

MEADOW LANE, NORTH HYKEHAM, LINCOLNSHIRE

ASSESSMENT REPORT

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ASSESSMENT REPORT

1.0 INTRODUCTION

On the 26th February 2001, the City of Lincoln Archaeology Unit (CLAU), on behalf of Longhurst Housing Association, commenced a selective archaeological watching brief during the construction of 23 dwellings at Meadow Lane, North Hykeham, in response to an earlier evaluation of the site that revealed the presence of Romano-British activity (JSAC 539/99/03).

The site lies on the south-west edge of north Hykeham in the district of North Kesteven (National Grid Reference SK 947 654 **Fig. 1**), approximately 1km to the west of the River Witham on a south-sloping field lying on the 5-10m contour.

The site contractor's construction methodology required the stripping of all of the topsoil and subsoil from the site. As a result of the implementation of this strategy, all of the sites previously buried archaeological resource was exposed. The CLAU immediately informed the Heritage Officer for North Kesteven District Council (Joanna Hambly) of these unforeseen site circumstances.

After discussions between the Heritage Officer, the developer and the archaeological contractor it was agreed that in order to assess the possibility for mitigating further damage by the development to the archaeological resource a rapid plot of the exposed archaeology should be made. The developer kindly offered to machine clean the site so that an overall plan could be produced to assist in the production of an informed mitigation strategy.

A further meeting was arranged with the aforementioned parties including the English Heritage Regional Inspector (Dr Glyn Coppack). The site circumstances and the overall site plan were discussed and a walk over the site undertaken. As the original budget for the selective watching brief had already been exhausted and the post-excavation budget would be expended on the finds already recovered from the site, it was decided to approach English Heritage with a request for the funding of a rescue excavation. This request was duly granted and between 14th March and 2nd April, a team of excavators from the CLAU carried out rescue excavations on the site.

2.0 ASSESSMENT REPORT

Assessment of the NHME01 archive has isolated areas where parts of the archive require further enhancement and highlighted potential areas for further research. For the most part specialists with an understanding of the local area have been used to assess the archive's various components.

This assessment report has been prepared in accordance with the specifications set out in the Management of Archaeological Projects (HBMC 1991, Appendix 4) and the research design submitted to English Heritage by the Heritage Officer for North Kesteven District Council (Hambly 2001).

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<i>Assessment Component</i>	<i>Specialist</i>	<i>Location</i>
Stratigraphic & Structural	Michael Jarvis	City of Lincoln Archaeology Unit, Charlotte House, The Lawn, Union Road, Lincoln LN1 3BL (CLAU)
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Ceramic Building Material	Jane Young	Lindsey Archaeological Services, 25 West

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Environmental	Fiona Johnson & David Shimwell	Palaeoecological Research Unit, School of Geography, University of Manchester, Manchester M13 9PL
Post-Roman Pottery	Jane Young	LAS
Roman Pottery	Barbara Precious	Freelance, 25 West Parade, Lincoln
Other Finds	Jenny Mann	CLAU
Integrated Assessment Report	Michael Jarvis	CLAU

RESEARCH AIMS

The following research aims are extracted from the project brief produced by the Heritage Officer for North Kesteven District Council (Hambly 2001).

The site appears to represent the eastern limit of a relatively high status and planned settlement identified during a series of interventions in the area north of the present investigation. Unfortunately, none of this previous work was carried out under ideal archaeological conditions – most being watching briefs or chance finds during development. This is the first opportunity to investigate the site under more controlled conditions. The present investigations, therefore, should seek to shed light on the results of previous interventions and the settlement as a whole.

The investigation should seek to elucidate the relationship of this settlement within its physical, economical and cultural landscape and in particular with the Roman colonia of Lincoln. The site has the potential of addressing the following areas of inquiry:

- A. The likely connection with the early Romanisation of the Lincoln hinterland (cf recent research on the York hinterland, and at Hayton).*
- B. The early use of the Witham in establishing Lincoln as a major trading centre.*
- C. High status industrial and possibly agricultural settlement directly related to the development of Lincoln itself.*
- D. Occupation ceases at some point in the third century, implying economic change directly linked to the economy of the colonia.*

2.1 Stratigraphic & Structural Assessment

By Michael Jarvis

The records assessed here have been assembled from the excavation on the site at Meadow Lane, North Hykeham (NHME01).

The Archive

The following information sets out the quantity of the site archive available for this assessment.

- Two hundred and sixty four (264) individual context records.
- Thirty-six (36) A3 sized plans (at scales of 1:20 and 1:50).
- Fifty-three (53) sections (at scales of 1:20 and 1:50).
- A comprehensive photographic archive consisting of 186 colour photographs.
- One checked and phased stratigraphic matrix (**Figs. 7-8**)
- A digitised overall pre-excavation site plan (**Fig. 2**)
- Four (4) phase plans (**Figs. 3-6**).
- To assist with the rapid assessment of the site archive all plans, sections, context summaries, context record sheets, plan record sheets, section record sheets, sample sheets, levels sheets and photographic record sheets were computerised.

Provenance of the Material

Analysis of the context records, drawn records and stratigraphic matrices, in conjunction with the pottery evidence, has revealed four main periods of occupation present on the site.

- Period I: 2nd – 3rd Century
- Period II: 3rd – 4th Century
- Period III: 4th – Late 4th Century
- Period IV: Medieval

Sub-phases are also evident within these periods.

The Range and Variety of Material

The following information summarises, by period, the variety of the data available for assessment.

Period I (Fig. 3)

54 contexts (20.5%)

- a) Pre-enclosure linear features
- b) Primary enclosure ditches
- c) Linear features of as yet indeterminate form and function
- d) Post-hole features
- e) Pit activity

Period II (Fig. 4)

69 contexts (26%)

- a) Primary enclosure ditches (two identifiable phases)
- b) Secondary enclosure ditches
- c) Linear and curvilinear ditches of as yet indeterminate form and function and external to the primary enclosure
- d) Post-hole features
- e) Pit activity

Period III (Fig. 5)

114 contexts (43.5%)

- a) Primary enclosure ditches
- b) Secondary internal and external enclosure ditches (linear and curvilinear -several phases)
- c) Linear and curvilinear features of as yet indeterminate form and function and external to the primary enclosure
- d) Post-hole features
- e) Pit activity (several phases)

Period IV (Fig. 6)

26 contexts (10%)

- a) Medieval ridge and furrow
- b) Pit/cut activity of indeterminate function

Table 1: Summary of the variety and quantity of features present on the site

<i>Feature Type</i>	<i>Period I</i>	<i>Period II</i>	<i>Period III</i>	<i>Period IV</i>
Cut – indeterminate form/function	-	-	1	4
Furrow	-	-	-	10
Hearth	-	1	1	-
Layer	1	-	-	1
Linear/curvilinear of indeterminate form/function	6	13	12	-
Pit	4	4	11	-
Post-hole	3	2	5	-
Primary enclosure ditch (including re-cuts)	4	5	4	-
Secondary enclosure ditch (including re-cuts)	-	2	10	-
Tree-hollow	1	1	1	-

Preliminary Conclusions

From the information above it can be seen that a wealth of stratigraphic information is available for analysis. The Roman occupation on the site is seen as the primary period of interest (Phases I-III), and the evolution of this Roman site is clearly demonstrated by the preliminary phase plans (Figs. 3-5). Evidence for medieval activity on the site (Fig. 6) is also present but is of only limited local interest.

Roman – Phases I-III

Preliminary analysis of the data relating to Phase I (Fig. 3) revealed a roughly square enclosure (area: 850m²) lying to the south of an east-west ditch at least 65m long, which formed the enclosure's northern boundary; the ditch was approximately 3m wide and 1m deep and extended beyond the area of excavation, descending from higher ground eastwards towards the River Witham. Very few features (pits and short linear cuts) were recorded within the enclosure or the area immediately to its west.

Phase II (Fig. 4) comprised two parallel, primary east-west ditches, connected by a north-south ditch to form a long rectangular enclosure (area: 1326m²). The northerly Phase II ditch represented a re-cut of the Phase I primary ditch (remaining ditches associated with Phase I were infilled). Both primary ditches extended east and west beyond the area investigated. A secondary sub-circular enclosure (area: 300m²) with an apparent south-east entrance lay within the rectangular enclosure, extending south from the primary northern ditch.

Linear features lay to the south of the primary enclosure although their form and function is at present unclear. Several features (pit and linear) occurred within both the primary and secondary enclosures (some of these features clearly predated the construction of the secondary enclosure, indicating a period of sub-phase activity).

Phase III (Fig. 5) further expanded the primary enclosure constructed during Phase II. The Phase II north-south ditch was re-cut and a second, parallel ditch was dug 24m to the west, forming a smaller rectangular enclosure of 750m². This enclosure was bisected by an east-west ditch. The northern half was partially divided by a narrow north-south ditch extending southwards from the lip of the north ditch while a curvilinear ditch enclosed the south-west corner of the southern half (123m²). A break in the curvilinear ditch adjacent to the south ditch may indicate an entrance. Other features, pits, post-holes and hearths, were located in the northern half of the main enclosure.

An east-west ditch (50m long and extending further to the west beyond the site boundary) lay 12m from, and parallel to, the south ditch of the primary enclosure with a return to the north adjoining its south-east corner, effectively enclosing an area extending over 560m². A re-cut to the ditch reveals that the area forming this enclosure was later reduced in size to 200m².

Two further curvilinear ditches lay to the west of the aforementioned enclosure; the western half of the sub-circular enclosure of Phase II was reused to enclose 220m² in the north-east corner of this area, and a second, smaller ditch enclosed 39m² in the south-east corner. Linear features within the larger enclosure may suggest the location of a structure(s), possibly a dwelling(s).

Medieval – Phase IV

Phase IV (**Fig. 6**) was represented by medieval agricultural activity in the form of furrows (associated ridges having been lost, probably as a result of the topsoil stripping). The furrows were in excess of 50m long and aligned with the primary east-west ditches of the earlier Roman enclosures. This suggests that at least one of the ditches may have been visible, possibly as a shallow depression, at the time this agricultural activity commenced.

Comment

Unfortunately, previous agricultural land working, the initial topsoil stripping (without archaeological supervision) and secondary stripping of the site (under archaeological supervision) has resulted in the loss of any occupation layers originally present on the site, representing an important element of the archaeological resource. The remaining archaeology consisted of cut features (ditches, pits and post-holes). It is probable that shallower cut features e.g. post/stake-holes were removed during the initial topsoil stripping. Furthermore, constraints in time, and ground and weather conditions (at times appalling) resulted in shortcomings in the sampling of features and/or determining their interrelationships. However, it is believed that further enhancement of the site record, as set out in the recommendations, should help clarify most of these anomalies.

Although ditches, pits and post-holes of Roman date are not a rare occurrence, the undisturbed nature of the site (by later periods of occupation), in conjunction with the quantity of features available for analysis places the group value of those features recorded as high. The proximity of the site in relation to other known features (the River Witham and an extensive Romano-British settlement to the west of the site dating from the 3rd century AD - SMR Ref. 60783) further reinforces the probable importance of the site. The stratigraphic and structural resource can therefore be seen as being locally and regionally significant.

Condition

All records relating to the site are in good condition and currently held under safe storage with the CLAU (Union Road, Lincoln LN1 3BL).

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2.2 Animal Bone Assessment

By Jane Richardson BSc, MSc, PhD

Introduction

Excavations at Meadow Lane, North Hykeham by the City of Lincoln Archaeology Unit produced 223 animal bone fragments from mid to late Roman deposits. Unfortunately as so few bones were retrieved, an assessment of domestic debris (such as food waste) or industrial debris (such as tanning or bone working) was limited. The condition of the bones was also poor and this prevented a thorough assessment of butchery marks and metrical data.

Method

As the total assemblage was small, all bone fragments were identified where possible to species, species group (such as sheep/goat) or a lower order category such as 'large-mammal'. In addition, bones including a diagnostic element zone were noted. By definition these are easily identifiable and non-reproducible and eliminate the possibility of recording an anatomical zone more than once. Age data were considered and butchery marks were noted, but due to the poor surface condition of the bones, no metrical data were recorded. The recording of erosion, fragmentation, gnawing and burning allowed bone condition and preservation to be assessed.

To facilitate analysis, the animal bones were typically assigned to one of four phases: Phase I, 2nd to 3rd century; Phase II, 3rd to 4th century; Phase III, 4th to late 4th century and Phase IV, medieval. As the assemblage was so small, however, the bones were often viewed as a discrete mid to late Roman assemblage, with the majority of the bone fragments coming from 4th-century deposits.

Results

Bone preservation

Bone condition was generally poor with many bones described as porous and fragile. This poor state of preservation can be seen in the proportion of bones that displayed fresh breaks (47%). Nearly all bone fragments displayed eroded surfaces and this precluded the identification of butchery and gnawing marks. Gnawed bones accounted for less than 2% of the assemblage and only one butchered bone was identified (dismembering marks to a cattle proximal femur).

Species presence

The animal bone assemblage consisted of only 35 bone zones (Table 1). Of these, cattle accounted for 63% of the assemblage, horse 26% and large mammal 11%. The smaller mammals were only represented by a single sheep tooth and a tibia fragment of a small (sheep-sized) mammal (Table 2). Poor preservation probably biased against the smaller species.

Body part presence

All body parts (limb bones, axial skeleton and skull fragments) were present for cattle, horse and/or large mammal. These suggest that the assemblage represents domestic debris as opposed to industrial/craft waste that typically leaves a more limited range of body parts.

Age data

Age data were scarce for both cattle and horse. Two lower third molars of cattle indicated the cull of sub-adult animals, between 30 and 36 months (after Halstead 1985) and an unfused proximal femur of cattle revealed the slaughter of an animal below 42 months (after Silver 1969). These indicate the availability of prime meat, while two further lower third molars from 'old adults' (after Halstead 1985) imply the maintenance of some cattle as breeding stock, traction animals or for their milk yield. Age data for horse were limited to a single premaxilla that indicated a male animal of around seven years at death.

Conclusions

Domestic debris from mid to late Roman deposits was indicated by the dominance of cattle bones and the presence of all body parts. Sub-adult cattle were apparently utilised for their meat and the use of secondary products was tentatively identified. The high cattle percentages identified from the late Roman levels at North Hykeham are indicative of a 'Romanised' site (King 1989, 53), and have also been identified from late Roman deposits at Leadenham, Lincolnshire (Richardson 2001).

It is less likely that horse was eaten due to Roman aversions to the consumption of this species (Toynbee 1973, 185). Instead the horse bones may represent pack or traction animals. The almost total absence of other domestic species such as sheep, goats and pigs probably reflects the small sample size and taphonomic bias rather than dietary and/or economic decisions.

As only 223 bone fragments were retrieved from the predominantly mid to late Roman deposits at Meadow Lane, North Hykeham, the assemblage was too small to be statistically valid. Consequently the observations made here are very tentative and they may change should further archaeological investigations be carried out in this area. Although beef consumption was recognised, further excavation

and a larger sample size would help clarify the importance of secondary products and the significance of the smaller domestic species such as sheep and pigs.

Table 1: Summary of the animal bone zones by phase

	Period II	Period III	Unstratified
Cattle	2	19	1
Horse	1	7	1
Large mammal		4	
Total	3	30	2

Table 2: Summary of the animal bone fragments by phase

	Period I	Period II	Period III	Period IV
Cattle	1	6	46	
Horse		1	10	
Large mammal	3	14	65	8
Sheep/goat			1	
Small mammal			1	
Unidentified	36		23	
Total	40	21	146	8

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2.3 Environmental Assessment

Fiona Johnson & David Shimwell

Materials and Methods

Forty 10ltr bucket samples from Meadow Lane, North Hykeham, collected by the field officer and excavators were submitted for laboratory analysis. Twenty-two of these samples were selected for detailed analysis according to the prescribed methods of PERU (Appendix 1) and on the basis of two premises:

Measurement of pH to indicate the chemical nature of samples;

Measurement of percentage loss on ignition to determine the quantity of organic material and hence, potential for the preservation of macrofossil and microfossil remains.

Sample selection was therefore based primarily on pH values lower than neutrality because pollen preservation is better at lower, more acidic values, and of % loss on ignition values >2.5. The characteristics of the forty samples are shown in Table 1 overleaf. In addition, the analysis of three

samples of iron-rich nodules and a block of iron slag, collected by the authors during a site visit, and of ten samples of copper-rich slag was also undertaken.

Results

Macrofossils and Pollen

The results of the analyses of the twenty-two samples proved to be somewhat disappointing, though some information was gleaned in all but five samples. The predominantly silty clay nature of the deposits, the relatively high pH, in the range 5.51-7.47, and the low contents of organic material, as evidenced by % loss on ignition values in the range 1.8-3.9, were clearly detrimental to the preservation of charcoal, plant macrofossils and pollen. Charcoal, often of the microscopic form, was present in fifteen samples, but never in quantities exceeding 2g. Its small and often fragmented nature precluded the specific identification of source species of tree or shrub. Pollen preservation was nil in all but four samples and then mainly as fractured and crumpled grains that prevented identification. Tree and shrub species recorded included *Alnus* (alder), *Corylus* (hazel), *Betula* (birch) and *Salix* (willow). *Pteridium* (bracken) and *Sphagnum* (bog moss) occurred in two samples. The results are really too fragmentary to provide an interpretation of the surrounding vegetation and landscape of the third and fourth centuries AD, merely to say that such species grew in the district surrounding the site.

The results for the analysis of plant macrofossils are slightly more heartening in that carbonised cereal grains were recorded in six samples and crop weed seeds in seven. The cultivated cereals were *Triticum vulgare* (bread wheat) in five samples, *Avena sativa* (oats) in two and *Secale cereale* as a single record. The wild oat (*A. fatua*), a common weed of cereal crops, was found in four samples. This pattern of representation is the expected situation in the Romano-British period (Godwin 1984) and the presence of a single grain of rye is particularly interesting, it being an uncommonly recorded crop of the Iron Age and Roman periods. The rather impoverished crop weed flora comprises records for five species, of which the corn spurrey (*Spergularia arvensis*) was found in six samples. This species is characteristic of cornfields on acidic, light sandy soils. Godwin (1984) notes that seeds of the spurrey are commonly found with those of *Linum* (flax), but such a combination was not recorded at North Hykeham.

Detail of Results

- 01 Silty clay 10YR 3/1 very dark grey
Charcoal absent; pollen preservation nil
- 06 Mixed sample, the bulk silty clay 2.5Y 5/4 light olive brown
Five grains of *Triticum vulgare* and two of *Avena fatua*; seeds of *Plantago lanceolata* and *Spergularia arvensis*
Microscopic charcoal +; pollen preservation nil
- 07 Silty clay 5Y 3/1 dark grey, mixed with clay 2.5Y 6/4 light yellowish brown
One grain of *Secale cereale* and three of *Avena fatua*; seeds of *Chrysanthemum segetum*, *Vicia cracca* and *Plantago lanceolata*
Microscopic charcoal +; pollen preservation nil
- 08 Silty clay 2.5Y 4/2 dark greyish brown with light olive brown mottlings
Three grains of *Triticum vulgare* and four of *Avena sativa*; seeds of *Spergularia arvensis* and *Vicia cracca*
Microscopic charcoal +; pollen preservation nil
- 10 Silty clay 5Y 3/1 dark grey
Charcoal absent; pollen preservation poor (three grains of *Ericaceae*, *Pteridium* and *Sphagnum*)
- 11 Silty clay 5Y 3/2 dark olive grey
Bone and seeds of *Vicia cracca*, *Persicaria lapathifolium* and *Spergularia arvensis*
Microscopic charcoal +; pollen preservation nil
- 12 Sandy clay 2.5Y 5/4 light olive brown
Charcoal +; pollen preservation nil

- 13 Clay 2.5Y 3/2 very dark greyish brown with 10YR 3/6 yellowish brown mottles
Charcoal absent; pollen preservation nil
- 14 Silty clay 5Y 3/1 dark grey
Charcoal absent; pollen preservation nil
- 15 Silty/sandy clay 10YR 3/2 very dark greyish brown
Microscopic charcoal +; pollen preservation poor with c. 15 broken and unidentifiable grains,
plus *Lactuceae* 4, *Poaceae* 3, *Plantago* 2, *Cerealia* 1
- 18 Clay/silty clay 2.5Y 3/2 very dark greyish brown
Charcoal absent; pollen preservation nil
- 19 Silty clay 5Y 3/1 dark grey
Charcoal absent; pollen preservation nil
- 20 Sandy silt 7.5YR 3/0 very dark grey
Microscopic charcoal +; pollen preservation poor, mainly fractured and unidentifiable grains, but
29 grains recorded as follows: *Alnus* 9, *Sphagnum* 8, *Corylus* 5, *Pteridium* 3, *Poaceae* 2, *Betula*
1, *Salix* 1
- 24 Sandy clay 2.5Y 4/2 dark greyish brown
Charcoal +; pollen preservation nil
- 26 Silty clay 2.5Y 4/2 dark greyish brown
Three grains of *Triticum vulgare* and three of *Avena fatua*; seeds of *Chrysanthemum segetum*
and *Spergularia arvensis* and gramineous fibres
Microscopic charcoal +; pollen preservation nil
- 31 Silty clay 2.5Y 3/2 very dark greyish brown
Charcoal absent; pollen preservation nil
- 32 Silty clay 5Y 2.5/1 with occasional large pebbles (<50mm)
Charcoal +; pollen preservation nil
Four grains of *Triticum vulgare*, three of *Avena sativa* and one of *A. fatua*; seeds of *Spergularia*
arvensis and *Vicia cracca*
- 33 Pebble rich deposit in silty clay matrix 2.5Y 3.2
Charcoal absent; pollen preservation nil
- 34 Silty clay 5Y 3/2 dark olive grey with sandy inclusions
Small quantity of burnt bone and microscopic charcoal; pollen preservation poor but single
grains of *Alnus*, *Cyperaceae* and *Lactuceae*
- 35 Silty clay 2.5Y 4/2 dark greyish brown with sandy inclusions
Seeds of *Spergularia arvensis* and *Persicaria lapathifolium*
Microscopic charcoal +; pollen preservation nil
- 39 Silty clay 2.5Y 5/2 greyish brown with some iron staining
Microscopic charcoal +; pollen preservation nil
- 42 Clay 2.5Y4/2 dark greyish brown
Ceramic sherd, charcoal +; pollen preservation nil
Two grains of *Triticum vulgare* and leaves of the moss *Hypnum cupressiforme*

B. Metallurgy

Iron-rich nodules

The three nodules of iron-rich material, weighing 1090g, 1150g, and 2680g (context [106]), excavated on site at North Hykeham have three possible origins. According to Kent, Gaunt and Wood (1980), iron

deposits of a variety of types are widespread in the solid geology of Lincolnshire. In the Lower Lias, the Frodingham Ironstone, which has been exploited economically in the north of the county, is commonly found as nodules in the beds to the south and west. The nodules may thus have come from opencast mining of such solid geological deposits beneath the vicinity of the Hykeham settlement. The Northampton Sand Ironstone of the Middle Lias of the Lincolnshire Ridge, has been worked as opencast in places as far north as Lincoln, beyond which it is represented by ferruginous sands with ironstone concretions. It seems improbable that the ironstone was brought some three kilometres to the site. Rather, the conglomerate-like nodules may represent a ferricrete formed in the overlying glacial deposits by the eluviation of iron, followed by its deposition and concretion in a matrix of gravel. Ussher, Jukes-Browne and Strahan (1888) record beds of iron-stained sand and gravel in a railway section north-east of Hykeham Station, though they fail to record the existence of a ferricrete horizon or nodules.

