



Ledbury Trunk Main

Archaeological Programme of Works

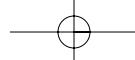
Section 1

PART ONE: Introduction

PART TWO: Archaeological Observation

PART THREE: Archaeological Excavation

- Access Pits (AP) 1 - 3



PART ONE: Introduction

The task of writing the exordium for a project of the magnitude contained within a Report of this complexity is a humbling process since it brings sharply into focus memories of the care, scale, depth of detail, commitment and perseverance required during the project from the beginning in order to bring it to a satisfactory conclusion.

The duty to faithfully and comprehensively include all the contributions of all those involved is one which is self-evidently important for the setting of context.

This Part One is intended as a concise summary of all the disparate factors that contribute to an archaeological project of this magnitude. Please note that specific archaeological detail on features, finds etc is contained within the later sections of this Report.

Large scale engineering projects such as long distance pipelines can often bring into focus the essential contradiction between the needs of progress and the finite often delicate nature of the archaeological resource. From a very early stage in the planning of this project, it was clear that the competing requirements inherent in the type of works would require careful programme-duration planning.

Our task quite clearly was to reconcile the disparate nature of these disciplines within an agreed framework of appropriately rigorous archaeological investigative criteria.

I hope you see, when reading this, ample confirmation of the achievement of that task by all the many people and companies involved as a group effort and enjoy the development of a narrative which will endure—hopefully in the form of further excavation by other generations—as a fitting testament to what we discovered.

Duration of the overall programme of works

The programme started at the northern end of the pipeline in May 2007 and all site work was completed at the southern end by November 2007.

The project was completed on time and within budget.

Setting the scene

The Ledbury Trunk Main works carried out by Laing O'Rourke on behalf of Dwr Cymru Welsh Water involved the laying of a new 14.5km long 355mm diameter ductile iron pipeline connecting the network at Bewdley Bank Reservoir outside Hereford continuing across the Lower Lugg and Frome valleys to terminate at Ledbury Town, the vast majority of this being achieved using open cut techniques but with four sections using horizontal directional drilling techniques (HDDT) and the substantial excavation herein described being consequent from the HDDT from Yarkhill to Canon Frome in the Frome valley, at which point the programme of archaeological mitigation ceased.

Following the initial statutory consultations undertaken by Laing O'Rourke, Julian Cotton

Ledbury Trunk Main Refurbishment Scheme



Archaeological Advisor Herefordshire Council replied in November 2005 that “*there could be substantial archaeological implications to the scheme specifically in relation to the buried prehistoric landscape of the Lugg Valley and the Roman settlement to the S of Stretton Grandison with additionally the potential of risk to a Scheduled Ancient Monument*”.

A consequent meeting at Laing O'Rourke offices in Hereford examined the route in detail and clarified the recommendation for archaeological observation to be maintained along the pipe route in two of the three engineering phases with the third roadworks phase (thus not included in this Report nor the subject of any archaeological intervention) from Staplow not being officially regarded as of archaeological interest.

Subsequent route identification by Laing O'Rourke allowed clarification by Border Archaeology of the extant archaeological resource revealing the existence of more than 30 sites of archaeological or historical interest along the route, notwithstanding the roman settlement to the south of Stretton Grandison and the Scheduled Ancient Monument to the east of the A417.

One of the initial beneficiaries of this combined approach of Laing O'Rourke and Border Archaeology to ‘preservation by avoidance’ wherever feasible by engineering solutions was that the remains of the former Gloucestershire and Herefordshire Canal were by-passed or re-routed or avoided in two locations near Sutton St Nicholas by the application of another engineering solution, following detailed site examination by Border Archaeology.

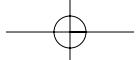
Subsequent detailed meetings in early 2007 at Border Archaeology’s Leominster offices with Herefordshire Archaeology were held to formulate the general details of intervention, mitigation and observation.

Concurrent with and integral to this internal investigative process, discussions had taken place with Mr. Tony Fleming, Inspector of Ancient Monuments (English Heritage – West Midlands Region) as to the scope of relevant factors that should be considered to facilitate the submission of an application—and the determination thereof—for scheduled monument consent (SMC) for the insertion of a new pipe along side the extant facilities that traverse the area of a defended settlement enclosure at NGO SO 6350 4320 (SAM Herefordshire 330), the particular designated engineering method being the same directional drilling techniques as aforementioned both beneath and through the site in order to minimise disturbance to the ancient monument.

