 1: Test-pit location plan

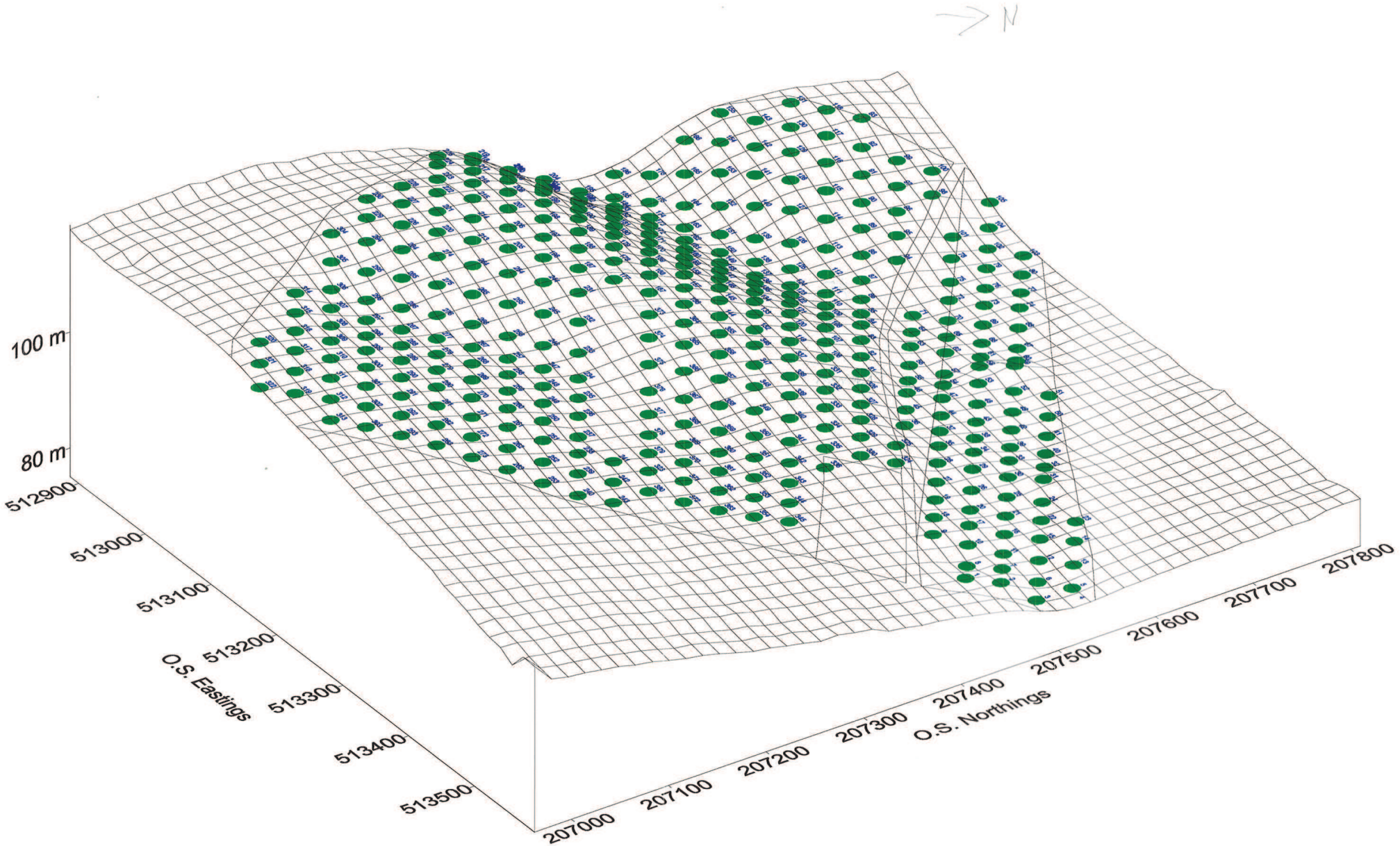


Figure 2: Isometric view of current topography

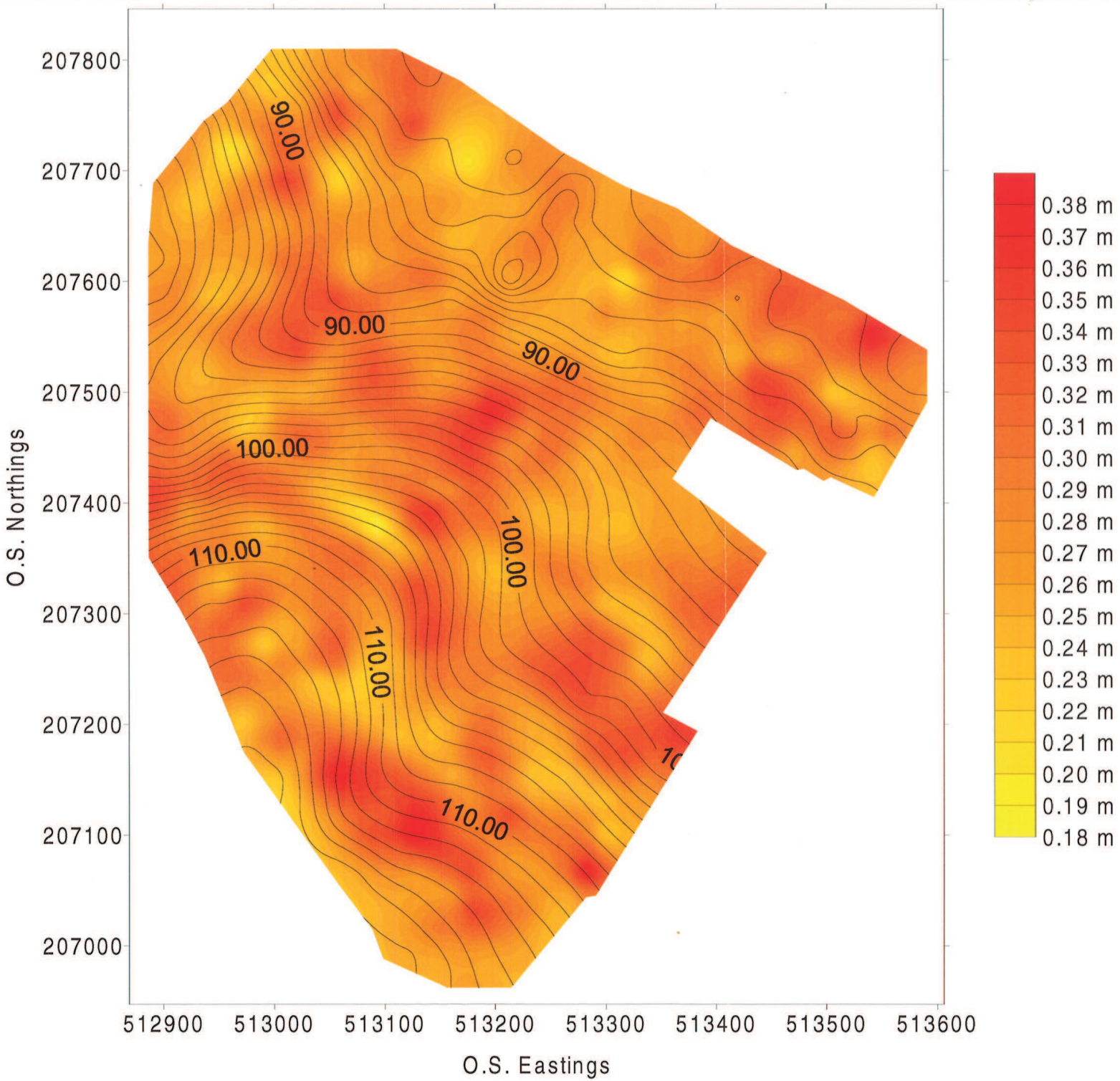


Figure 3: Variation in ploughsoil depth plotted against surface contours

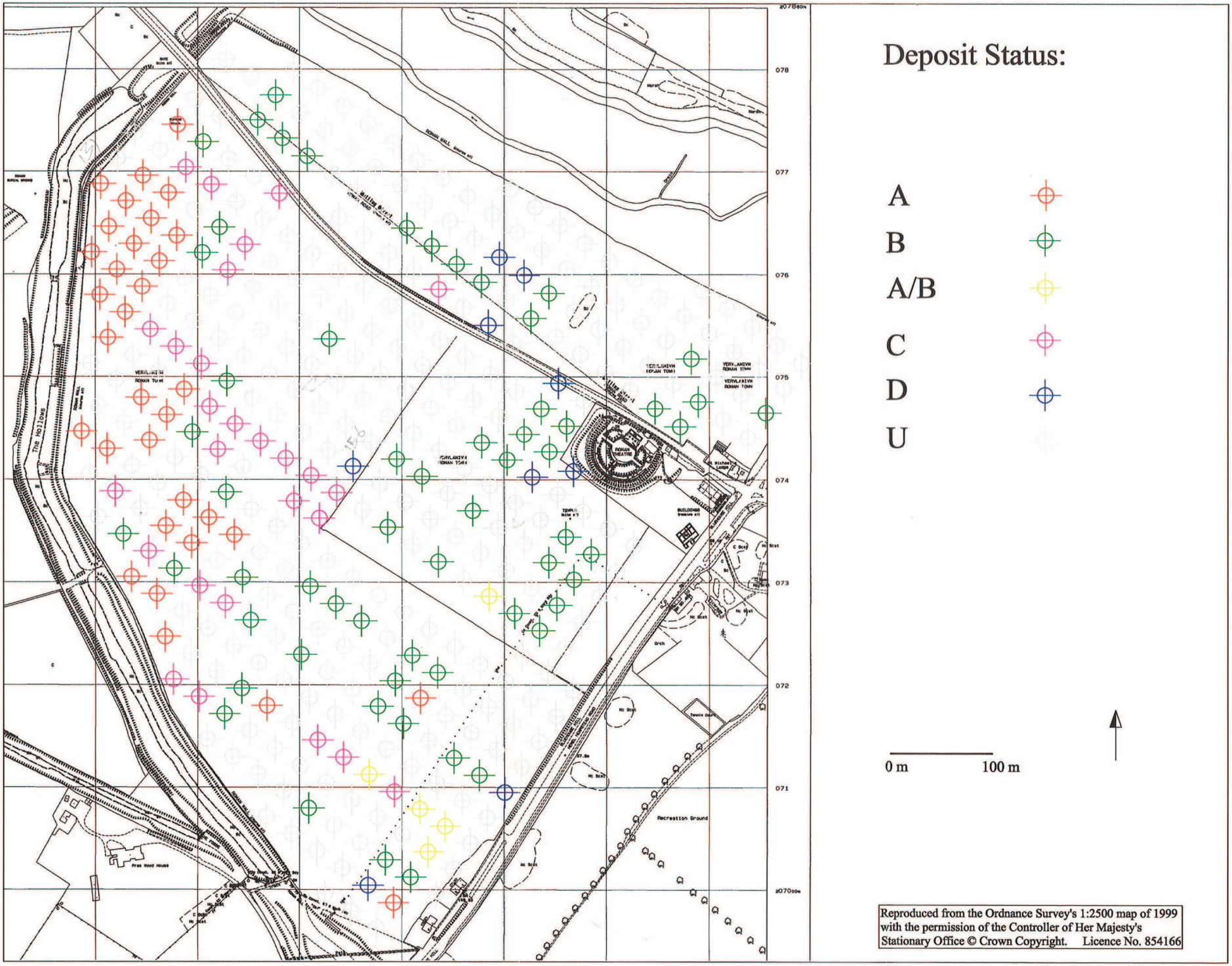
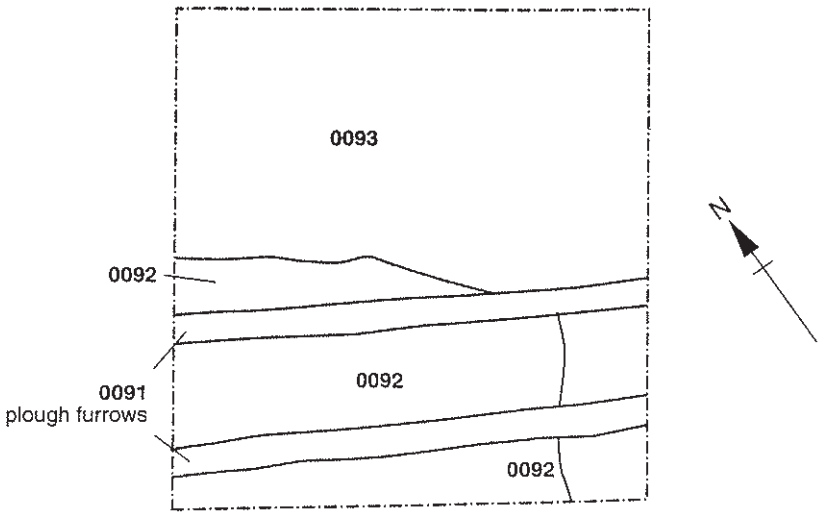
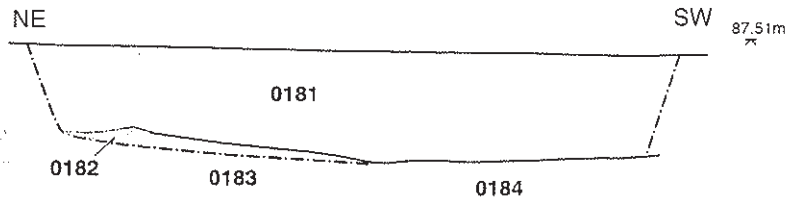