Iron slag block

The block of slag (context [106]) was examined by Sarah Paynter of the English Heritage Centre for Archaeology and the following account incorporates her comments. The block is sub-rectangular in plan, with approximate dimensions being 32 x 28cm, with a depth of c. 12cm and a weight of 13.5kg. The upper and lower surfaces are generally convex-convex in section, although they are both rather uneven and irregular, with fairly deep pores (c. 4cm) and a vesicular texture. The base contains an impression of charcoal, and has incorporated several small pebbles and flint chips into its surface. The predominant feature of the block is a semicircular notch or 'bite' along one of the long sides when viewed in plan. At this point, the protruding areas of slag on either side of the notch are somewhat different in texture, being rather smoother and less vesicular. The block is at its thickest on the notched side, and when viewed in section has a clear convex base at this point.

Both iron smelting and iron smithing (refining) using the bloomery or Direct Method of iron production result in the formation of waste residues or slags, which individually may be difficult to assign to either process with certainty, unless found in association with other characteristic materials (Crew, 1995). However, certain interpretations may be made regarding this specific sample based on characteristics of its form, and comparison with other examples. Despite the unusually large size and peculiar shape of the sample piece, it is considered probable that it represents a smithing slag as opposed to a smelting slag. The convex-convex shape and the porosity of the slag are consistent with those resulting from smithing. In addition the piece was found in isolation, with no other features suggestive of smelting such as ores, tap slags, or smelting structure remains. The unusual shape would be due to features of the smithing hearth. Hearth walls frequently require repeated repair around the blowing hole, resulting in a bulging feature in this area. Any slag forming in the hearth would reflect such a feature with a corresponding indentation, such as displayed in the semi-circular "bite" of this example. The smoother texture of the slag in the areas around the indentation also suggest that they formed in the hottest part of the hearth, which would be around the blowing hole. This sample piece may be compared to an example from the Roman site at Elms Farm, Heybridge, Essex, which was similar in form and weight, (D. Dungworth, pers. comm.). The complete assemblage of debris from Elms Farm was unequivocal in identifying iron smithing as the predominant industrial activity at the site, as opposed to smelting (Starley, 1994).

The sample therefore suggests iron smithing was taking place in the local area. It is perhaps unusual that no other evidence of smithing was located on the site, particularly as the shape of this piece suggests it was formed in a hearth which had undergone repeated repair. However, large pieces of slag were often disposed of in antiquity, and agricultural practices often result in relocated slags, often to field boundaries (Bayley, Dungworth & Paynter, 2001). This corresponds with the location of the slag in the upper fill of a ditch boundary.

Copper slag

Ten pieces of presumed copper slag (Contexts [001] and [133]) were submitted for comment. The nine pieces from the first context vary in shape and size from 2.33g to 58.12g, 153.2g in total. All pieces display, in part, the blue-green colouration of oxidised copper. Seven are irregular nuggets, one a flattened rough piece and one a smooth spill/dribble with surface impressions of grass. The second context sample is a single lump (13.2g) of probable casting debris, similar in form to the irregular nuggets of the previous sample group. Together, the assemblage consists of corroded dribbles, spillages and possible failed castings from copper/bronze manufacture. The quantity of evidence suggests no more than a small-scale domestic activity on site.

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Table I: Characteristics of the forty context samples

<i>Context</i>	<i>Sample No.</i>	<i>pH</i>	<i>% loss on ignition</i>
002	1	6.03	2.4*
004	2	6.16	1.8
005	3	6.80	2.0
007	4	5.81	1.9
008	5	6.15	2.1
022	6	6.05	2.7*
024	7	6.12	3.6*
026	8	6.21	3.6*
028	9	5.90	2.4
047	10	6.43	2.5*
072	11	6.28	2.7*
080	12	6.15	2.5*
087	13	6.62	2.4*
086	14	6.54	2.6*
085	15	5.51	2.4*
084	16	7.58	2.2
043	17	7.15	2.3
045	18	7.06	2.4*
094	19	7.00	1.8*
056	20	6.68	2.7*
098	21	7.27	2.0
098	22	6.89	2.1
088	23	7.12	2.1
010	24	7.15	2.5*
100	25	7.29	2.3
104	26	7.47	2.8*
117	27	6.96	2.4
123	28	7.02	2.6
090	30	6.89	2.3

131	31	7.15	2.4*
140	32	6.71	3.9*
167	33	6.51	2.4*
163	34	6.47	3.1*
173	35	7.06	2.8*
106	37	6.87	2.4
187	38	7.20	2.1
188	39	7.35	2.8*
194	40	7.30	2.0
092	41	7.00	2.0
211	42	7.21	2.5*

Appendix 1: Laboratory procedures for the assessment of the environmental potential of archaeological context samples

Phase One

1. Hand sort and set aside any predominantly organic sub-samples showing stratification.
Prepare samples for rapid assessment of pollen preservation and content.
Pollen preservation poor - recommend no further analysis
Pollen preservation good with species diversity - recommend detailed analysis (Phase Two)
2. Sub-sample for pH, Munsell colour and particle size characterisation.
pH measurement to indicate general chemical nature of deposit
Colour characterisation of inorganic fraction for indication of depositional environment, i.e. anaerobic or aerobic conditions
Particle size analysis to provide profile of relative proportions of various sizes of sand, silt and clay
3. Disaggregate by hand to identify larger inclusions of bone, wood, charcoal, flint debitage and other artefacts.
Wash and blot off excess water; place charcoal in pie-dish in drying oven at 25°C for 24 hours.
Assess potential for recommendation of specific identification and radiocarbon dating (Phase Two).
Place other artefacts in labelled sample bags; catalogue.
4. Wet sieve one litre sub-sample through nest of sieves (5mm to 1mm) to isolate charcoal and macrofossils.
Blot off excess water from each size fraction and pick out larger charcoal fragments using tweezers; place in pie-dish in drying oven at 25°C for 24 hours. Based on weight (>10g), make recommendation for radiocarbon dating.
Examine each size fraction in water in petri-dish, using x10 binocular microscope, for presence of seeds and other macrofossils. Pick out macrofossils and preserve in alcohol in labelled sample tubes.
Based on presence/diversity, recommend further specific analysis and additional wet sieving (Phase Two).
5. Retain remaining portion of bulk sample for potential Phase Two analysis.

Phase Two: Detailed analysis

6. Full pollen analysis of one (or more, if deposits are stratified) horizon(s), with accompanying interpretation, using the standard KOH digestion and acetolysis procedures of Faegri and Iversen (1989) and the identification of pollen using a Zeiss Axiolab microscope operating at x 400 according to Moore *et al.* (1991).
7. Identify charcoal species isolated in 3 above.

8. Identify seeds and other macrofossils in fractions isolated in Phase One. Wet sieve additional sub-samples down to mesh size 0.5mm to isolate additional material and smaller weed seeds. Provide an interpretation of the assemblage.

2.4 Post-Roman Pottery Assessment

By Jane Young

Introduction

Fifteen sherds of post-Roman pottery were recovered from the site. The material ranges in date from the medieval to the post-medieval periods and was mainly collected from unstratified deposits. The pottery was examined visually and, where necessary, by using x20 magnification, then recorded using locally and nationally agreed codenames on an Access database. The CLAU fabric type series for Lincoln was consulted for comparative material.

Condition

The pottery recovered is mainly in poor condition with all sherds showing a fair degree of abrasion. Most fragments are of small to medium size and only one vessel is represented by more than one sherd.

The Pottery

A range of seven different, identifiable post-Roman pottery ware types was found on the site; the general date ranges for these wares together with their codenames are shown in Table 1. A restricted range of vessel forms was recovered, mainly large cylindrical jars and large bowls.

Table 1: Post-Roman pottery codenames and date range with total quantities by sherd and vessel count

<i>Codename</i>	<i>Full Name</i>	<i>Earliest Date</i>	<i>Latest Date</i>	<i>Sherds</i>	<i>Vessels</i>
BERTH	Brown glazed earthenware	1550	1800	2	2
BL	Black-glazed wares	1550	1750	5	4
FREC	Frechen stoneware	1530	1680	1	1
GRE	Glazed Red Earthenware	1500	1650	3	3
MEDLOC	Local Medieval Fabrics	1150	1450	2	2
PGE	Light Firing Glazed Earthenware	1500	1650	1	1
PMLOC	Local Post-medieval Fabrics	1500	1750	1	1

Medieval to Late Medieval

Two sherds from the site can be dated to the period between the 13th and 15th centuries. The sherds are very abraded and cannot be identified as a specific Lincoln or regional type, although the characteristics of the fabric (quartz and clay types) suggest that they are a local type. One vessel has an internal glaze and is probably a bowl, the other is a jug.

Post-medieval

Thirteen sherds representing twelve vessels date to the post-medieval period (16th to 18th centuries). The material includes a range of local and regional fabrics together with a single continental import (a Frechen stoneware drinking jug imported from the Rhineland). The range of vessel forms is limited to bowls, jars (mainly a large cylindrical type intended for storage) and single examples of a cup and a drinking jug.

Summary

The post-Roman pottery recovered from this site is of limited value in interpreting the archaeology; the condition of the material suggests that it represents field manuring, probably from the 16th to 17th centuries.

2.5 Ceramic Building Material Assessment

By Jane Young

Introduction

A total of 62 fragments of ceramic building material ranging in date from the Roman to the post-medieval period was recovered from the site. The material was examined visually and then recorded using locally and nationally agreed codenames on an Access database. The CLAU tile type series was consulted for comparative material.

Condition

The material is in variable condition with most fragments showing a fair amount of abrasion and eleven examples being very abraded. The condition of most of the building material seems to be consistent with plough damage.

The Ceramic Building Material

A range of ceramic building material including roof tile and brick was found on the site. The type and general date range for these types are shown in Table 1. A number of fragments were too fragmentary to identify as either Roman or post-Roman with any certainty.

Table 1: Ceramic Building material codenames and total quantities by fragment count and weight.

<i>Codename</i>	<i>Full Name</i>	<i>Fragments</i>	<i>Weight</i>	<i>Ceramic Period</i>
BOX	Box tile	1	284g	Roman
BRK	Brick	6	405g	med to post-med
BRKDISC	Brick (discarded)	1	92g	med to post-med
DRAIN	Drain (general)	1	205g	med to modern
IMB	Imbrex	1	206g	Roman
MISC	Unidentified types	5	741g	not known
NIB	Nibbed tile	1	98g	med to post-med
PNR	Peg, nib or ridge tile	4	439g	med to early modern
PNRDISC	Discarded peg, nib or ridge tile	3	21g	med to early modern
RBRK	Roman brick	19	3727g	Roman
RID	Unglazed Ridge tile	1	118g	med
RTIL	Roman tile	8	594g	Roman
RTMISC	Roman or post-Roman tile	8	418g	Roman or post-Roman
TEG	Tegula	3	1223g	Roman

Roman

Only a small group of 32 fragments can be identified with any certainty as being of Roman date. With only one or two exceptions the fabric types are dissimilar to those found in the City of Lincoln. The collection is limited to examples of tegula, imbrex, box tiles and building brick, mainly in poor condition. Two unusual bricks in a coarse reduced sandy fabric tempered with organic vegetable matter (chaff) may be of Roman date. These bricks, however, could equally well be examples of post-medieval handmade brick, or kiln bars of either date. If these bricks are Roman, they are likely to be *spicatum* or flooring bricks and would be the first to be recorded in the area.

Post-Roman

Most of the identifiable post-Roman ceramic building material recovered from the site is undiagnostic flat roof tile and brick. The fabric types recovered suggest that with one exception (Context [045]) the material in use in the area was not of Lincoln origin. Only a single fragment of ridge tile was present amongst the material recovered. This tile is unglazed and is decorated with an applied strip that has slashed decoration; this type of tile has not been noted within Lincoln. At least one of the brick fragments present on the site is of 18th or 19th century date

2.6 Roman Pottery Assessment

By B J Precious

The pottery was recorded according to the Study Group for Roman Pottery (SGRP) guidelines, using codes currently in use at the City of Lincoln Archaeological Unit, with sherd count and weight in grams as a measure (see the Roman pottery archive).

Introduction

The site produced a substantial assemblage of Roman pottery consisting of 599 sherds weighing 23009g. It is clear from Table 1, below, that the site was occupied towards the end of the Roman period with almost 67% of the assemblage dated from c AD 350, a further 5% from c AD 300-350, and at least 15% broadly dated to the 4th century. The majority of the pottery came from separate features, pits and linear or curvilinear cuts. One of the linear cuts ([041] & [078]) produced primary to tertiary fills ([044], [045] & [086]) the pottery from which shows a chronology from the late 3rd to mid to late and late 4th century. Post-Roman wares are mainly confined to unstratified material from the whole site (Context [001]), with a single sherd from Context [086] and three possible post-Roman sherds from Context [072]. These groups are the top fills from linear cuts and it is quite possible that the post-Roman sherds are intrusive, especially as they are mainly post-medieval in date and therefore unrelated to any immediate post-Roman occupation.

Date Range

Pottery of 3rd to 4th century date is present in small quantities accounting for 8.5% of the total, whereas principally 3rd century material accounts for only 1.8%. Evidence for mid-Roman occupation relies on the presence of two sherds of Central Gaulish samian of mid to late 2nd century date, however the samian may have remained in use far beyond the date of manufacture.

There are several rare vessels which, along with the double lid-seated jars, are indicative of late to very late Roman assemblages. These include two examples of inturned, bead and flanged bowls, and an example of an everted-rimmed bowl with a 'Romano-Saxon' style of decoration featuring indented circles on the body wall.

Table 1: Date range of the Roman pottery by the percentage of sherd count.

<i>Sherds</i>	<i>%</i>	<i>Date</i>
3	0.50%	2-3C
6	1.00%	M2-3C
6	1.00%	2-4C
6	1.00%	3C
5	0.83%	3C+
8	1.34%	M3-4C
22	3.67%	L3-4C
21	3.51%	3-4C
56	9.35%	4C
32	5.34%	4C/POSTRO?
32	5.34%	EM4C
132	22.04%	ML4C
269	44.91%	L4/POSTRO
1	0.17%	RO
599	100.00%	TOTAL

Condition

Two measures of the pottery were undertaken to emphasise the large size and fresh nature of this assemblage. This enabled a clearer understanding of the taphonomic processes on the site and it is clear, from the average sherd weight of almost 38.5g and the presence of several profiles, that the pottery is

likely to represent a relatively undisturbed, primary deposit. This is borne out to some extent by the material from the final fills of several linear and curvilinear cuts which produced the largest groups of pottery of mid to late 4th century date (Contexts [002] - 20 sherds; [043] - 41 sherds; [045] - 13 sherds; [046] - 70 sherds; [072]- 32 sherds; and [086] - 192 sherds - see Appendix 2: The date of the Roman pottery by context and sherd count).

It appears from the above that the back-filling of these features took place as a single event, and the average sherd weight from the majority of these groups supports this premise to some extent. For example: Context [002] - 25g; [043] - 48g; [046] - 43g; [072] - 28g and [086] - 36g, which contrasts sharply with the average sherd weight of 15g for the unstratified material from Context [001]. The alteration noted on individual sherds shows several with burning over the broken edges, suggesting that this back filling contained the debris from some sort of fire-destruction. However, there are no clear sherd links within the assemblage and only two groups of similar sherds were noted in Contexts [001] and [046], and [086] and [118].

As would be expected, a number of abraded and very abraded sherds came from the unstratified group, Context [001]. However, a relatively high proportion of the pottery from the site had altered surfaces, possibly due to either soil conditions or water abrasion, in particular that from Context [086], suggesting that this material may have been exposed to the elements for some time.

Sooting or burning on a number of bases or rims suggests that these are from cooking vessels. A few sherds were very burnt, so much so that reduced sherds were burnt to an oxidised state (Contexts [088], [142] & [171]); the wall of a vessel from Context [088] appears to have blown during firing, and another from Context [084] appears to have sheared at the base. These factors, together with the presence of two distinctive grey wares with fabrics consistent with the geology of the area, could point to pottery manufacture in the vicinity.

The Wares

Virtually all the wares associated with late Roman groups in Lincolnshire are present within this assemblage (see Table 2). The exceptions are late Roman grooved ware (SPIR) and ‘Huntcliff-type’ calcite-tempered wares (HUNT), however the latter are generally rare in Lincolnshire compared to their abundance north of the Humber and in East Yorkshire. Almost half of the assemblage consists of grey wares (GREY), a high proportion of which are very similar in fabric and form to the products of the Swanpool kilns in Lincoln. In addition there is a notable amount of distinctively different grey wares (GREY1 & GREY2), the fabrics of which are consistent with the geology of the valley bottom of the Hykeham area (pers comm Dr A G Vince). It is conceivable that this could be evidence for pottery manufacture in this area in the later Roman period.

The Swanpool kilns clearly supplied the bulk of the pottery to the site including an unusually high proportion of mortaria (MOSP), but also oxidised vessels (SPOX) and a single colour-coated vessel (SPCC). However, the surfaces of several of these examples are lost due to either soil or water abrasion. A group of unsourced oxidised wares (OX) with similarly worn surfaces, and fabrics virtually identical to the Swanpool grey wares, may also be products of these kilns.

A large group of double-lid and lid-seated jars in a coarse grey fabric (LCOA) accounts for over 13% of the assemblage, which would be expected of such a late group. Although similar forms occurred amongst the Swanpool kiln material, the source of this coarse local fabric is uncertain. A similar coarse grey fabric (COAR) was used exclusively to manufacture large storage jars (which have an average sherd weight of 152.5g). A small quantity of storage jars in an oxidised fabric may also belong to this group, but some are in a fabric very similar to locally produced tile and other building material (TILE).

Table 2: *The Roman fabrics by percentage of sherd count and weight.*

<i>Code</i>	<i>Fabric</i>	<i>Sherds</i>	<i>%</i>	<i>Weight</i>	<i>%</i>
COAR	Miscellaneous coarse wares	14	2.34%	2135g	9.28%
DR20	Dr 20 amphorae	1	0.17%	38g	0.17%
DWSH	Late shell-tempered; Dales ware; lid-seated jars etc.	24	4.01%	275g	1.20%
GFIN	Miscellaneous fine grey wares	1	0.17%	17g	0.07%

GREY	Miscellaneous grey wares	282	47.08%	9595g	41.70%
GREY1	Grey fabric 1	13	2.17%	329g	1.43%
GREY2	Grey fabric 2	76	12.68%	2774g	12.06%
GRFF	Grey fairly fine fabric	1	0.17%	26g	0.11%
GRFF?	Grey fairly fine fabric?	1	0.17%	68g	0.30%
GROG	Grog-tempered wares	2	0.33%	7g	0.03%
GRSAN	Grey with sandwich fabric	2	0.33%	21g	0.09%
LCOA	Late coarse pebbly fabric	83	13.85%	3051g	13.26%
MOMH?	Mancetter/Hartshill mortaria?	1	0.17%	102g	0.44%
MONV	Nene Valley mortaria	1	0.17%	22g	0.10%
MOOX	Oxfordshire parchment ware mortaria	1	0.17%	4g	0.02%
MOOXW	Oxfordshire white-slipped mortaria	1	0.17%	67g	0.29%
MOSP	Swanpool mortaria	21	3.51%	543g	2.36%
MPOT?	Medieval pot?	3	0.50%	97g	0.42%
NVCC	Nene Valley colour-coated	16	2.67%	938g	4.08%
NVGW	Nene Valley grey ware	1	0.17%	23g	0.10%
NVGWC	Nene Valley grey ware coarse	2	0.51%	42g	0.18%
OX	Miscellaneous oxidized wares	19	3.17%	473g	2.06%
PART	Parisian type wares	3	0.50%	104g	0.45%
SAMCG	Central Gaulish samian wares	2	0.33%	8g	0.03%
SPCC?	Swanpool colour-coated?	3	0.50%	47g	0.20%
SPOX?	Swanpool oxidized wares?	18	3.01%	644g	2.80%
TILE	Tile fabric vessels	6	1.00%	1558g	6.77%
VESIC	Vesicular fabric	1	0.17%	1g	0.00%
TOTAL		599	100.00%	23009g	100.00%

Other local products consist of late Dales type, shell-tempered wares (DWSH). Although the fabric is similar to the mid 3rd - 4th century, typical hand-made, Dales-type ware, these later Roman lid- and double lid-seated jars are clearly wheel-finished. A single vessel in Parisian-type ware, with fine combed decoration, may have been produced at the Market Rasen kilns.

