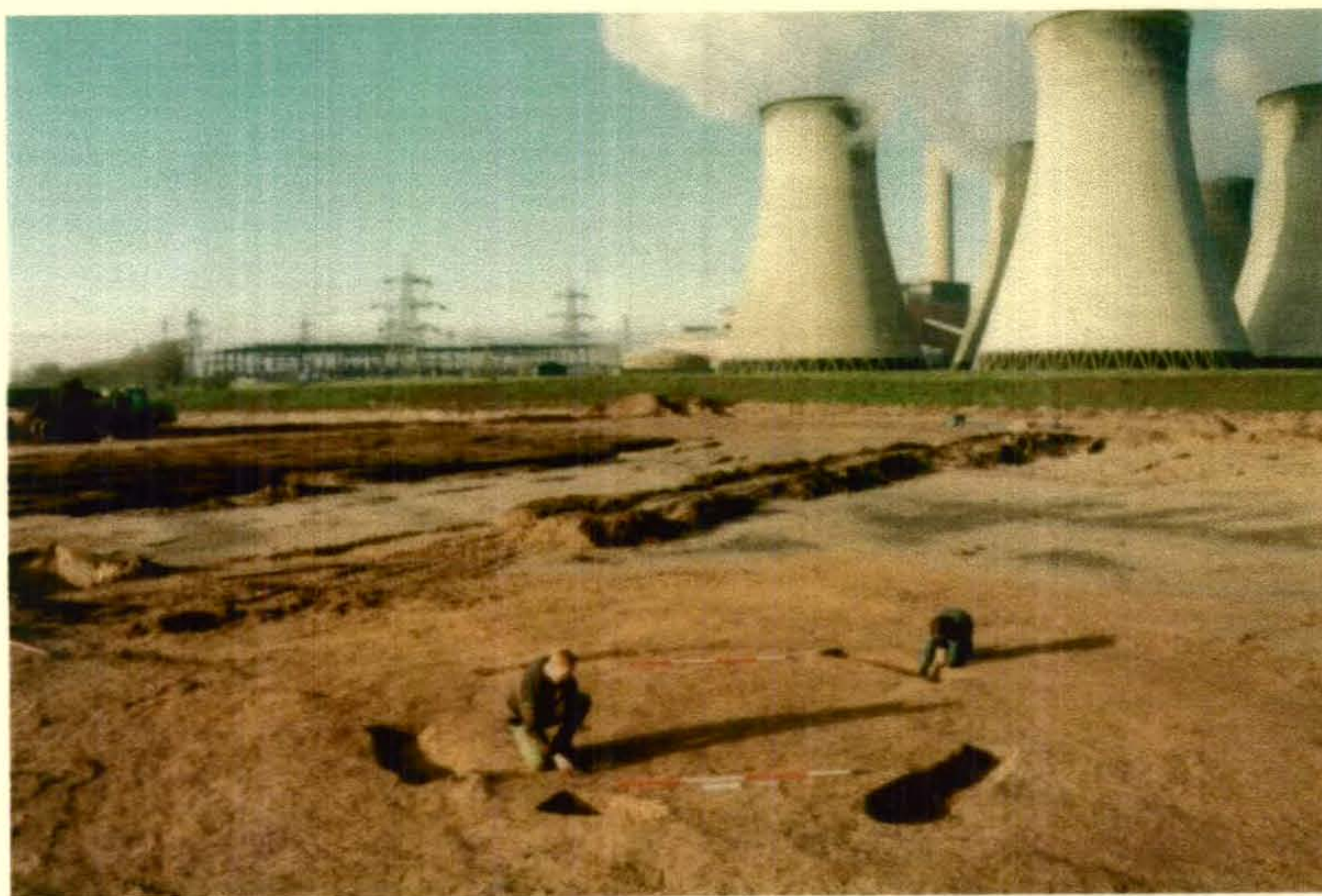


**AN IRON AGE AND ROMANO-BRITISH SETTLEMENT  
AT MOOR POOL CLOSE, RAMPTON,  
NOTTINGHAMSHIRE**

**Summary of Watching Brief and Excavations  
from June 1999 to January 2000**

**DAVID KNIGHT**



**TRENT & PEAK**  
ARCHAEOLOGICAL UNIT

**AN IRON AGE AND ROMANO-BRITISH SETTLEMENT  
AT MOOR POOL CLOSE, RAMPTON, NOTTINGHAMSHIRE**

**Summary of Watching Brief and Excavations  
from June 1999 to January 2000**

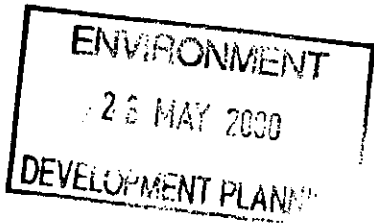
**Author: David Knight**

**Report for: Lafarge Redland Aggregates Ltd**

**9th May 2000**

**Project Code: RAM.3**

**©Trent & Peak Archaeological Unit**



**Trent & Peak Archaeological Unit  
University Park  
Nottingham, NG7 2RD.  
Tel (0115) 9514821  
Fax (0115) 9514824**

## SUMMARY

- *A major palaeochannel, interpreted as probably an ancient meander of the Trent, was revealed in the north-eastern corner of Phase 3. The stratigraphy of the channel and its relationship to the interbedded sands and gravels of the Floodplain Terrace was recorded in three box trenches. Samples were extracted from contexts with potential for the preservation of organic remains, with the aim of elucidating the Holocene valley environment. Samples for radiocarbon dating were obtained from a peaty layer towards the base of the channel. A terminus ante quem for the upper channel deposits is provided by the numerous Romano-British features which had been cut through them.*
- *The palaeochannel was sealed by two alluvial layers: an oxidised brown clay and, beneath this, a less extensive grey clay. Alluvium also sealed many Romano-British and Iron Age features and deposits along the fringes of the Floodplain Terrace, suggesting that the site could have been abandoned eventually as a result of increased flooding.*
- *An intact Beaker, dating probably from the late third millennium BC, was recovered from a pit cut by a Romano-British ditch. This vessel probably derives from a burial, and provides an important insight into early prehistoric activity on the site.*
- *Excavations revealed an extensive settlement and field system dating mainly from the Late Iron Age and Romano-British periods. The site stands out from the majority of contemporary rural settlements in the Trent Valley on the grounds of its spatial extent, structural complexity and exceptional wealth of finds – in the Romano-British period, implying perhaps a settlement of 'village' rather than farmstead status. Even more remarkable is the preservation within the main occupation focus of a significant depth of stratified occupation deposits, rich in artefacts and incorporating in situ hearths, clay floors and other structural debris.*
- *Preliminary assessment of the stratigraphic relationships between features suggests a sequence of at least five main phases, commencing probably with an Early/Middle Iron Age open settlement (Phase 1). Later phases witness the development of a rectilinear boundary system (Phase 2), followed by the construction of two massive subrectangular ditched enclosures divided internally into smaller enclosed units (Phases 3-4). A pit alignment running northwards towards the palaeochannel may have formed an eastern boundary during Phases 3 and 4. A final phase may be represented, more speculatively, by a series of rectilinear fenced enclosures overlying the Phase 4 enclosure.*
- *An enormous wealth of Iron Age and Romano-British pottery was recovered, together with daub, objects of fired clay, tegulae and other tile fragments, smithing slag, rotary querns, ironwork, copper alloy fibulae, coins and occasional exotic items such as a gilded jadeite pin. Evidence for the agricultural economy is provided by faunal remains recovered from the waterlogged fills of some features and by environmental samples collected from the fills of most excavated features. It is hoped that analyses of the above material will shed important light upon the site economy and the relationships between Rampton and other settlements of these periods.*

## CONTENTS

List of figures	3
List of plates	4
1. Introduction	5
2. Geology and topography	5
3. Summary of previous work	6
4. Archaeological investigations in 1999 and 2000	
4.1. Methodology	9
4.2. The north-eastern palaeochannel	11
4.3. Early prehistoric activity	12
4.4. Iron Age and Romano-British settlement	12
4.5. Post-Roman activity	18
4.6. Conclusions	19
5. Report on progress and expenditure	22
Acknowledgements	24
References	25

## LIST OF FIGURES

Fig.1. Plan of Phases 2 and 3, showing surface geology and cropmarks. Scale 1:2000

Fig.2. Plan of Phase 3, showing surface geology, cropmarks and archaeological trenches predating the excavations of 1999 (A-N: Retford Archaeological Group; I-VII: Ponsford; KC01-04: Challis). Scale 1:1000

Fig.3. Plan of Iron Age and Romano-British features recorded in Phases 2 and 3. Scale 1:1500

Fig.4. Detailed plan of main area of Late Iron Age and Romano-British settlement. Scale 1:750

Fig.5. NW-facing section across the north-eastern palaeochannel, showing the relationship of channel deposits to Romano-British features and overlying alluvium. Scale 1:50

Fig.6. NW-facing section across linear ditches exposed in the northernmost box trench across the palaeochannel, showing their relationship to overlying alluvial layers (5000 and 5001) and the Romano-British occupation deposit (5011). Scale 1:20

## LIST OF PLATES

Cover: view north towards Cottam Power Station, showing penannular drainage gully demarcating Structure 1312 in the foreground

Plate 1. Late third millennium BC Beaker with geometric comb-impressed decoration

Plate 2. Trench 100 and the western extension of this trench: *tegula*-floored hearth revealed after machine-stripping of topsoil to west of trench 100; trowelling of upper 50mm spit of western trench extension, showing concentrations of stone rubble, *tegula*-floored hearth and sherd distribution; Romano-British features revealed after the removal of stratified occupation deposits.

Plate 3 Excavation of drainage ditch encircling Structure 1285

Plate 4. Annular drainage ditch 1237 (background) cut by ditch of small subsquare enclosure 1238 containing four-post structure

Plate 5. East-facing section of ditches 1510 and 1511, showing toolmarks in base of ditch 1511

Plate 6. West-facing section of ditch 1514, showing tool-marks in base of ditch

Plate 7. The north-eastern palaeochannel: view SE across channel and terrace-edge; NW-facing section showing grey alluvial clays sealing Romano-British pits cut into channel deposits; sub-alluvial pit preserving faunal remains

## 1. INTRODUCTION

A summary is provided of recent archaeological investigations by Trent & Peak Archaeological Unit of an Iron Age and Romano-British settlement at Rampton Quarry, Nottinghamshire (SK 820785), prior to the extraction of gravel from an area of c.4.5ha to the south of Torksey Ferry Road (Fig.1: Phases 3A-C). This is preceded by a brief summary of earlier work on the site, aimed at placing the current archaeological investigations in their context. A final section provides details of progress on post-excavation work and a statement of current expenditure.

The archaeological work which forms the focus of this report was funded by Lafarge Redland Aggregates Ltd as part of a Scheme of Treatment approved within a planning agreement with Nottinghamshire County Council. The work was monitored by Mr. M. Bishop, County Archaeologist for Nottinghamshire, and Mr. J. Walker, Archaeological Consultant for the Company. It comprised a Watching Brief by Vicki Priest and Gerwyn Richards during topsoil and subsoil stripping from June to October 1999, and full excavation, supervised by Mark Southgate, between November 1999 and January 2000 – both under the direction of the writer. Excavations of the extensive prehistoric and Romano-British remains were accompanied by detailed recording of a pre-Roman palaeochannel which flanked the north-eastern margin of the site. Environmental analyses of organic fills from this channel are being carried out by David Shimwell and Richard Gregory of Manchester University. Analyses of palaeoenvironmental samples from a wide variety of Iron Age and Romano-British features are currently being undertaken by James Rackham.