Figure 4: Distribution of deposit types

Test Pit 9
Plan



Test Pit 18
Section



Test Pit 18
Plan

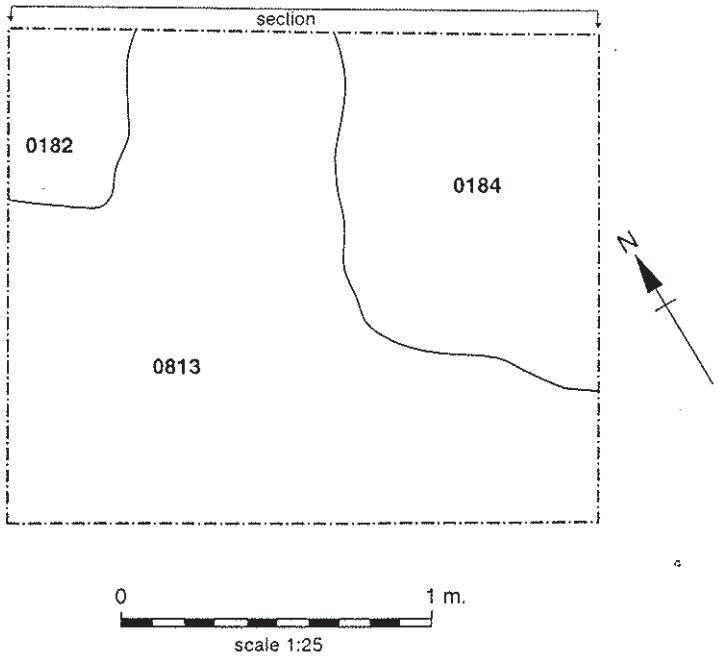
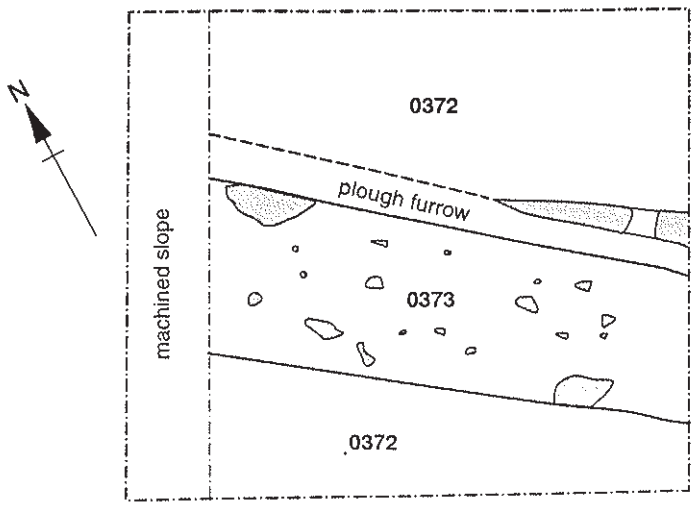
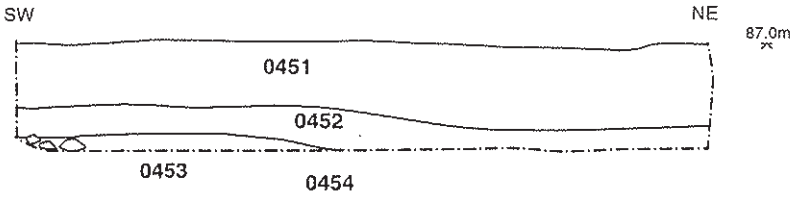


Figure 5: Test Pits 9 and 18.

Test Pit 37
Plan



Test Pit 45
Section



Test Pit 45
Plan

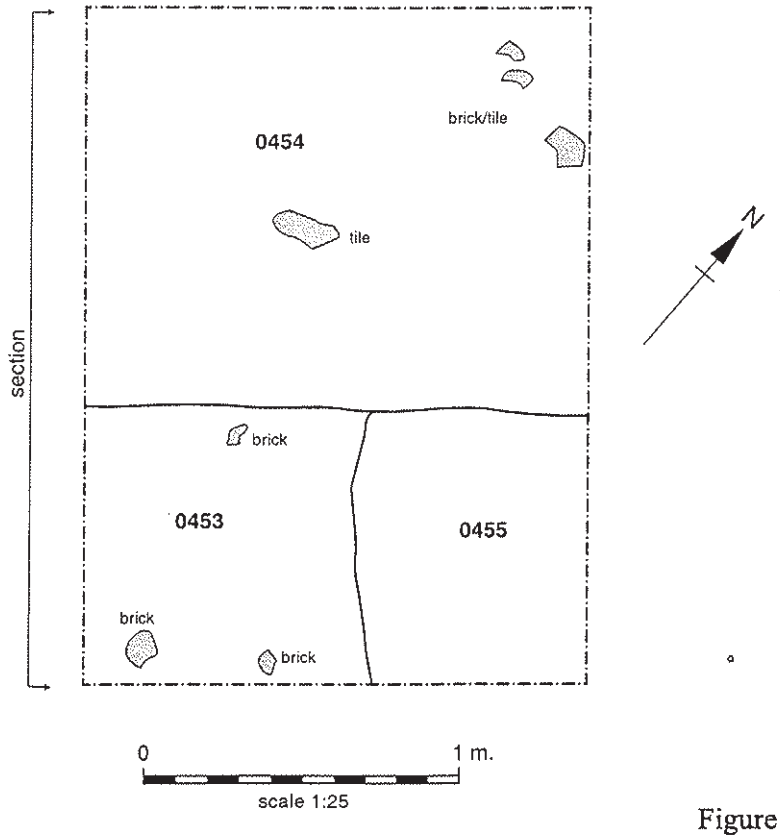


Figure 6: Test Pits 37 and 45.

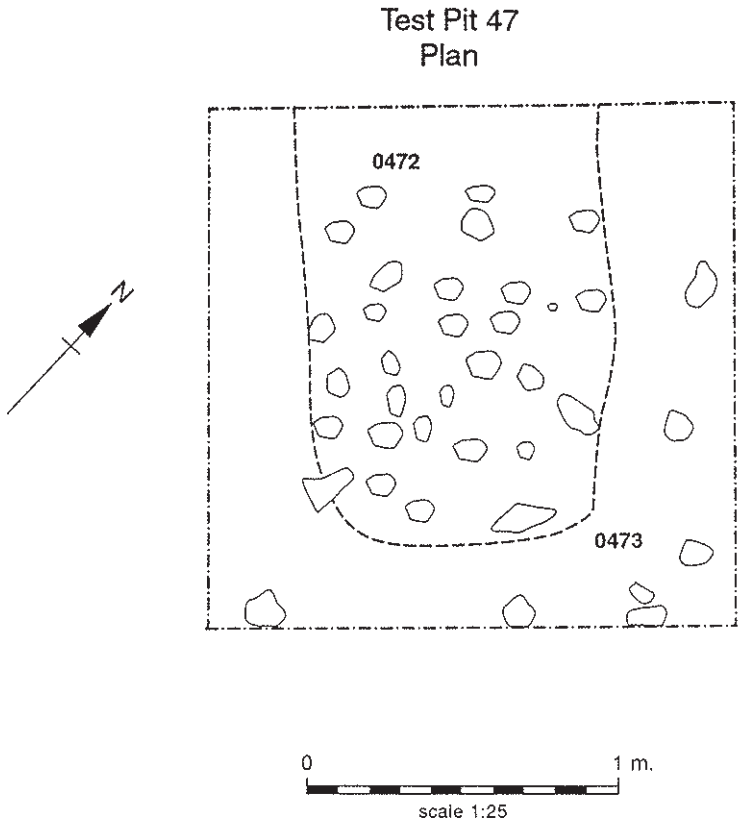
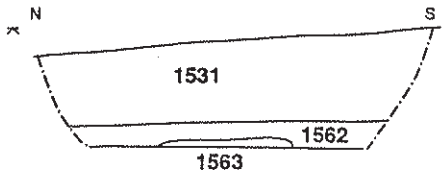
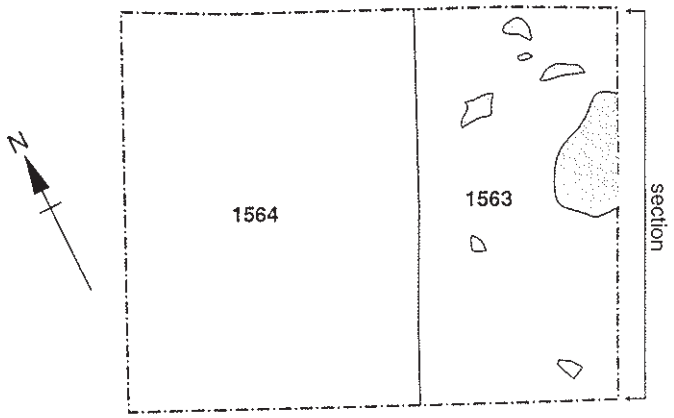


Figure 7: Test Pit 47.

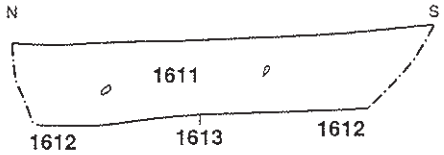
Test Pit 156
Section



Test Pit 156
Plan



Test Pit 161
Section



Test Pit 161
Plan

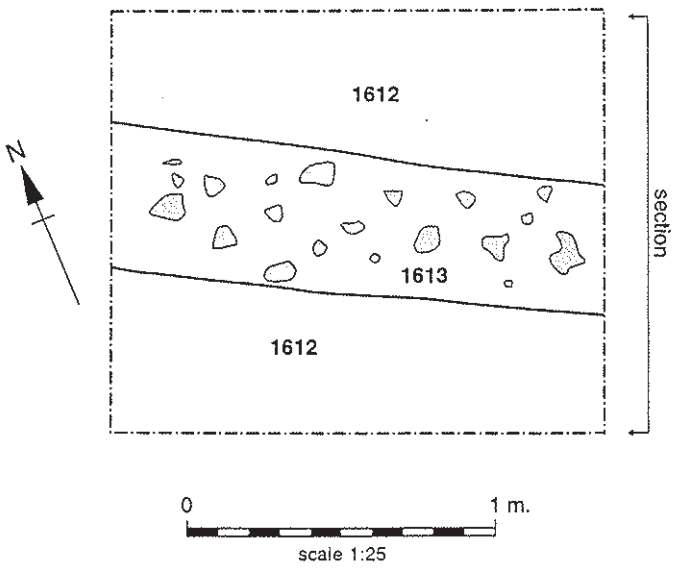


Figure 8: Test Pits 156 and 161.