Romano-British wares from further afield mainly consist of colour-coated fine wares, but also include grey wares from the Nene Valley kilns, a mortarium from a probable Mancetter/Hartshill source and two examples of mortaria from the Oxfordshire kilns. Wares imported from the Continent are rare, consisting of two examples of Central Gaulish samian and a single very abraded sherd of Dressel 20 amphora from Baetica in Spain.

Form and Function

Table wares are rare, consisting of highly burnt examples of decorated Nene Valley, colour-coated lids, a bowl and dish, and two beakers. The comparative absence of these wares (see Table 3) reflects the late date of this assemblage. Other tablewares consist of a samian bowl which, together with a Mancetter/Hartshill mortarium, provides the only evidence of earlier occupation on the site.

Table 3: The Roman forms by function and percentage of sherd count and weight.

Form	Function	Sherds	%	Weight	%
Unidentified	N/A	17	2.84%	121g	0.53%
Beaker	Drinking	1	0.17%	2g	0.01%
Folded beaker	Drinking	1	0.17%	5g	0.02%
Jar or beaker	Drinking	27	4.51%	209g	0.91%
Cooking pot	Kitchen	7	1.17%	94g	0.41%
Double lid-seat jar	Kitchen	36	6.01%	961g	4.18%
Dales type jar	Kitchen	3	0.50%	47g	0.20%
Lid-seat jar	Kitchen	22	3.67%	759g	3.30%

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Mortaria	Kitchen	3	0.50%	164g	0.71%
Bead & flange mortaria	Kitchen	16	2.67%	191g	0.83%
Hammer-head mortaria	Kitchen	1	0.17%	160g	0.70%
Reed-rim mortaria	Kitchen	4	0.67%	187g	0.81%
Wall-sided mortaria	Kitchen	1	0.17%	36g	0.16%
Flagon	Liquid holder	1	0.17%	16g	0.07%
Disc-neck flagon	Liquid holder	1	0.17%	49g	0.21%
Collared-rim jar	Liquid holder	3	0.50%	309g	1.34%
Narrow-neck jar	Liquid holder	7	1.17%	192g	0.83%
Jug?	Liquid holder	1	0.17%	8g	0.03%
Unguent jar	Ritual	11	1.84%	287g	1.25%
Amphorae	Storage	1	0.17%	38g	0.17%
Large jar or bowl	Storage	19	3.17%	1783g	7.75%
Large jar	Storage	3	0.50%	338g	1.47%
Storage jar	Storage	26	4.34%	4614g	20.05%
Dr 31 samian bowl	Table	2	0.33%	8g	0.03%
Lid with steam hole	Table	2	0.33%	210g	0.91%
Castor-box lid	Table	1	0.17%	10g	0.04%
Jar	Table/Kitchen	112	18.70%	3680g	15.99%
Bowl as Dr 31	Table/Kitchen	1	0.17%	111g	0.48%
Bowl as Dr 38	Table/Kitchen	6	1.00%	299g	1.30%
Everted-rim bowl	Table/Kitchen	3	0.50%	57g	0.25%
Expanded-rim bowl	Table/Kitchen	2	0.33%	90g	0.39%
Low bead & flange bowl	Table/Kitchen	17	2.84%	729g	3.17%
Bead & flange bowl	Table/Kitchen	1	0.17%	12g	0.05%
Flanged bowl	Table/Kitchen	1	0.17%	29g	0.13%
Inturned bead & flange bowl	Table/Kitchen	2	0.33%	46g	0.20%
Triangular rim bowl	Table/Kitchen	1	0.17%	14g	0.06%
Wide-mouth bowl	Table/Kitchen	57	9.51%	3701g	16.08%
Dish	Table/Kitchen	1	0.17%	58g	0.25%
Groove rim dish	Table/Kitchen	1	0.17%	12g	0.05%
Plain rim dish	Table/Kitchen	5	0.83%	215g	0.93%
Bowl or dish	Table/Kitchen	11	1.84%	325g	1.41%
Open	Table/Kitchen	2	0.33%	85g	0.37%
Closed form	Table/Kitchen	139	23.21%	2327g	10.11%
Jar or bowl	Table/Kitchen	8	1.34%	193g	0.84%
Jar as Type 105	Table/Kitchen	2	0.33%	36g	0.16%
Curve-rim jar	Table/Kitchen	1	0.17%	7g	0.03%
Flat-top jar	Table/Kitchen	1	0.17%	14g	0.06%
Undercut-rim jar	Table/Kitchen	2	0.33%	44g	0.19%
Lid	Table/Kitchen	3	0.50%	80g	0.35%
Bifurcated-rim lid	Table/Kitchen	3	0.50%	47g	0.20%
TOTAL		599	100.00%	23009g	100.00%

It is clear from the relatively high amount of mortaria and storage vessels that food preparation and storage was one of the prime functions of the pottery assemblage, whilst cooking took place mainly in jars with single or double lid-seatings. Liquid holders, represented by narrow-necked or collared jars for use mainly in the kitchen and flagons or jugs for use at the table, are slightly more common than drinking vessels. However, the bulk of the assemblage consists of vessels that could be used either for cooking or for serving at the table. This group is largely represented by the body sherds of jars or other closed, but otherwise undiagnostic, forms and wide-mouthed jars. Open forms are rare, mainly consisting of bead and flanged bowls and plain-rimmed dishes.

Perhaps the most unusual aspect of the assemblage is the presence of three small and very narrow-based unguent jars in an oxidised fabric resembling those of the Swanpool kilns. One vessel is almost complete and the apparently unworn base suggests that it has not been used. The precise function of this type of vessel is uncertain but there is some evidence to show that it was used for ritual purposes: some were recovered from the shrine at Verulamium, from the 'triangular' temple (cf Wheeler & Wheeler 1936, pls LIX-LXA).

Conclusions

This is an exceptional assemblage which, together with the presence of Roman building material, may be indicative of a nearby villa site. Assemblages of this date are generally restricted in terms of fabrics and forms because the major pottery industries were declining by the late 4th century. Nevertheless, the quantity and quality of this substantial assemblage suggests that it was used by a moderately high-status population.

The dating of the pottery corresponds well with the inception of Lincoln as one of the four major provincial capitals of late Roman Britain. This would have involved a major expansion of the city, and the substantial North Hykeham assemblage may well reflect that this growth continued into more rural locations.

It is a rare occurrence to find such a large, fresh and mainly homogeneous late Roman assemblage from a relatively rural excavation, as exemplified by Tables 2 and 3. Such a group provides substantial evidence of the types of forms and fabrics in contemporary use during a time-span that, in ceramic terms, is short. It is therefore particularly vital for comparison with similarly late assemblages from the City of Lincoln, which is frequently contaminated by earlier material, and may isolate the differences between rural and urban assemblages.

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2.7 Other Finds

By J E Mann

Introduction

Thirty registered finds and a similar quantity of bulk finds (see Appendix 1.7) were recovered from the site. All but six of the registered finds, and all of the bulk metalwork, was recovered by metal-detecting the topsoil and subsoil; the few certainly datable pieces are medieval or later.

All finds were recorded to basic CLAU archive level and the data entered onto the computer using the CLAU thesauri of finds and materials codes. The registered finds were examined in conjunction with the relevant X-ray plates where appropriate, and described and sketched on standard record cards.

Much of the metalwork is corroded, particularly the ironwork; three items received stabilisation treatment by the Lincolnshire County Council Heritage Service Conservation Department in order to limit further deterioration.

Finds from Roman Contexts

Only four pieces were stratified in Roman contexts: a single iron nail <30> and three small fragments of stone, all Millstone Grit from the Pennines. Two pieces are almost certainly from flat, rotary querns; only one of these <18> has any of the original edge remaining, from which a diameter of approximately 400mm can be estimated. Both faces of this piece are worn and one, on which four broad grooves are just visible, shows extreme wear. The second quern fragment <17> is of somewhat coarser grit and the only feature that suggests this to be from a quern is a series of three broad grooves on one face.

The third stratified piece <16> has part of an original, curved edge which appears to be slightly recurved adjacent to the point of fracture, as if originally of S-shaped profile. It is therefore unlikely to be part of a

quern although its precise function is debatable; the edge itself is extremely smooth as if abraded by wear, and it may simply be a fragment that has been reused as a rubber or perhaps as a coarse abrasive/sharpener.

Finds from Other Contexts

The only datable pieces from the topsoil (001) are post-medieval or modern, while the subsoil (133) produced a corroded iron fragment that has been tentatively identified as part of the fin and tube from a medieval barrel-padlock <28>. A single unstratified coin <3> was recovered and although this is too badly corroded for identification, its condition, together with the slight hint of a bust visible on the X-ray, suggests that it may be of Roman (late 3rd/4th century?) date.

Another fragment of Millstone Grit <15> was recovered from the subsoil. It appears to be part of a recut and reused piece; two adjacent edges remain, one curved and the other cut at an angle of 90 degrees to it. The curved edge suggests that this may have come from a quern with an original diameter of approximately 340mm. A shallow vertical notch traverses the entire thickness of this edge, and a shallow pit is visible in the straight-cut edge, which is very smooth as if abraded by wear. Both surfaces of the piece are also extremely abraded, each with a broad diagonal groove (more pronounced on one face than on the other) almost certainly produced by heavy use.

A noticeable quantity of lead waste was recovered, mostly comprising small blobs of melt waste with some sheet scrap and several fragments perhaps from roofing. There is also a single small scrap of milled window came, of 16th-century or later date. One small, sub-triangular fragment with a double-looped projection resembles part of a possible pilgrim badge (or perhaps a toy), although on balance this is more likely to represent melt waste that has flowed round some sort of obstruction.

List of Registered Finds

<i>Phase</i>	<i>Context</i>	<i>Finds No.</i>	<i>Material</i>	<i>Object</i>	<i>Date/Comments</i>
U/S	001	1	Iron	-	Rod/Staple?
U/S	001	2	Flint	Waste	Prehistoric
U/S	001	3	Copper alloy	Coin	Roman? L3-4C?
U/S	001	4	Copper alloy	Buckle	Post-medieval?; D-shaped + suspension loop
U/S	001	5	Copper alloy	-	x2; Sheet mount/fitting
U/S	001	6	Copper alloy	Ring	Whole
U/S	001	7	Copper alloy	-	-
U/S	001	8	Copper alloy	Button	Late post-medieval/modern; whole
U/S	001	9	Lead	Waste	X8; 3 sheet 5 roof?
U/S	001	10	Lead	Waste	Melt
U/S	001	11	Copper alloy	-	Riveted mount/fitting
U/S	001	12	Copper alloy	-	-
U/S	001	13	Copper alloy	-	Curved frag
U/S	001	14	Lead	-	Point waste?
IV	133	15	Stone	-	Millstone Grit; reused quern; v worn
I	196	16	Stone	-	Millstone Grit; abraded
III	232	17	Stone	Quern	Millstone Grit; grooved
IV	142	18	Stone	Quern	Millstone Grit; grooved, v worn
IV	133	19	Iron	-	Curved rod
IV	133	20	Lead	Waste	Melt
IV	133	21	Lead	Waste	Sheet
IV	133	22	Lead	Waste	Melt
IV	133	23	Lead	Waste	Melt
IV	133	24	Lead	Waste	Melt
IV	133	25	Lead	Waste	Melt
IV	133	26	Lead	Came	Late medieval/post-medieval; milled scrap
IV	133	27	Lead	Waste	Melt blob

IV	133	28	Iron	-	Medieval?; barrel-padlock?
IV	133	29	Iron	Nail	-
III	106	30	Iron	Nail	-

Bulk Finds

Unstratified (001) bulk finds (see Appendix 1.7) mainly comprise modern material together with a small quantity of lead melt waste; there is little of note from stratified Roman contexts although a single piece of post-medieval/modern window glass was intrusive in the fill (100) of a Phase III linear feature (096). A small quantity of fired clay was recovered from the fills of ditches (073, 089, 144) and from a linear feature (146); a very small piece of burnt coal was also found in the fill of a curvilinear ditch (073). The small pieces of copper-working slag, discussed above (p10), were all unstratified (but see Discussion, below) apart from a single piece from the subsoil (133).

Discussion

The absence of diagnostically Roman material among the registered finds from this site contrasts sharply with the ceramic assemblage, both stratified and unstratified. The registered finds assemblage may represent a biased and unrepresentative sample: out-of-hours access to the site was unrestricted, and unmonitored activity (including metal-detecting and the removal of materials from site) could have taken place. It is equally possible, but perhaps unlikely, that finds were missed during excavation of the numerous features because of the adverse conditions produced by a combination of persistently wet weather and predominantly clay soil.

Controlled metal-detecting during the investigations produced mainly waste lead and scraps of copper alloy with a little ironwork, and any diagnostic pieces are of medieval and later date. Machine-stripping of the site had removed much of the medieval ridge and furrow, and almost certainly the uppermost fills of some of the (Phase III) Roman features; it is possible that at least some of the unstratified metal waste and copper-working slag may have originated from these Roman features - in common with much of the unstratified Roman pottery (which forms 12.86% of the whole assemblage). On balance, therefore, it is quite likely that the relative absence of other finds is a real feature of this site, and that the assemblage as a whole may be regarded as a relatively unbiased sample of the material originally deposited.

Study of the ceramic vessels (p14) suggests that occupation at this site may be of relatively high status. However, much of the pottery was used for food preparation and storage and the majority of the assemblage consists of vessels used for cooking or serving purposes; it may be no coincidence that two of the four stratified registered finds are undoubtedly quern fragments.

Given the virtual absence of normal detritus such as nails or other structural debris, and of personal items (including the usually ubiquitous bone pins!), it may be argued that this area lies on the periphery of occupation and that its use was not conducive to the loss of such material. The ditches, pits and other features, however, may have been close enough to any working or domestic area to provide a convenient place for waste and rubbish disposal.

3.0 INTEGRATED ASSESSMENT REPORT

Introduction

The purpose of this chapter is to set out the conclusions of the combined assessment reports and state clearly the further work needed. It also proposes new questions arising from the assessment and indicates the importance of the site in local, regional and national terms.

Original Objectives

Assessment of the NHME01 archive has partially satisfied the original objectives as set out in the project brief (Hambly 2001 – see 2.0 Research Aims).

- A. *Assessment of the Roman pottery (data) has revealed a possible connection between the Romanisation of the Lincoln Hinterland and the inception of Lincoln as one of the four major*

provincial capitals of late Roman Britain, however, identification of the pottery from the evaluation of the site in 1999 indicated a predominately 3rd century date for its assemblage. Whilst material of this date was recovered from the NHME01 excavation the majority was of 4th century date, suggesting a growth in the rural economy rather than a decline during the late Roman period.

- B. The excavation did not directly reveal evidence relating to the early use of the River Witham in establishing Lincoln as a major trading centre. Stratigraphic and ceramic evidence indicates a continuation of occupation on the site from the 2nd century through to a zenith in the 4th to late 4th century. This growth may reflect a greater use of the Witham as a trading link with the colonia at Lincoln, however no evidence to support this theory is available.*
- C. Evidence suggesting that a high status settlement lies in close proximity to the site has been revealed, however the nature of this settlement has not been established therefore an industrial and/or agricultural association cannot be dismissed.*
- D. It has been proven that occupation on the site does not cease in the 3rd century but appears to flourish well in to the 4th century. This may also imply an economic change linked to the economy of the colonia.*

3.1 Statement of Potential

Stratigraphic and Structural

- 1) Refinements to the phasing are required to elucidate the sequence of construction in order to produce a more definitive site-wide sequence of development. The most obvious way that this can be achieved would be through the union of individual contexts into a higher level of interpretive groupings that allows associated contexts with no stratigraphical association or dating to be linked together in order to determine their proper place within the stratigraphic sequence.
- 2) Full integration of the excavation archive with that of the earlier evaluation. This is deemed essential as it may provide information regarding the nature of those features recorded during the excavation that, at present, have unclear form, function and extent.
- 3) Understanding of the site may be considerably advanced if the results of the excavation were to be integrated with the results of previous work in this area of North Hykeham. This information would also expand our currently limited understanding of the Romanisation of the hinterland serving the colonia at Lincoln.
- 4) This site should be considered in relation to other comparable sites, with regard to their layout and development.
- 5) The results of this excavation should be published in a local journal.

Animal Bone

- 6) As only 223 bone fragments were retrieved from the predominantly mid to late Roman deposits at Meadow Lane, North Hykeham, the assemblage was too small to be statistically valid. Consequently the observations made here are very tentative and they may change should further archaeological investigations be carried out in this area. Although beef consumption was recognised, further excavation and a larger sample size would help clarify the importance of secondary products and the significance of the smaller domestic species such as sheep and pigs.

Environmental

- 7) The interpretation to be gleaned from the analyses presented above is limited by the fragmentary nature of the results. It is possible to say that grain crops used on site and probably grown in the immediate vicinity included bread wheat, oats and rye. The ecological demands of the associated weed assemblage would be those of the natural topsoils of the area. Little may be

said concerning the charcoal recovered, other than to record its presence. The seeming lack of large scatters and the absence of fragments of sufficient size to determine source species suggests that activities, other than those typical of normal domestic life, did not take place on site. Yet the presence of iron-rich nodules, a slag cake and cupreous slag may suggest otherwise.

- 8) Providing the methods of sample selection are acceptable, the relatively low returns of organic remains from the analyses recommend no further analysis of the remaining eighteen samples. The selection of additional samples with combinations of pH <7.0 and % loss on ignition <2.5 would seem to be little more than an academic exercise.

Post-Roman Pottery

- 9) In the absence of other post-medieval groups from the area the post-Roman pottery recovered from this excavation should be retained for any future scientific analysis and the development of a post-medieval type series for the county.

Ceramic Building Material

- 10) The ceramic building material recovered dates to between the Roman and the early modern periods. Apart from a few exceptions the material is not typical of that found on sites in the city of Lincoln. Little of the material has therefore been discarded and all of the remaining fragments should be retained.

Roman Pottery

- 11) It is clear that this material should be published, at least in a local journal.
- 12) The pottery assemblage should be directly related to the stratigraphic interpretation of the site to determine the precise nature of occupation.
- 13) The assemblage, which has been partly quantified to emphasise the fresh nature of the pottery, should be quantified to the highest level, giving rim equivalents (EVE's) and diameters, so that it can be compared directly with similarly dated, quantified assemblages from the City of Lincoln.
- 14) The distinctive grey ware fabrics (GREY1 & GREY2) which are consistent with the geology of the valley bottom of the Hykeham area should be analysed and thin sections prepared.
- 15) The sandy, oxidised fabrics (OX & SPOX?) similar to the Swanpool oxidised ware (SPOX), but lacking the exterior wash, should be similarly analysed.
- 16) Statistical analyses should be undertaken to compare this assemblage with comparable data from the City of Lincoln in order to elucidate any similarities or differences between rural and urban assemblages of this date.
- 17) Statistical analyses should be undertaken to compare this assemblage with comparable data from the City of Lincoln in order to isolate the principal components of late Roman assemblages uncontaminated by earlier, residual pottery.
- 18) The pencil-drawn, record illustrations of 58 vessels of intrinsic and stratigraphic value should be inked in for the publication, and a catalogue prepared.
- 19) A publication report together with a bibliography should be prepared encompassing the results of the above.

Other Finds

- 20) The stratified assemblage adds little to the interpretation of the site and does not merit further work. Apart from the slag, the lead waste and the pieces of fired clay, none of the bulk materials merits retention.

Discussion

The results of assessment of the various components of the NHME01 archive reflects, in part, the limited scope of the on-site investigations. Assessment of the animal bone, environmental data, ceramic building material, post-Roman pottery and other finds have all concluded a low potential for their furthering of our understanding of the development of the site and can be seen as having only local (site specific) importance.

Assessment of the stratigraphic and structural data and that of the Roman pottery data have revealed a moderate to high potential for the furthering of our archaeological knowledge and can be viewed as being of substantial local and regional importance. Further analysis and interpretation of the stratigraphic and ceramic pot data should elucidate the sequence of development on this site, providing important evidence for the expansion of the colonia at Lincoln and the Romanisation of its hinterland during the latter part of Roman occupation.

3.2 New Objectives

This assessment has highlighted five primary areas where the data recovered has the potential to answer new objectives.

These new objectives are:

1. Further refinement to the preliminary phasing of the site as well as the complete integration of the NHME01 archive with the information recovered from that of the site's earlier evaluation (including a reassessment of the evaluation pottery data). This will provide information that may aid in the interpretation of those features recorded during the excavation, which at present have unclear form, function and extent.
2. Integration of the pottery assemblage with that of the stratigraphic interpretation in order to determine the precise nature of occupation.
3. The integration and comparison of the NHME01 site with that of other archaeological work in the vicinity with a view to advancing our presently limited understanding of the Romanisation of the hinterland serving the colonia at Lincoln during the latter half of the Roman period.
4. Statistical analysis and comparison of the Roman pottery with comparable data from the City of Lincoln to identify similarities and differences between rural and urban assemblages of this date, and to isolate the principal components of late Roman assemblages that are uncontaminated by earlier, residual pottery.
5. The publication, in a local journal, of a more definitive and precise account of the development of the site.

4.0 ACKNOWLEDGEMENTS

The CLAU would like to thank Longhurst Housing Association and English Heritage for jointly contributing towards the excavation and assessment of the material from the site. Thanks are also extended to the site contractor, Westleigh Developments Ltd, Leicester for their assistance, enthusiasm and full cooperation throughout the duration of the archaeological works. Acknowledgement is also made of Joanna Hambly – Heritage Officer to North Kesteven District Council and Dr Glyn Coppack – English Heritage Regional Inspector, for their invaluable advice and guidance.