## 2. GEOLOGY AND TOPOGRAPHY

The Iron Age and Roman settlement extends for approximately 3ha across the alluvial floodplain of the Trent and two low islands of sand and gravel, both forming part of the Devensian to early Flandrian Floodplain Terrace (Fig.1). Linear ditches and gullies indicative of an associated field system extend south and west for at least another 3ha across low terrace and alluvial deposits. The site is bordered to the west and east by major palaeochannels, each sealed by alluvium. Numerous Late Iron Age and Romano-British features have been recorded beneath alluvium in the lower-lying areas fringing the islands of Floodplain Terrace (Fig.3), implying extensive post-Roman flooding. It is anticipated that environmental analyses of deposits from the eastern palaeochannel and from the fills of archaeological features across the site will shed important light upon the environmental history of the site, and in particular the environmental constraints imposed upon settlement in the Late Iron Age and Romano-British periods.

### 3. SUMMARY OF PREVIOUS WORK

The site was discovered in the early 1960's as a result of fieldwalking by R. Minnett and C.H. Bear of the Retford Archaeological Group. The Group excavated in 1965 fourteen small trenches in a field immediately east of the existing pipeline (Fig.2: trenches A-N). Interpretation was complicated by the small size of the trenches, but the excavations revealed at least one ditch and, most significantly, an unexpected depth of stratified archaeological deposits incorporating a high density of Romano-British pottery and small quantities of *tegulae* (roof-tiles), metalwork and coins (Ponsford 1992, 91).

An additional seven trenches were excavated by M.W. Ponsford in 1966 in the same field, partially overlapping the earlier excavation trenches (Fig.2: trenches I-VII; Ponsford 1992). These extended over a significantly larger area of the terrace than the earlier trenches but, as Ponsford rightly emphasised, the technique of small trenches divided by baulks posed major problems of interpretation (Ponsford 1992, 104). Examination of the published trench sections reveals a complex sub-ploughsoil stratigraphy, consistent with that recorded in subsequent excavations (*ibid.*, figs 8, 10 & 13). Layers of 'dark brown soil' or 'brown soil' with abundant Late Iron Age and Romano-British finds were recorded beneath the ploughsoil (Ponsford 1992, fig.10: layers 15 and 12). These layers were cut by several Romano-British features (e.g. D18: *ibid.*, fig.10) but also sealed earlier features (e.g. D4: *ibid.*, fig.10), and were interpreted by Ponsford as Iron Age and Romano-British 'occupation layers'. Some deposits of 'brown soil' overlay hearths or clay floors (*ibid.*, 95, fig.8), suggesting an unusually high level of preservation over at least parts of the site. These deposits of brown or dark brown soil may be correlated with an extensive finds-rich layer of dark soil, recorded in the 1999 excavations beneath topsoil or alluvium, which incorporated stratified hearths, clay floors and ash/charcoal layers (Figs 5-6: layer 5011). The formation mechanisms of this lower layer are discussed in greater detail in a later section, where it is suggested that significant occupation deposits may have accumulated over the four to five centuries in which activity was concentrated - and, most remarkably, that over parts of the site these may have survived virtually intact beneath topsoil.

Ponsford recorded a variety of features dug into the natural sands of the Terrace or cut into the sub-ploughsoil 'brown soil', together with traces of hearths and possible clay floors. Trench I revealed an area of burnt clay and ash, interpreted as a hearth, while Trenches II and III yielded patches of clay, some pierced by stake- or post-holes, which were interpreted as the floors of buildings. Several curvilinear gullies, possibly representing the foundations of circular buildings, were recorded cut into the Terrace sands and gravels. The most impressive of these was a penannular bedding trench with post-holes in its base, enclosing an area of c.6m internal diameter (*ibid.*, fig.5; plate 1). A hearth with an associated clay *tuyère* and fragments of bronze and slag, interpreted as a smith's forge, was recorded adjacent to the inner edge of this structure, but its relationship to the building remains obscure.

Air photographs taken by R. Minnett in the very dry summer of 1976 provided important evidence for at least three cropmark enclosures and other linear features in the fields either side of the pipeline (Fig.1). These emphasised the potential scale of settlement, but underestimated drastically



the full extent and complexity of the settlement plan - due in large part to the burial of features beneath alluvium and, more remarkably, the masking of many features by later occupation deposits. Comparison of the cropmark and post-excavation plans provides, therefore, a stark reminder of the limitations of air photographic evidence, which in this case provided only a faint glimpse of the site's full archaeological potential (Fig.2).

Archaeological evaluations were carried out in 1990 by Keith Challis and John Walker of Trent & Peak Archaeological Trust, prior to the preparation of a Scheme of Treatment in advance of gravel extraction (Challis 1990). These included a documentary survey, plotting of cropmarks and a geophysical survey, followed by the excavation of four evaluation trenches aimed at determining the character and extent of the site, its date, and the quality of preservation (Fig.2: trenches 01-04). The trenches were scattered widely over the site, at locations permitting examination of selected cropmarks and the stratigraphic relationship of archaeological features and deposits to alluvium. Trench 01 was located at the interface between the Floodplain Terrace and the eastern alluvial zone, and showed Romano-British features and deposits to continue beneath two alluvial layers: an upper oxidised brown clay and a lower reduced grey clay. These alluvial deposits covered a predominantly grey-brown silty sand loam, rich in Romano-British pottery, which was interpreted by Challis as possibly a relict Romano-British soil. The latter may be correlated with Ponsford's 'occupation layer', and overlay several intercutting Romano-British ditches and gullies - suggesting to the excavator an extended period of occupation. Trench 02 was located at the interface between the Floodplain Terrace and the western alluvial zone, and demonstrated conclusively the continuation of Romano-British ditches and gullies beneath alluvium. Only one alluvial unit was represented in this trench: a brown clay, similar to the upper alluvium in trench 01, which it was suggested could indicate a different depositional environment. Trenches 03 and 04 were located on low sand islands unaffected by later alluviation, with the aim of investigating cropmark features, and revealed several ditches, pits and post-holes. Some of the linear features correlated with cropmark features and yielded Late Iron Age and Romano-British pottery, slag and burnt clay or daub.

Several Watching Briefs were carried out by Trent & Peak Archaeological Trust after the evaluations of 1990. The first of these was undertaken by Doug Gilbert from March to June 1996, during the excavation of machine pits dug to carry supporting anchor blocks for two slurry pipelines (Gilbert 1996a: Pipelines A & B). One of the pipelines was aligned NNW-SSE along the axis of the extant pipeline corridor (Fig.2: pits A1-A8), while the other was aligned WSW-ENE immediately south of the haul road running along the southern edge of Phase 3C (Fig.2: pits B5-B7; plus 7 pits to east). Romano-British pottery was recovered from the topsoil and from the underlying layer along the route of Pipeline A - most notably, from pit A3, the compressed remains of a single late Roman Dales Ware jar - but no features could be discerned. The lower layer may be correlated with the sub-ploughsoil finds-rich layer recorded by Ponsford and Challis, suggesting therefore that the stratigraphy recorded in the most recent excavations continues beneath the pipeline corridor. A Watching Brief was also maintained by Gilbert during the stripping of topsoil and overburden from Phase 1, immediately east of Phase 3C, from March to July 1996. (Gilbert 1996b). This revealed variable thicknesses of brown and grey silty clays of alluvial origin, thinning towards the western gravel island; and in the north-eastern corner of the area a sequence of palaeochannel deposits. The relationship of these channel deposits to the palaeochannel recorded in the 1999 excavations remains unclear. An undated ditch or pit, cutting and sealed by alluvium, and truncated on one side

by another channel, was found towards the centre of the area (Gilbert 1996b, fig.4), raising the possibility of some continuation of Late Iron Age or Romano-British activity into this area.

Stripping of topsoil and subsoil from the area of Phase 2 and along a haul road running approximately west-east across Phases 2 and 3 was monitored in 1997 and 1998 by Vicki Priest, also for Trent & Peak Archaeological Trust (Priest 1997; 1998). This revealed an extensive system of field boundary ditches, dated by associated pottery to the Romano-British period (Fig.3). These appear to be of several phases, as evidenced by the sequence of recutting and the spatial configuration of the ditches (discussed below). One of the most significant finds was a ring of eight post-holes in the south-west corner of Phase 2, enclosing a roughly oval area c.6x7m in diameter, which was interpreted as the foundations for the roof-supports of a timber round-house. An internal pit, incorporating heat-affected stones and charcoal in its fill, may represent a contemporary hearth. A double row of post-holes extending from the eastern edge of the post-hole circle may mark the foundations of an associated porch (Priest 1998). Some features yielded a small quantity of handmade Early or Middle Iron Age pottery, thus providing important evidence for activity in the first millennium BC. Another important discovery was a pit with a wickerwork lining, interpreted as a Romano-British well - an unusual find for this region, emphasising the potential on this site for the preservation of waterlogged organic remains.

## 4. ARCHAEOLOGICAL INVESTIGATIONS IN 1999 AND 2000

### 4.1. Methodology

Work concentrated in 1999 and 2000 upon Phases 3A-3C, bordering the southern side of Torksey Ferry Road (Fig.1). The topsoil from either side of the pipeline dividing Phases 3B and 3C was stripped under archaeological supervision by a 360° excavator with a ditching bucket on its back actor and dumpers, with care being taken not to track across sub-ploughsoil layers. Several backfilled excavation trenches and some other areas of modern disturbance were clearly visible at this level, and were planned by EDM. Very high densities of artefacts, mainly of Late Iron Age and Romano-British pottery, were also revealed over much of the site, particularly in the field to the east of the pipeline (recalling, therefore, the high finds densities recorded during earlier walking of this field by the Retford Archaeological Group). All surface finds were plotted individually by EDM and were retained for analysis.

Topsoil stripping revealed extensive zones of oxidised brown alluvial clay, merging at the edges of low islands of Floodplain Terrace sand and gravel with spreads of brown or grey sand incorporating abundant Iron Age and Romano-British pottery. The boundaries between the alluvium and the brown or grey sand were plotted by EDM, as shown in Fig.1. An elongated area of mainly dark grey sand abutting the eastern edge of the pipeline corridor appeared to correlate with the sub-ploughsoil 'occupation layer' recorded by Ponsford, and immediately west of trench N (Fig.2) preserved a possible *tegula*-floored hearth, apparently *in situ*, and a scatter of unworked stone blocks which suggested plough-disturbed structures (Plate 2). It was decided to investigate further the character, mode of origin and depth of these sub-ploughsoil deposits before large-scale machine-stripping was carried out, and six 4x4m trenches were proposed at locations which on the basis of the recorded surface finds might have served as foci of Late Iron Age and Romano-British activity (Fig.4: trenches 100-103, 105-106). These trenches were dug manually in successive 50mm or 100mm spits, to levels at which *in situ* floors, hearths, or other structural remains could be clearly identified. One small 1.5x1.5m test-pit was also excavated in the alluvial basin to the west of the pipeline corridor, with the aim of establishing the depth of alluvium and the sub-alluvial stratigraphy at this location (Fig.4: trench 104).