Specific Archaeological and Historical Background to the Scheduled Monument, the settlement and its environs

The specific area requiring SMC reflects the section of water mains pipeline that extends approximately 80m in length, with the remainder of the scheme pipeline extending either side.

This enclosure is situated immediately to the east of the A417, approximately 200m south of the River Frome, between the villages of Stretton Grandison to the north and Ashperton to the south, and forms a component within the wider area of the Roman urban settlement of Stretton Grandison, as designated in the archaeological assessment carried out by HWCAS as part of the *Central Marches Historic Towns Survey* (Buteux, 1996). This area was identified by the CMHTS as containing buried archaeological deposits of ‘high potential’ (Buteux, 1996, 1).



Ledbury Trunk Main Refurbishment Scheme



The place-name element *Stretton*, denoting 'a settlement on a Roman road', clearly attests to the presence of a Roman settlement in this area (Coplestone-Crow, 1989).

However, the topography and historical development of the Roman urban settlement of Stretton Grandison remain obscure. Although a certain amount of archaeological work had been carried out since the late 1960s, in terms of aerial reconnaissance, auguring and field walking surveys and archaeological observation of limited trenching, no detailed field investigations have been carried out on the site prior to the archaeological programme of works that are the subject of this Report.

Consequently, the prevailing state of knowledge regarding the origins, historical development and layout of the Roman settlement remained limited, which Border Archaeology's substantial programme of work within the area as a whole substantially augments.

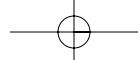
The archaeological evidence to date appeared to indicate that the settlement was a small town and local market centre, with evidence of possible industrial activity (Buteux, 1996, 2; Stanford, 1980, 90). The suggested identification of the site with *Epocessa*, listed in the 8th century *Ravenna Cosmography*, remains unproven (O'Donnell, 1999, 27).

The location of the Roman urban settlement within the floodplain of the River Frome means that there is a considerable degree of alluvial deposition across the area, particularly close to the river, where exceptionally well preserved archaeological deposits of Roman date appear to have survived in a waterlogged state, covered by up to 3m of alluvium in places (Buteux, 1996, 5). The depth of alluvial deposition appears to have protected Roman deposits on both sides of the river from disturbance in the form of ploughing and the excavation of land drains, but has also prevented the formation of cropmarks associated with linear features or structures that might afford a clearer picture of the full extent of the Roman settlement.

Further to the south of the Frome, the alluvial deposits are of a shallower depth and have been further reduced by modern intensive ploughing and land drainage. This has allowed the identification of road alignments and enclosures associated with the Roman settlement, in the form of crop mark features. However, this also means that the archaeological deposits in this area are less well protected and potentially have been considerably more disturbed than those closer to the river.

The origins of the settlement appear to be connected with its location at the junction of two roads, both probably of military origin and established at some point during the mid 1st century AD. One of these roads (SMR Ref. 2511) has been identified as running north from Gloucester via Dymock, along the line of the present A417, up to NGR SO 6360 4300, approximately 200m north of Blacklands Farm. The name 'Blacklands' (SMR Ref. 1752) denotes the presence of blackened earth and burnt deposits in the vicinity, indicative of intensive occupation (possibly including industrial activity) or a destruction event, presumably associated with the Roman settlement (cf. Blackwardine for similar placename evidence associating blackened soil with Roman occupation). However, the results of a watching brief for the foundations of a new stable at Blacklands Farm undertaken in 1997 revealed no evidence of Roman deposits (Hoverd, 1997).

At NGR SO 6360 4300, the modern road deviates from the line of the Roman alignment; aerial photographs clearly showing the northward continuation of the original Roman road through fields up to NGR 6355 4320 (**Plate 1**) where a short section of road is shown



Ledbury Trunk Main Refurbishment Scheme



branching off to the northwest (SMR Ref. 16778). This has been interpreted as representing the continuation of a road alignment extending northwest-southeast from the important walled town of Kenchester (*Magnis*); however, no evidence of a continuation of this road to the southeast, possibly heading towards Worcester, has yet been identified.