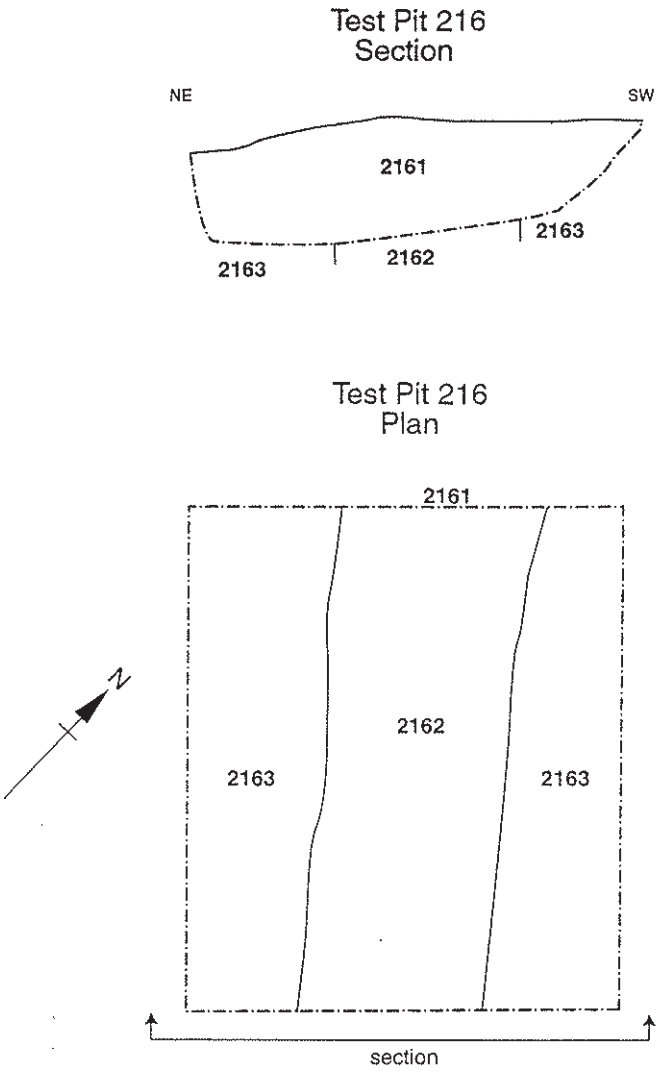
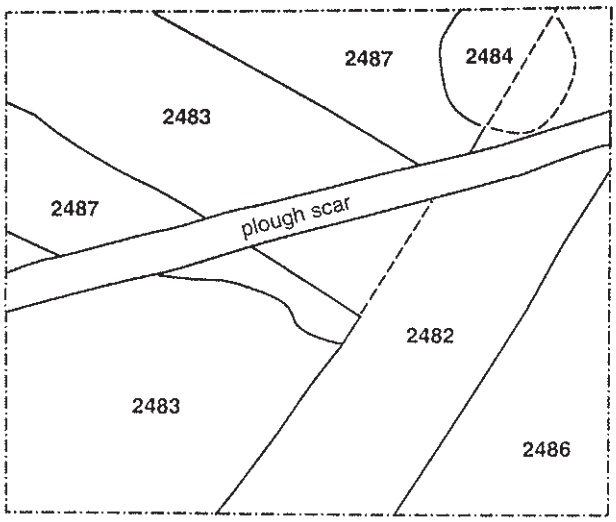
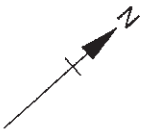


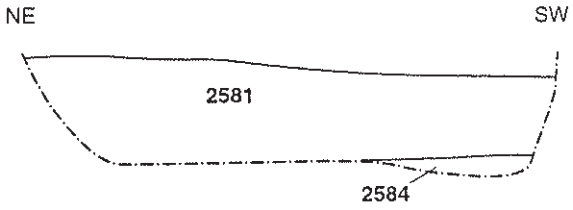
Figure 9: Test Pits 216 and 218.

Test Pit 248
Plan

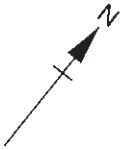




Test Pit 258
Section



Test Pit 258
Plan



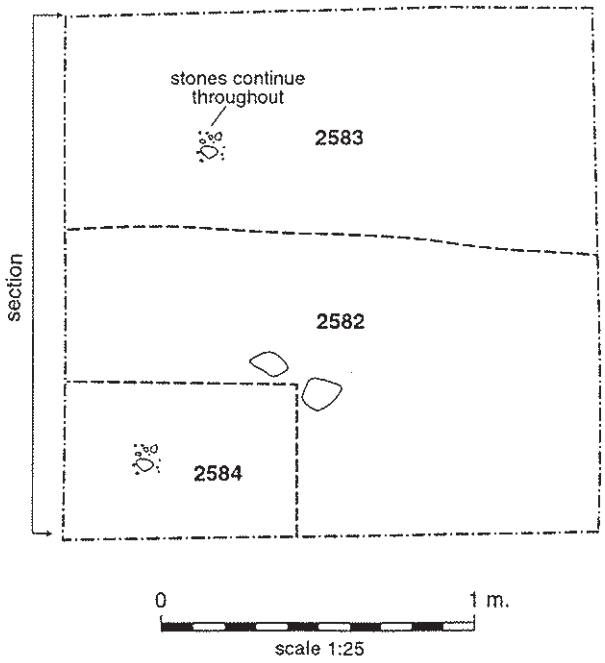


Figure 10: Test Pits 248 and 258.

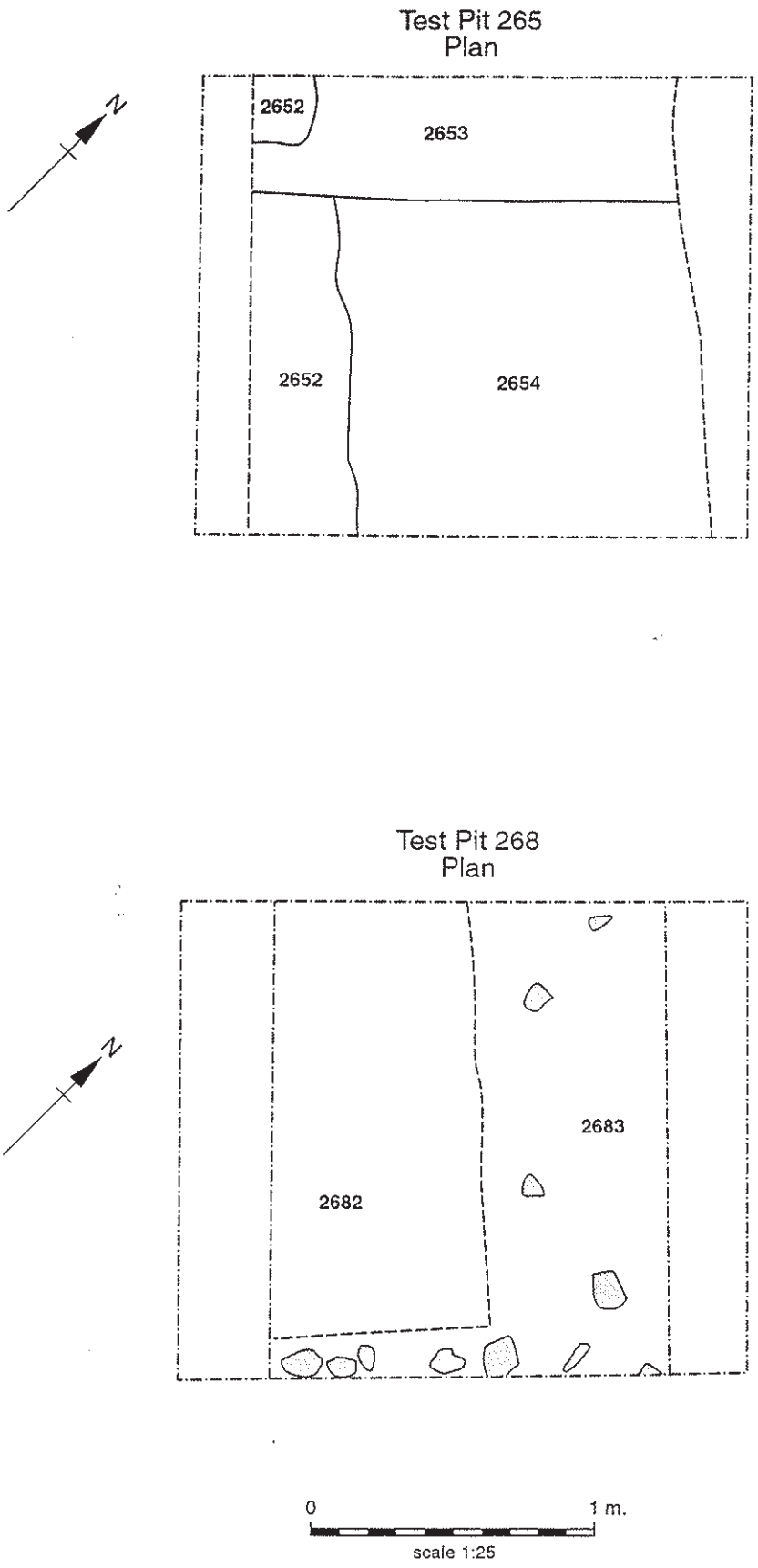
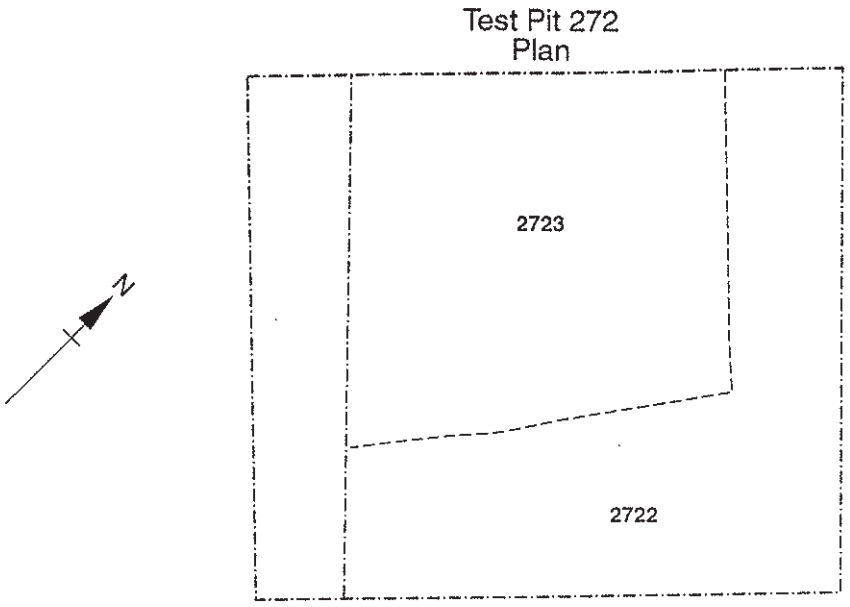


Figure 11: Test Pits 265 and 268.