Trenches 100-106 suggested that stratified archaeological deposits may have survived over much of the site, corresponding broadly with the area of dark grey or brown sand, and confirmed that some features extended beneath alluvium. Most significantly, trench 100 revealed at the base of the first 50mm spit a compacted clay layer which was interpreted as possibly an *in situ* floor (an interpretation confirmed by later excavations, described below). It was decided, in view of the potential of this dark grey or brown sand for the preservation of archaeological remains, to leave a 20m-wide west-east baulk across the centre of the site, positioned so as to encompass areas yielding significant concentrations of Late Iron Age as well as Romano-British finds, and to excavate later by hand as large a sample of this baulk as resources permitted (shown on Fig.3). This baulk extended west-east for 150m, from a point 20m east of trench 100 to a point 20m west of trench 102. The baulk was extended northwards from trench 102 to a point 5m north of trench 105, in order to include an area rich in Late Iron Age surface finds. In addition, two SW-NE 10m-wide baulks were left across the north-eastern palaeochannel, in order that the channel stratigraphy and

the relationship between channel deposits, alluvium and archaeological features could be investigated. The locations of box trenches dug along the NW and SE faces of the northern palaeochannel baulk and a box trench dug along the NW face of the southern baulk are shown in Fig. 4 (brown outlines).

The remainder of the site was stripped mechanically, in a similar manner to the topsoil, to a level at which features could be discerned. All features and finds exposed at this level were planned by EDM. Many relationships between features were still obscure after this phase of stripping, and it was decided, after completion of the EDM plan of features and finds, to remove mechanically a further shallow spit (c.0.1m) with the aim of clarifying details of this plan. The second phase of machine cleaning clarified most of the site, but it proved necessary to excavate selectively further areas which even at this level remained obscure (most notably, the very complex area centred upon trench 103). EDM plans are available for all levels of stripping. Those shown in Figs 3 and 4 are final plans, showing all features recorded during excavation. Features recorded in the excavation trenches dug by Ponsford and Challis are also shown in Fig.4, as a salutary reminder of how many features which did not penetrate deeply into sand and gravel may have been lost during machine-stripping to this level.

1m-wide box trenches were excavated by a tracked mini-digger through selected linear features and some pits, with the principal aim of establishing their character and date (Fig.4; trenches outlined in brown). Each section was cleaned, photographed and drawn. A minimum 1m length of most ditches and gullies and the remaining fill of pits was then excavated manually in 50mm or 100mm spits. All finds were recorded by spit and by context. 30 litre soil samples for flotation were taken from most excavated contexts, together with additional samples from waterlogged contexts with potential for the preservation of plant macrofossils, insects or pollen. Some pits and most post-holes were excavated by hand, together with the less substantial drainage or bedding trenches defining circular and rectilinear structures; these features were also excavated in 50mm or 100mm spits, with a minimum of 30 litres of fill retained for environmental analysis.

To aid the formulation of an excavation strategy for the central L-shaped baulk, a magnetometer survey was carried out by Adrian Butler of the University of Leicester Archaeological Services (Butler 1999). This showed many of the features which were revealed during stripping of sub-ploughsoil layers to continue across the baulk, and provided a valuable complement to the plan of features revealed during machine stripping. It was decided, as the full complexity of the site became apparent, that only a small part of the central baulk could be excavated manually within the time available. A 20x5m trench was laid out to the west of Trench 100, with the aim of clarifying the origins of the sub-ploughsoil deposits which in this area appeared to incorporate *in situ* Romano-British structural remains - most notably, a *tegula*-floored hearth (Plate 2) and, overlapping Trench 100, a compacted clay floor. A 50mm spit was excavated manually from this trench, generating approximately 1500 Romano-British ceramic and other finds (Plate 2). Excavation confirmed the interpretation of the area of broken *tegulae* as the base of a hearth, stratified within the sub-ploughsoil finds-rich layer, and established the extent of the compacted clay layer observed in trench 100. The latter recalled strongly, after careful trowelling, the clay layers recorded by Ponsford at similar levels, and seems best interpreted as the floor of a building which had left no other physical trace. It became clear, from the sheer density of finds in this uppermost spit, that manual excavation by spit down to the natural sand and gravel would be extremely time-consuming,

and it was decided to strip the remainder of this layer mechanically, in a series of 100mm spits. Finds from each of these lower spits were recorded by 2m grid square and, where appropriate, by context.

The baulks across the north-eastern palaeochannel were left intact until a late stage in the excavation, and then removed by machine down to the level at which archaeological features could be discerned. The SE and NW faces of the northern baulk and the NW face of the southern baulk were cleaned manually, photographed and drawn, and full context records were compiled (see Fig. 4 for locations of box trenches across palaeochannel). Extensive samples were taken by R. Gregory from channel layers with potential for the preservation of plant macrofossils, pollen and insect fauna. Excavation and recording of the palaeochannel was hindered by the necessity of excavating in winter, when weather and ground conditions prompted frequent collapses of the trench sides. Trench sides were stepped and battered in an attempt to minimise this problem but some parts of each section required frequent cutting back for the purposes of recording, causing some loss of information on the spatial patterning of features. Collapse was an especially severe problem at the north-eastern end of the northern baulk, and a quite substantial part of the baulk adjacent to the north-facing section collapsed in this area before features could be planned by EDM.

#### 4.2. The North-Eastern Palaeochannel

Stripping of the north-eastern corner of the quarry revealed the western edge of a broad palaeochannel, sealed by alluvium, which was interpreted as possibly an earlier course of the Trent (Figs 3-4; Plate 7). The channel ran NW-SE along the eastern edge of the site, veering eastwards immediately south of trench 01, and seems best interpreted as the outer edge of a major meander. A complex sequence of predominantly light to dark grey clay/silty clay layers, interpreted as phases of gradual infilling of the channel, was recorded in the sections of three machine-dug box trenches (shown in Fig.4). The northernmost section, recording the NW face of the northern baulk, is shown in Fig.5 (layers 5003-4, 5019-21, 5023, 5025-8 & 5033). The drawn section shows the channel deposits to underlie a very dark grey alluvial clay (5008) which at the interface with the Floodplain Terrace merged indistinguishably with a dark grey silty sand loam/sandy clay (5011) incorporating numerous Romano-British and Late Iron Age sherds; the latter was interpreted as an extension of the finds-rich layer recorded in earlier excavations by Ponsford and Challis (and may be observed also in Fig.6, sealing and cut by Romano-British features). Layer 5008 was sealed by two thick alluvial layers which were recorded beneath topsoil in all sections across the palaeochannel: a lower light grey clay (5001) and an upper reddish-brown oxidised silty clay (5000). Layers 5000 and 5001 sealed the finds-rich layer (5011), and together with layer 5008 overlay numerous archaeological features, many incorporating Romano-British pottery (e.g. 5081, 5082 & 5084; Figs 5-6; Plate 7). These features cut through upper channel deposits, suggesting significant drying of these layers before the Romano-British period, and penetrated occasionally the top of a highly distinctive black silty clay (Fig.5: layer 5004). This thick silty clay was recorded towards the bottom of each section across the palaeochannel, and provided a useful marker horizon linking each of the recorded sections. It incorporated significant waterlogged organic remains, including twigs and plant macrofossils, analyses of which should shed significant light upon the Valley environment during the deposition of this material. Fig.5 shows layer 5004 to overlie a dark greyish brown sand (5023), interpreted as the lower fill of the channel where it had truncated the stratified brown to yellowish brown sandy/silty clays and sands of the Floodplain Terrace (layers 5005, 5022, 5024,

5030). Rapid flooding of the trench prevented detailed recording of the deposits beneath layer 5004, but the probable depth of the channel may be estimated by reference to the stratigraphy recorded in the SE-facing section of the northernmost channel baulk.

The date of the channel rests at present upon the stratigraphic relationship between the channel deposits and the Romano-British features which cut through them. Samples of the lower organic deposit (5004) were extracted for radiocarbon dating. This should provide a useful date for the accumulation of this highly organic silty clay - and a *terminus ante quem* for the channel itself.

#### 4.3. Early Prehistoric Activity

Evidence for early prehistoric activity is limited mainly to a thin scatter of Mesolithic to Bronze Age lithic artefacts, principally of flint. The most remarkable find of this period is a Late Neolithic/Early Bronze Age Beaker with a high flaring neck, elaborately decorated over the body with narrow bands of comb impressions, which was retrieved from a pit cut by a Romano-British enclosure ditch (Plate 1; Fig.4: feature 1535). This pot had been placed in an upright position near the bottom of a small pit, and as it had survived intact seems likely to derive from a burial. No associated finds or bones were recovered, but any inhumed remains are unlikely to have survived the acidic soil conditions. The Beaker was filled with sand, all of which has been saved for flotation.

No other Late Neolithic or Early Bronze Age features are known. However, the pit fill was virtually indistinguishable from the natural sands into which it had been dug, and the probability must remain of other features of this period which have eluded discovery.

#### 4.4. Iron Age and Romano-British Settlement

The 1998 Watching Brief revealed the ground plan of a small post-built round-house, yielding a small quantity of handmade Iron Age sherds which could date from the Early or Middle Iron Ages. This was located on slightly higher ground well to the south-west of the main focus of Late Iron Age and Romano-British occupation, and appears to have been unenclosed (Fig.3). Further evidence which might indicate settlement before the major expansion of the late first century BC/early first century AD was obtained during the latest phase of excavation - most notably, from two curvilinear gullies to the east of the pipeline which were cut by Romano-British features and yielded small quantities of handmade Iron Age pottery similar to that recovered from the early round-house (Fig.4: Phase 1 [orange] gullies adjacent to trench G). It is hoped that detailed analyses of the finds from excavated features will clarify the extent and character of settlement during this period, although many traces of early activity are likely to have been obliterated by Romano-British occupation.

Most of the excavated features at Moor Pool Close date from the Late Iron Age and Romano-British periods, during which time there developed a large and complex settlement with associated fields. The eastern margin of the settlement coincides with the outer edge of the north-eastern palaeochannel. Numerous Romano-British pits and some linear features were cut into the upper channel fills, penetrating occasionally the extensive lower dark organic silty clay layer (5004), suggesting that the channel, although still possibly a marshy depression, had infilled substantially by this period (Fig.5). Abundant associated pottery, together with the occasional coin and item of

metalwork, indicates a date range for this settlement mainly from the late first century BC/ early first century AD to the fourth century AD, although occupation may not have been continuous over these five centuries. The sealing of Romano-British features and deposits on lower-lying parts of the site by layers of alluvium, noted above, implies that the site could have been abandoned eventually in response to progressive flooding - a fate which has been suggested for a variety of other Romano-British settlements in the Middle and Lower Trent (e.g. Gonalston, Notts.: Elliott and Knight 1997).

One of the most significant features of the site is the unexpected depth of stratified deposits which had accumulated over the four to five centuries in which occupation was concentrated (Figs 5-6: layer 5011; Plate 2). The manually excavated trench through the central baulk to the east of the pipeline revealed a profuse quantity of Late Iron Age and Romano-British finds, mainly pottery (from the first 50mm spit of this 20x5m trench, immediately beneath topsoil, a staggering total of almost 1500 potsherds). One of the most significant discoveries in this trench was a group of broken Romano-British *tegula* fragments, which appeared to have been deliberately placed at this location (Plate 2). This was interpreted as the floor of an *in situ* Romano-British hearth, and supports the argument that much of the sub-ploughsoil finds-rich layer could represent stratified Romano-British occupation deposits. This conclusion is supported by the discovery in trench 100 of a probable clay floor, also just below topsoil, and by the discovery close to the *tegula*-floored hearth of at least two other hearths, one at a lower depth within the finds-rich layer (1479) and the other located at the interface between this layer and the sands of the Floodplain Terrace (1480).