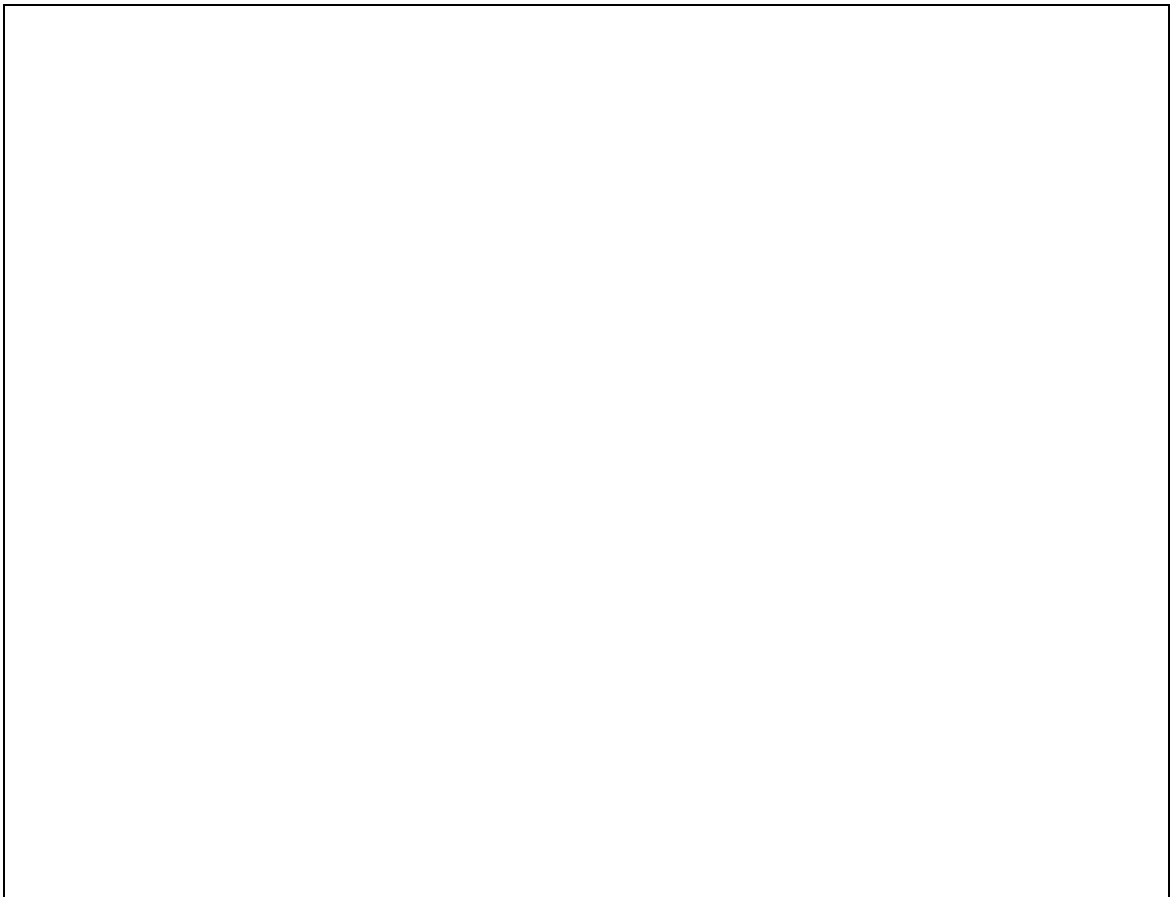


Fig. 1: Site location plan (1:25000 & 1:2500).

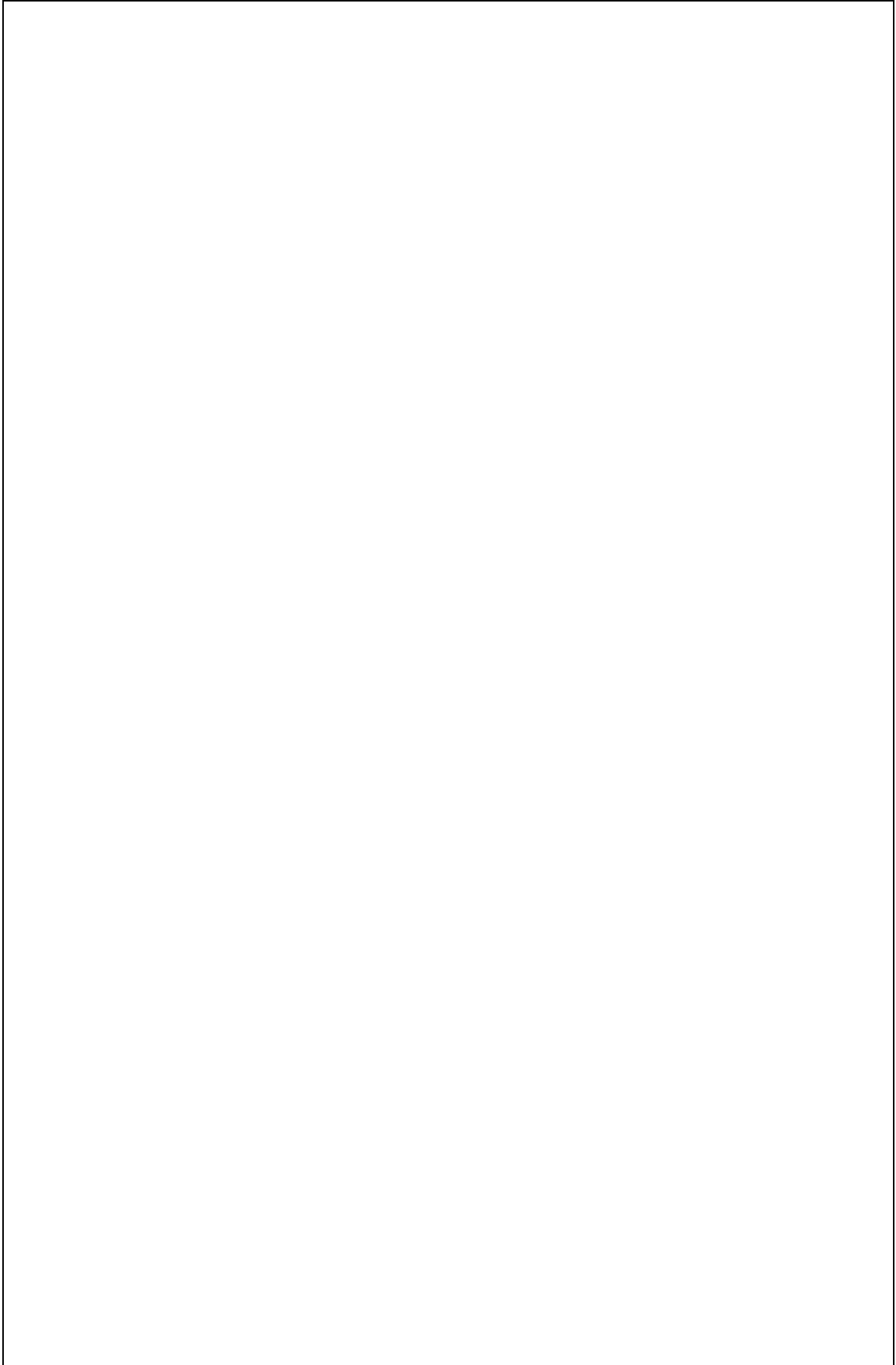


Fig. 2: Overall pre-excavation site plan.

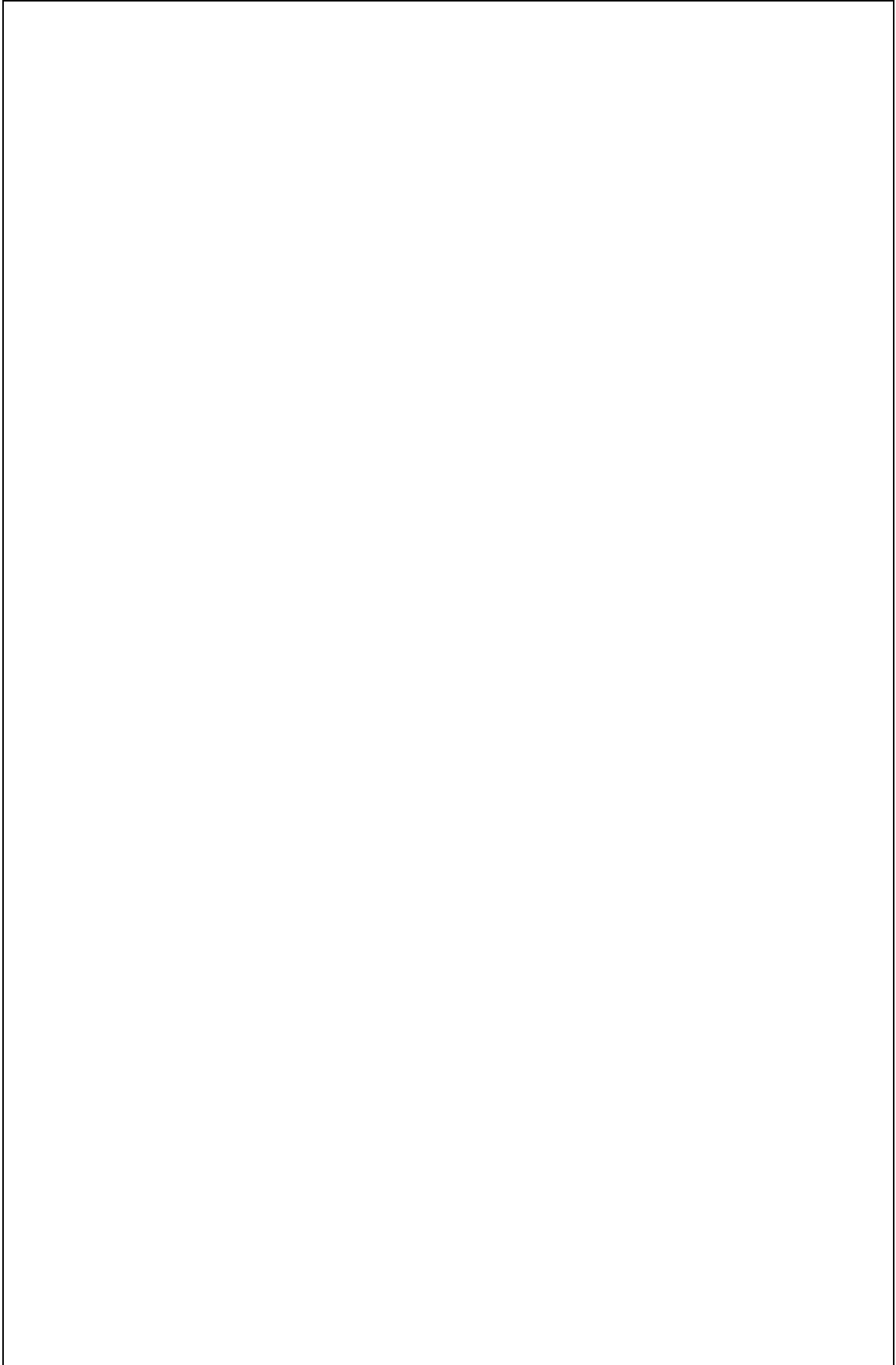


Fig. 3: Phase I.

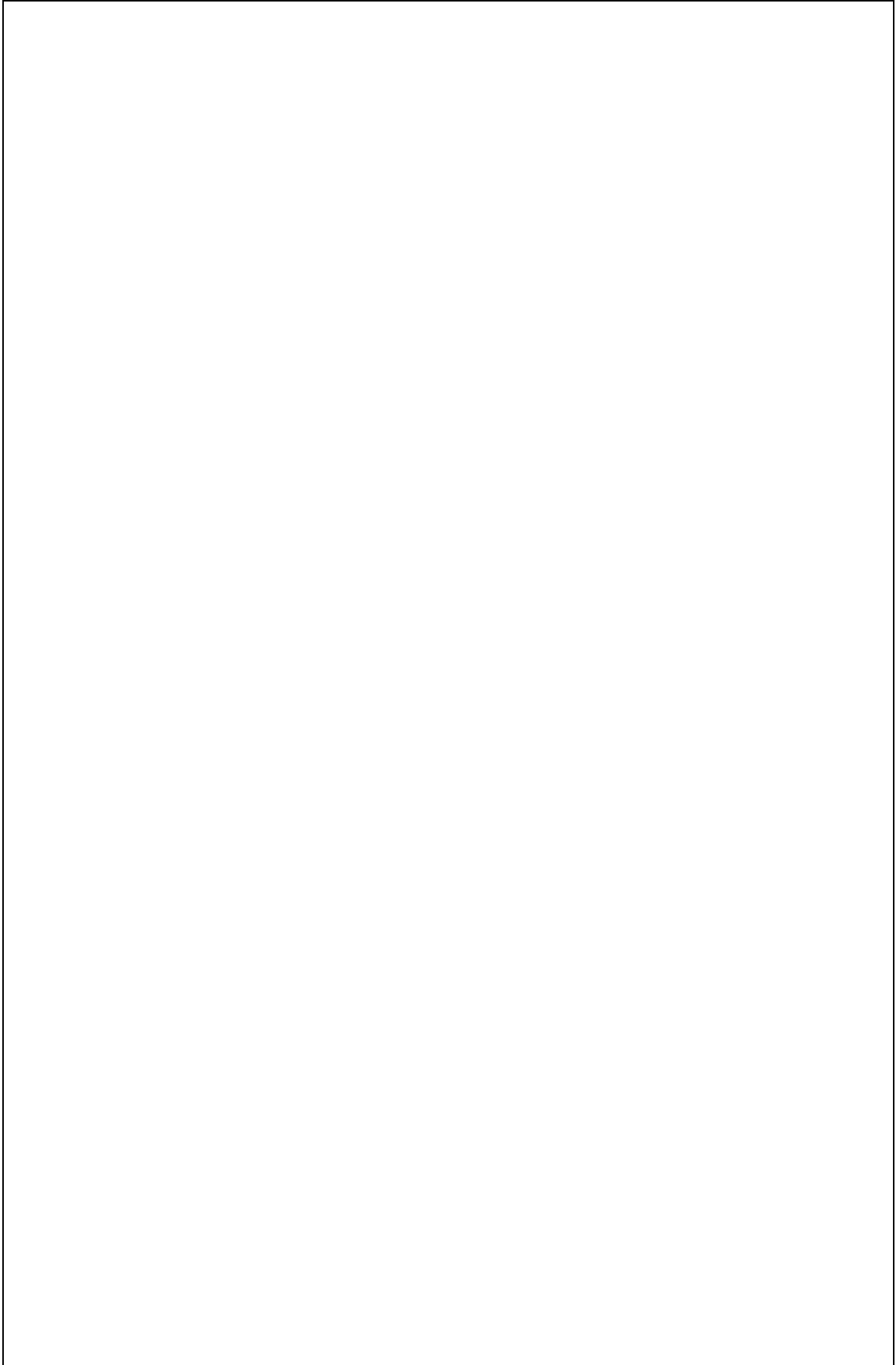


Fig. 4: Phase II.

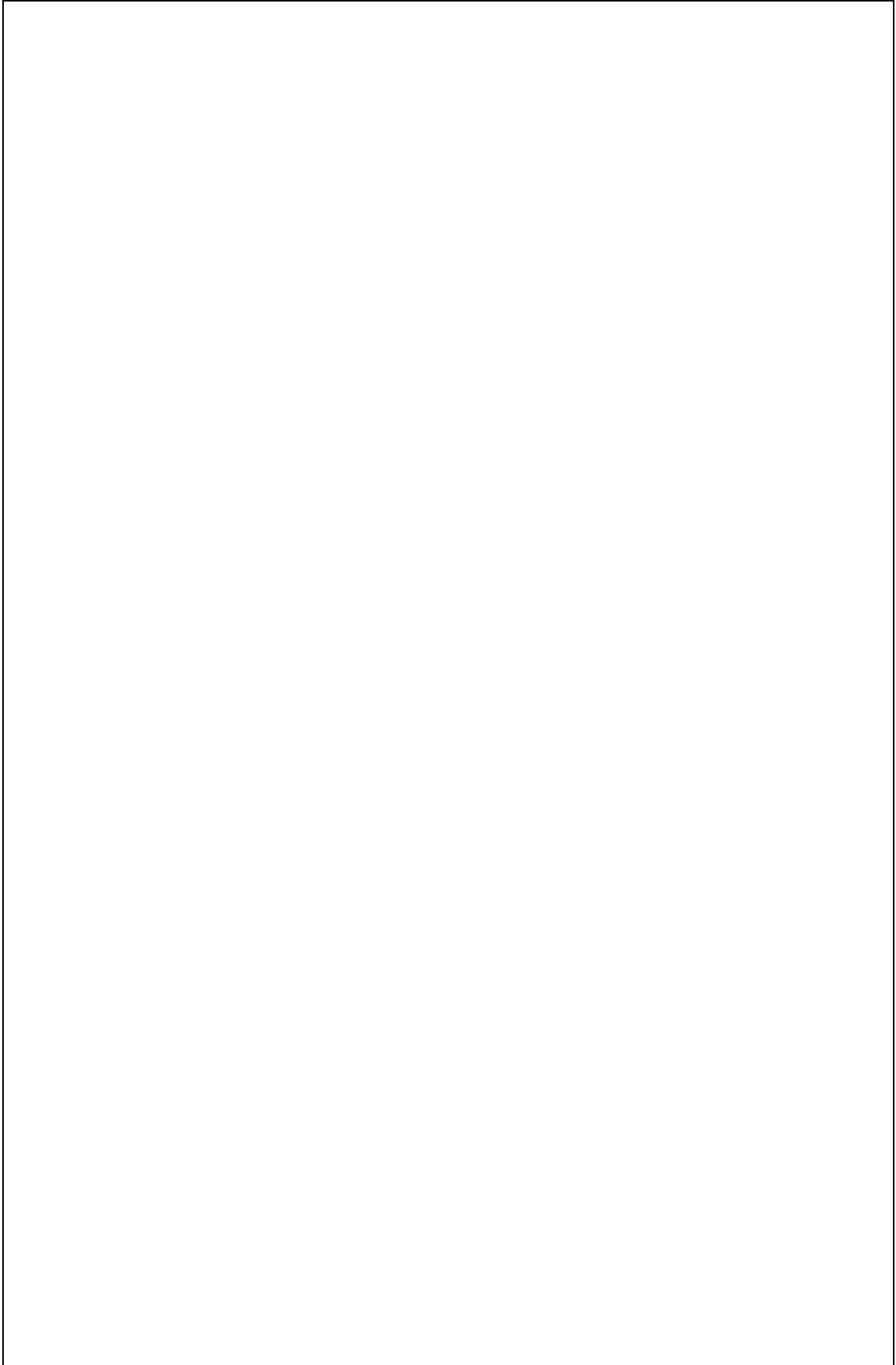


Fig. 5: Phase III.

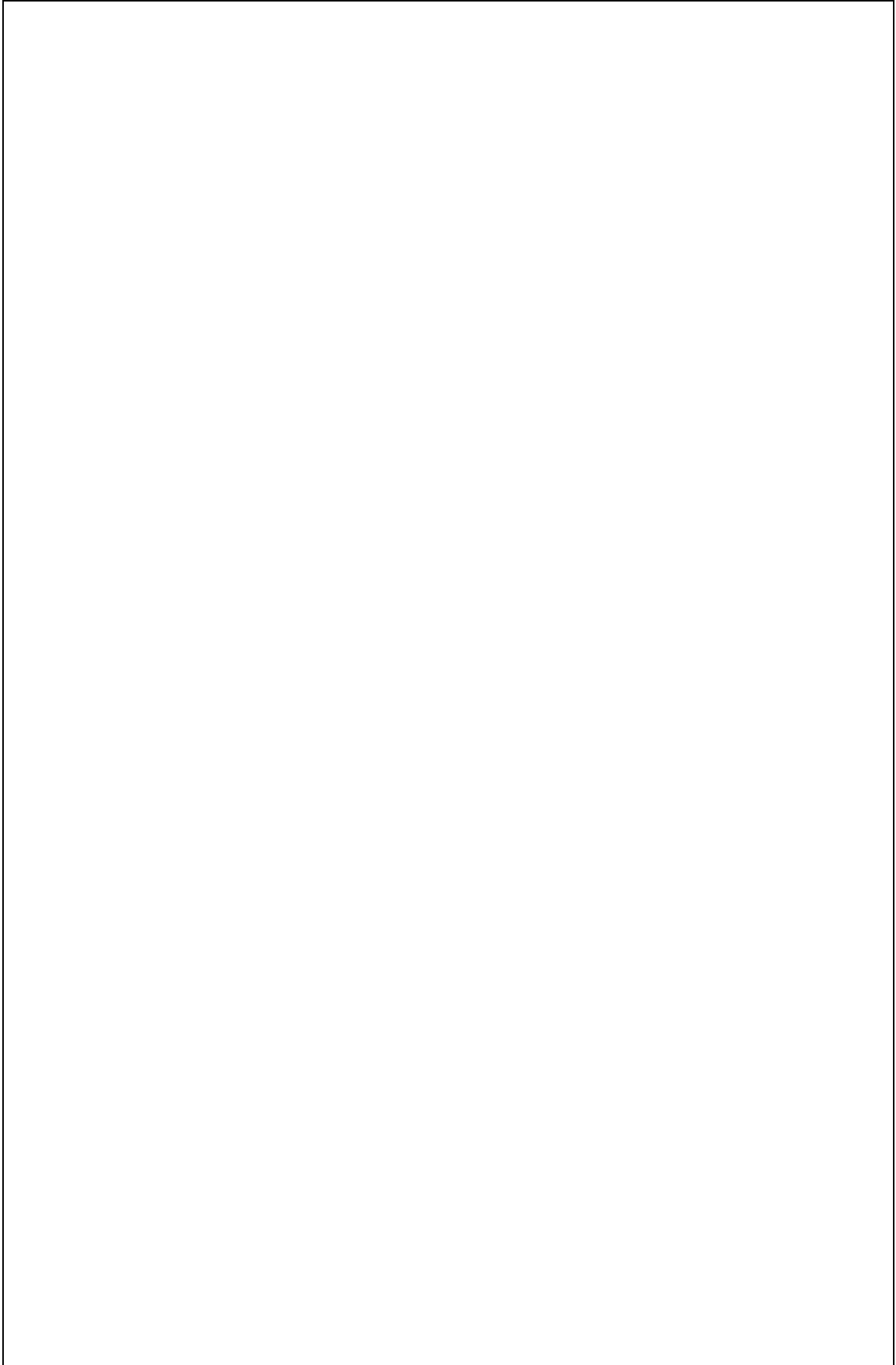


Fig. 6: Phase IV.