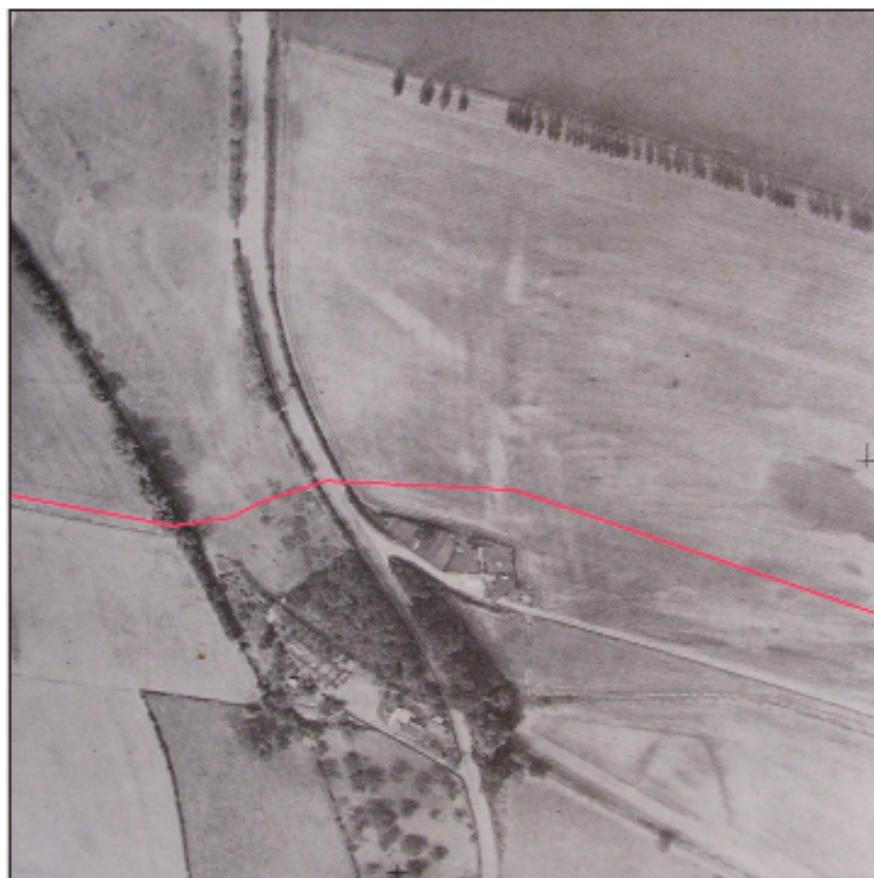
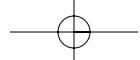


Plate 1: Aerial photograph taken in 1969 looking N showing Roman road junction and possible *mansio* site to N of Hereford Lodge at NGR SO 6355 4320, with red line marking the pipeline route superimposed by Border Archaeology (Reproduced courtesy of the National Monuments Record)

Located on a slight prominence approximately 250m to the east of this road junction, at NGR SO 6440 4330, a small Roman fort was constructed, probably in the pre-Flavian period (c. 50-60 AD). The earthworks of the fort (SMR Ref. 1745), a bivallate rectangular enclosure covering an approximate area of 4.8 acres, were still largely extant in the early 1880s and covered in dense woodland (Bull, 1882, 255; O'Donnell, 1997, 13).

However, subsequent tree clearance and intensive ploughing in the late 1960s resulted in the destruction of the surviving earthworks; although the outline of the defences was revealed as a cropmark visible from the air (Baker, 1970, 45-7). Fieldwalking was undertaken in the vicinity of the fort in 1970 and identified evidence of a wide scatter of Roman pottery, iron slag and building materials including tile and stone (O'Donnell, 1970, 7). The area of the fort was scheduled in 1975 (SAM Herefordshire 189).

Aerial photography has also revealed evidence of settlement activity in the immediate vicinity of the Roman road junction at NGR 6355 4320. Within an area to the north framed by the intersection of the two roads, an oblong shaped cropmark has been identified, which may well represent the outline of a structure. It has been suggested that the structure could be a *mansio*, or staging post, which one would normally expect at the intersection of two important



Ledbury Trunk Main Refurbishment Scheme



Roman roads (Baker, 1970, 45-7). Fieldwalking carried out in 1996 in the immediate vicinity of the cropmark recovered a sizeable number of Roman pottery sherds, including samian ware provisionally dated to the 1st century AD (Herefordshire Archaeology SMR).