No building foundations were observed within the stratified deposits recorded beneath topsoil. However, the discovery of hearths and a probable clay floor suggests houses or other structures, relating probably to later Roman activity, whose foundations had not penetrated deeply. This argument may be supported by the extensive roof-tile fragments which were recovered from sub-ploughsoil layers. These could represent rubbish deposits brought from somewhere else, but it seems more likely that they had derived from roofed buildings whose foundations had left no discernible trace. The upper spits of the 20x5m manually excavated trench were removed carefully with the aim of locating such traces, but without success. Traces might have survived elsewhere, but only meticulous hand excavation over a large area could be expected to reveal these.

It was not possible to investigate more than a small proportion of the features revealed during stripping within the time available for excavation. It was decided, therefore, to excavate box trenches across widely dispersed features in order to obtain finds which could clarify the structural development and functions of the site and samples for palaeoenvironmental analyses. A definitive site phasing must await the completion of specialist analyses of the large number of stratified pottery groups which were recovered, together with occasional finds of stratified metalwork, but a provisional division into five major phases may be suggested on the basis of the observed stratigraphic and spatial relationships between features (Figs 3-4). Stratigraphic relationships between the key elements of these phases and other features suggest further sub-divisions, the most significant of which are described briefly below.

### **Phase 1: Unenclosed Settlement. (Figs 3-4: orange).**

The earliest phase of settlement for which evidence has survived is represented by the Iron Age post-built round-house which was identified on a low sandy rise c.0.2km to the south-west of the main focus of Late Iron Age and Roman settlement. No traces survived of associated boundary features, and there is a strong possibility that in this earliest phase the settlement had been unenclosed. It remains unclear how many other features might date from this early period. A thin scatter of undated pits and post-holes, some conceivably of this phase, was located in the vicinity of the post-built round-house. In addition, at least two curvilinear gullies recorded within the main occupation focus to the east of the pipeline could date from this phase of 'open' settlement on the basis of their stratigraphic location beneath Romano-British features and the retrieval from their fills of Iron Age handmade pottery (Fig.4: gullies adjacent to trench G). Detailed analyses of ceramic assemblages from other features may yield additional features which could relate to earlier Iron Age settlement.

### **Phase 2: Rectilinear Boundary System (Figs 3-4: dark blue).**

A rectilinear arrangement of ditches, aligned mainly north-south and west-east, was recorded on the western side of the site. The marked regularity of the spatial arrangement suggests a coherent, albeit fragmentary, boundary system. Some ditches showed evidence of recutting during use, but machine and hand cleaning of key ditch intersections provided no evidence of significant fill variations - supporting the hypothesis, therefore, that these could represent the components of a contemporary boundary system. Some excavated sections yielded small quantities of Romano-British sherds, suggesting that they were open during this period, although regular cleaning could have caused bias towards pottery of later periods. With this proviso, we may suggest tentatively a Romano-British origin, but further more detailed analyses of the pottery are required to refine this chronology - and in particular, to establish whether any of these stratigraphically early ditches might, in fact, date from the Late Iron Age.

Evidence that this system should be attributed to an early stratigraphic phase is provided by the cutting of several of the west-east ditches by the northern arm of a subrectangular ditched enclosure which dominates the site plan to the west of the pipeline corridor (Fig. 4: yellow). Some of these ditches continued eastwards, beyond the enclosure ditch which truncated them, suggesting an extension of the boundary system across the low sand island which fringes the western alluvial zone and into the central alluvial basin. We may also identify several discrete features within the area demarcated by the Phase 3 boundary ditch which might have belonged to this early phase - all cut by ditches or gullies interpreted as contemporary internal divisions of the Phase 3 enclosure. These include several approximately west-east and north-south linear features which, in view of their spatial orientation, could represent an eastern extension of the proposed Phase 2 boundary system. In addition, a possible enclosure ditch to the south and west of structure 1312, cut by the south-west corner of a large subrectangular enclosure centred upon trench 103, could belong either to this or to an earlier phase. Unequivocal evidence for associated domestic buildings or other structures was not recovered, although several curving lengths of gully cut by the Phase 3 enclosure ditch bear a strong resemblance to the drainage gullies associated with circular buildings. It remains to be established, however, whether such structures should be related to the Phase 2 boundary system or to a yet earlier phase.



### **Modifications of Phase 2 Boundary System (Fig.3: mid-blue and light blue)**

The fragmentary pattern of small rectangular fields which characterises Phase 2 was modified later in the Roman period by the construction of the massive Phase 3 enclosure, discussed below, and by several changes in the layout of the boundary network to the west and south-west of this enclosure. This is demonstrated most convincingly by the cutting, near the western edge of Phase 3A, of one of the main west-east ditches (1220) by a NW-SE ditch (1208: Fig.3). The latter may represent a continuation of a NW-SE ditch located by V.Priest during the 1998 Watching Brief, and hence could indicate that the more southerly boundary system was constructed at a later date (Fig.3: mid-blue). Further evidence that the northern and southern boundary systems on the western margins of the site are chronologically successive is provided by their very different orientation. The reasons for this change of alignment must remain a matter for speculation, but the positioning of the later NW-SE boundary ditch parallel with both the infilled western palaeochannel and the terrace edge could relate to land-use contrasts between the floodplain, with its rich pasture resources, and the slightly higher and better drained terrace area. More frequent flooding of the lower lying areas, implied by the palaeochannel stratigraphy described above, might also have prompted significant changes in the spatial arrangement of boundary features – indicated perhaps by the construction of a NW-SE ditch following closely the terrace edge, 15-30m to the east of the earlier field boundaries, and cutting two SW-NE ditches (Fig.3: light blue).

### **Phase 3: Western Enclosure (Figs 3-4: yellow)**

One of the most striking elements of the post-excavation plan is a substantial subrectangular ditched enclosure, demarcating an area of c.1.2ha to the west of the pipeline corridor. Its southern arm extended c.16m east of the pipeline corridor before veering south beneath the haul road investigated by V. Priest in 1997. A north-south line of pits, terminating at the north-eastern palaeochannel, may mark the eastern boundary of this enclosure, but, despite a plethora of pits to the north of this point, no obvious northern continuation may be observed. The northern extension of the ditched enclosure to the west of the pipeline is lost beneath Cottam Power Station, to the north of Torksey Ferry Road. As noted above, several ditches which it is suggested form part of the Phase 2 boundary system were cut by the Phase 3 enclosure ditch, implying significant landscape reorganisation - although some of the earlier fields could have remained in use (notably the sub-square enclosure projecting from the south-west corner of the Phase 3 enclosure)

The Phase 3 enclosure ditch was linked stratigraphically to a complex system of subrectangular and sub-square internal ditched enclosures. The fills of these features merged indistinguishably with that of the enclosure ditch, and are interpreted provisionally as contemporary internal compounds. The long sides of these inner enclosures had a predominantly west-east orientation, and commonly abutted west-east linear ditches projecting at right angles from the enclosure ditch. This creates a strikingly regular pattern of ditched boundaries, reminiscent of the enclosures associated with the well-known brickwork plan field systems of north Nottinghamshire (Garton 1987), although further detailed analyses of the structural relationships and finds associations are required before the validity of these parallels may be assessed.

Some of the internal compounds contained penannular or annular ditches or gullies, enclosing areas up to c.10m diameter, which could represent drains or bedding trenches around circular buildings or other structures such as stack-stands (Fig.4: red). Other curvilinear features which could represent the truncated remains of circular structures were also recorded. None of these curvilinear features, it should be stressed, could be linked stratigraphically to the internal enclosures, and hence any suggested association may be entirely fortuitous. In addition, one subrectangular enclosure with an entrance in the SW corner revealed traces of a possible rectangular structure defined by two steep-sided gullies, interpreted as bedding trenches, enclosing a c.2x3m rectangular area (Fig.4:1439). Again, however, this structure cannot be related stratigraphically to the enclosure ditch.

The presence within some enclosures of possible house sites could signify an association with occupation. Other possibilities include stock compounds, secure areas for the storage of grain and other agricultural products, and garden plots. Detailed analyses of the many soil samples taken from features attributed to this phase may clarify the range of possible functions, while full analyses of the associated finds will hopefully clarify the potential date range. On present evidence, we may assume a Romano-British origin for this system, but more precise dating is not yet possible.

#### **Phase 4: Eastern Enclosure (Figs 3-4: dark green)**

The next major stratigraphic phase is represented by another large subrectangular ditched enclosure, demarcating an area approximately 60m wide by at least 110m long and of internal area at least 0.6ha. In common with the Phase 3 enclosure, the northern boundary is lost beneath Cottam Power Station. The western enclosure ditch truncated a host of linear features which may be associated with the Phase 3 boundary system, and on current evidence appears to represent a fundamental reorganisation of settlement on the easternmost of the sand islands which form the Floodplain Terrace. It is tempting to suggest a shift in the focus of settlement in the later Roman period towards the higher ground of the easternmost sand island, in the face of the increased flooding which is implied by the sealing of Romano-British layers beneath alluvium. A preliminary assessment of the surface finds suggests that this may be too simplistic an interpretation, and that occupation may have continued in lower-lying areas to the west of the enclosure in the later Roman period. If so, we might imagine a final phase comprising an inner and outer enclosure. This raises the possibility of significant intra-site variations in function - a matter which cannot be resolved at present, but which may be addressed by reference to the spatial distribution of finds and environmental analyses of samples from feature fills.

The eastern enclosure preserved evidence of at least five major internal compartments, possibly in use at the same time in view of the regularity of the arrangement. The entrances to these were invariably located on their eastern sides, overlooking the low marshland which in the Roman period may have occupied the former palaeochannel. It seems likely that this low-lying area would have provided high quality pasture, and hence the east-facing entrances would have been ideally located for the driving of stock towards or away from this resource. Further evidence which might support the argument for a link with stock management is the pronounced inturning of several enclosure entrances: a device which might have expedited the funnelling of stock into the enclosure.

It is difficult, without further analyses of associated finds, to identify other features which might have been in use at the same time as the eastern enclosure. The pit alignment, which it is suggested

could have originated in Phase 3, may have continued as an integral component of this later phase in view of its spatial relationship to the eastern boundary ditch. The line of pits runs parallel to the eastern enclosure ditch, raising the possibility that it had defined the downslope edge of a c.8-10m wide driveway running northwards to the infilled palaeochannel - an area presumably of rich pasture and possibly also an important stock-watering area. Several large pits in this area could have served as ponds, although for much of the year the area may have been occupied by standing water.

The interior of the enclosure preserved a high density of intercutting features, indicating a complex stratigraphic sequence which on present evidence appears to have spanned the full period of occupation. Some of the many annular and penannular drainage gullies or bedding trenches which were recorded within the area demarcated by the enclosure ditch could mark the locations of contemporary houses or of specialised structures such as stack-stands, but further discussion of the internal organisation of the enclosure must await specialist analysis of the associated pottery. Particular attention may be drawn to an unusual four-post structure which was recorded in the SW corner of the enclosure. This was defined by an approximately square setting of four substantial post-holes, placed centrally within a small subsquare ditched enclosure (1238) cutting an adjacent annular gully (1237; Plate 4). The functions of this structure remain to be established, but possible interpretations include a granary or a rectangular platform upon which hay or fodder could have been stored.