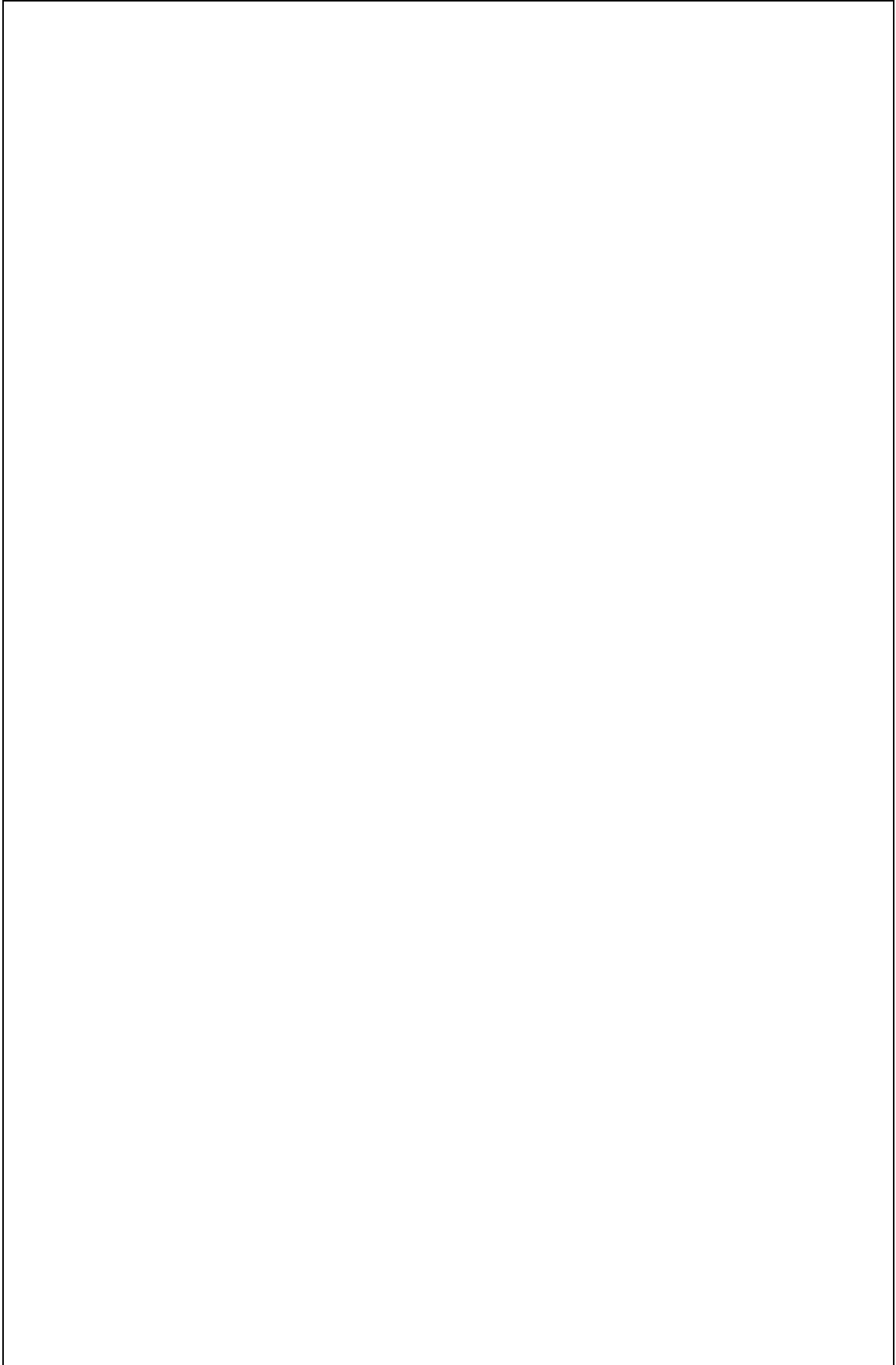


Fig. 7: Stratigraphic Matrix.

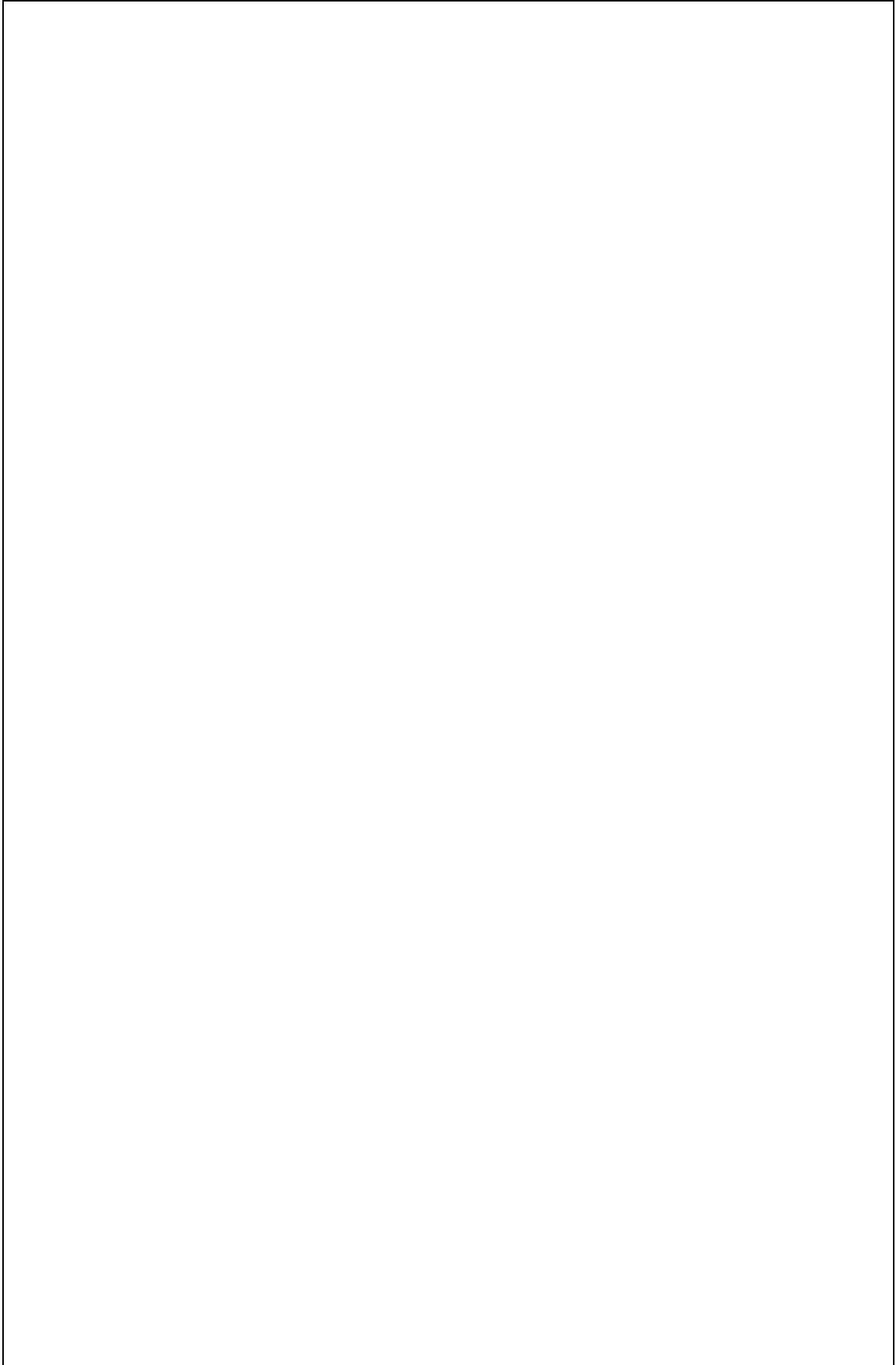


Fig. 8: Stratigraphic Matrix.

MEADOW LANE, NORTH HYKEHAM, LINCOLNSHIRE

ASSESSMENT REPORT

APPENDIX I – THE ARCHIVE

1.1 Context Summary

<i>Context</i>	<i>Description</i>	<i>Phase</i>
001	Unstratified finds from whole site	N/A
002	Fill of cut [003]	III
003	Cut – linear	III
004	Primary fill of cut [003]	III
005	Fill of cut [006]	III
006	Cut – linear	III
007	Fill of cut [010]	II
008	Fill of cut [010]	II
009	Fill of cut [010]	II
010	Cut – linear	II
011	Fill of cut [012]	II
012	Cut – linear	II
013	Fill of cut [014]	III
014	Cut – linear	III
015	Fill of cut [016]	II
016	Cut – pit?	II
017	Fill of cut [018]	II
018	Cut – linear	II
019	Fill of cut [020]	III
020	Cut – pit? (Recorded on context sheet)	III
021	Furrow	IV
022	Fill of cut [023]	II
023	Cut – linear	II
024	Fill of pit [025]	III
025	Cut – pit	III
026	Fill of cut [027]	II
027	Cut – pit	II
028	Fill of cut [029]	III
029	Cut – linear ditch	III
030	Fill of cut [031]	I
031	Cut – linear	I
032	Fill of cut [033]	II
033	Cut – curvilinear	II
034	Fill of cut [035]	II
035	Cut – pit?	II
036	Not used	
037	Not used	
038	Primary fill of cut [012]	II
039	Fill of pit [025]	III
040	Cut – linear	III
041	Cut – linear	II
042	Primary fill of cut [040]	III
043	Tertiary fill of cut [040]	III
044	Primary fill of cut [041]	II

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045	Tertiary fill of cut [041]	II
046	Tertiary fill of cut [048]	III
047	Primary fill of cut [048]	III
048	Cut – linear	III
049	Layer	IV
050	Cut – linear	III
051	Fill of cut [264]	II
052	Fill of cut [054]	I
053	Fill of cut [054]	I
054	Cut – linear	I
055	Fill of cut [062]	I
056	Fill of cut [062]	I
057	Fill of cut [062]	I
058	Fill of cut [062]	I
059	Fill of cut [062]	I
060	Fill of cut [062]	I
061	Fill of cut [062]	I
062	Cut – pit	I
063	Fill of cut [064]	IV
064	Cut – linear	IV
065	Fill of cut [066]	IV
066	Cut – scoop	IV
067	Fill of cut [068]	IV
068	Cut – scoop	IV
069	Fill of cut [070]	III
070	Cut – post-hole	III
071	Furrow	IV
072	Fill of cut [073]	III
073	Cut – curvilinear ditch	III
074	Fill of cut [075]	II
075	Cut – linear	II
076	Cut – linear	III
077	Cut – curvilinear ditch	III
078	Cut – linear (same as [041])	III
079	Cut – pit	III
080	Fill of cut [081]	III
081	Cut – pit	III
082	Fill of cut [083]	III
083	Cut – pit	III
084	Fill of cut [076]	III
085	Fill of cut [077]	III
086	Fill of cut [078]	III
087	Fill of cut [079]	III
088	Fill of cut [089]	III
089	Cut – linear ditch	III
090	Fill of cut [124]	III
091	Fill of cut [093] (upper)	III
092	Fill of cut [093] (lower)	III
093	Cut – linear ditch	III
094	Fill of cut [095]	I
095	Cut – linear	I
096	Cut – linear	III
097	Fill of cut [095]	I
098	Fill of cut [099]	II
099	Cut – slot	II
100	Fill of cut [096]	III
101	Cut – linear ditch	III

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102	Fill of cut [101]	III
103	Fill of cut [105] (tertiary)	II
104	Fill of cut [105] (primary)	II
105	Cut – hearth	II
106	Fill of cut [254]	III
107	Fill of cut [108]	III
108	Cut – curvilinear	III
109	Fill of cut [110]	I
110	Cut – linear ditch	I
111	Fill of cut [112]	III
112	Cut – curvilinear	III
113	Fill of cut [114]	III
114	Cut – linear	III
115	Cut – curvilinear ditch	III
116	Cut – curvilinear ditch (re-cut to [115])	III
117	Fill of cut [116] (tertiary)	III
118	Fill of cut [116] (primary)	III
119	Fill of cut [115]	III
120	Layer – subsoil	IV
121	Layer - natural	I
122	Cut – curvilinear ditch	III
123	Fill of cut [122]	III
124	Cut – pit	III
125	Fill of cut [126]	III
126	Cut – post-hole	III
127	Fill of cut [128]	III
128	Cut – pit	III
129	Fill of cut [130]	III
130	Cut – linear	III
131	Fill of cut [116]	III
132	Topsoil	IV
133	Subsoil	IV
134	Natural clay/gravel	I
135	Fill of cut [136]	III
136	Cut – pit	III
137	Fill of cut [124] (primary)	III
138	Fill of cut [089] (primary)	III
139	Fill of cut [105] (upper)	II
140	Fill of cut [144]	I
141	Fill of cut [164]	III
142	Fill of cut [146]	III
143	Layer/spread	I
144	Cut – pit	I
145	Fill of cut [144] (primary)	I
146	Cut – linear	II
147	Fill of cut [148]	II
148	Cut – linear	II
149	Fill of cut [150]	I
150	Cut – linear	I
151	Fill of cut [152]	II
152	Cut – linear	II
153	Fill of cut [154]	II
154	Cut – linear	II
155	Fill of cut [156]	III
156	Cut – tree/pit	III
157	Fill of cut [158]	III
158	Cut – post-hole	III

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159	Fill of cut [160]	I
160	Cut – linear	I
161	Fill of cut [162]	I
162	Cut – ditch	I
163	Fill of cut [164]	III
164	Cut – linear ditch	III
165	Fill of [166]	IV
166	Cut – furrow	IV
167	Fill of cut [168]	III
168	Cut – pit	III
169	Fill of cut [170]	I
170	Cut – linear	I
171	Fill of cut [255]	II
172	Cut – hearth?	III
173	Fill of cut [172] (black)	III
174	Fill of cut [172] (red)	III
175	Cut	III
176	Fill of cut [175]	III
177	Fill of cut [178]	III
178	Cut – linear	III
179	Fill of cut [180]	III
180	Cut – linear	III
181	Cut – pit	I
182	Fill of cut [181]	I
183	Cut – linear	II
184	Fill of cut [183]	II
185	Fill of cut [186]	II
186	Cut – linear	II
187	Fill of cut [189]	II
188	Fill of cut [189] (primary)	II
189	Cut – linear	II
190	Fill of cut [191]	IV
191	Cut – furrow	IV
192	Fill of cut [193]	II
193	Cut – linear	II
194	Fill of cut [195]	II
195	Cut – pit	II
196	Fill of cut [197]	I
197	Cut – pit	I
198	Fill of cut [200]	II
199	Fill of cut [200] (primary)	II
200	Cut – linear	II
201	Fill of cut [170] (primary)	I
202	Fill of cut [093]	III
203	Cut – post-hole	II
204	Fill of cut [203]	II
205	Cut – curvilinear ditch	II
206	Fill of cut [205]	II
207	Cut – curvilinear	II
208	Fill of cut [207]	II
209	Cut – plough score	IV
210	Fill of cut [209]	IV
211	Fill of cut [212]	III
212	Cut – pit	III
213	Cut – post-hole	II
214	Fill of cut [213]	II
215	Cut – post-hole	III

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216	Fill of cut [215]	III
217	Cut – post-hole	III
218	Fill of cut [217]	III
219	Cut – linear	III
220	Fill of cut [219]	III
221	Cut – linear	II
222	Fill of cut [221]	II
223	Cut – tree bowl	II
224	Fill of cut [223]	II
225	Cut – post-hole	I
226	Fill of cut [225]	I
227	Cut – post-hole	I
228	Fill of cut [229]	I
229	Cut – linear	I
230	Fill of cut [227]	I
231	Fill of cut [253]	I
232	Fill of cut [233]	III
233	Cut – linear	III
234	Fill of cut [235]	III
235	Cut – linear	III
236	Fill of cut [237]	III
237	Cut – linear	III
238	Fill of cut [239]	III
239	Cut – linear	III
240	Fill of cut [241]	III
241	Cut – linear	III
242	Fill of cut [243]	III
243	Cut – curvilinear	III
244	Fill of cut [245]	I
245	Cut – linear	I
246	Fill of cut [247]	I
247	Cut – linear ditch	I
248	Fill of cut [249]	I
249	Cut – linear	I
250	Cut – tree bowl/burrow	I
251	Fill of cut [250]	I
252	Fill of cut [253] (same as [231])	I
253	Cut – post-hole	I
254	Cut - linear	III
255	Cut – linear	II
256	Furrow	IV
257	Furrow	IV
258	Furrow	IV
259	Furrow	IV
260	Furrow	IV
261	Furrow	IV
262	Fill of cut [263]	II
263	Cut – linear	II
264	Cut – linear	II
265	Furrow	IV
266	Furrow	IV

1.2 Animal Bone

Context	Phase	Fragment count	Cattle	Horse	Large mammal	Sheep/goat	Small mammal	Unidentified
001	U/S	8	2	6				
002	III	9	4		5			
004	III	1	1					
011	II	1			1			
024	III	2	2					
043	III	12	2	3	7			
045	II	5	2	1	2			
046	III	22	10	3	9			
047	III	2	1	1				
049	IV	8			8			
061	I	6						6
072	III	32	6		9	1	1	15
074	II	8	3		5			
084	III	2	2					
086	III	4			4			
087	III	25	5	1	19			
090	III	5			5			
092	III	7	1		6			
094	I	31	1					30
098	III	4						4
106	III	9	3	1	1			4
118	III	7	7					
139	II	6			6			
140	I	3			3			
163	III	1		1				
187	II	1	1					
202	III	2	2					
Total		223	55	17	90	1	1	59

1.3 Post-Roman Pottery

Context	Cname	Sub Fabric	Form Type	Sherds	Vessels	Part	Description	Date
001	BERTH		tall cylindrical jar	1	1	rim		17 th to 18 th
001	BERTH		jar	1	1	BS		17 th to 18 th
001	BL		cup	1	1	base		17 th
001	BL		large cylindrical jar	1	1	BS		17 th to 18 th
001	BL		large cylindrical jar	2	1	base		17 th to 18 th
001	FREC		jug	1	1	BS		16 th to 17 th
001	GRE		bowl	1	1	rim		17 th to 18 th
001	GRE		?	1	1	base		16 th to 17 th
001	GRE		handled jar/pipkin	1	1	LHJ		16 th to 17 th
001	PGE		bowl	1	1	BS		17 th to 18 th
072	MEDLOC	OX/R/OX; fine sandy; medium hard	jug	1	1	base	very abraded	13 th to 15 th
086	BL		bowl	1	1	BS		17 th to 18 th
171	MEDLOC	oxid; med- coarse sandy; medium	bowl ?	1	1	BS	very abraded; int glaze	13 th to 15 th

		hard						
238	PMLOC	oxid; med sandy; medium hard	bowl	1	1	rim	everted rim	15 th to 16 th

Key:

BERTH Brown glazed earthenware
BL Black-glazed wares
FREC Frechen stoneware
GRE Glazed Red Earthenware
MEDLOC Local Medieval Fabrics
PGE Light Firing Glazed Earthenware
PMLOC Local Post-medieval Fabrics

1.4 Ceramic Building Material

Context	Cname	Fabric	Frag	Weight	Decoration	Description	Date
001	PNRDISC		3	21		miscellaneous scraps	
001	PNR		2	175		flat roofer ?	
001	RTMISC		5	283			
001	BRKDISC		1	92			18 th to 19 th
001	RBRK		5	711		some very abraded	
001	RTIL		1	90			
001	TEG		1	527		flange	
001	TEG		1	376		abraded; very odd as upper surface sanded under smoothed	
001	BOX		1	284	combed		
001	RID		1	118	applied strip with slashing	unglaze	
024	RBRK		1	68			
028	MISC		1	11		? Brick	
028	BRK		1	132		very abraded; two sanded surfaces; ? Roman or post-med	
032	TEG		1	320		very abraded	
043	RTIL		1	148			
043	MISC	reduced grey sandy with chaff	1	285		65x43x40+mm; sanded on three sides; ? Roman spicatum or kiln bar or post med handmade brick	
044	RBRK		1	77			
045	NIB		1	98		folded/applied; very shaley fabric	14 th to 16 th
046	RTIL		2	136			
065	IMB		1	206		? ID could be a late ridge tile	
072	BRK		4	18		? Date; small scraps	
084	RBRK		2	330		60mm thick	
086	MISC	reduced grey sandy with chaff	1	430		73x70x80+mm; sanded on three sides; ? Roman spicatum or kiln bar or post med handmade brick	
086	RBRK		1	730		abraded; c. 40mm thick; soot on upper surface ?	
086	RBRK		1	300			
086	PNR		2	264		one corner	late to post med

							?
086	BRK		1	255		vitrified fabric	early modern ?
087	RBRK		1	768		corner; finger signature; 35mm thick	
087	RBRK		1	133			
087	RBRK		1	387		38mm thick; abraded	
087	RTIL		1	71		soot on sanded side	
118	RBRK		1	73		very abraded	
118	RTIL		1	98		very abraded	
141	RBRK		1	71		very abraded	
143	MISC		1	5		scrap	
147	MISC		1	10		scrap	
147	DRAIN		1	205		field drain	
151	RBRK		2	67			
155	RTIL		1	8		abraded	
165	RTMISC		1	86			
187	RBRK		1	12		very abraded	
190	RTMISC		1	40			
190	RTMISC		1	9		? Field drain/ridge/IMB	
238	RTIL		1	43		very abraded	