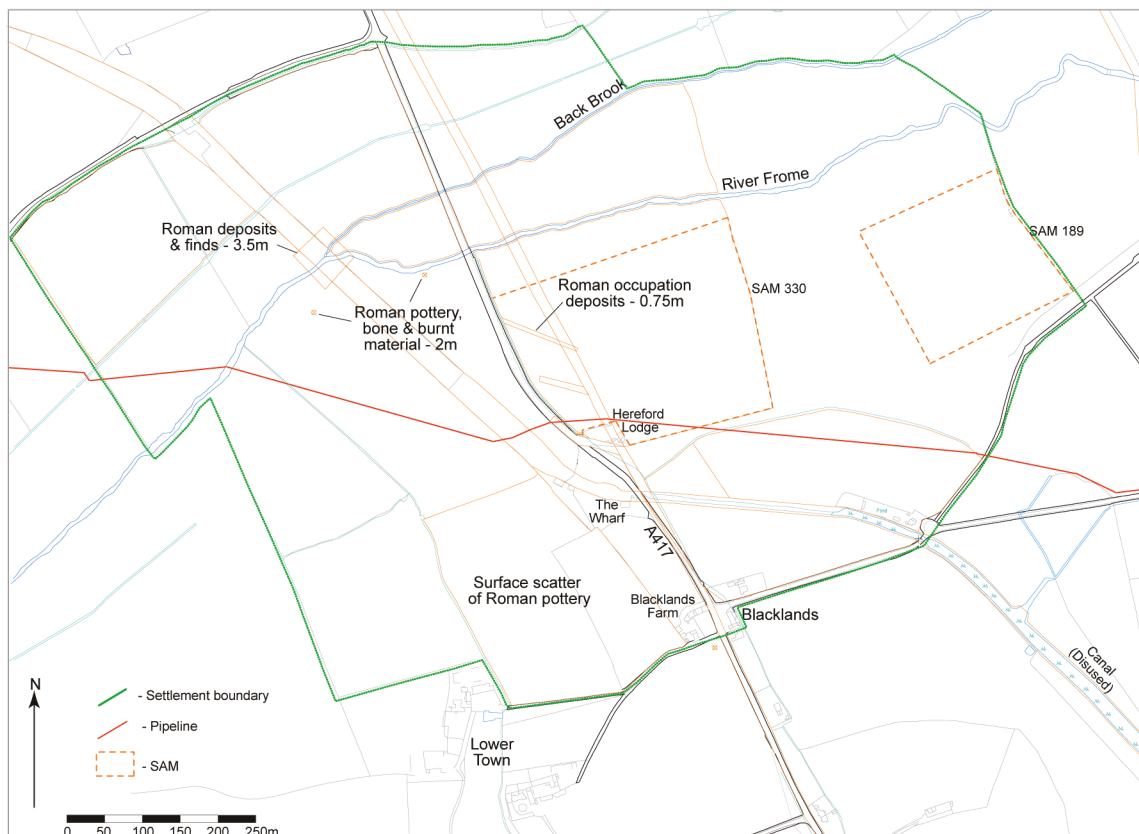


Fig. 1 Plan showing identified depths of archaeological deposits of Roman date across the area of the Roman settlement of Stretton Grange

The road junction and the possible *mansio* site appear to be located within the western half of a rectangular ditched enclosure lying immediately east of the modern A417 road, the outline of which was first identified from an aerial photographic survey carried out by J.K. St. Joseph in 1976. No further evidence of building plots within the limits of the enclosure has been identified from aerial photography, which was designated as a Scheduled Ancient Monument in 1979 (SAM Herefordshire 330).