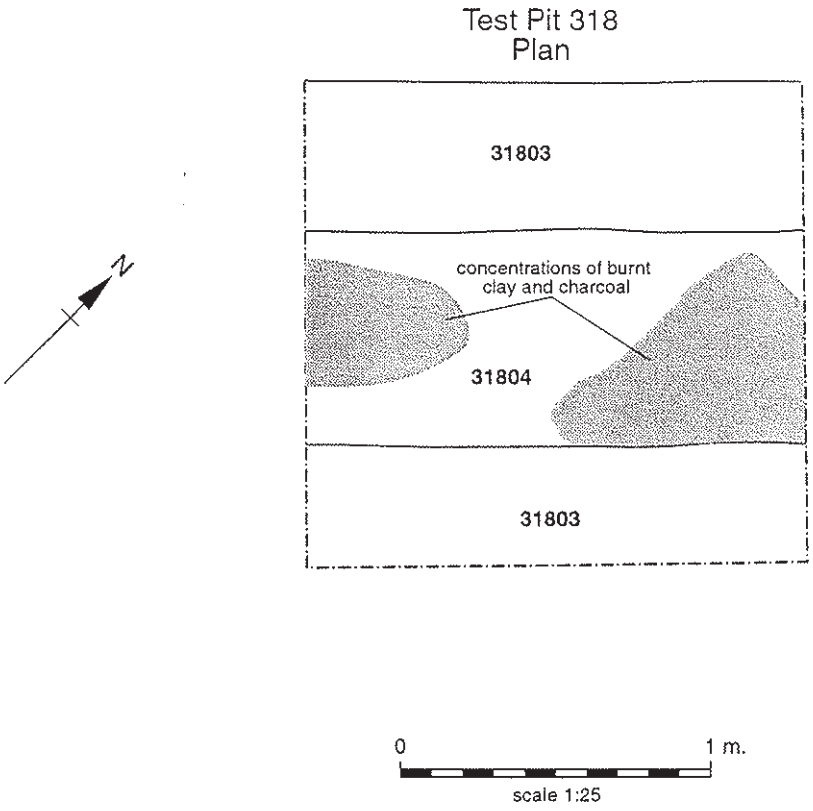
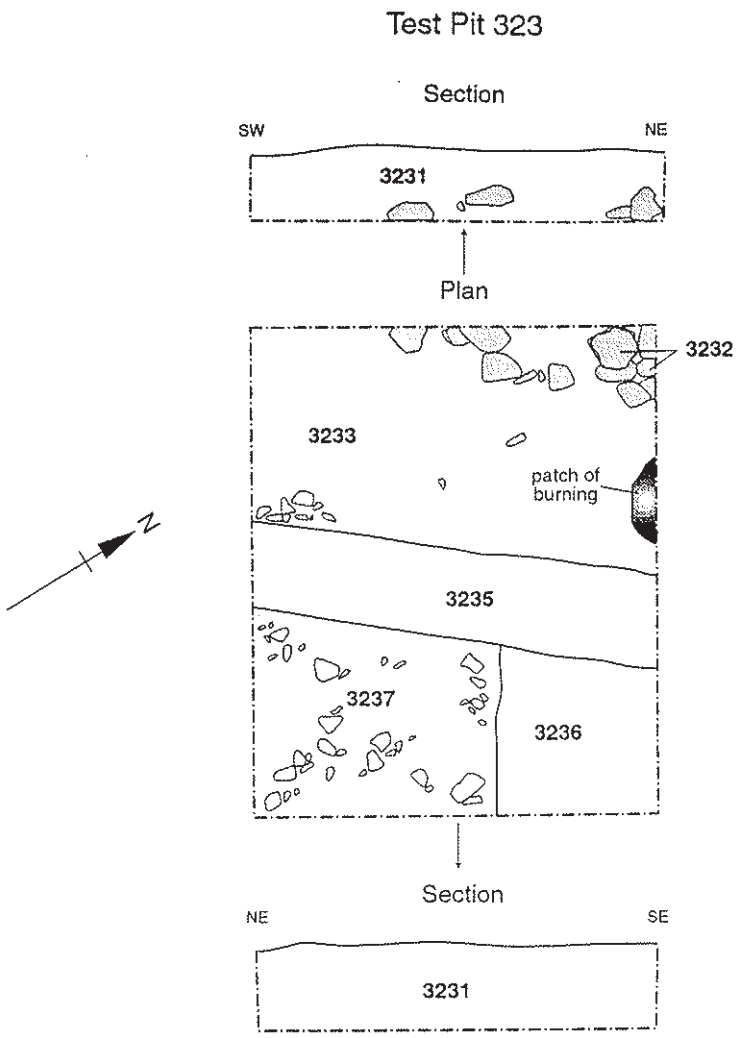


Figure 12: Test Pits 272 and 318.



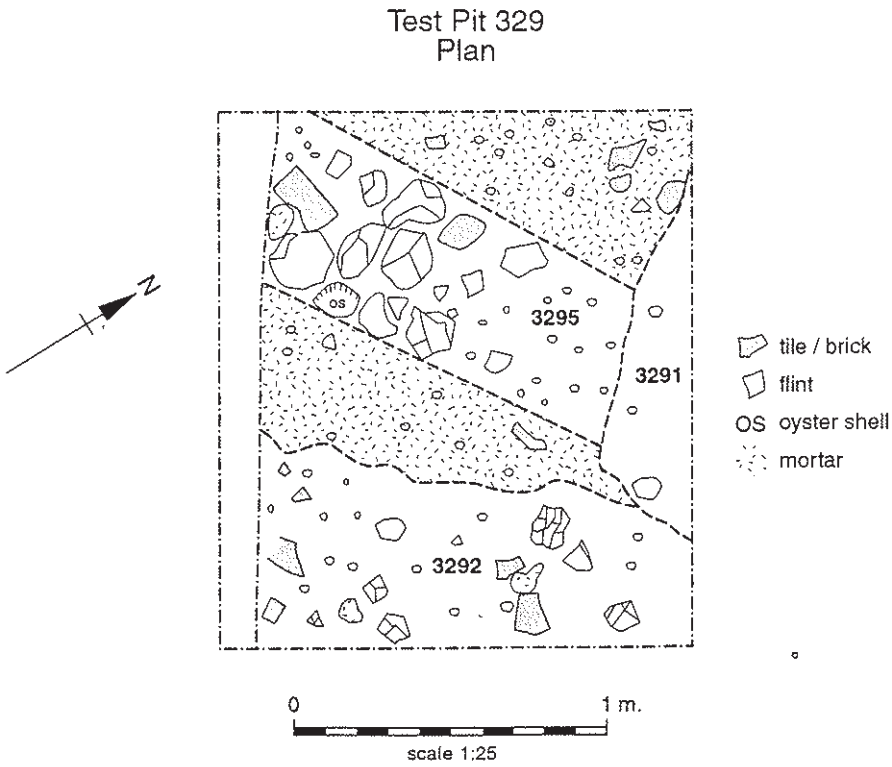
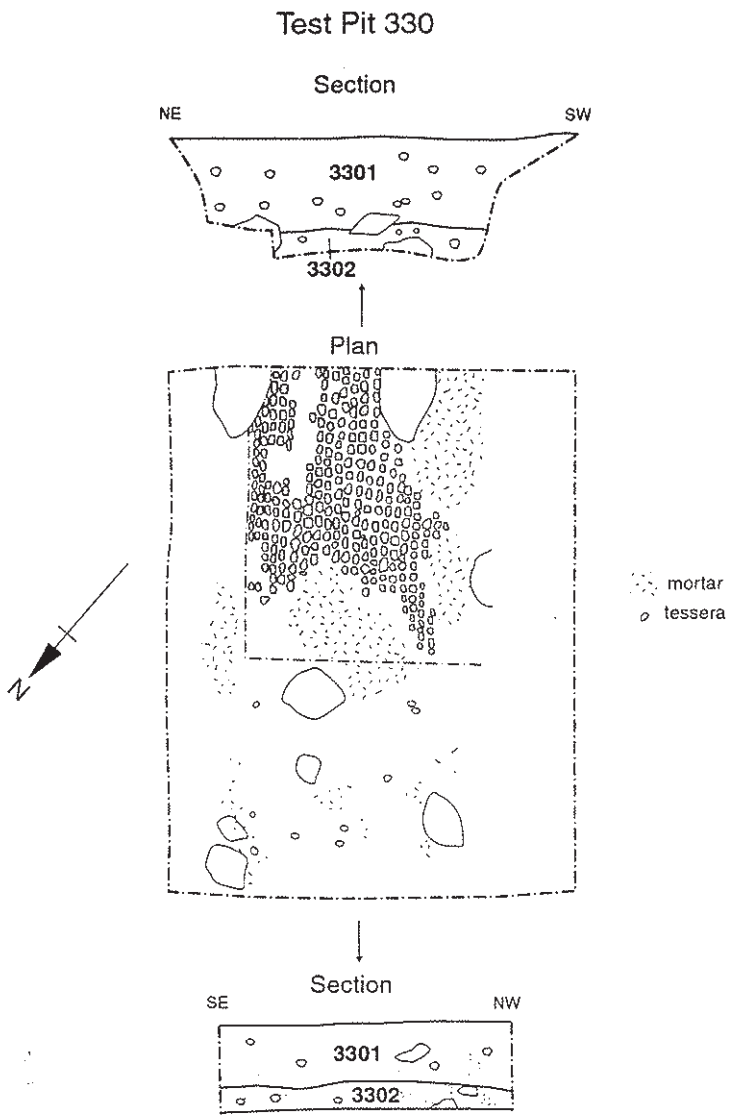


Figure 13: Test Pits 323 and 329.



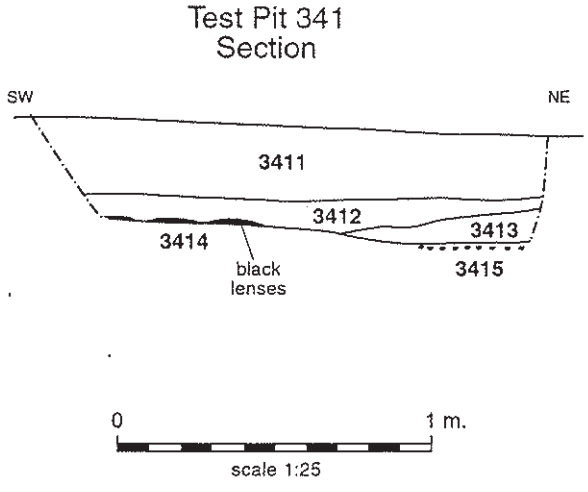
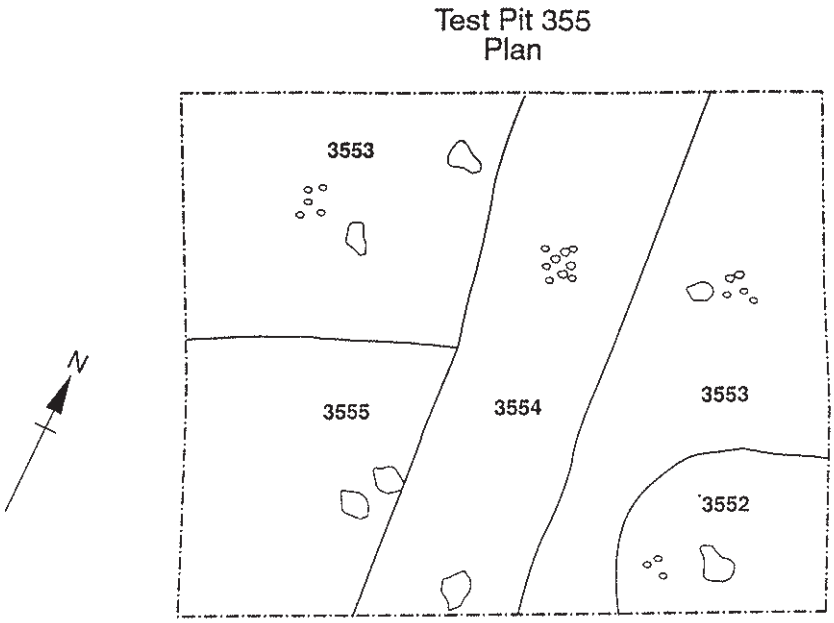
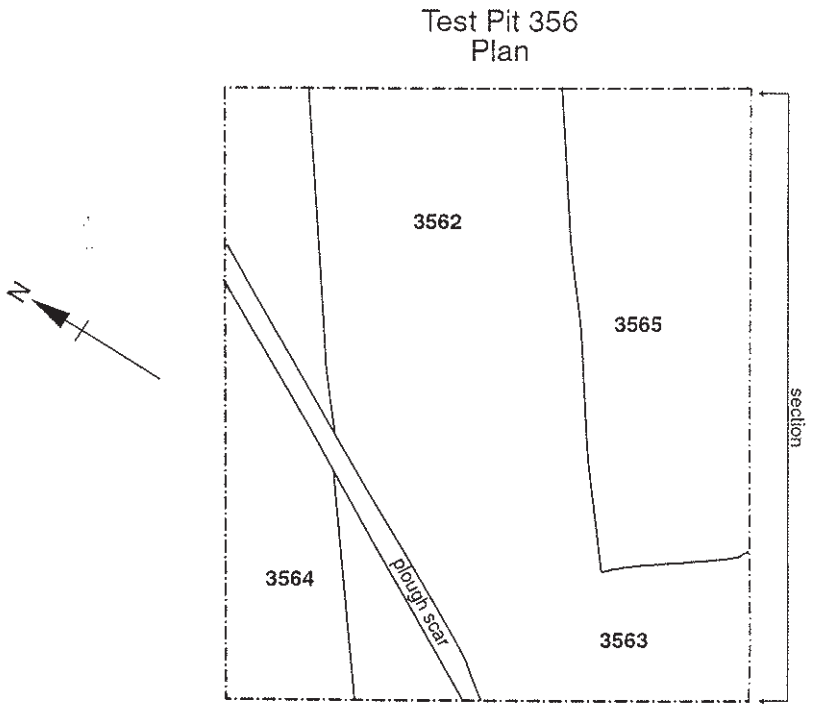


Figure 14: Test Pits 330 and 341.