Many of the internal structures which were recorded undoubtedly relate to earlier or later phases of activity. It has been suggested above that at least two stratigraphically early curvilinear gullies in this area might date from the Phase 1 'open' settlement. In addition, a large sub-square ditched enclosure immediately east of Ponsford's trenches sits uneasily within one of the internal compartments of the enclosure (Fig.4: purple). This could not be related stratigraphically to the Phase 4 enclosure, and an earlier date may be indicated by the substantial quantities of Late Iron Age pottery which were recovered from box trenches across it. The identification of Phase 2 features to the east of the pipeline is difficult without removal of the baulk beneath this and the identification of stratigraphic linkages, but several ditches, shown in Fig.4, demarcate enclosures which apparently continue the proposed pattern of rectilinear enclosures abutting west-east linear ditches. In addition, a substantial L-shaped ditch projecting from the eastern side of the pipeline corridor to the east of Challis's trench 03 may join with ditches to the west of the pipeline which were cut by the Phase 3 enclosure; these ditches have been allocated tentatively to Phase 2, but the slightly eccentric placing of this subsquare 'enclosure' relative to the predominantly west-east linear features of Phase 2 could imply a difference in date.

#### **Phase 5: Rectilinear Enclosures (Figs 3-4: pink)**

A final stratigraphic phase may be postulated to the east of the pipeline corridor, where excavation revealed a regular arrangement of shallow narrow gullies, surviving only intermittently. Excavated lengths revealed steep-sided profiles suggesting that they might have been dug as bedding trenches - perhaps as foundations for fenced enclosures. The gullies cut the Phase 4 enclosure ditch and all other features with which they were related stratigraphically, suggesting a date towards the end of the site sequence. Two parallel linear features to the south, projecting from the eastern baulk of the

pipeline corridor and also cutting the Phase 4 enclosure ditches, may demarcate a ditched trackway, leading west-east towards the pit alignment and the proposed pasture zone.

### **Iron Age and Romano-British Finds**

Abundant finds, dating mainly from the late first century BC/early first century AD to the fourth century AD, were recovered from the Late Iron Age and Romano-British settlement and the adjoining field system. These include approximately 15,000 Late Iron Age and Romano-British pottery sherds, together with large quantities of fired and unfired clay, daub, *tegulae* and other tile fragments, smithing slag, rotary querns, metalwork and coins. The metalwork is dominated by iron nails and other fragments, but a small proportion of higher quality products, including two copper alloy fibulae with surface tinning and red enamelled inlay, a copper alloy trumpet brooch with surface tinning or silvering and a blue enamelled disc, and several other copper alloy fibulae, suggest access to a range of higher status goods. The latter is implied also by rare exotic items such as a gilded jadeite pin and the significant quantities of Roman imported fine-wares which were recovered from the site, including samian, Nene Valley colour-coated wares and white wares. Other traded products, such as occasional fragments of Spanish amphorae and mortaria from the Mancetter-Hartshill and *Verulamium* kilns, or Millstone Grit rotary querns for which a Pennine source may be postulated, provide further important evidence of extensive trading linkages. The above finds provide, therefore, not only vital dating evidence but also a valuable source of information on the social and economic status of the site and its relationship to contemporary settlements in the Trent Valley and beyond.

Further valuable information on the site economy can be expected from the extensive samples which have been taken for charred plants and other palaeobotanical remains. Fewer data are available for reconstructing the animal husbandry regime, but the discovery of moderately well preserved fauna in a significant number of pits with waterlogged fills, mainly those cut into palaeochannel fill and sealed by alluvium, should permit more extensive discussion of the role of stock than is possible on the majority of Trent Valley Sites (Plate 7). The palaeoenvironmental remains are currently being assessed by James Rackham. Following this, decisions can be made regarding the main priorities for detailed analysis and research.

### **4.5. Post-Roman Activity**

No Saxon material and virtually no later medieval artefacts were recovered from the site, lending weight to the suggestion that occupation may have ceased towards the end of the Roman period, perhaps in the fourth century. The main focus of settlement appears to have shifted in the post-Roman period away from the Floodplain Terrace towards the higher land upon which the present village of Rampton is situated - away, therefore, from an area which appears to have become increasingly prone to serious flooding. Doubts remain regarding the extent of ploughing in the medieval period. The stratigraphy recorded on the western and eastern faces of the pipeline bank provides persuasive evidence, beneath modern topsoil, of a plough-formed layer, but this may relate to post-medieval rather than medieval ploughing. The environmental evidence for major alluvial accumulations above Roman levels suggests that the area may have been wet in the Post-Roman period, and hence better suited to pasture - a conclusion reinforced by the Tithe Map reference to this area as 'Moor Pool Close'. In addition, no traces have been observed in air photographs of the

site, or during excavation, of denuded ridge and furrow, thus supporting the argument for an emphasis in this area upon pasture. Improved drainage in the post-medieval period may have spurred further ploughing of some parts of the site, and hence caused some limited destruction of earlier archaeological deposits (*cf* Ponsford 1992, 91). However, the remarkable state of preservation of much of the site, with hearths and clay floors preserved immediately beneath the topsoil, suggests that over much of the site later plough penetration may not have been especially severe.

#### 4.6. Conclusions

The recent archaeological investigations have obtained data which should contribute significantly to our understanding of the Holocene environment of the Trent Valley, and in particular the process of alluviation. The discovery of a Late Neolithic/Early Bronze Age Beaker has provided an unexpected and important insight into early prehistoric activity in the lower Trent Valley, while the enormous quantity and diversity of Late Iron Age and Romano-British remains have major potential for furthering our knowledge of the society and economy of these periods.

##### 4.6.1. Holocene Environmental Change

Two palaeochannels with significant potential for elucidating the Holocene environment of the Trent Valley have been recorded at Rampton, both buried beneath the alluvial deposits which overlap the Floodplain Terrace. The channel stratigraphy revealed in three sections across the north-eastern channel has been recorded in detail, with extensive sampling of contexts likely to preserve significant organic remains. These samples are currently being analysed by D. Shimwell and R. Gregory, and should shed important light upon the valley environment as the channel sediments accumulated. Radiocarbon samples from a black silty clay layer with significant preservation of organic remains which was recorded towards the base of the channel should provide crucial dating evidence for the basal fills, while a *terminus ante quem* for the upper channel layers is provided by Romano-British pits and ditches which were shown to be dug into them.

##### 4.6.2. Alluviation

Excavations at Rampton have also provided important evidence for the relationship between archaeology and alluvium - an issue which over the last ten years has emerged as particularly crucial for our understanding of the impact of man upon the environment of the Trent Valley (*cf* Knight and Howard 1995). The sections across the north-eastern palaeochannel and the edge of the Floodplain Terrace provided unequivocal evidence for the burial beneath several layers of alluvium of Romano-British features and a significant depth of occupation deposits rich in Late Iron Age and Romano-British finds. A similar stratigraphic sequence, with brown alluvial clays overlying late Iron Age and Romano-British features and occupation deposits was observed in the central alluvial depression, to the west of the pipeline, and along the interface between the western alluvial zone and the Floodplain Terrace. This stratigraphic sequence provides important confirmatory evidence for extensive post-Roman alluviation in the lower Trent Valley - evident at nearby sites such as Littleborough, Notts., and argued to reflect the impact of extensive clearance and agricultural intensification upon surface runoff and hence erosion levels. (*ibid.*, 16-17; *cf* Buckland and Sadler 1985, 248).

#### 4.6.3. Beaker Burial

The discovery in a pit cut by a Romano-British ditch of a complete Late Neolithic/Early Bronze Age Beaker, most probably from a burial, is of considerable interest in view of the rarity of comparable finds elsewhere in the Trent Valley (Plate 1). The best parallels from Nottinghamshire are two intact Beakers and fragments of another, all probably from burials, which were found during recent excavations at Girton (Kinsley and Jones 1999, 64-5). Further afield, parallels may be sought with vessels accompanying burials at Aston-on-Trent, Derbys. (Reaney 1968; Knight 1998, 32) and Catholme, Staffs. (Losco-Bradley *et al*, forthcoming) and, even more rarely, the components of domestic assemblages such as that recorded beneath an Early Bronze Age barrow at Swarkestone Lowes (Greenfield 1960). The Rampton Beaker adds significantly, therefore, to our currently very limited knowledge of Beaker ceramic traditions in this region. It provides also an intriguing glimpse into activity on the site during a period for which we otherwise have no significant evidence.

#### 4.6.4. Iron Age and Romano-British Settlement

Assessment of the stratigraphic relationships between Iron Age and Romano-British features has permitted the construction of a provisional site sequence, commencing with a possible 'open' settlement in the Early/Middle Iron Age (Phase 1). The bulk of the occupation, based upon a preliminary assessment of the finds, may be attributed to the Late Iron Age and Romano-British periods – from the late first century BC/early first century AD to the fourth century. An early rectilinear field system, modified significantly during use, has been postulated on the western fringes of the site (Phase 2). Components of this early boundary system are cut by the south-western corner of a large subrectangular enclosure lying mainly to the west of the pipeline corridor (Phase 3). This may represent a modification rather than a replacement of the proposed Phase 2 system, and appears to have been divided internally by several west-east ditches linked stratigraphically to a system of smaller rectilinear enclosures. The eastern boundary of the Phase 3 enclosure could be demarcated by a pit alignment running north-south along the eastern margin of the site, but its northern boundary is lost beneath Cottam Power Station. The next major phase of reorganisation may be represented by a large subrectangular enclosure located on the Floodplain Terrace adjacent to the north-eastern palaeochannel (Phase 4). The boundary ditch truncated several ditches which may represent internal divisions of the Phase 3 enclosure, and it could either have replaced the earlier enclosure or divided the enclosed area into two main compartments, each subdivided internally. The Phase 4 enclosure also appears to be related spatially to the eastern pit alignment, which could have defined the eastern boundary of a trackway leading to the lowlying and probably poorly drained area corresponding to the infilled palaeochannel – perhaps a corridor, leading to rich pasture and water, along which stock could have been led. A final phase may be represented by a rectilinear pattern of narrow gullies cutting some components of the Phase 4 enclosure to the east of the pipeline (Phase 5). These could signify a late system of small fenced enclosures, suggesting some reorganisation of the main settlement focus adjacent to the north-eastern palaeochannel – perhaps in response to increased flooding?

Many questions remain regarding the scale of settlement and the economic and social status of its inhabitants. However, the internal organisation of the two large enclosures suggests that during the

later Roman period, if not earlier, the site may have been occupied by a community significantly larger than the extended family groups which could be postulated for the majority of Romano-British rural settlements in this region (Knight and Howard 1995, 79-80). We might envisage, therefore, a settlement of 'village' rather than farmstead status, perhaps occupying a tier in the settlement hierarchy between the small farmsteads which are especially common on the Trent gravels and the more prosperous villa sites such as Epperstone or Cromwell, Notts., and 'small towns' such as *Ad Pontem*, also in Nottinghamshire. Comparatively few parallels may be cited elsewhere in the Trent Valley, with the most notable exception of the remarkable 'polyfocal' cropmark complex at Besthorpe, Notts. (Howlett 1993; Whimster 1989, 77; cf also cropmark sites at SK785572 and SK792567: *ibid.*, 81). The site, therefore, is potentially of fundamental significance for our understanding of Late Iron Age and Romano-British settlement in this region. Further detailed stratigraphic analyses and studies of associated artefacts are required to test the above hypothesis, and of course to establish a definitive phasing. Particular attention needs to be focused upon the dating evidence for the many possible house structures which have been recorded, for upon this hinges our interpretation of the likely size of the community during any one phase. Examination of the artefacts and environmental samples should also permit a detailed assessment of the site economy and the interrelationships between Rampton and other settlements in the region, as well as allowing consideration of changes in the economic and social status of the site over time.