However, several cropmark features comprising a series of pits and one unenclosed hut circle have been identified from aerial photography within the field immediately southeast of the enclosure at NGR SO 6390 4310 (SMR Ref. 7534), which may represent an outlying part of the Roman settlement or possibly traces of earlier prehistoric occupation. To the south of this field, several linear features have been identified from field observation in a plot immediately north of Blacklands (SMR Ref. 1751), but it is unclear whether they are associated with prehistoric or Roman occupation or if they are of a considerably later date. The route of the pipeline extends through the extreme southwest corner of the Scheduled Area of the Roman settlement enclosure, crossing the alignment of the Roman road extending north-south (SMR Ref. 2511) at NGR SO 6358 4315. This part of the enclosure had not been subjected to significant archaeological intrusion, in contrast to the northwest

Ledbury Trunk Main Refurbishment Scheme



portion of the enclosure adjacent to the A417, where, in 1982, the excavation of a section of trenching approximately 83m long aligned northwest-southeast for the insertion of a land drain revealed a quantity of Roman pottery among the spoil. Following this discovery, four small exploratory trenches (without Scheduled Monument Consent), were dug at intervals and at right angles to the trench, each measuring on average 0.35m wide and 0.75m in depth (SMR Ref 16769).

These exploratory trenches revealed a large quantity of Roman pottery (including samian ware), building materials including stone and tile fragments, bone fragments, oyster shell and nails within charcoal-rich deposits. Unfortunately, detailed records of the results of the excavation, carried out by a local enthusiast, do not appear to have survived. However, based on the extant excavation records, it would appear that Roman deposits in this area extended at least to a depth of 0.75m. It is significant that archaeological deposits within this area appear to be a considerably shallower depth, compared to the results of archaeological observations further to the west of the A417 road, closer to the course of the River Frome.

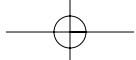
In 1842, significant Roman deposits were discovered during the excavation of a pit in the Budbury Meadow during the construction of an aqueduct over the Frome as part of the works of the Hereford and Gloucester Canal (SMR Ref. 1622). Towards the bottom of the pit, which measured 18m × 12m × 3.5m, a deposit of 'black soil' was encountered containing a large quantity of animal bones (mostly sheep, cattle and horses) together with fragments of decorated samian ware and various Roman coarse wares, a copper steelyard complete with weight and several gold bracelets (Bull, 1882, 255).

Archaeological deposits of Roman date were also found at a depth of 2m in two locations immediately south of the River Frome at NGR 6335 4315 and NGR 6309 4323, during a watching brief carried out by HWCAS on Welsh Water pipeline works in 1979 (SMR Refs. 16770, 16771). Beneath 2m of clean clay, archaeological deposits containing Roman pottery, animal bone and burnt material were identified, although it was not possible to determine the maximum depth of these deposits due to the presence of groundwater at varying depths.

Roman deposits close to this location and at a similar depth were encountered during a survey of the area carried out in 1989-90 by HWCAS as part of the Herefordshire Valleys Survey, which included the testing by auger of deposits within a sample transect in the alluviated area of the valley on the south side of the river. Roman remains were found, including possible ditch fill and occupation debris, beneath up to 1.7m of alluvium (Dinn & Roseff, 1992).

The apparently shallow depth of the archaeological deposits within the scheduled area of the settlement enclosure at NGR SO 6350 4320 may be explained by examining the evidence for the land use of the field in which it is located. Prior to the late 1960s, the existing field, which occupies an area of some 30 acres extending southwest from Canon Frome Court down to the A417, bounded to the north by the River Frome, was divided into two separate enclosures, both of which appear to have been used as pasture.

The boundaries of these fields are depicted on the OS 1st and 2nd edition 25 inch maps of 1885 and 1904 respectively and appear to be fairly long established, as they are shown essentially intact on the Canon Frome tithe map of 1838, forming two parts of a large area of pasture called 'The Lawn' extending southwest of Canon Frome Court (**Figs. 2 & 3**). At



Ledbury Trunk Main Refurbishment Scheme



some point before 1969, however, these long established field boundaries were removed to create a single large field, which was converted to arable and intensively ploughed, resulting in the substantial reduction or removal of the alluvial deposits that would previously have covered this area.