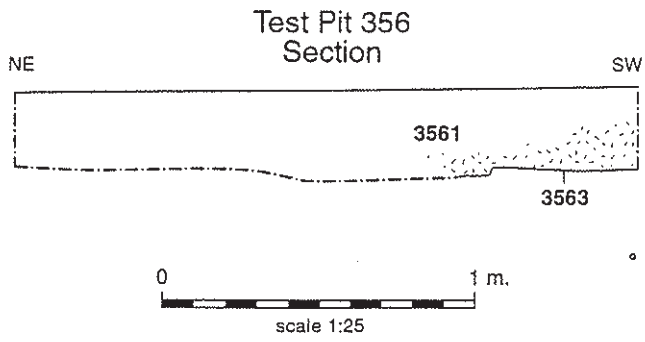
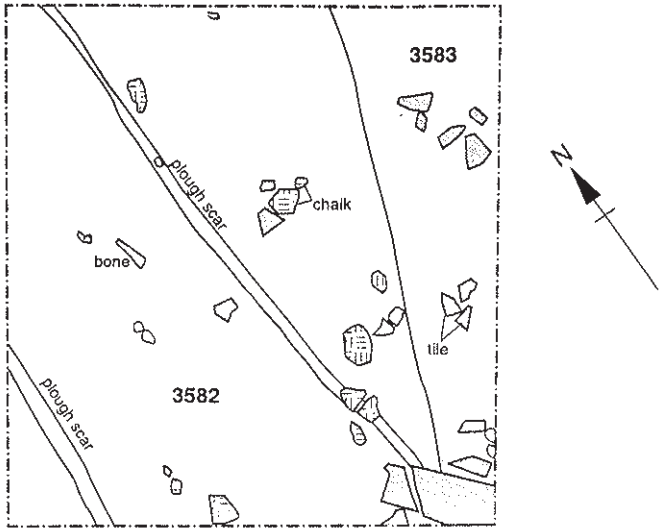


Figure 15: Test Pits 355 and 356.

Test Pit 358
Plan



Test Pit 361
Section

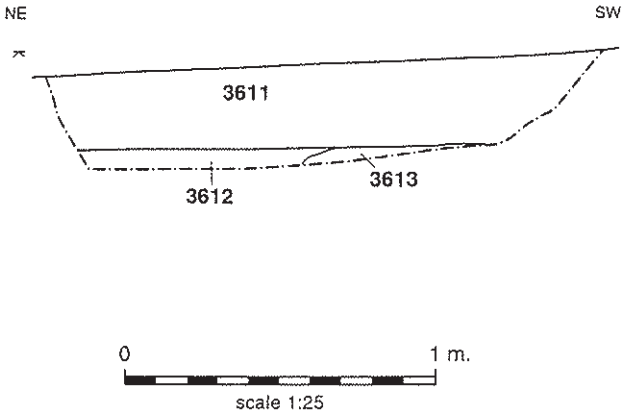


Figure 16: Test Pits 358 and 361.

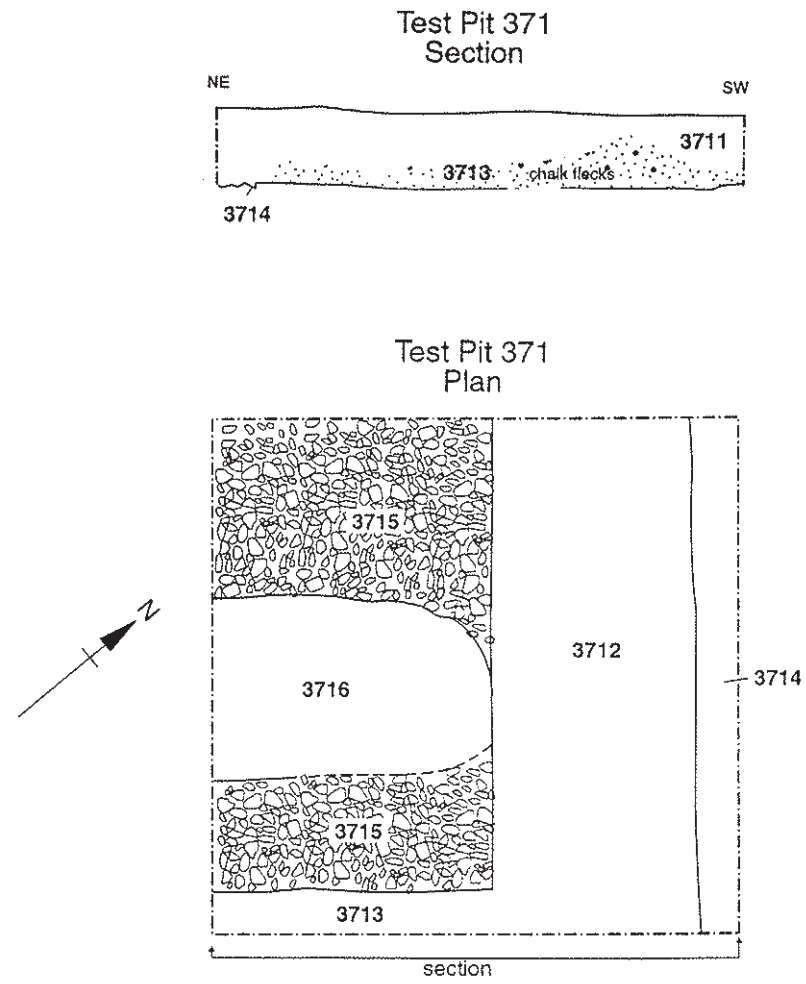


Figure 17: Test Pits 371 and 376.

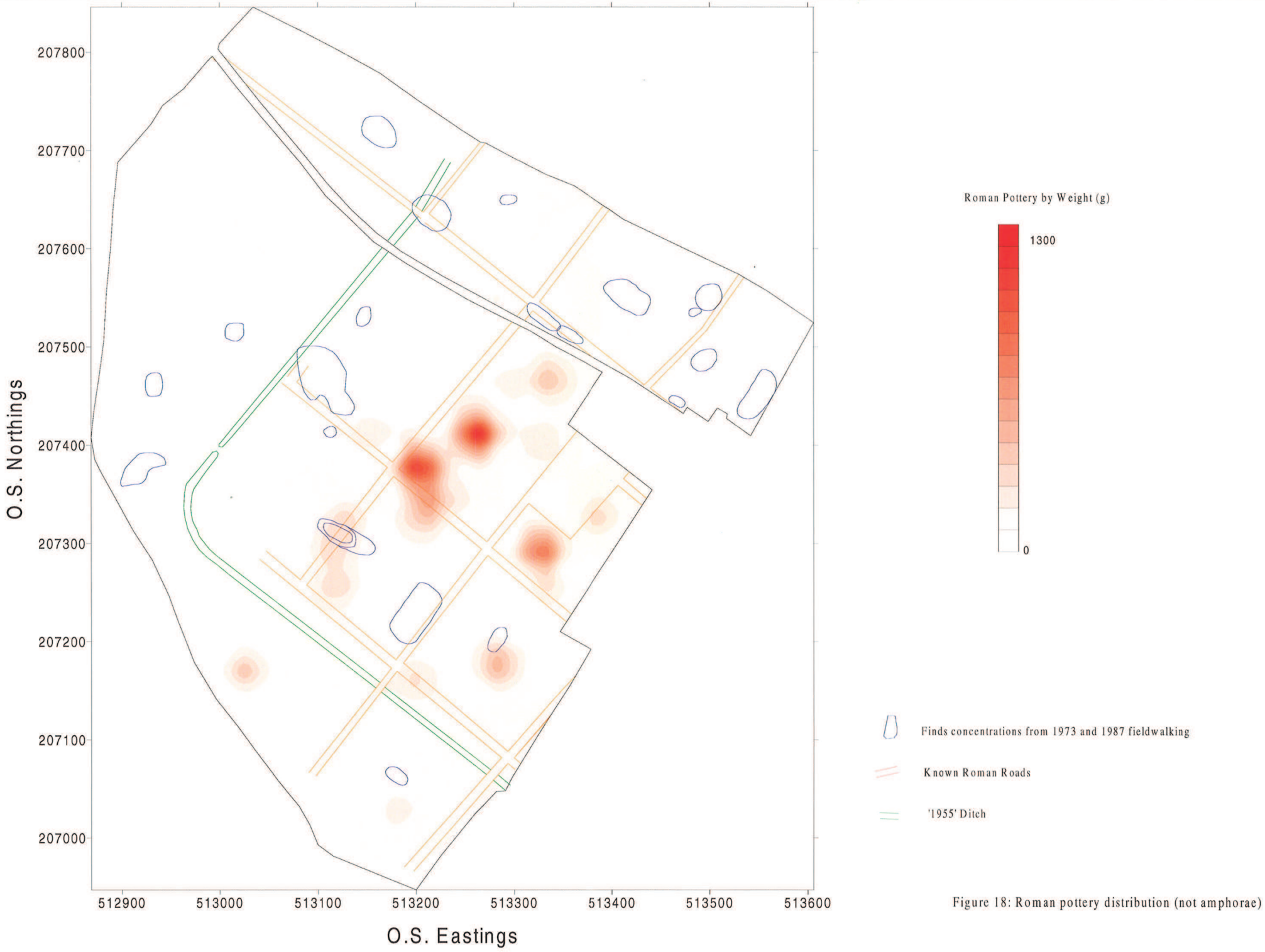


Figure 18: Roman pottery distribution (not amphorae)