Another remarkable feature of Rampton is the thick artefact-rich deposit which survived beneath topsoil over an area correlating broadly with the main focus of occupation. This incorporated stratified Romano-British hearths and clay floors at several levels, most notably in the central baulk to the east of the pipeline, and hence cannot be dismissed as merely a mixed layer created by later plough action. Further convincing evidence that this layer had accumulated during occupation was provided by the trench sections revealed during manual excavation of the central baulk. These showed unequivocally that some Romano-British features had cut through this deposit, while others were sealed by it. The material incorporated within this deposit could have derived from a variety of sources, including domestic or industrial hearths (layers of black, grey and orange ash; concentrations of charcoal; spreads of smithing slag), demolished buildings (*tegulae*, other tile fragments, stone rubble and daub) and domestic middens (pottery, broken querns, bone *etc.*), while the deposit could have been augmented further by the addition of manure and other organic waste. Several baulk sections showed ashy layers, recorded at the very base of this deposit, to overlie directly a subsoil layer, interpreted as the remnant of the original subsoil. Examination of key baulk sections by Dr. M. Canti of the English Heritage Ancient Monuments Laboratory confirmed this interpretation, and raised the possibility that some of the overlying deposit could represent an artificially created soil. It is possible that in some areas continued cultivation in the Late Iron Age and Romano-British periods of the sandy soils of the Floodplain Terrace would have caused significant soil loss through erosion, and hence may have encouraged the farming community to build up artificially the soil by the addition of manure and other organic waste. The source of the mineral component of this putative artificial soil is more problematic, but one possibility is the incorporation of wind-blown sand. The recent excavations provided graphic evidence for the accumulation of substantial depths of wind-blown sand deposits in sheltered environments in windy conditions – for example, against hedges – and, assuming extensive Romano-British cultivation, aeolian sands could have provided a steady source of soil raw materials. Kubiena samples have been taken from several baulk sections, with the aim of investigating this hypothesis by micromorphological analysis, and the results are awaited with interest.

## 5. REPORT ON PROGRESS AND EXPENDITURE

### 5.1. Progress on Archaeological Fieldwork and Post-Excavation

Archaeological fieldwork has been completed on all parts of the site, with the exception of the pipeline corridor dividing Phases 3B and 3C. In addition, significant progress has been made in the following post-excavation tasks:

**Context, photographic, drawing and sample records.** The documentary records which were compiled on site have been copied, checked and revised where necessary. All written records have been inputted to an Access database, preparatory to further analysis. Original drawings have been copied and checked for errors. All colour slides and colour prints have been processed and checked, and have been transferred to photographic ring-binders suitable for long-term museum storage.

**Pottery.** Most of the approximately 15,000 sherds which were recovered during the 1999 Watching Brief, from trenches 100-106 and from subsequent excavation have been washed and marked. It is estimated that this essential initial processing will have been completed by the end of May 2000, together with packaging in boxes suitable for long-term museum storage. A preliminary list of sherds recovered from the Watching Brief and trenches 100-106 has been prepared, to which have been added notes on significant ceramic types and probable date ranges. Work has yet to commence on a detailed archive catalogue of the Romano-British and Late Iron Age pottery from the site.

**Other Artefacts.** These include the Beaker pot, querns and other stone artefacts, slag, tiles, coins, ironwork, copper alloy artefacts and miscellaneous metalwork. Most miscellaneous finds from the Watching Brief, trenches 100-106 and full excavations have been washed and marked (excluding slag); it is estimated that all washing and marking will have been completed by the end of May of this year. Preliminary list of finds have been compiled, but specialist archive catalogues and reports have yet to be prepared. The non-ceramic finds have been grouped by material type for storage, and have been packaged in cardboard boxes of a standard suitable for museum deposition. All fragile finds, mainly those of iron or copper alloy, have been conserved and packaged appropriately, while radiographs have been prepared for all iron finds.

**The north-eastern palaeochannel** Samples from the north-eastern palaeochannel were collected by R. Gregory and D. Shimwell, and are currently being processed and analysed at Manchester University. Samples from the lower peaty layer of the north-eastern palaeochannel have been submitted to Beta Analytic for radiocarbon dating. The palaeochannel stratigraphy was recorded in collaboration with R. Gregory, and it is expected that a detailed report on the channel sequence, together with full analyses of the environmental samples recovered from the channel and other related contexts will be prepared on the basis of funding already allocated by the Company to Manchester University. The stratigraphic records have been checked by the writer, and digitised versions of drawn sections and plans have been converted to CAD drawings. Some of these drawings are reproduced in this report, and provide a valuable foundation for interpretative analysis.



**Other environmental samples and faunal remains.** Samples for flotation have been submitted to J.Rackham for processing and assessment. This work is currently timetabled to commence in July of this year. Following assessment and the submission of detailed costings, decisions can be made on the full extent of analysis.

## **5.2. Project Budget**

The current budgetary position for Phase 3 is summarised below.

### ***Total Sum Allowed for Phase 3:***

Watching Brief and Evaluation Excavations = £20,000

Full Excavations = £46,450

Post-excavation and Report = £62,000

Total = £128,450

(The above sums are to be adjusted according to changes in the RPI from the date of the agreement: August 1997).

### ***Total Invoiced:***

Watching Brief and Evaluation Excavations: = £21,243.75 (includes 6.22% RPI)

Full Excavation = £49,338.75 (includes 6.22% RPI)

Total = £70,582.50 (includes 6.22% RPI)

### ***Total to be Invoiced:***

£62,000, to be adjusted for changes in RPI since 27.8.97  
(assuming 6.22% RPI = £65,856)

***Total Expenditure to 18.4.00*** (on excavation and post-excavation archiving) = £125,712

***Total Sum Remaining*** (assuming 6.22% increase of RPI) = £70,582.50 + £65,856 - 125,712 =  
£10,726.50

## ACKNOWLEDGEMENTS

Gratitude is expressed to Lafarge Redland Aggregates Ltd for funding archaeological work at Rampton, and in particular to the Quarry Manager, Mr. A Perkins, and Mr. D. Atkinson. Mr. J. Walker monitored the excavations on behalf of the Company, while Mr. M. Bishop, assisted by Ms. U. Spence, monitored the work on behalf of Nottinghamshire County Council; all provided much valuable advice during the course of excavation. The Watching Brief was supervised for the Unit by Vicki Priest, and the excavations by Mark Southgate, both under the direction of the writer. Gerwyn Richards acted as Assistant Project Supervisor. The excavation team comprised Chris Baker, Emma Bayliss, Howard Brown, David Budge, Paul Caldwell, Ray Holt, Amy Hughes, Martin Lightfoot, Graham Murray, Lawrence Platt, Andrea Snelling, Robert Sussum and Paul Welsby. Steve Malone undertook preliminary surveying work and prepared CAD drawings of features and finds distributions during the course of the excavation. Adrian Butler of the University of Leicester Archaeological Services carried out a geophysical survey of the central baulk. Matthew Canti of English Heritage advised on the soils and took soil samples for micromorphological analysis. David Shimwell and Richard Gregory of Manchester University assisted in recording the palaeochannel stratigraphy and sampled selected channel contexts. James Rackham advised on the strategy for environmental sampling. Eileen Appleton supervised the finds processing, and Ruth Leary catalogued the Late Iron Age and Romano-British pottery. Irit Narkiss conserved the finds and prepared the radiographs. Pauline Beswick has provided an interim report on the Beaker. The figures accompanying this report were prepared by Graham Murray, with editing by the writer. Thanks must be extended finally to Keith Challis and Daryl Garton for information and advice provided during site visits. Daryl Garton also read and commented upon a draft of this report.

## REFERENCES

- Buckland, P.C. and Sadler, J. 1985. 'The nature of Late Flandrian alluviation in the Humberhead Levels'. *East Midlands Geographer* 8, 239-51.
- Butler, A. 1999. A Geophysical Survey at Rampton Quarry, Nottinghamshire. University of Leicester Archaeological Services, Report No. 99/140
- Challis, K. 1990. Rampton Quarry: Excavations, Summer 1990. Trent & Peak Archaeological Trust, University of Nottingham.
- Elliott, L. and Knight, D. 1997. 'Further excavations of an Iron Age and Romano-British settlement near Gonalston, Nottinghamshire' *Transactions Thoroton Society Nottinghamshire* 101, 67-72.
- Garton, D. 1987. 'Dunston's Clump and the brickwork plan field systems at Babworth, Nottinghamshire'. *Transactions Thoroton Society Nottinghamshire* 91, 16-73.
- Gilbert, D. 1996a. Report on the Archaeological Watching Brief on the Line of Two Pipelines across the Late Iron Age and Romano-British Site at Rampton, Nottinghamshire, March-June 1996. Trent & Peak Archaeological Trust, University of Nottingham.
- Gilbert, D. 1996b. Report on the Archaeological Watching Brief conducted at Rampton, North Nottinghamshire, March-July 1996. Trent & Peak Archaeological Trust, University of Nottingham.
- Howlett, C.E. 1993. Archaeological Evaluation of Besthorpe Quarry, Newark, Notts.: Summary. Tempus Reparatum, Oxford.
- Kinsley, G. and Jones, H. 1999. 'Summary report on archaeological watching-briefs and excavations at Girton Quarry Extension, Nottinghamshire.' *Tarmac Papers* 3, 57-68.
- Knight, D. 1998. 'The Derby Southern Bypass'. *Current Archaeology* 157, 32-3.
- Knight, D. and Howard, A.J. 1995. *Archaeology and Alluvium in the Trent Valley*. Trent & Peak Archaeological Trust, University of Nottingham.
- Greenfield, E. 1960. 'The excavation of Barrow 4 at Swarkeston, Derbyshire'. *Derbyshire Archaeological Journal* 80, 1-48.
- Losco-Bradley, S. Kinsley, G. and Guilbert, G. forthcoming. *Catholme, Staffordshire: Anglo-Saxon and Prehistoric Settlement on the Trent Gravels*. Nottingham Studies in Archaeology Monographs.
- Ponsford, M.W. 1992. A Late Iron Age and Romano-British settlement at Rampton, Nottinghamshire. *Transactions Thoroton Society of Nottinghamshire* 96, 91-122.

Priest, V. 1997. Interim Summary of Archaeological Investigations at Rampton Quarry, Nottinghamshire. Trent & Peak Archaeological Trust, University of Nottingham.

Priest, V. 1998. Second Interim Report on Archaeological Investigations at Rampton Quarry, Nottinghamshire. Trent & Peak Archaeological Trust, University of Nottingham.

Reaney, D. 1968 'Beaker burials in south Derbyshire'. *Derbyshire Archaeological Journal* 88, 68-81.

Whimster, R. 1989. *The Emerging Past. Air Photography and the Buried Landscape*. RCHME, London.