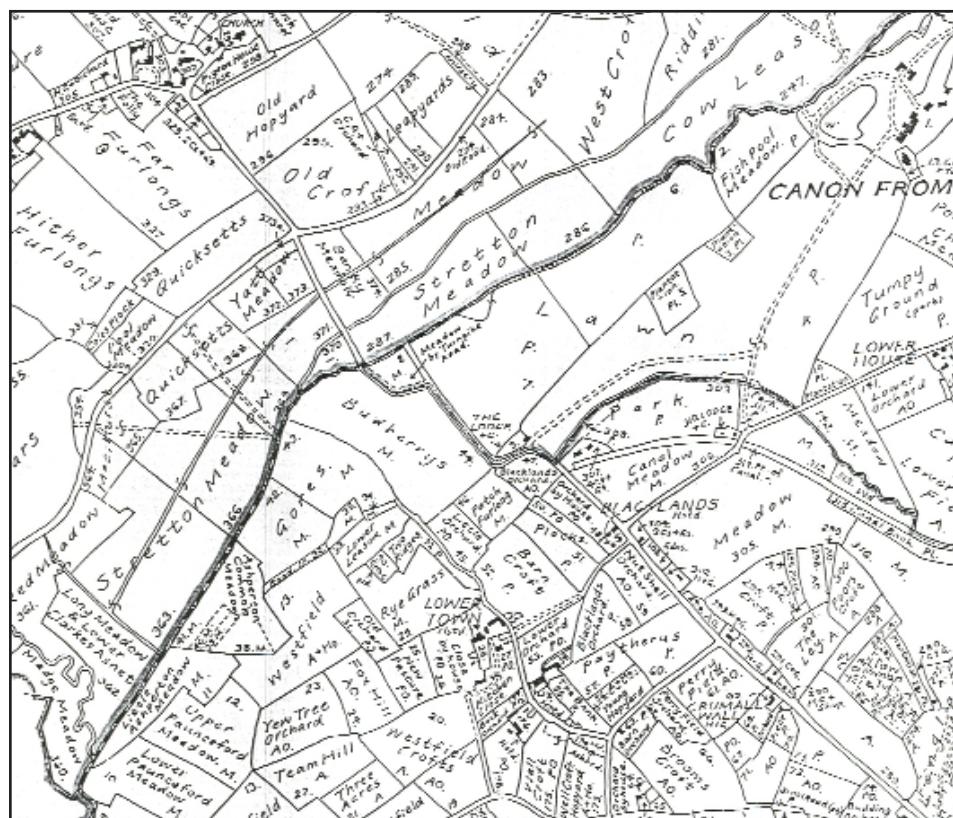


Fig. 2: Extract from Canon Frome tithe map of 1838 with the boundaries of the scheduled area of the settlement enclosure superimposed by Border Archaeology
(Reproduced courtesy of the Herefordshire Sites and Monuments Record)

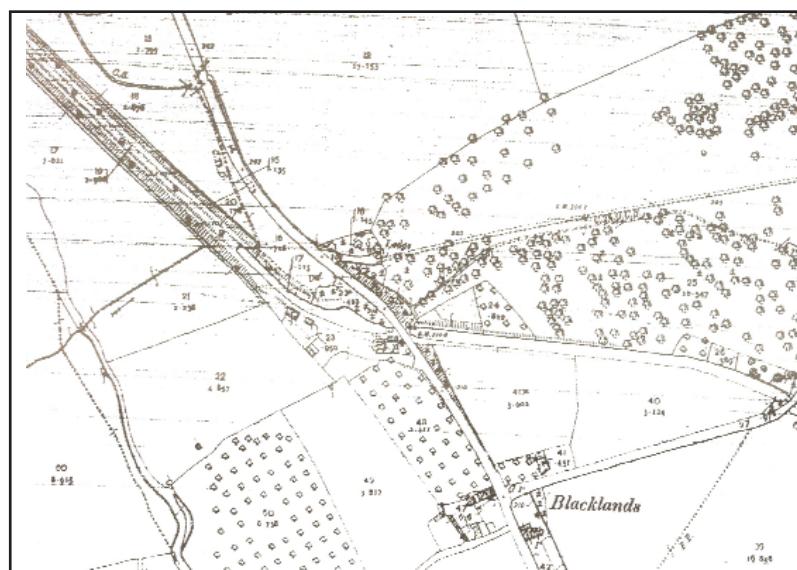


Fig. 3: Extract from OS 2nd edition 25 inch map of 1904 showing the long established field boundaries with the boundary of the scheduled area of the settlement enclosure superimposed by Border Archaeology
(Reproduced courtesy of the Herefordshire Sites and Monuments Record)



The archaeological landscape excluding the SAM and its environs along the pipeline route

The now buried pipeline traverses a complex multi-period landscape exhibiting evidence of human activity extending from the Palaeolithic (c. 500,000 -10,000BC) up to the most recent past.