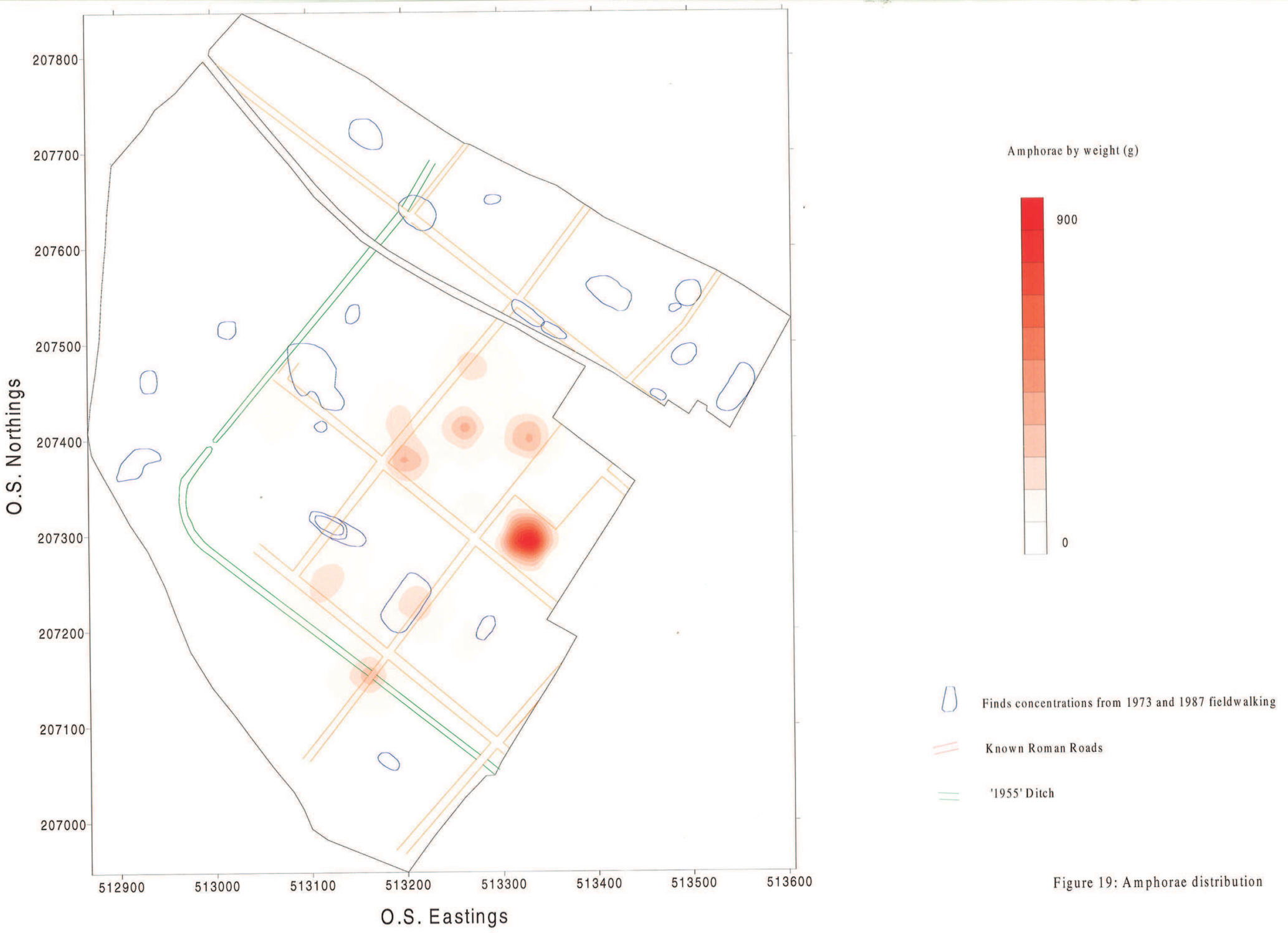
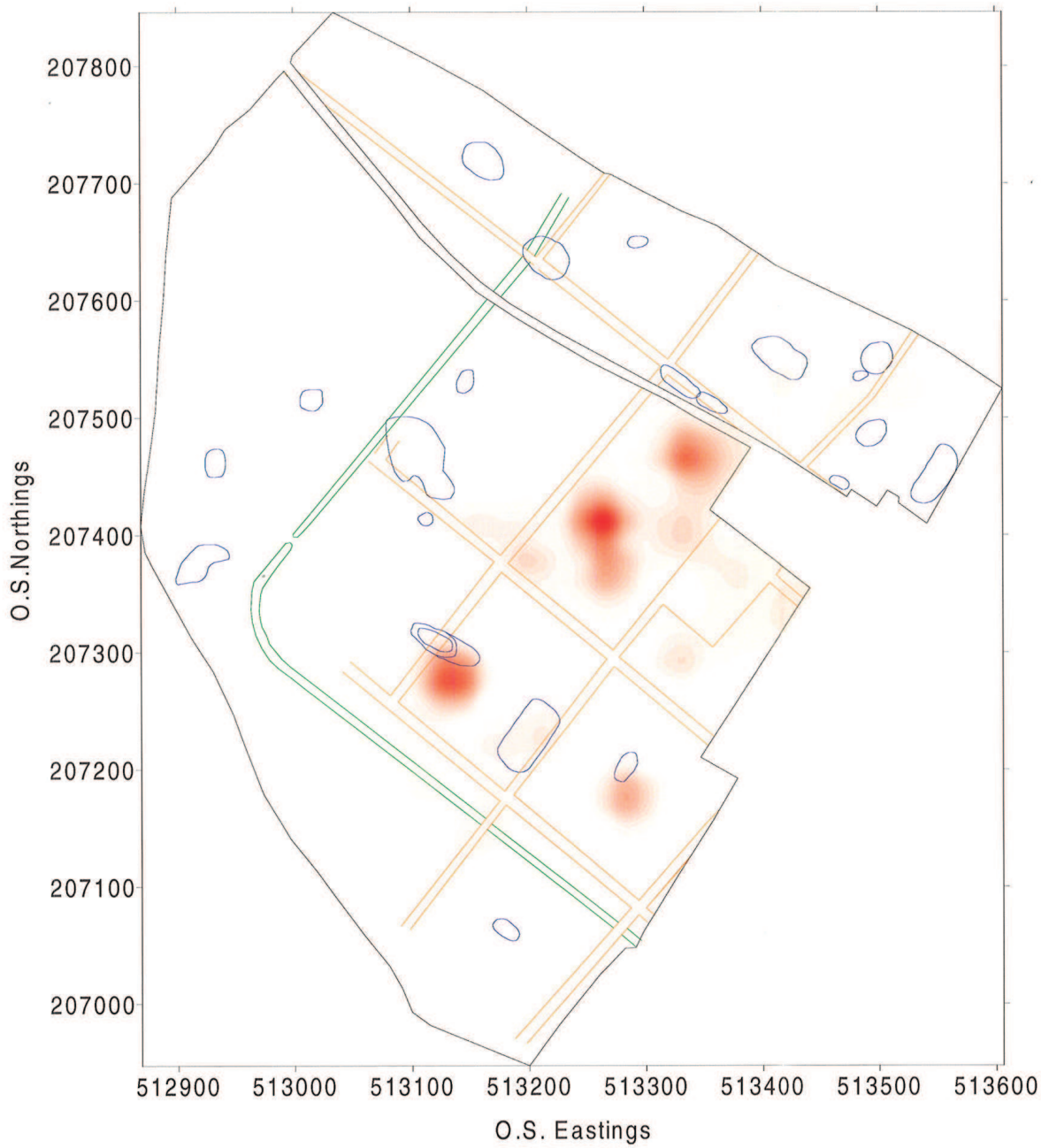
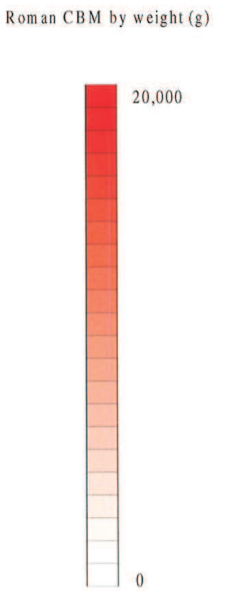