Key:

BOX	Roman box or flue tile
BRK	Medieval/post-medieval brick
BRKDISK	Discarded Medieval/post-medieval brick
DRAIN	Unglazed drain or water pipe
IMB	Roman Imbrix
MISC	Miscellaneous
NIB	Unglazed nib tile
PNR	Unglazed undiagnostic roofing tile
PNRDISC	Discarded unglazed undiagnostic roofing tile
RBRK	Roman brick
RID	Unglazed curved ridge tile
RTIL	Undiagnostic Roman tile
RTMISC	Miscellaneous Roman tile
TEG	Roman Tegula tile

1.5 Roman Pottery

Context	Fabric	Form	Dec	Novess	Dwg no.	Alter	Comments	Join	Shs	Wt
001	DR20	A				VA	BS; GRITTY EFAB		1	38
001	GFIN	J					BS THINNER		1	17
001	GREY	BIBF			D24	VA	RIM GIRTH		1	16
001	GREY	BWM	B				RIM CF SPOOL		1	38
001	GREY	BWM				WW	RIM		1	85
001	GREY	BWM				WW	RIM		1	40
001	GREY	BWM				A; WW	RIM SHLDR SHORTER NECK		1	38
001	GREY	BWM?				A	BSS		3	168
001	GREY	CLSD					BSS GYBN STAIN? NR GREY2		5	92
001	GREY	CP				VA; WW	RIM		1	10
001	GREY	J	BS; SWL				BS CF SPOOL		1	31

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001	GREY	J		2		WW	BSS THINNER		2	24
001	GREY	JNN		2		VA; WW	BSS NECKS		2	62
001	GREY	JNN	B	1		B?	RIMS J BLK CF SPOOL		2	40
001	GREY	JNN				VA; WW	RIM NECK		1	28
001	GREY	JNN				VA; WW	RIM NECK		1	24
001	GREY2	BWM?					BS THICK		1	51
001	GREY2	CLSD		2		A	BSS		2	84
001	GREY2	CLSD				A	BS THICK CORDON		1	63
001	GREY2	J		1		A	BASE 100% FTM; BSS		6	178
001	GRSAN	BWM?		1			BSS J		2	21
001	LCOA	BFB				BF	FLANGE		1	14
001	MOOX	M				VA	BS; TYP TG		1	4
001	MOOXW	MBF			D50	WW	RIM GIRTH; M17; WHT SLIP LOST		1	67
001	MOSP	M				A	BASE		1	58
001	MOSP	MBF				VA	RIM FRAG		9	
001	MOSP	MRR		1	D53	VA	RIMS SPOUT BS WHT SLIP LOST		3	101
001	MOSP	MRR			D54	A	RIM GIRTH		1	86
001	MOSP	MWS			D55	A	RIM UPPER WALL WHT SLIP LOST		1	36
001	NVCC	BKFO				VA	BS WHT FAB BLK CC		1	5
001	OX	BFB		1	D51	SR; SX	RIMS BASE BS PROF; FS		7	167
001	OX	CLSD				A	BASE OX EXT GRY IN; AS IN	46	1	109
001	OX	CLSD		2		VA	BSS DISS TO SPOX		2	10
001	PART	CLSD					BS; VFINE SILTY		1	9
001	SPOX?	B38		1	D56	A; BR	RIMS GIRTH		2	90
001	SPOX?	B38		1		VA	FLANGES		2	36
001	SPOX?	UJ		1	D49	U?	RIM BASESTRING BSS PROFNR COMP		5	157
001	TILE?	JS				A	BS CF SPOX; EXTR		1	378
001	ZZZ						SMALLER ABRADED SHS			
001	ZDATE						L4/POSTRO			
002	GREY	J	ROUJ			A	BS SHLDR; CF SPOOL		1	32
002	GREY	J	BWL			A	BS SHLDR; CF SPOOL		1	36
002	GREY						BS		1	2
002	GREY1	J					BS; FS		1	26
002	LCOA	JLS			D3	SR	RIM; BLK		1	46
002	LCOA	JLS				SR	RIM		1	15
002	LCOA	JLS		1		SR; WW	RIM BASE BSS; FS RIM		6	195
002	LCOA						BS; BLK		1	6
002	NVCC	BD		1		VAI; BBX	BASES J; STRNG; WHR FAB; ORNGE CC LOST		4	89
002	SPCC?	LBIF		1	D2	BRX	RIMS BS J PROF; FINER VAR		3	47
002	ZDATE						EM4C			
002	ZZZ						MIX NVGW; NR JDLS; 20 SHS			

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005	LCOA	JDLS		1	D1	SR	RIMS J		2	53
005	ZDATE						ML4C			
005	ZZZ						LCOA JDLS ONLY			
011	LCOA?					VA; B	BS CF GREY 1 W LARGER RQ		1	1
011	ZDATE						3-4C			
011	ZZZ						SCRAP GREY ABR ONLY			
016	GREY	BWM?	B			A	BS SHLDR W GROOVE; DITTO		1	18
016	GREY	JB					BASE STRING CF LINCOLN		1	42
016	ZDATE						3-4C			
016	ZZZ						2 SHS GREY ONLY			
017	GREY	CLSD				A	BS CF LINCOLN		1	14
017	ZDATE						3-4C			
017	ZZZ						GREY ONLY			
022	NVCC	CLSD				VA; VBE	BS WHT FAB;ORNGE CC LOST		1	45
022	ZDATE						4C			
022	ZZZ						NVCC V BURNT ONLY			
024	GREY	J	SWL				BS SPOOLISH		1	29
024	GREY	JBL		1			BSS THICK; CF SPOOL		2	151
024	GREY	JUG?					BS UNUS; PINCHED? OR LUG W GROOVE		1	8
024	GREY			1		A; WW?	BSS		2	9
024	GREY1	J				A; WW?	BS		1	13
024	GREY1					A	BS		1	4
024	GROG						BS; FS		1	5
024	LCOA	JLS					RIM BLK; CF DWG 3		1	22
024	LCOA						SCRAP		1	2
024	OX	JBK					BS; FS		1	1
024	ZDATE						EM4C			
024	ZZZ						SMALL GRP INC JLS			
026	GREY					A; WW?	BS CF SPOOL		1	10
026	GREY1					A; WW	BS		1	8
026	ZDATE						3-4C			
026	ZZZ						2 SHS GREY			
028	GREY	BWM					RIM FRAG		1	6
028	GREY1	BFB				A	FLANGE FRAG		1	8
028	LCOA					BX	BS		1	18
028	ZDATE						4C			
028	ZZZ						3 SHS INC BFB			
032	GREY	J					BS; SPOOLISH		1	54
032	GREY					VA	SCRAP		1	3
032	ZDATE						L3-4C			
032	ZZZ						2SHS			
043	GREY	BWM	BS			A	BSS INC SHLDR; CF SPOOL		4	160
043	GREY	J				WW	BS		1	16
043	GREY	JNN			D11	WW	RIM CF SPOOL		1	38

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043	GREY2	J					BASE 80%; STRING		1	72
043	LCOA	J		1			BASE 100% BSS; STRING; GREY FS		7	379
043	LCOA	J		1			BSS BLK		2	20
043	LCOA	JBK		1			BSS THIN BLK		3	9
043	LCOA	JDLS		1	D13		RIMS BASE BSS; STRING; BLK		11	431
043	LCOA	JDLS			D15		RIM; GREY		1	39
043	LCOA	JDLS			D16		RIM; GREY		1	33
043	LCOA	JLS		1	D12		RIMS BS J COARSER; BLK		3	243
043	LCOA	JLS			D14	WW	RIM; GREY		1	13
043	MOSP	MBF				A; WW	FLANGE FRAG; CC NR LOST		1	10
043	NVCC	BFB			D9	A; WR	RIM BASE PROF; BUFF FAB; DKBN CC		1	355
043	NVCC	DPR		1	D10	VA	RIM BASE PROF; WHT FAB; DKBN CC		3	154
043	ZDATE						ML4C			
043	ZZZ						GD HOMOG GRP LGE SHS INC JDLS			
044	GREY	J				A; BE	BASE; BURNT OX EXT		1	99
044	LCOA	J				WW?	BS		1	20
044	ZDATE						L3-4C			
044	ZZZ						2SHS			
045	LCOA	J		1			BASE BSS J LWR WALL; GRY; STRING		4	379
045	LCOA	J				SX	BS; FS		1	15
045	LCOA	JBK		1			BSS THIN WALL; BLK FS		5	23
045	LCOA	JDLS		1	D4		RIM SHLDR BS J; BLK		2	91
045	SPOX?	B38				BF	FLANGE LWR WALL		1	68
045	ZDATE						ML4C			
045	ZZZ						13 SHS INC JDLS			
046	DWSH	JDLS		1	D45	F; SR	RIMS BSS		16	162
046	DWSH	JUR		1	D47	SR	RIMS		2	44
046	GREY	BEV	ROSA	1	D39	WW	RIMS GIRTH; CF SPOOL		2	36
046	GREY	BWM	B		D41		RIM NECK CF SPOOL		1	136
046	GREY	BWM		1	D42	WW?	RIMS BS		3	378
046	GREY	BWM		1	D43	WW	RIMS; GRY WASH LOST		2	191
046	GREY	BWM	B		D44		RIM SHLDR; CF SPOOL		1	152
046	GREY	BWM	BS; BWL	1			BSS CF SPOOL		3	229
046	GREY	BWM		2			BSS SHLDR		2	68
046	GREY	BWM?	BS				BS; GREY WASH		1	22
046	GREY	CLSD		2			BSS; GREY WASH		3	98
046	GREY	FDN			D38	WW	RIM NECK CF SPOOL		1	49
046	GREY	J		1		AI	BASE BS; GYBN; GRY WASH INT ABR; 15%		2	152
046	GREY	JB					BS GROOVE CF SPOOL		1	31
046	GREY	JBL				BBX	BASE THICK PROB BWM		1	274

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046	GREY	JCR					RIM FRAG		1	11
046	GREY2	JLS		1	D48	BR; SX	RIMS SHLDR BASE		3	90
046	GREY2?	BWM?		1		WW?	BASE STRING BSS; PROB BWM		6	403
046	LCOA	BEXR	ROUJ		D40		RIM GIRTH		1	70
046	LCOA	J					BASE		1	28
046	LCOA	JLS		1	D46	SR	RIMS; NR JDLS		2	62
046	NVCC	BD				BE	BASE STRING WHT FABDKBN CC		1	11
046	NVCC	BD				VA; WW; BBX	BASE CC LOST; BUFF RDBN CC; AS IN?		1	57
046	NVCC	LBX	ROUZ		D37	BR	RIM GIRTH; WHT FAB BN CC		1	10
046	OX	CLSD		2			BSS CF SPOX		3	21
046	OX	CLSD					BASE; OX EXT GRY INT; BURNT? AS IN	1	1	33
046	SAMCG	31 ETC				A	RIM GIRTH		1	6
046	SPOX?	D				VA	BASE; CON CEN CIRCS INT		1	58
046	SPOX?	UJ		1	D52	BB; BX	BASE BSS		4	52
046	SPOX?	UJ		1			BASES STRING; FM AS DWG 49 EXTR		2	78
046	ZDATE						ML4C			
046	ZZZ						LGE GRP LGE SHS INC ROSAX + SAMCG			
049	GREY	CLSD				A	BS		1	4
049	GREY	JB				WW?	BS; CF SPOOL		1	34
049	OX	B31			D5	WW?	RIM BASE PROF; PROB SPOX; FS		1	111
049	ZDATE						L3-4C			
049	ZZZ						PROB 4C			
069	LCOA?	J				BI; BE?;	BS; UNUS FAB LT BN EXT; FS		1	31
069	ZDATE						4C?			
069	ZZZ						PROB 4C			
072	COAR	JS					RIM FRAG; RDBN MARGS; GREY CORE		1	19
072	DWSH	J	HM?	1		BI; L	BS; RDBN EXT; BLK INT; EXTR		2	13
072	GREY	BWM				A; WW	RIM FRAG		1	23
072	GREY	BWM?	BS	1			BSS V HIGH FIRED; BLK; SPOOL?		2	129
072	GREY	CLSD					BS LTGRY		1	8
072	GREY	CLSD				WW	BS; LTBN CORE & INT		1	12
072	GREY	CLSD				WW	BS		1	14
072	GREY	CLSD	B			WW	BS GRY BN; HIGH FIRED		1	10
072	GREY	CLSD					BS GRY BN		1	5
072	GREY	J					BS		1	14
072	GREY	J	HM				BS BLK; ROM? OR SAX; EXTR		1	3
072	GREY	JBK	B	1			BS THIN; CF SPOOL		1	6
072	GREY	JBK					BS THIN		1	2
072	GREY	JBL	BVL?			WW	BS LT GRY		1	97

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072	GREY	JBL					BS		1	99
072	GREY	JS	BHL				BS THICK CF SPOOL		1	97
072	GREY2	CLSD					BS		1	9
072	GREY2?	CLSD		1		A; WW?	BSS		2	10
072	GROG		HM?				BSS; RDBN EXT; BLK INT; EXTR		1	2
072	LOCA	J					BS; DK GRY		1	28
072	MOSP	MBF		1	D17	A	RIMS J BS; MX TRIT; WHT SLIP NR LOST		3	50
072	MOSP	MBF			D18	A	RIM UPPER WALL; RED? SLIP LOST		1	42
072	MPOT?	CLSD				VA	BASES J; ORNGE OXID; PROB MED JUG		2	72
072	MPOT?	CLSD					BASE THUMB; ORNGE OX; MED JUG?		1	25
072	TILE	JS		1			BSS J GRY WHT SLIP?; EXTR		2	100
072	ZDATE						4C			
072	ZZZ						2 SHS POSTRO?			
074	GREY	J	ROUJ SWL	1			BSS SHLD; CF SPOOL		5	152
074	ZDATE						L3-4C			
074	ZZZ						4 SHS SPOOL SWL ROUJ			
082	TILE	JS				A	BS; FS		1	206
082	ZDATE						3-4C			
082	ZZZ						TILE JS ONLY			
084	GREY1	J					BS BASAL		1	106
084	GREY2	BFB		1		VA	RIMS FLANGE J		2	13
084	GREY2	BWM?		1		WW	BSS J GRTH GRVES W DK SLIP? + SCRAP		2	78
084	GREY2	J		1		WW?	BASES J; FS		2	78
084	GREY2	J		1		K?	BSS BASAL; SHEARED WASTER?; EXTR		8	285
084	GREY2	L			D6	BR	RIM UPPER WALL		1	19
084	ZDATE						4C			
084	ZZZ						POSS KILN WASTER			
086	COAR	JDW					RIM BLK		1	13
086	COAR	JS		1		WW	BSS THICK CORDON CF GREY2 AS IN	118	5	1515
086	COAR	JS		1		WW	BSS THICK CORDON DK GREY WASH		3	375
086	GREY	BD		1			BASE BS BLK		2	34
086	GREY	BEV					RIM GIRTH		1	21
086	GREY	BEXR				VA	RIM GIRTH		1	20
086	GREY	BFB				A; WW	RIM GIRTH; CF SPOOL		1	22
086	GREY	BFBL					RIM UPPER WALL BLK		1	12
086	GREY	BFL				A	RIM LWR WALL		1	29
086	GREY	BTR				A; WW	RIM UPPER WALL		1	14
086	GREY	BWM	BS	1		WW	BSS J V LGE BWM STORAGE		2	588
086	GREY	BWM	B	2			BSS		2	42

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086	GREY	BWM				VA; WW	BS		1	12
086	GREY	BWM	B			WW	RIM CF SPOOL		1	37
086	GREY	BWM				WW	RIM CF SPOOL		1	14
086	GREY	BWM				WW	RIM CF SPOOL		1	16
086	GREY	BWM				VA	RIM		1	18
086	GREY	BWM?	BS			A	BS GY BN		1	20
086	GREY	CLSD				WW	BSS MISC INC PROB BWM		106	1580
086	GREY	CP					RIM		1	8
086	GREY	DGR				WW	RIM LWR WALL CF SPOOL		1	12
086	GREY	DPR				WW	RIM LWR WALL CF SPOOL		1	33
086	GREY	J					BSS		2	165
086	GREY	J					BSS DKGRY		4	86
086	GREY	J	BVL				BS		1	23
086	GREY	J		1			BASES		2	33
086	GREY	J				A; B	BS; THIN OX INT		1	5
086	GREY	J				B	BS; OX INT		1	26
086	GREY	J					BSS BLK		3	18
086	GREY	J					RIM FRAG		1	2
086	GREY	J105?		1			RIMS CF J105-7		2	36
086	GREY	JBK				WW	BSS THIN		7	41
086	GREY	JBL		3		WW	BSS THICK		3	459
086	GREY	JCUR				A	RIM BLK		1	7
086	GREY	JDW					RIM		1	23
086	GREY	JDW				WW	RIM		1	11
086	GREY	JFT					RIM NECK		1	14
086	GREY	JS				WW	BS THICK		1	174
086	GREY	OPEN					BASE		1	55
086	GREY2	JBL		2		WW	BSS THICK		5	252
086	GREY2	JS	BS	1?		VA; WW	BS THICK CORDON; GREY WASH LOST		8	698
086	LCOA	BIBF			D57	WW	RIM GIRTH		1	30
086	LCOA	CP				A	RIM		1	24
086	LCOA	JB				A	BASE BSS		3	41
086	LCOA	JLS		1		A	RIM BSS		3	65
086	NVCC	LCOF	ROUZ	1	D58	VA; BX	KNOB LWR WALL; PRECOCT		2	210
086	ZDATE						L4/POSTRO			
086	ZZZ						V LGE GRP SMALLER ABR SHS; 1 MPOT			
087	GREY	BFB	B		D21		RIM GIRTH CF SPOOL		1	68
087	GREY	J		1			BSS BN CORE		2	24
087	GREY	JCR			D23		RIM NECK CF SPOOL		1	219
087	GREY	JL	BVL	1	D22		BASE BSS CF SPOOL		3	338
087	MOSP	MHH			D20		RIM - LWR WALL SPOUT; GOOD EG TRITS		1	160
087	TILE	JS			D19		BASE + FLAKE		2	874
087	ZDATE						4C			
087	ZZZ						10 V LGE SHS IN JCR			

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							MOSP BFB			
088	GREY	J		1		K?	BS FLAKE; BLOWN?; EXTR		2	20
088	GREY	J				VA; VB; K?	BASE EXTR FS		1	58
088	GREY2?					VB; BE	BS EXTR FS		1	25
088	ZDATE						3-4C			
088	ZZZ						KILN WASTERS?			
090	GREY2?	J				VA;	BS; MIN PEBBLES; NR LCOA; FS		1	31
090	GREY2?	OPEN					BS; MIN PEBBLES; NR LCOA; FS		1	30
090	ZDATE						3-4C			
090	ZZZ						2 SHS GREY ONLY			
092	GREY2	J				WW; D	BS BN DEPOS INT		1	14
092	ZDATE						3-4C			
092	ZZZ						1 SH GREY ONLY			
094	GREY2	J				WW?	BS; FS		1	16
094	GREY2	JBK		1		WW?	BSS THIN WALL		2	17
094	GREY2	JCR			D8		RIM NECK; BLK		1	79
094	GREY2					VB; WW?	BS EXTR		1	21
094	ZDATE						L3-4C			
094	ZZZ						1 SH VBURNT			
098	GREY	BFB		1	D7		RIM GIRTH BS BLK; FS		2	48
098	GREY2	J		1?			BASE BSS		3	35
098	ZDATE						4C			
098	ZZZ						5 SHS INC BFB			
106	DWSH	JDLS		1	D27	BR; BI	RIM BS; BN EXT BLK INT; AS IN	118	2	44
106	GREY	BFB			D28	WW	RIM GIRTH		1	34
106	GREY	JBL				A; D; WW	BASE; CF SPOOL; BN DEPOSIT		1	94
106	LCOA	JDLS			D29	WW	RIM SHLDR		1	108
106	MONV	MBF					FLANGE FRAG		1	22
106	ZDATE						ML4C			
106	ZZZ						WW LGE SHS INC JDLS			
109	LCOA	J					BS; BN GRY; FS		1	15
109	ZDATE						4C			
109	ZZZ						1 SH LCOA ONLY			
109	ZZZ						1 SH GREY NVCC LFAB			
117	GREY	BWM			D26	WW	RIM GIRTH CF SPOOL		1	84
117	LCOA	L			D25	WW	RIM UPPER; CF GRY 2;FITS D27		1	40
117	ZDATE						4C			
117	ZZZ						2 LGE SHS INC BWM			
118	COAR	JS					BS THICK CORDON; EXTRAS IN	86	1	178
118	DWSH	J	HM?			L	BS BLK EXTR; AS IN	106	1	9
118	GREY	JBL				VA	BS THICK CF SPOOL		1	27
118	ZDATE						L3-4C			
118	ZZZ						3 SHS GREY ONLY			