The aforementioned 30 sites covered this spectrum of time, the earliest being Wergins Stone—the remains of a possible Neolithic (c.4000-2000 BC) chambered tomb—and significant evidence of Roman activity (c.AD 43-410) which includes the roman road to the east of the Bewdley Bank Reservoir and of course the roman settlement of Stretton Grandison whose furthest west delineation from the A417 marked the beginning of Border Archaeology's intensive investigations.

Significant medieval evidence was identified in advance within the locality of the pipeline route, in particular the close proximity of several deserted medieval settlements at Upper Lyde, Eau Withington, Nunnington and the 12th-13th century moated site at Yarkhill. The 19th century cutting of the canal and land drainage signifies the last substantial intervention in the landscape other than modern alterations in the farming landscape.

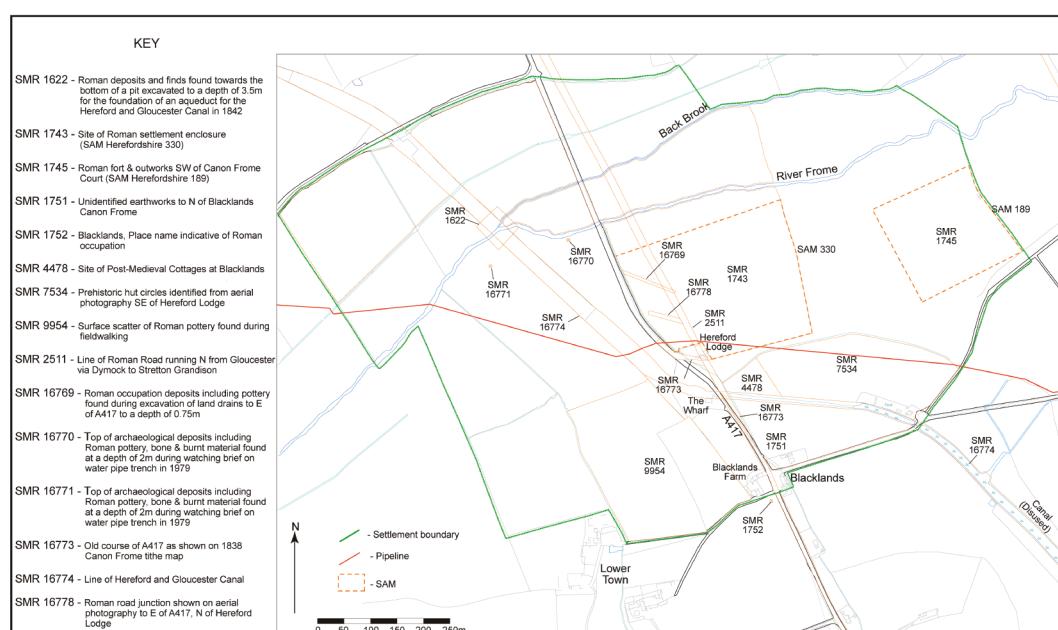
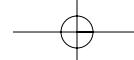


Fig. 4: Location plan of archaeological sites listed in the Herefordshire SMR in relation to the pipeline route in Stretton Grandison prior to the Border Archaeology programme of works being undertaken

It is obvious from these summaries that the amount of knowledge about the settlement outside the SAM was demonstrably constrained by lack of excavation evidence other than for the canal and more detailed information as to the extent of the settlement and it is within the context of this knowledge framework that the significance of the results contained within this Report can be fully appreciated.



Engineering Methodologies and Constraints along the pipeline route being a combination of open cut and directional drilling

Detailed examination of the entire route by Laing O'Rourke and Border Archaeology on behalf of Dwr Cymru Welsh Water permitted the matching of engineering methodology to the surrounding landscape and, where archaeological conditional requirements was paramount, then innovative operational arrangements were made to facilitate programmed engineering delivery in conjunction with archaeological needs.

A critical component of this approach was the close co-operation between the Laing O'Rourke design team led by Mr. Richard Codd and the management team at Border Archaeology, wherein the following elements were found to be integral to the development of the pipeline corridor:

Detailed cartographic examination of relevant records such as Ordnance Survey historic mapping and a walkover of the majority of those locations along the pipeline route where archaeology had been identified allowed the joint team to establish, with due consideration to engineering criteria for effective water delivery and archaeological sensitivities, a viable and as least intrusive a route as possible.