Figure 19: Amphorae distribution





Finds concentrations from 1973 and 1987 fieldwalking

Known Roman Roads

'1955' Ditch

Figure 20: Distribution of Roman Ceramic Building Material

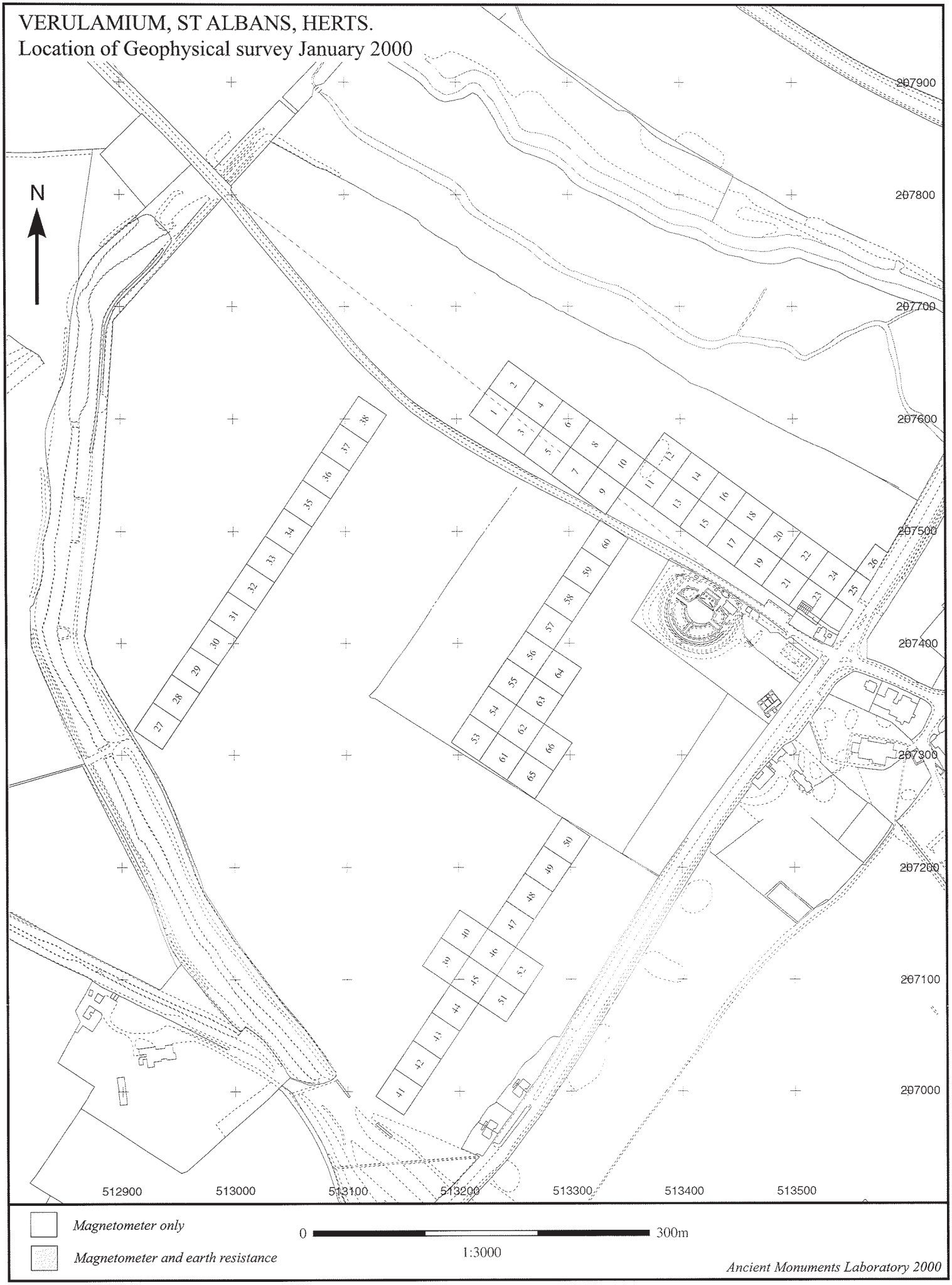


Figure 21: *Location of geophysical survey January 2000.*

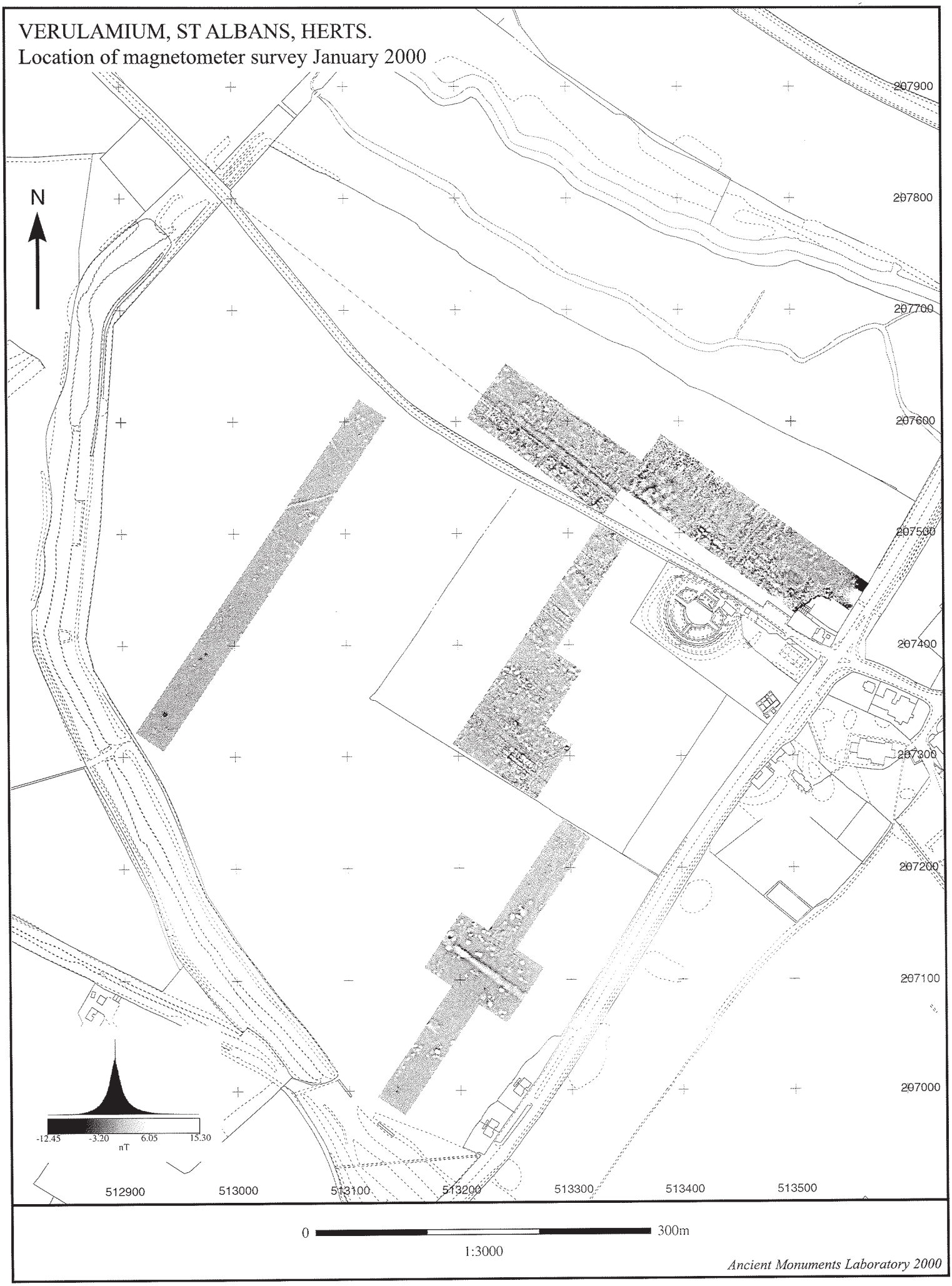


Figure 22: *Greytone image of magnetometer survey January 2000.*

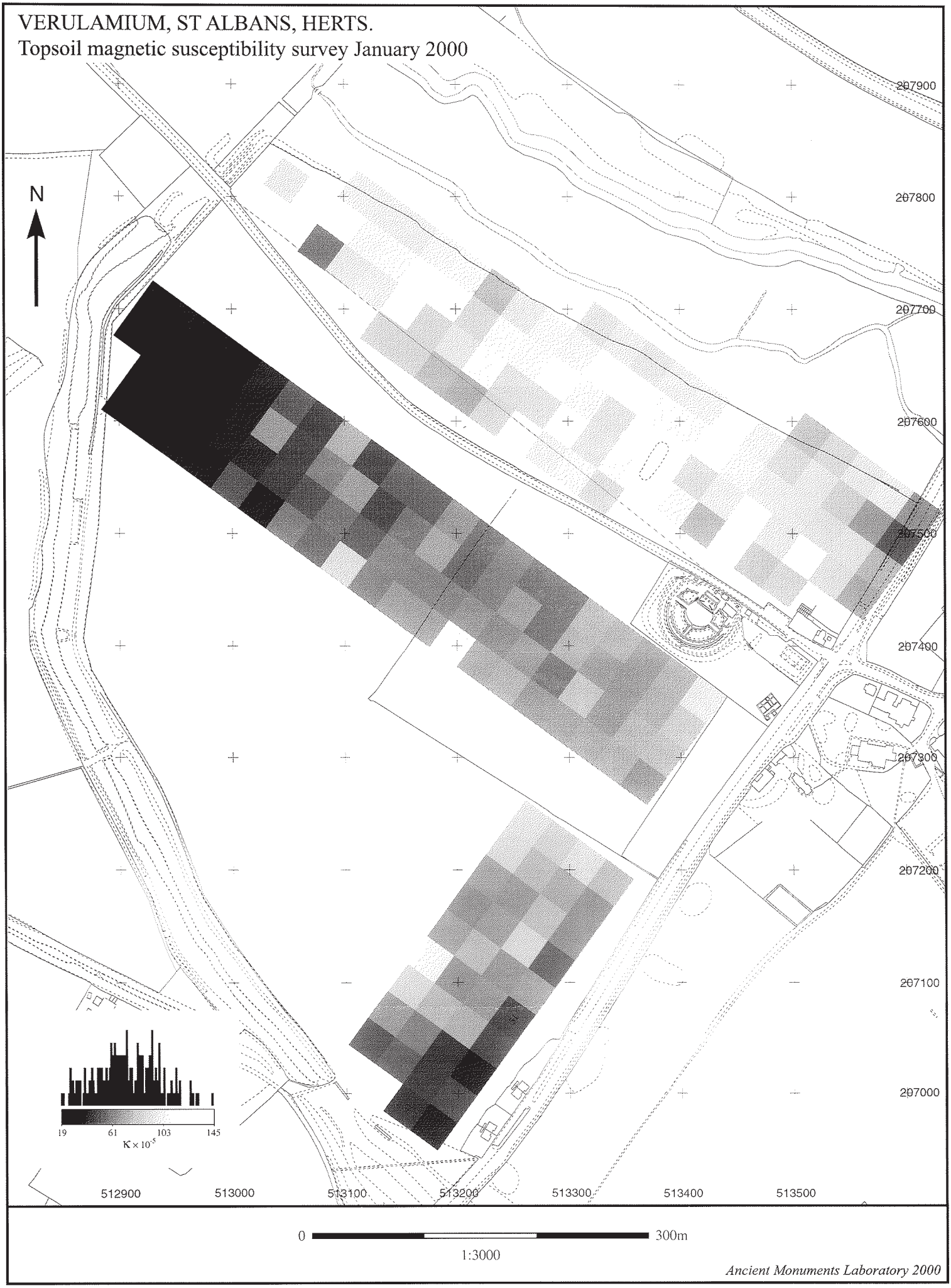


Figure 23: *Topsoil magnetic susceptibility survey January 2000.*

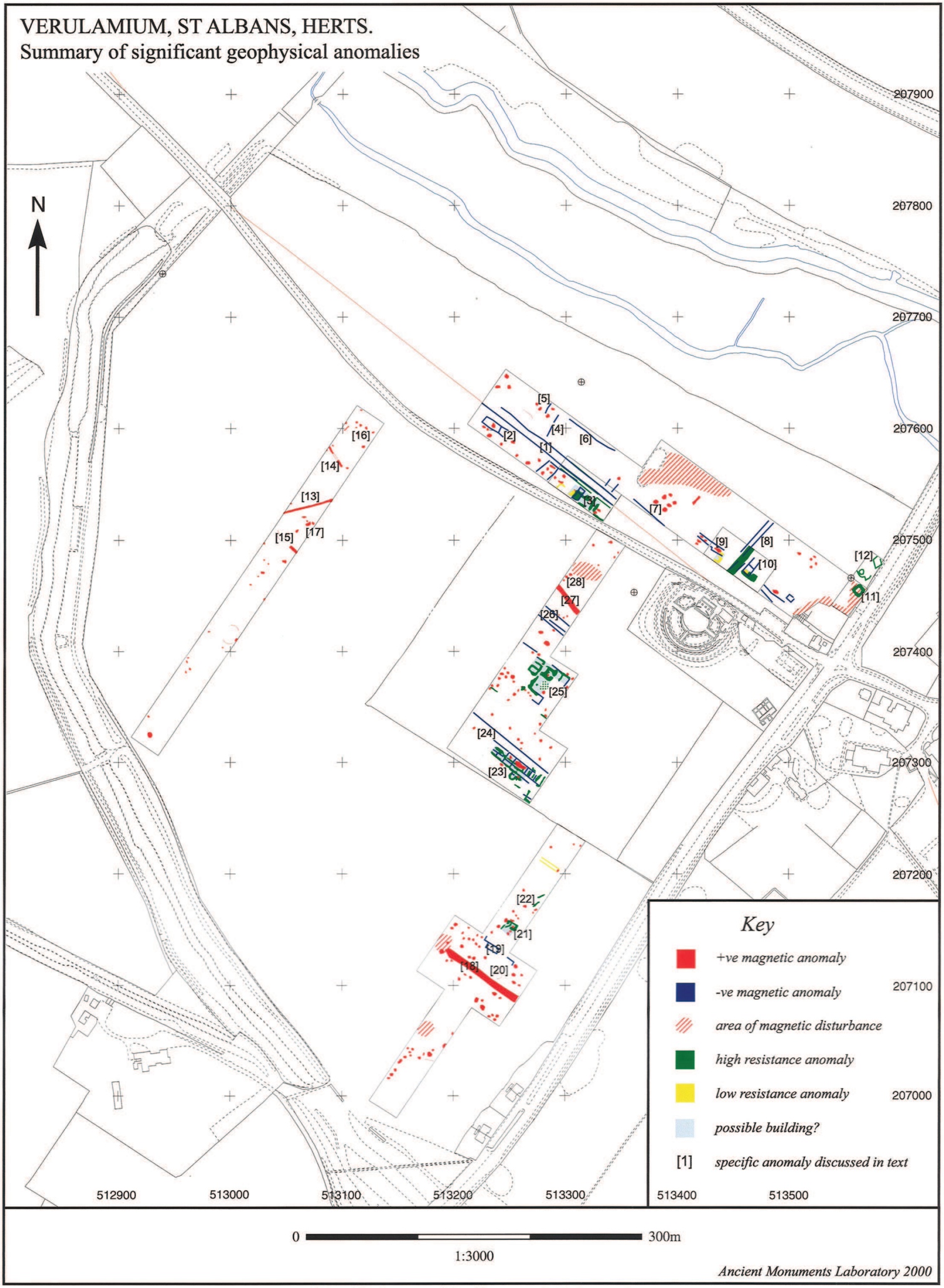
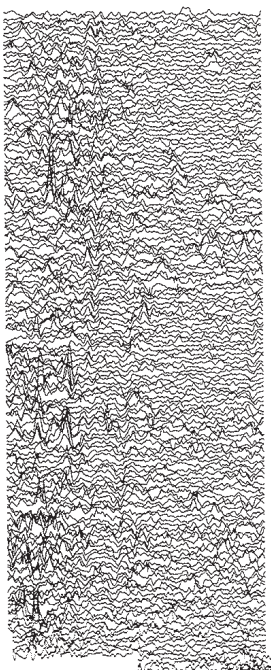


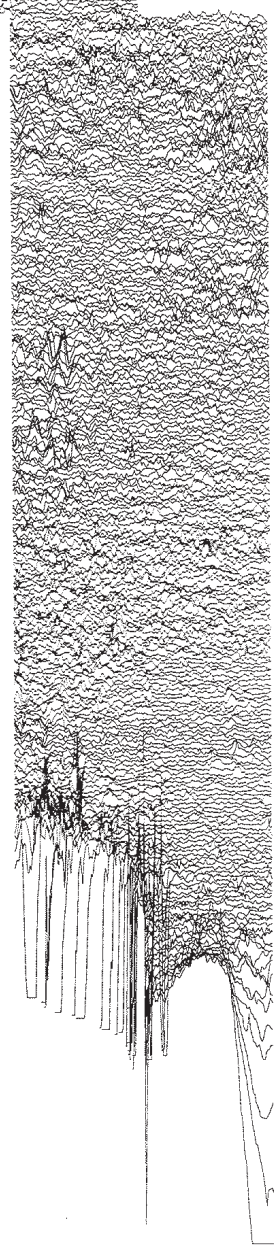
Figure 24: *Summary of significant geophysical anomalies*

PLAN A

VERULAMIUM, ST ALBANS, HERTS.
Geophysical survey January 2000
Field 1

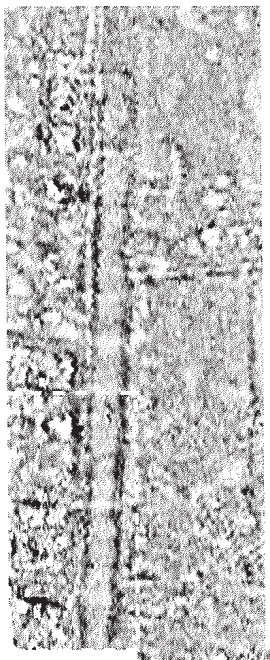
(1)

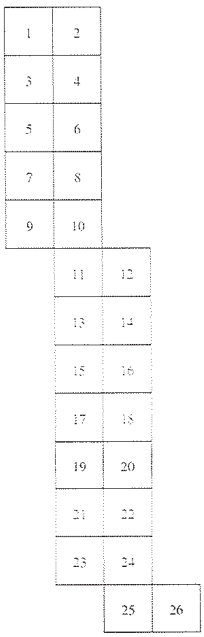


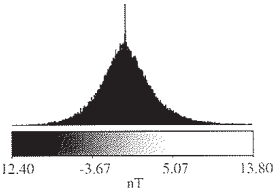


62.5nT

(2)







0 90m

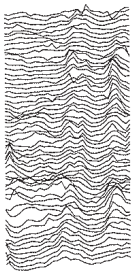
1:1250

Key to plots

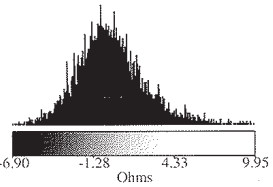
1. Traceplot of magnetometer data
2. Greytone of magnetometer data
3 - 5. Greytone of enhanced resistivity data
6 - 8. Traceplot of resistivity data

(3)

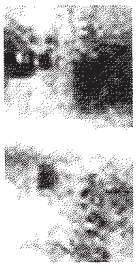
(6)



62.5Ω



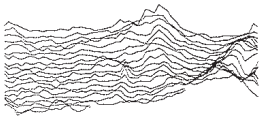
(4)



(7)

62.5Ω

(8)