ENVIRONMENT  
18 MAY 2000  
DEVELOPMENT PLANNING

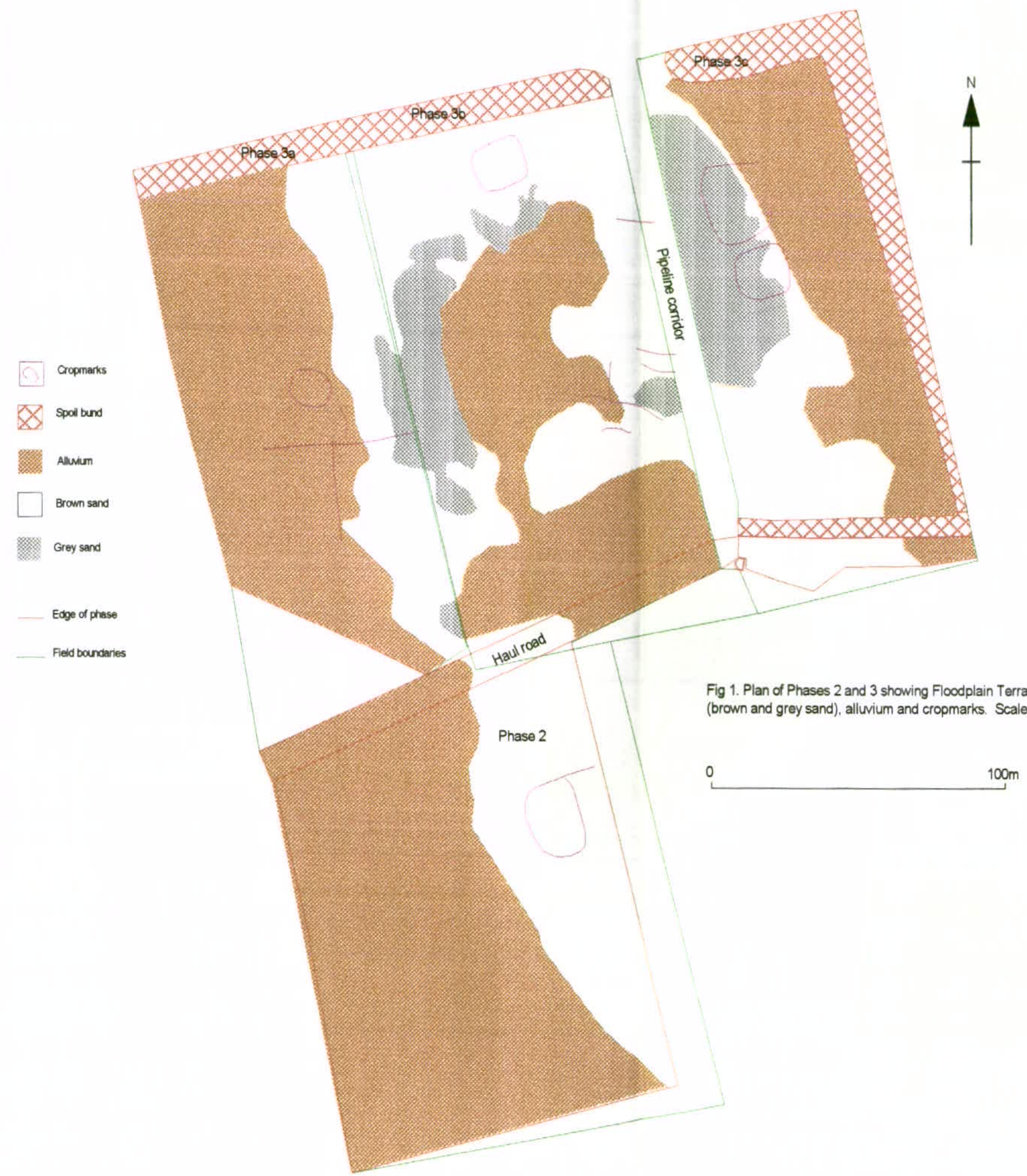
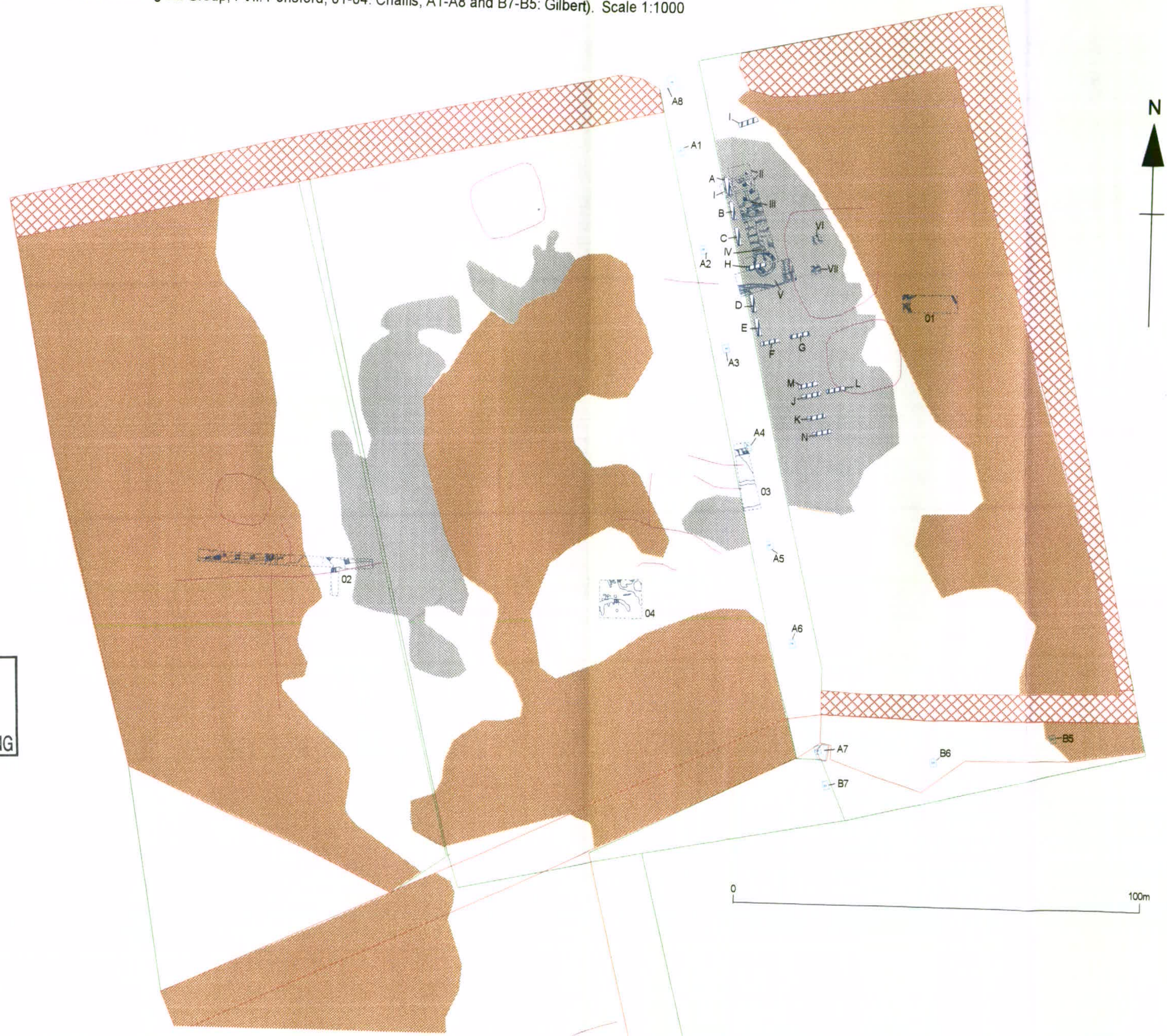


Fig 1. Plan of Phases 2 and 3 showing Floodplain Terrace (brown and grey sand), alluvium and cropmarks. Scale 1:2000









0 100m

Fig 2. Plan of Phase 3, showing cropmarks and archaeological trenches predating the excavations of 1999. (A-N: Retford Archaeological Group; I-VII: Ponsford; 01-04: Challis; A1-A8 and B7-B5: Gilbert). Scale 1:1000



ENVIRONMENT  
18 MAY 2000  
DEVELOPMENT PLANNING

ENVIRONMENT  
 18 MAY 2000  
 DEVELOPMENT PLANNING

-  Spoil bund
-  Old Trenches
-  Trenches 100-106
-  Alluvium
-  Brown sand
-  Grey sand
-  Approximate edge of palaeochannel
-  Edge of central bank











- Stratigraphic phases:
-  Phase 1
  -  Phase 2a
  -  Phase 2b
  -  Phase 2c
  -  Phase 3
  -  Phase 4
  -  Phase 5
  -  Miscellaneous structures (unphased)



Fig. 3. Plan of Iron Age and Romano-British features recorded in Phases 2 and 3  
 Scale 1:1500

0 100m

Fig 4. Detailed plan of main area of Late Iron Age and Romano-British settlement. Scale 1: 750.  
Key as Fig.3, with addition of possible Iron Age enclosure (purple)

0 50m

— Late Iron Age enclosure?



ENVIRONMENT  
18 MAY 2000  
DEVELOPMENT PLANNING



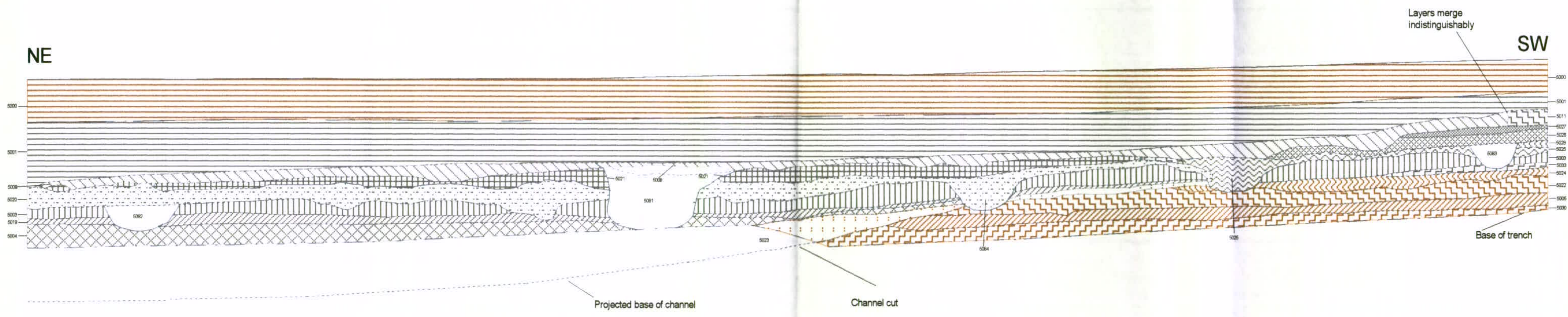


Fig 5. NW-facing section of the north-eastern palaeochannel, showing the relationship of channel deposits to Romano-British features and overlying alluvium (depth of channel estimated from SE-facing section of northern baulk across channel). Scale 1:50