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							INC DOLIA			
119	LCOA	J					BS; BLK HIGH FIRED		1	39
119	NVGWC	J				WW	BS; FS		1	14
119	ZDATE						4C			
123	GREY	BWM				WW	BS SHLDR AS IN	131	1	
123	LCOA	J					BASE STRING 100%		1	221
123	LCOA	J				A; WW	BASE 25%		1	60
123	ZDATE						4C			
123	ZZZ						LGE SHS INC GREY COAR + BWM			
131	GREY	BWM		1	D30	WW	RIM NECK BS; CF SPOOL; AS IN	123	2	357
131	OX	BWM			D31	WW	RIM CF LCOA; FS		1	16
131	ZDATE						4C			
131	ZZZ						LGE SHS INC BWM			
139	GRFF?	BD				SI; VB	BASE STRING; NVCC VBUNRT?; EXTR		1	68
139	ZDATE						3-4C			
139	ZZZ						1 SH GREY BD SOOT ONLY			
140	GREY	J					BS		1	99
140	GREY1	CP		1		WW	BS SHLDR		2	30
140	GREY2	J					BS		1	23
140	NVGWC?	DPR	BDL		D32		RIM LWR WALL; PALE GRY CORE		1	28
140	PART	JBK	CMD		D33		FTM GIRTH		1	77
140	ZDATE						3C			
140	ZZZ						LGE SHS INC PART CMD DEC			
141	GREY1	JBK					BS THIN; EXTR		1	6
141	OX	JBK		1			BSS J; VCOARSE CF LCOA; FS		2	5
141	SPOX?	B38				BF	FLANGE GIRTH; EXTR		1	105
141	ZDATE						4C			
141	ZZZ						SMALL INC SPOX B38			
142	DWSH	J				BX	BS		1	3
142	GREY	JBL		1		VB; WW; K?	BASE BSS; BURNT OXID; EXTR POSS KILN?		3	256
142	GREY2	JB					BS		1	19
142	PART	JBK					BS EXTR		1	18
142	ZDATE						M3-4C			
142	ZZZ						PART GREY BURNT			
143	GREY1	F					HANDLE 3K		1	16
143	ZDATE						3C+			
143	ZZZ					WW	GREY HANDLE ONLY			
147	GREY1	J				WW	BS		1	63
147	ZDATE						3-4C			
147	ZZZ						GREY ONLY			
149	COAR	CP		1	D34		RIM BS; WM; V COARSE Q; FS		2	22
149	ZDATE						3C+			

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149	ZZZ						GREY CP ONLY			
151	GREY	J		1		D; WW	BSS BN DEP		2	14
151	ZDATE						3C+			
151	ZZZ						2 SHS GREY ONLY			
153	VESIC					L	BS; THIN; FS		1	1
153	ZDATE						RO			
153	ZZZ						1SH ABR VESIC			
161	GREY2	J					BS		1	5
161	ZDATE						2-4C			
161	ZZZ						1 SH GREY			
163	LCOA	L			D36		RIM		1	21
163	ZDATE						4C			
163	ZZZ						LCOA ONLY			
165	LCOA	JLS				BR; VA; WW	RIM FRAG		1	8
165	ZDATE						4C			
165	ZZZ						1 SH GREY CF LCOA JLS			
171	GREY	BD				VBE; K?	BASE; EXTRACTED		1	43
171	GREY2	JBK					BS THIN		1	2
171	ZDATE						2-4C			
171	ZZZ						2 SHS GREY			
182	NVGW	BD					BASE; STAINED		1	23
182	ZDATE						M2-3C			
182	ZZZ						NVGW ONLY			
187	GRFF	JB				WW	BS; GROOVE; FS		1	26
187	ZDATE						3-4C			
187	ZZZ						1 SH GREY ABR WATER WORN			
188	COAR	J					BASE; FS		1	13
188	ZDATE						3-4C			
188	ZZZ						1 SH GREY OPEN COARSE			
190	GREY1	J					BS		1	8
190	NVCC	BK					BS PALE ORANGE FAB BN CC		1	2
190	ZDATE						M3-4C			
194	GREY	BWM			D35	WW	RIM FLAKE; CF SPOOL AS GREY2		2	63
194	ZDATE						L3-4C			
194	ZZZ						GREY BWM SCRAP			
196	GREY2	J					BS		1	6
196	ZDATE						2-4C			
196	ZZZ						GREY SH ONLY			
202	GREY						BS SCRAP CF SPOOL		1	4
202	GREY2	J		2		WW	BSS		2	8
202	MOMH?	M					BS UNUS TRITS INC GROG SHOW KAY		1	102
202	SAMCG	31 ETC					FLAKE		1	2
202	ZDATE						M2-3C			
202	ZZZ						2C SAM + EARLY MOMH?			

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Assessment Report

204	GREY2	J					BS		1	18
204	ZDATE						3-4C			
204	ZZZ						1 SH GREY ONLY			
206	GREY1	J				WW	BASE; STRING		1	41
206	ZDATE						3-4C			
206	ZZZ						GREY BASE ONLY			
208	GREY	J				D	BASE; FE STIN INT; CF SPOOL		1	76
208	ZDATE						3-4C			
208	ZZZ						GREY BASE ONLY LGE			
230	GREY2	J				D	BS STAINED BROWN		1	20
230	ZDATE						2-4C			
230	ZZZ						1 SH GREY ONLY			
238	LCOA	J					BS THINNISH		1	7
238	LCOA	JBL				WW	BS		1	74
238	ZDATE						4C			
238	ZZZ						INC LCOA			
246	GREY2	J		1		BX	BSS; 1SH BX		3	20
246	ZDATE						2-3C			
246	ZZZ						GREY ONLY 3 SHS 1 VESS			
248	LCOA	J					BS BLK		1	12
248	ZDATE						4C			
248	ZZZ						LCOA ONLY			
252	GREY2?	JBK					BS THIN COARSER FAB		1	2
252	ZDATE						2-4C			
252	ZZZ						1 SCRAP GREY ONLY			

Key:

COAR	Miscellaneous coarse wares
DR20	Dr 20 amphorae
DWSH	Late shell-tempered; Dales ware; lid-seated jars etc.
GFIN	Miscellaneous fine grey wares
GREY	Miscellaneous grey wares
GREY1	Grey fabric 1
GREY2	Grey fabric 2
GRFF	Grey fairly fine fabric
GRFF?	Grey fairly fine fabric?
GROG	Grog-tempered wares
GRSAN	Grey with sandwich fabric
LCOA	Late coarse pebbly fabric
MOMH?	Mancetter/Hartshill mortaria?
MONV	Nene Valley mortaria
MOOX	Oxfordshire parchment ware mortaria
MOOXW	Oxfordshire white-slipped mortaria
MOSP	Swanpool mortaria
MPOT?	Medieval pot?
NVCC	Nene Valley colour-coated
NVGW	Nene Valley grey ware
NVGWC	Nene Valley grey ware coarse
OX	Miscellaneous oxidized wares
PART	Parisian type wares
SAMCG	Central Gaulish samian wares

SPCC?	Swanpool colour-coated?
SPOX?	Swanpool oxidized wares?
TILE	Tile fabric vessels
VESIC	Vesicular fabric

1.6 Roman Pottery by Context and Sherd Count

<i>Context</i>	<i>Sherds</i>	<i>Date</i>
001	77	L4/POSTRO
002	20	EM4C
005	2	ML4C
011	1	3-4C
016	2	3-4C
017	1	3-4C
022	1	4C
024	12	EM4C
026	2	3-4C
028	3	4C
032	2	L3-4C
043	41	ML4C
044	2	L3-4C
045	13	ML4C
046	70	ML4C
049	3	L3-4C
069	1	4C?
072	32	4C/POSTRO?
074	5	L3-4C
082	1	3-4C
084	16	4C
086	192	L4/POSTRO
087	10	4C
088	4	3-4C
090	2	3-4C
092	1	3-4C
094	5	L3-4C
098	5	4C
106	6	ML4C
109	1	4C
117	2	4C
118	3	L3-4C
119	2	4C
123	3	4C
131	3	4C
139	1	3-4C
140	6	3C
141	4	4C
142	6	M3-4C
143	1	3C+
147	1	3-4C
149	2	3C+

151	2	3C+
153	1	RO
161	1	2-4C
163	1	4C
165	1	4C
171	2	2-4C
182	1	M2-3C
187	1	3-4C
188	1	3-4C
190	2	M3-4C
194	2	L3-4C
196	1	2-4C
202	5	M2-3C
204	1	3-4C
206	1	3-4C
208	1	3-4C
230	1	2-4C
238	2	4C
246	3	2-3C
248	1	4C
252	1	2-4C

1.7 Bulk Finds

<i>Context</i>	<i>Type</i>	<i>Count</i>	<i>Comments/Weight</i>
001	BOTT	1	MOD; 20C; DIS
001	SLAG	9	153g COPW
001	MSTO	3	13g IROS DIS
001	MSTO	2	7g FOSSIL DIS
001	OMIS	9	158g LEAD MELT WASTE
001	OMIS	1	MOD; 20C; 1937; GEORGE 6 HALFPENNY
001	OMIS	1	MOD; COPP STUD/MOUNT
001	OMIS	1	MOD; IRON KNIFE; WOOD HANDLE 2XCOPP RIVETS
002	MSTO	1	2140g SST BURNT?
045	OMIS	2	40g FERROUS CONCRETION
049	MSTO	1	BURNT LST
056	MSTO	2	338g FERROUS CONCRETION + PEBBLES
057	MSTO	1	16g FERROUS CONCRETION + PEBBLES
072	COAL	1	3g BURNT DIS
072	MSTO	1	38g FLINT
072	MSTO	2	10g BURNT IRON-RICH SST
072	FIRE	2	83g DAUB?
089	FIRE	1	88g
100	WIND	1	PMED/MOD
106	MSTO	2	7g BURNT IRON-RICH SST
117	MSTO	1	2320g BURNT
140	FIRE	1	74g DAUB?
142	MSTO	1	4g IROS DIS
142	FIRE	2	116GM
187	MSTO	1	33g IROS DIS
187	MSTO	1	64g FROST FRACTURED PEBBLE DIS
188	MSTO	2	FOSSIL (BELEMNITE) DIS
196	MSTO	2	28g BURNT IRON-RICH SST

133	SLAG	1	13g COPW
-----	------	---	----------

Key

BOTT	Bottle glass
COPP	Copper alloy
COPW	Copper working
DIS	Discarded
FIRE	Fired clay
IROS	Ironstone
LST	Limestone
MOD	Modern
MSTO	Miscellaneous stone
OMIS	Other miscellaneous
PMED	Post-medieval
SST	Sandstone
WIND	Window glass

1.8 Registered finds

<i>Context</i>	<i>Finds No.</i>	<i>Material</i>	<i>Object</i>	<i>Date/Comments</i>
001	1	Iron	-	Rod/Staple?
001	2	Flint	Waste	Prehistoric
001	3	Copper alloy	Coin	Roman? L3-4C?
001	4	Copper alloy	Buckle	Post-medieval?; D-shaped + suspension loop
001	5	Copper alloy	-	x2; Sheet mount/fitting
001	6	Copper alloy	Ring	Whole
001	7	Copper alloy	-	-
001	8	Copper alloy	Button	Late post-medieval/modern; whole
001	9	Lead	Waste	X8; 3 sheet 5 roof?
001	10	Lead	Waste	Melt
001	11	Copper alloy	-	Riveted mount/fitting
001	12	Copper alloy	-	-
001	13	Copper alloy	-	Curved fragment
001	14	Lead	-	Point waste?
133	15	Stone	-	Millstone Grit; reused quern; very worn
196	16	Stone	-	Millstone Grit; abraded
232	17	Stone	Quern	Millstone Grit; grooved
142	18	Stone	Quern	Millstone Grit; grooved, very worn
133	19	Iron	-	Curved rod
133	20	Lead	Waste	Melt
133	21	Lead	Waste	Sheet
133	22	Lead	Waste	Melt
133	23	Lead	Waste	Melt
133	24	Lead	Waste	Melt
133	25	Lead	Waste	Melt
133	26	Lead	Came	Late medieval/post-medieval; milled scrap
133	27	Lead	Waste	Melt blob
133	28	Iron	-	Medieval?; barrel-padlock?
133	29	Iron	Nail	-
106	30	Iron	Nail	-

MEADOW LANE, NORTH HYKEHAM, LINCOLNSHIRE

ASSESSMENT REPORT

APPENDIX 2 LHA NOTE & ARCHIVE DETAILS

LHA NOTE DETAILS

CLAU CODE: NHME01

CLAU REPORT No.: 467

PLANNING APPLICATION No.: N/43/0987/00 (previously N/43/839/99)

FIELD OFFICER: Michael Jarvis

NGR: SK 947 654

CIVIL PARISH: North Hykeham

SMR No.:

DATE OF INTERVENTION: 26th February – 2nd April 2001

TYPE OF INTERVENTION: Archaeological Excavation and Assessment Report

UNDERTAKEN FOR: English Heritage

ARCHIVE DETAILS

PRESENT LOCATION: City of Lincoln Archaeology Unit, Charlotte House, The Lawn, Union Road, Lincoln, LN1 3BL.

FINAL LOCATION: The City and County Museum, Friars Lane, Lincoln.

MUSEUM ACCESSION No.: 2001.51

ACCESSION DATE: -

NOTE

The information in this document is presented with the proviso that further data may yet emerge. Lincoln City Council cannot, therefore, be held responsible for any loss, delay or damage, material or otherwise, arising out of this report. The document has been prepared in accordance with the Code of Conduct of the Institute of Field Archaeologists.

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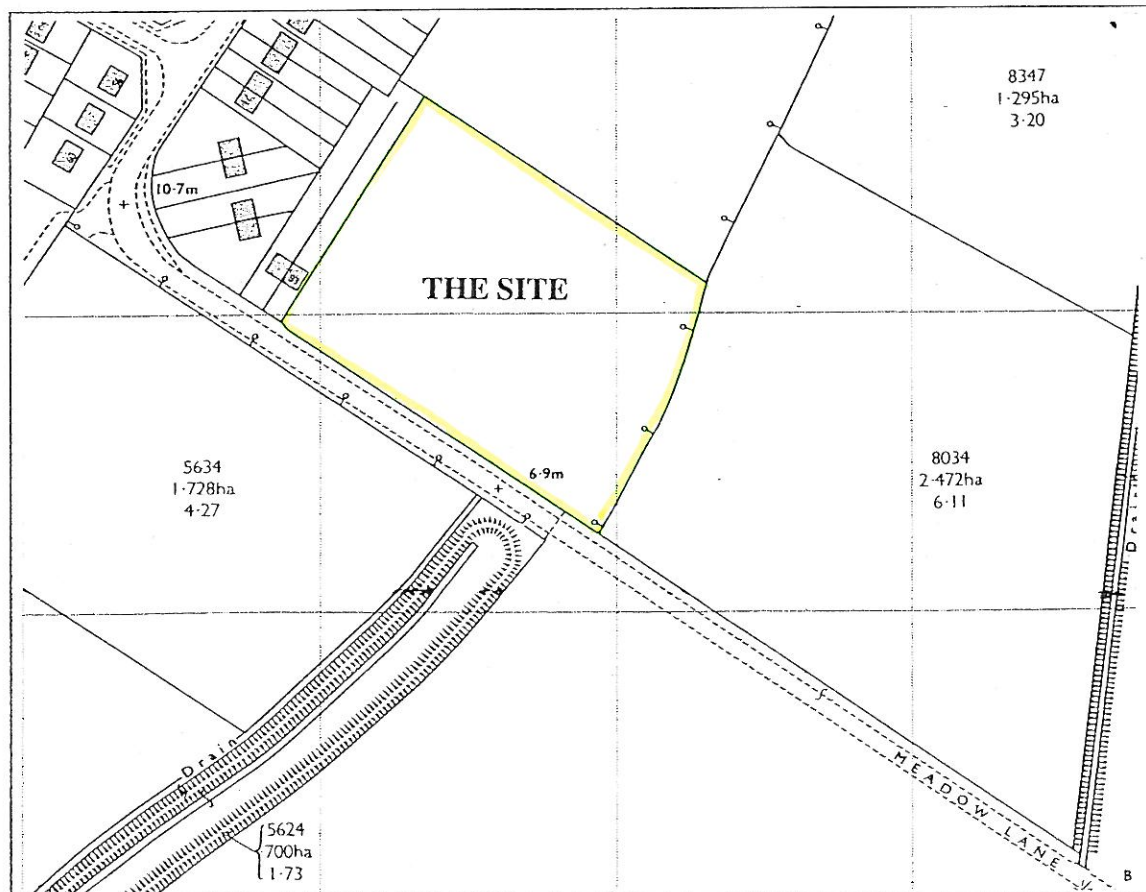
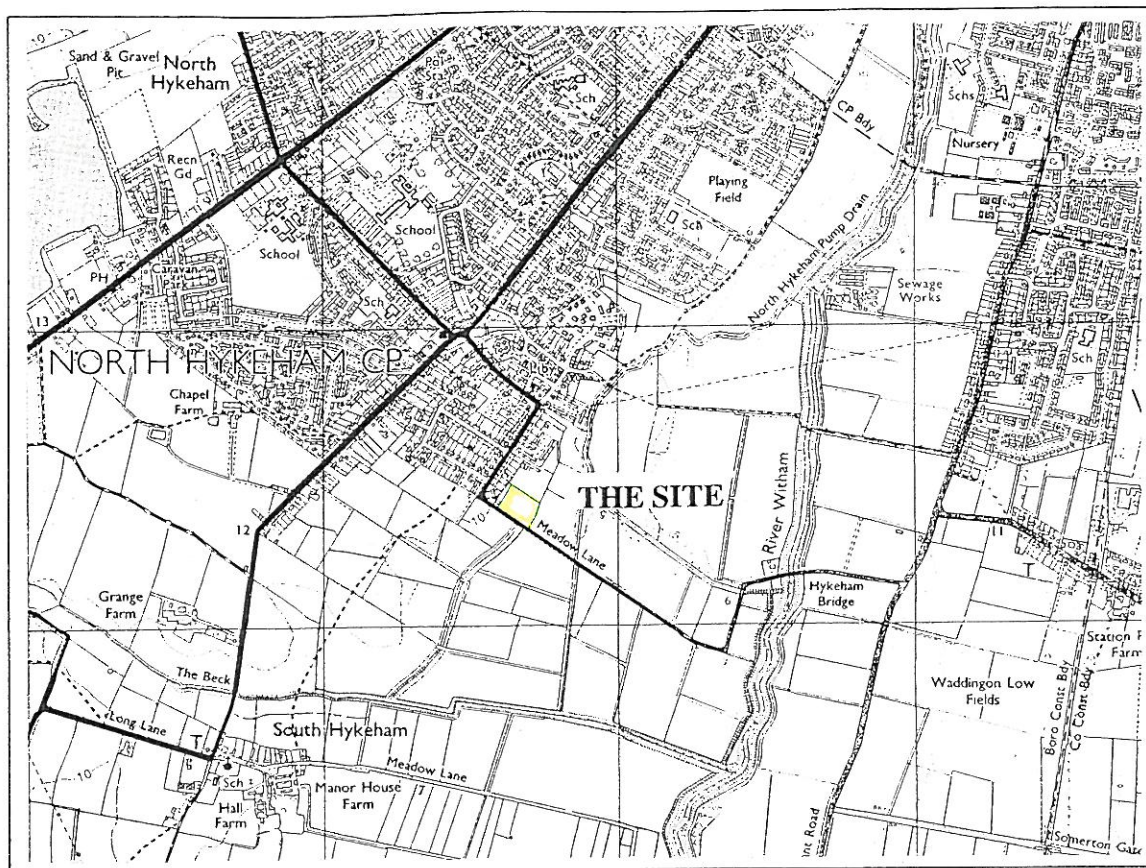


Fig. 1: Site location plan (1:25000 & 1:2500).