62.5Ω

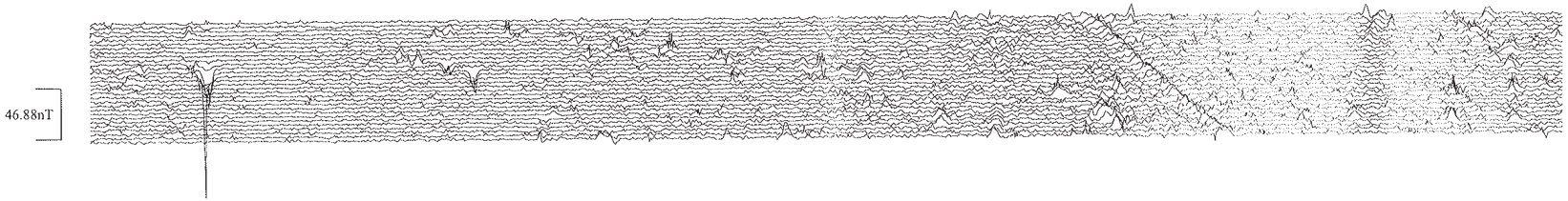
(5)

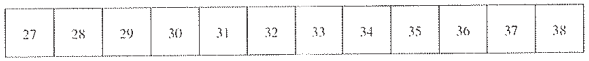
Ancient Monuments Laboratory 2000

PLAN B

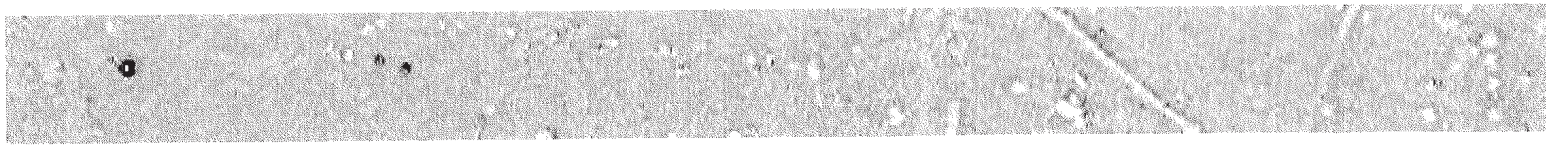
VERULAMIUM, ST ALBANS, HERTS.
Geophysical survey January 2000
Field 2

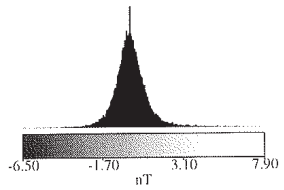
(1) Traceplot of magnetometer data





(2) Greytone of magnetometer data





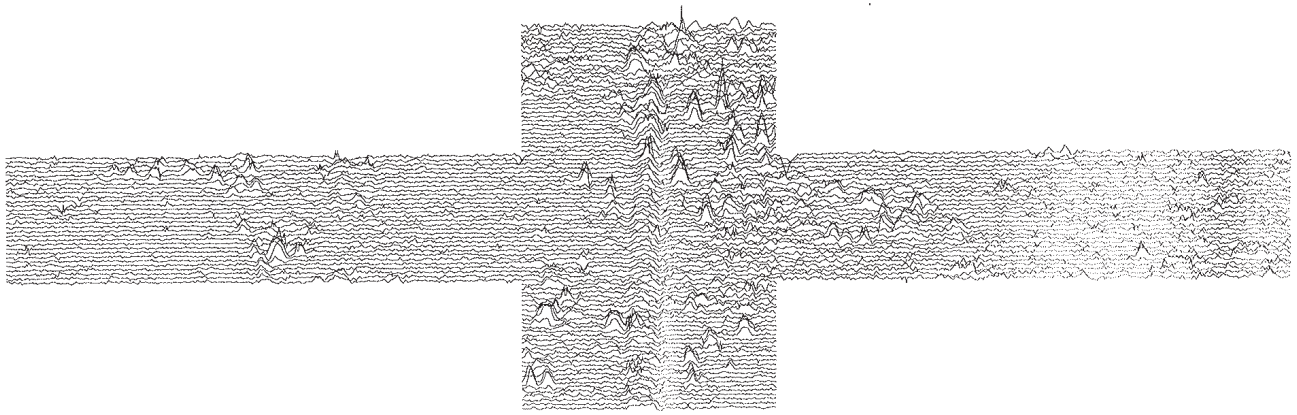
0 90m

1:1250

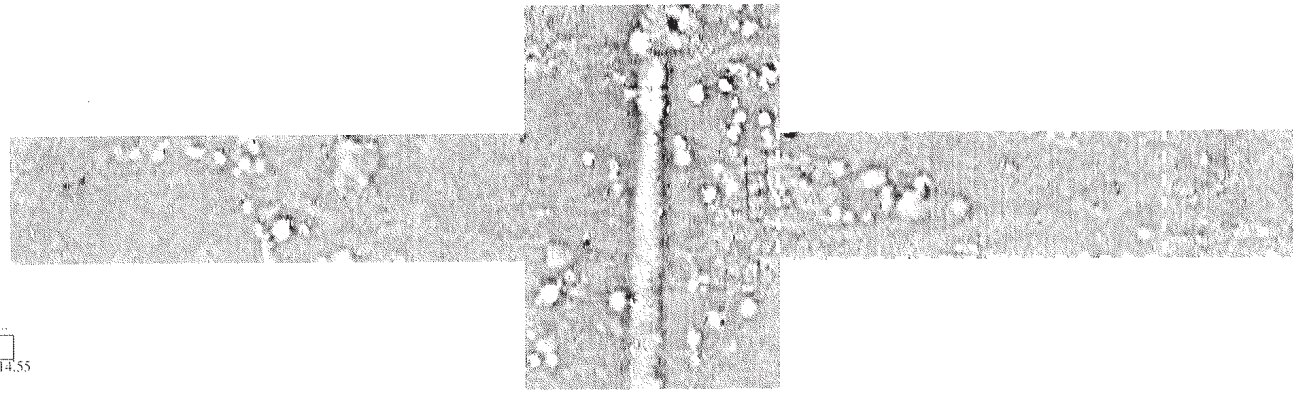
PLAN C

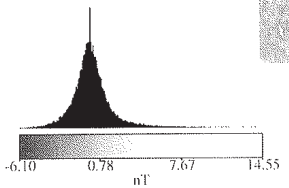
VERULAMIUM, ST ALBANS, HERTS.
Geophysical survey January 2000
Field 3

(1)



(2)

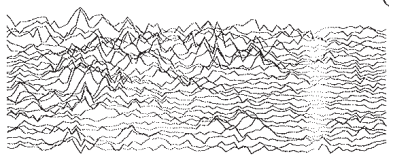




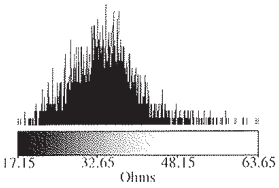
Key to plots

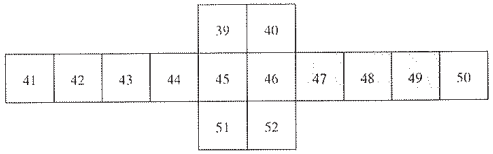
1. *Traceplot of magnetometer data*
2. *Greytone of magnetometer data*
3. *Traceplot of resistivity data*
4. *Greytone of enhanced resistivity data*

(3)



(4)





0 90m

1:1250

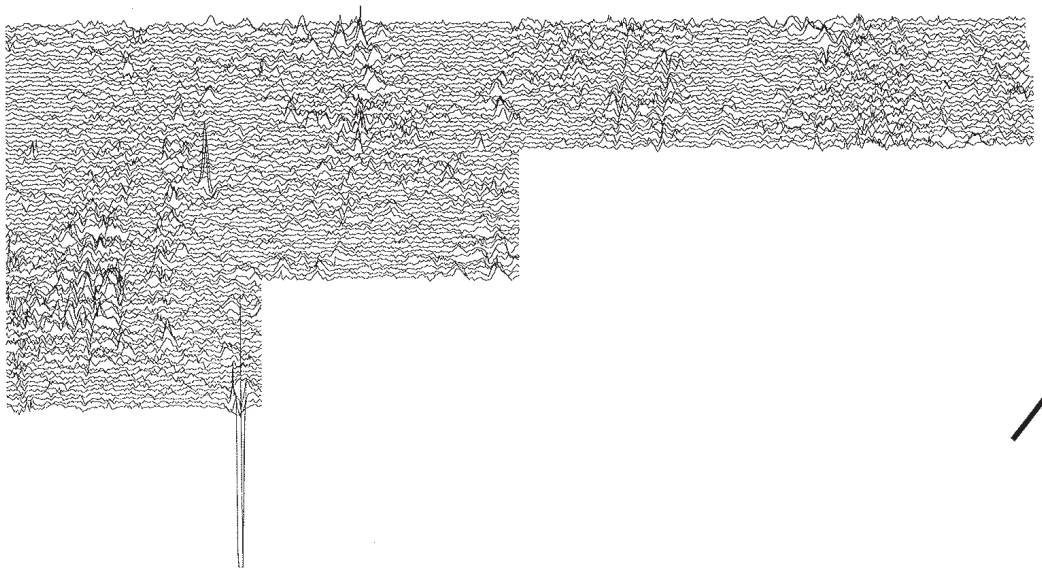
PLAN D

VERULAMIUM, ST ALBANS, HERTS.
Geophysical survey January 2000
Field 4

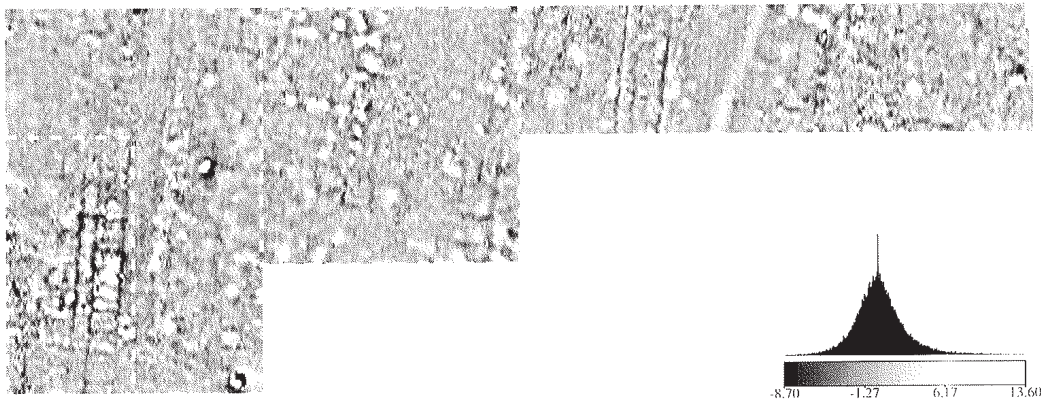
Key to plots

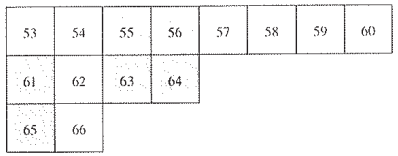
1. *Traceplot of magnetometer data*
2. *Greytone of magnetometer data*
3. *Traceplot of resistivity data*
4. *Greytone of enhanced resistivity data*

(1)



(2)

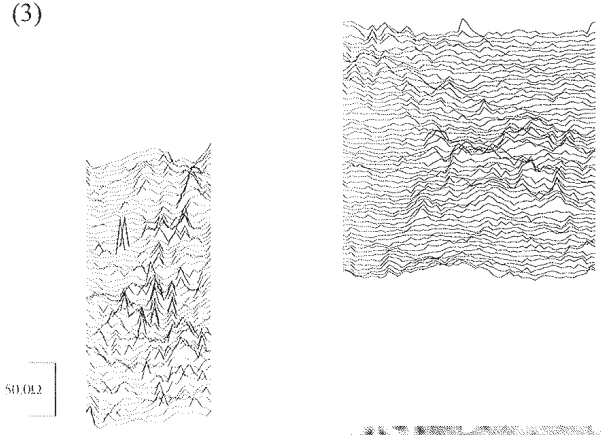




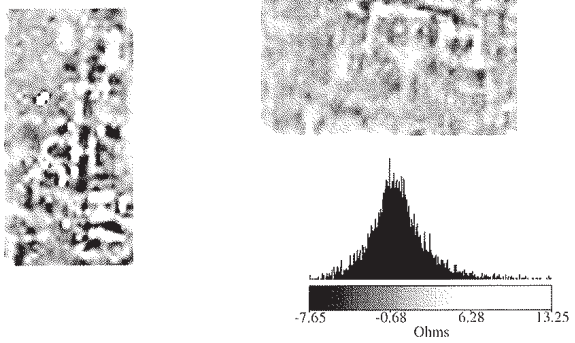
0 90m

1:1250

(3)



(4)



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