ENVIRONMENT  
 18 MAY 2000  
 DEVELOPMENT PLANNING

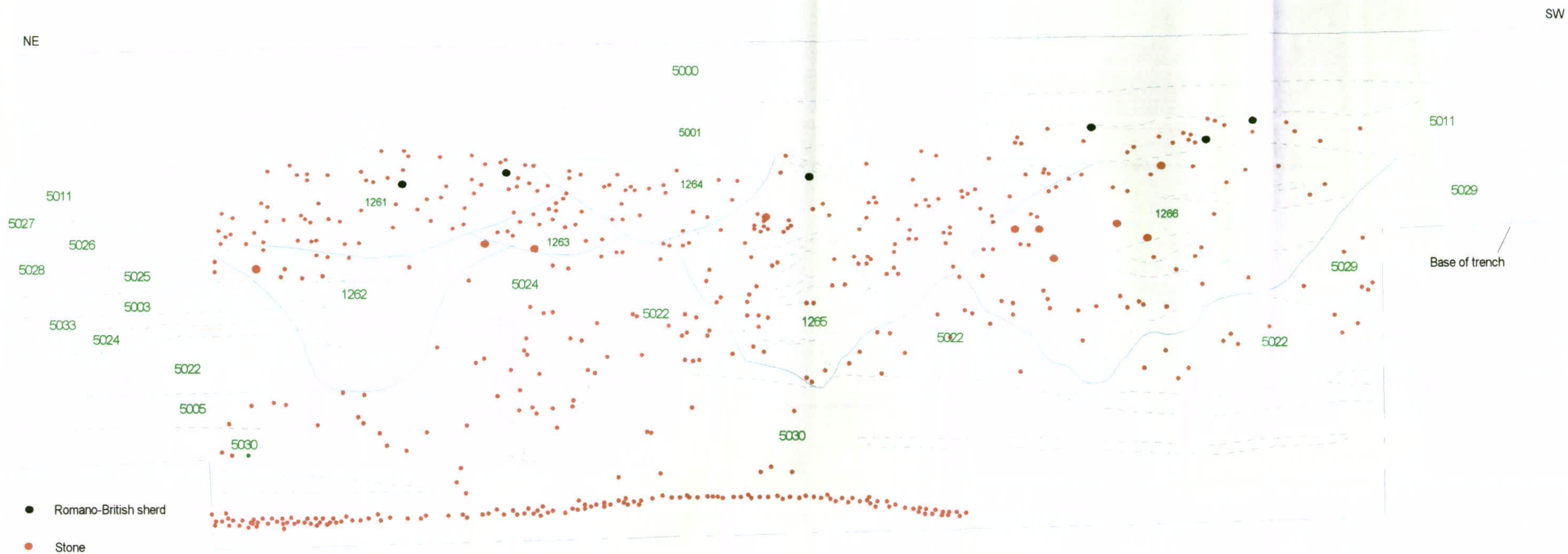


Fig.6. NW-facing section across linear ditches exposed in the northernmost box trench across the palaeochannel, showing their relationship to overlying alluvial layers (5000 & 5001) and the Romano-British occupation deposit (5011). Scale 1:20

ENVIRONMENT  
18 MAY 2000  
DEVELOPMENT PLANNING

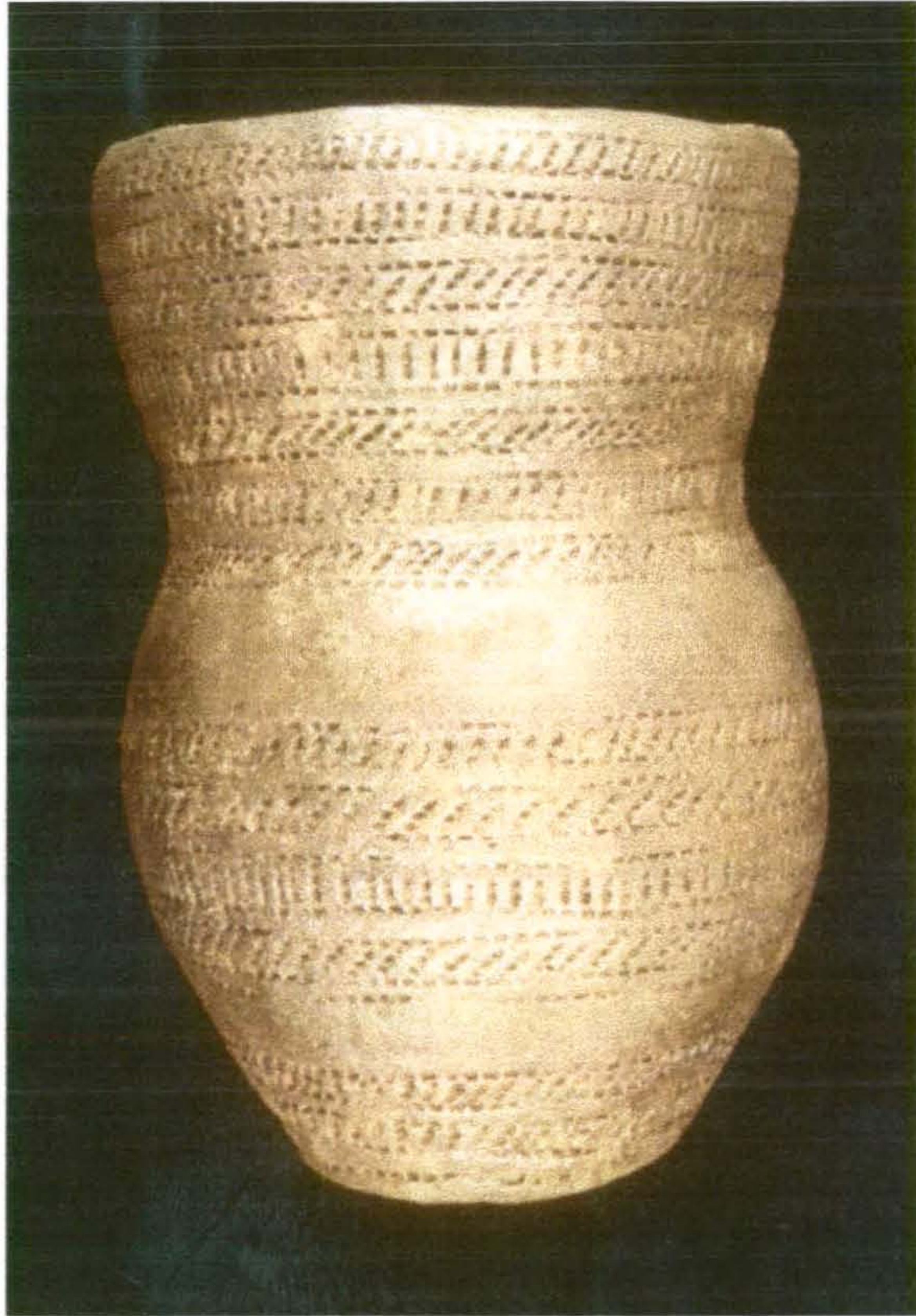


Plate 1. Late third millennium BC Beaker with geometric comb-impressed decoration (height 14cm)



Plate 2. Trench 100 and the western extension of this trench. Left: *tegula*-floored hearth revealed after machine-stripping of topsoil to west of trench 100; centre: trowelling of upper 50mm spit of western trench extension, showing concentrations of stone rubble, *tegula*-floored hearth and sherd distribution (finds labels); right: features revealed after removal of stratified occupation deposits



Plate 3. Excavation of drainage ditch encircling Structure 1285



Plate 4. Annular drainage ditch 1237 (background) cut by ditch of small subsquare enclosure 1238 containing four-post structure



Plate 5. East-facing section of ditches 1510 and 1511, showing toolmarks in base of 1511



Plate 6. West-facing section of ditch 1514, showing toolmarks in bottom of ditch

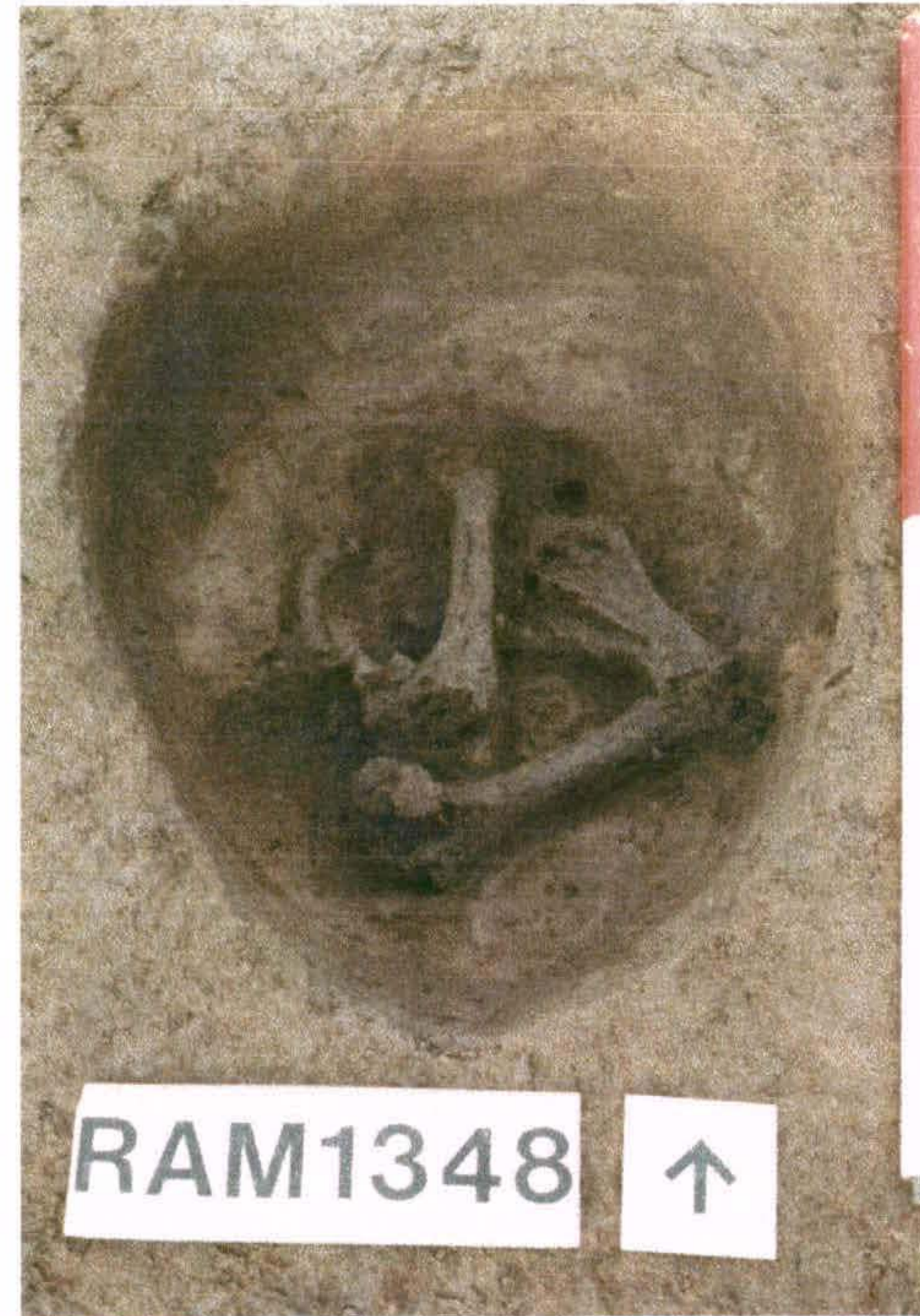


Plate 7. The north-eastern palaeochannel. Top left: view SE across channel and terrace-edge; bottom left: NW-facing section showing grey alluvial clays sealing Romano-British pits cut into channel deposits; right: sub-alluvial pit preserving faunal remains