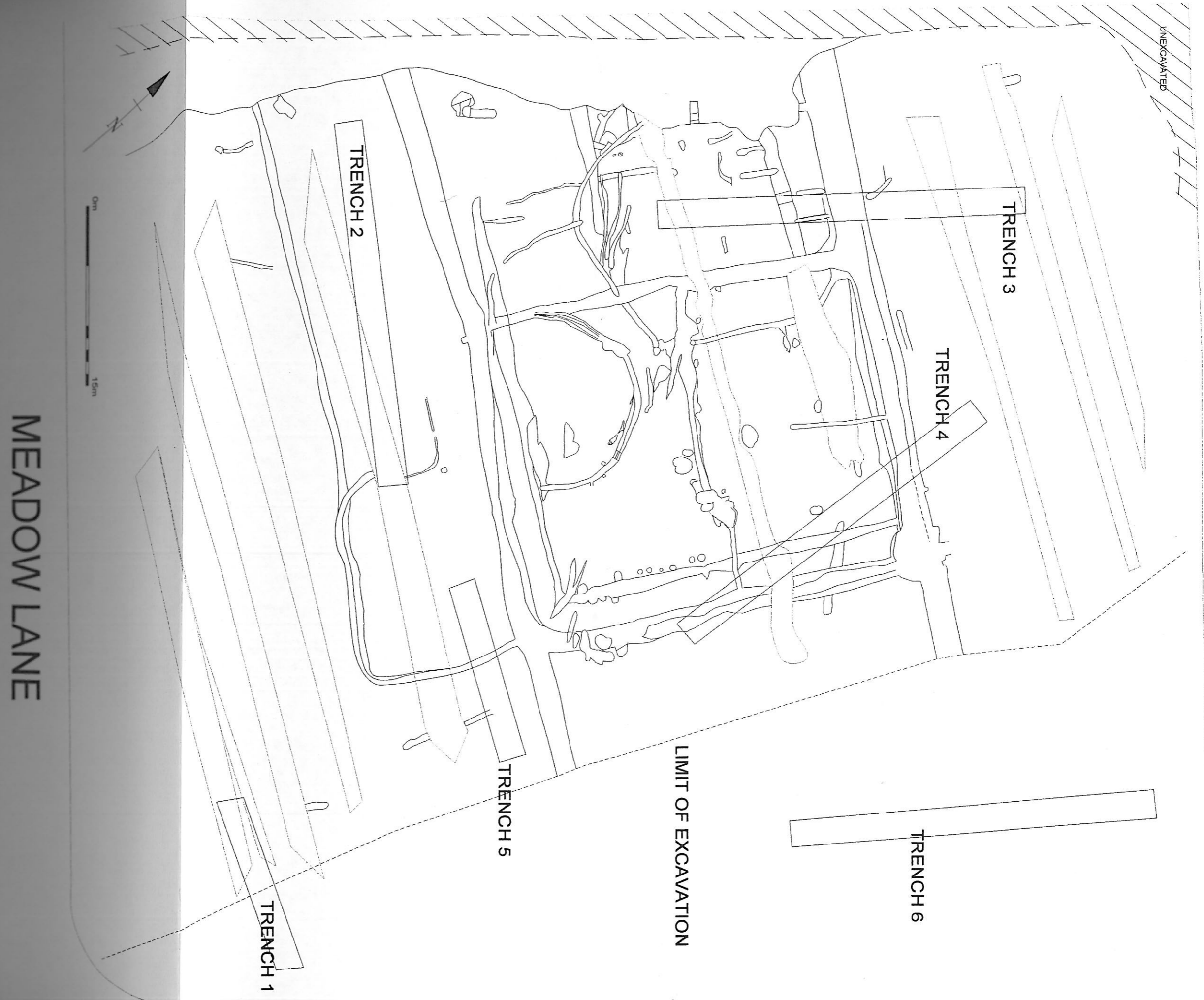
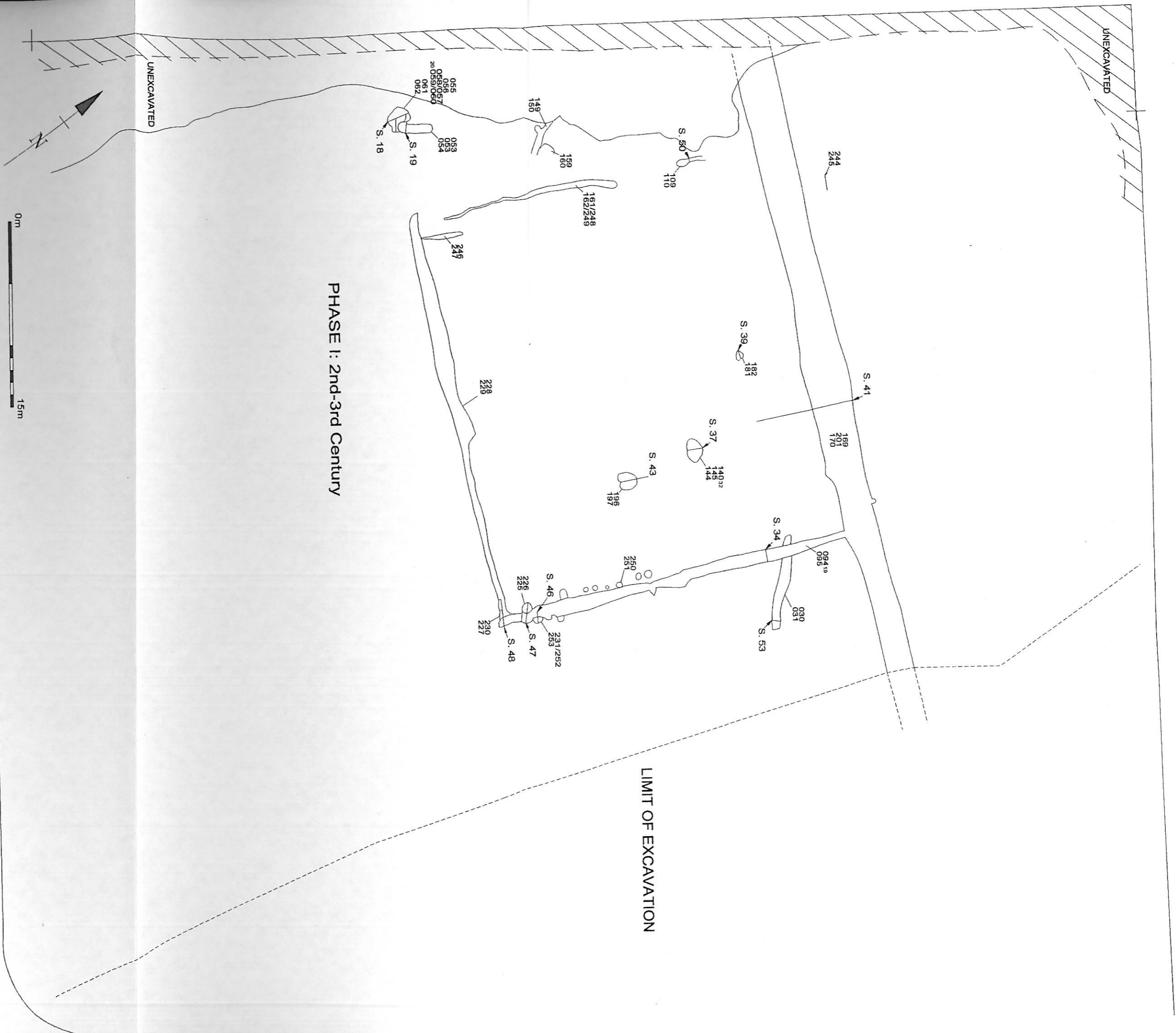


Fig. 2: Pre-excavation site plan also showing the locations of 1999 evaluation trenches (not to scale).



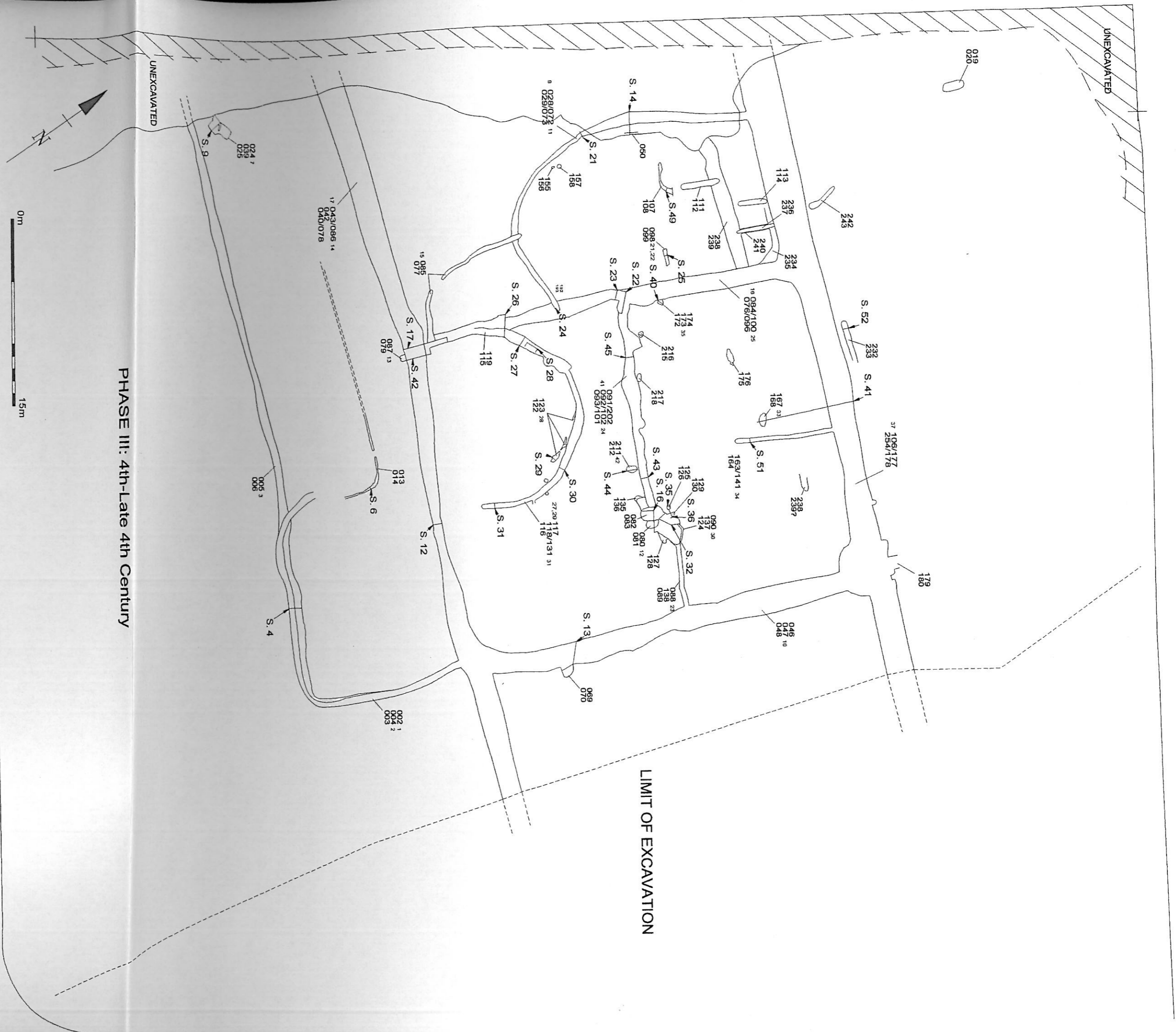
SAMPLE NUMBERS SHOWN IN RED
 S. = SECTION NUMBER

MEADOW LANE

Fig. 3: Phase I (not to scale).



Fig. 4: Phase II (not to scale).



SAMPLE NUMBERS SHOWN IN RED
S. = SECTION NUMBER

MEADOW LANE

PHASE III: 4th-Late 4th Century

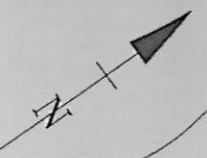
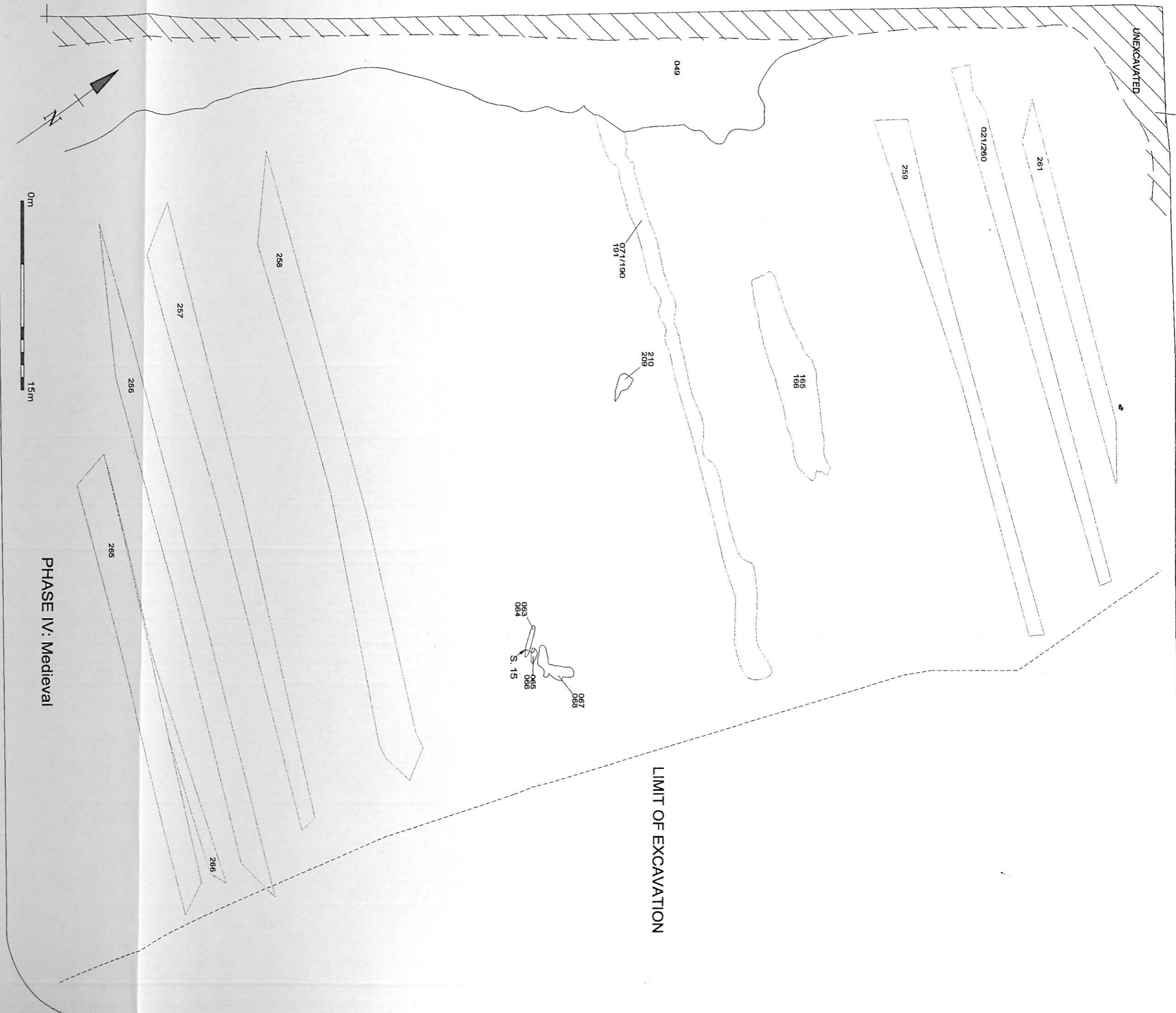


Fig. 5: Phase III (not to scale).



S. = SECTION NUMBER

MEADOW LANE

PHASE IV: Medieval

LIMIT OF EXCAVATION

UNEXCAVATED

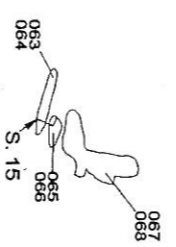
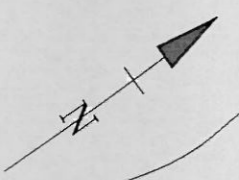


Fig. 6: Phase IV (not to scale).

KEY:

T/H = TREE HOLLOW

P/H = POST-HOLE

CURV = CURVILINEAR FEATURE

BLUE BOXES DENOTE PRIMARY ENCLOSURE DITCHES

PURPLE BOXES DENOTE SECONDARY ENCLOSURE DITCHES

SAMPLE NUMBERS ARE SHOWN IN RED

PHASING:

PHASE I: 2ND-3RD CENTURY

PHASE II: 3RD-4TH CENTURY

PHASE III: 4TH-LATE 4TH CENTURY

PHASE IV: MEDIEVAL

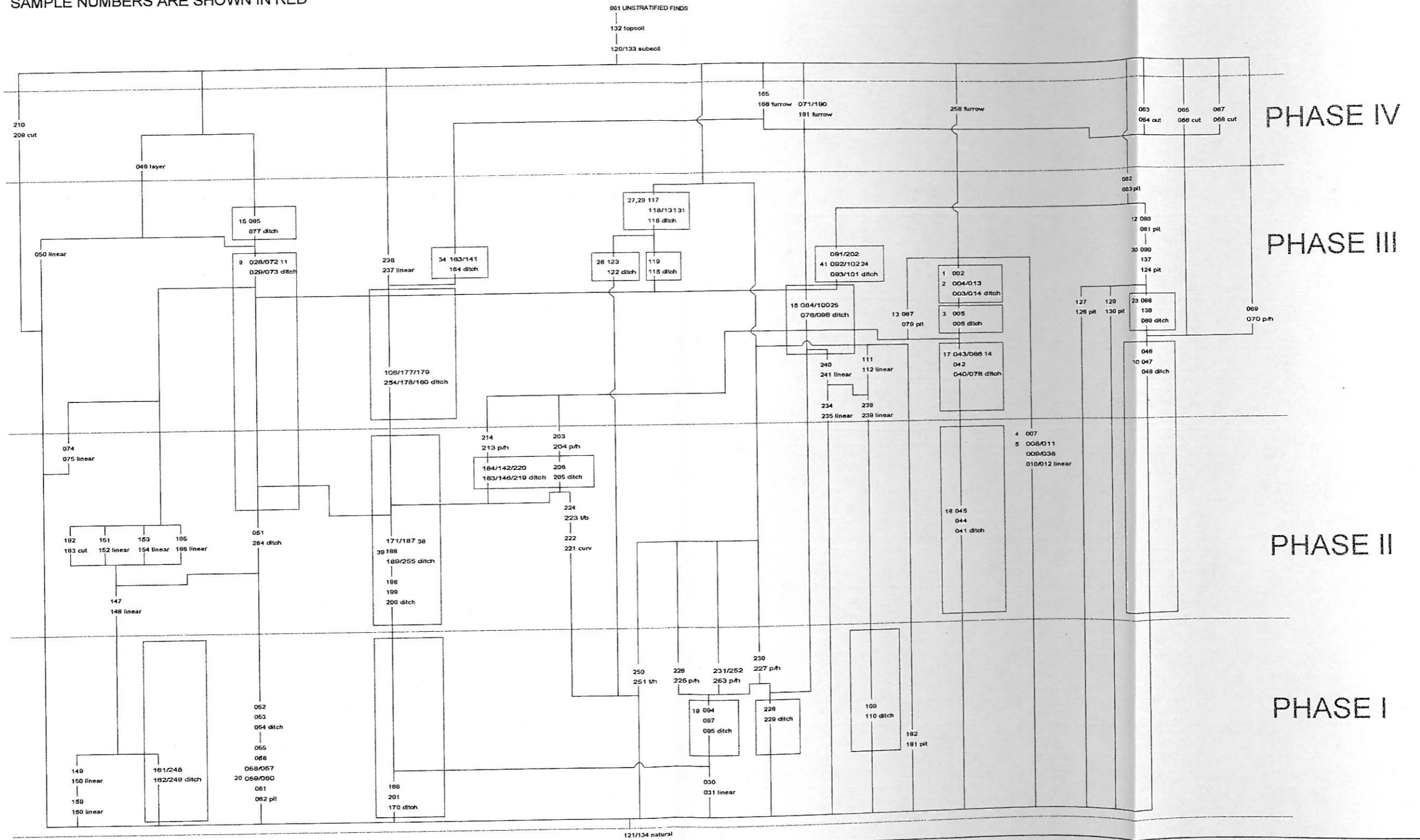


Fig. 7: Stratigraphic matrix (Part A).

KEY:

T/H = TREE HOLLOW

P/H = POST-HOLE

CURV = CURVILINEAR FEATURE

SAMPLE NUMBERS ARE SHOWN IN RED

PHASING:

PHASE I: 2ND-3RD CENTURY

PHASE II: 3RD-4TH CENTURY

PHASE III: 4TH-LATE 4TH CENTURY

PHASE IV: MEDIEVAL

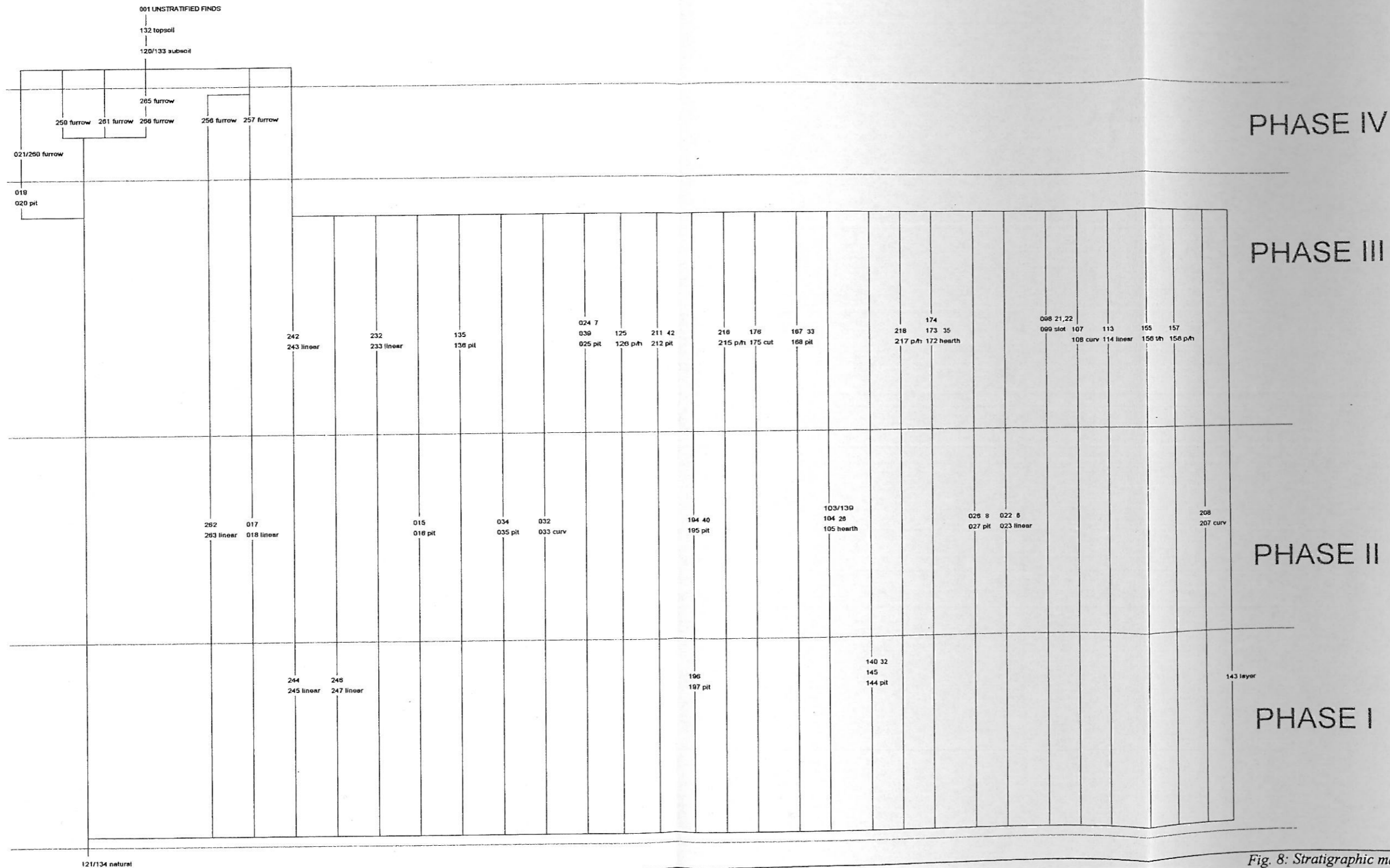


Fig. 8: Stratigraphic matrix (Part B).