The results of this process confirmed the viability of the two distinct engineering methodologies in conjunction with site preparation:

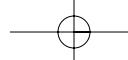
Open cut: the section of pipeline extending from the DCWW reservoir at Bewdley Bank (SO 48768 44737) to Withington (SO 56674 42709) was defined by a linear easement approximately 15m wide wherein initial groundworks comprising the stripping of topsoil/ploughsoil to a depth of c.0.3m were carried out to provide an operationally acceptable working surface.

Following the removal of topsoil, open-cut trenching was excavated by machine to the predetermined (maximum) engineering width of c.0.9m and a depth of c.1.4m along the line of the easement, except where the pipeline extends beneath the line of the Shrewsbury & Hereford Railway, the River Lugg and the A49, in which circumstances and locations limited directional drilling with substantial access pits were employed in these locations.

It was determined at an early stage that a programmed period of archaeology related delay was required and It should be noted that the intended purpose of this interval between the strip back and trenching phases of operation was to permit the detailed recording of the route surface to identify possible archaeological features for consequent excavation where applicable and for which separate contingent arrangements were made in advance.

An example of the intentional efficacy of this is the presence of a sub-circular enclosure and associated linear features—identified by aerial photographs collected from the NMR at Swindon and Cambridge University archives—within the pipeline route in Wergins Meadow. Additional research and discussion as to timetabling concluded, however, that it was advisable to move the pipeline marginally to avoid the feature and it was thus not investigated or disturbed.

Directional drilling: this was the preferred engineering method for the remainder of the pipeline route between Yarkhill (SO 59796 42231) and the Roman settlement located to the



Ledbury Trunk Main Refurbishment Scheme



south of Stretton Grandison (SO 64359 43070), with depths of up to 5m being achieved in alluviated areas adjacent to the River Frome.

A series of access/egress pits were excavated at minimum 96m intervals along this section of the pipeline route, the location of these pits having been specified in advance by DCWW/LOR

Where the pipeline route crossed the area of Roman settlement activity, up to and including the Stretton Grandison Scheduled Ancient Monument (SAM), all engineering pits were pre-excavated by Border Archaeology as a reflection of potential timetabling & operational constraints to establish the nature and depth of the likely considerable surviving archaeological remains and to record all extant features.

It should be noted that this later stage involved the laying of a replacement pipe in parallel to the extant one inserted some 30 or more years earlier.

A 25m-wide topsoil strip was carried out within this area of Roman activity prior to excavation to facilitate access, except within the SAM where no initial topsoil removal took place to minimise impact.

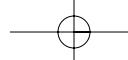
Scheduled Monument Consent

An application for consent was made and granted by DCMS for a preliminary excavation pit to determine archaeological depth and, consequent to the results being obtained and discussed with English Heritage, two engineering access pits were excavated within the Scheduled Monument to facilitate the directional drill through the site.

Weather and its impact upon the archaeological programme

The summer of 2007 was the wettest since records began in 1912 and the average rainfall across England of 140mm was more than double the June average and July was in Herefordshire even worse.





Ledbury Trunk Main Refurbishment Scheme



Plate 2 (Top): The river succumbs to torrential rain...

Plate 3 (Above): ...and the site is soon under water

The main excavation site at Stretton Grandison was flooded across its entirety twice, with maximum depths of over 3m within the trenches and an average 0.5m across the site (**Plates 2-4**).

The company's site offices located off an ironically named Watery Lane were flooded twice to desktop height, with the site toilets swept away.

Considering the aforementioned inclement conditions, the weather also delivered temperature extremes, with maximum site values in excess of 20 degrees centigrade above ground throughout much of the site excavation periods with the sheltered large excavation areas having temperatures at least five degrees higher.

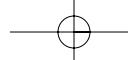
These temperature variations, confusingly, meant that the sites with this high clay content would bake hard and dry within 24-36 hours of precipitation ending thus occasionally obliterating ephemeral archaeological indicators.

Water table and waterlogged deposits

Considering all the above mentioned manifestations of heat and water, the over-riding physical constraint during the majority of the works programme was the high water table in the fields around Stretton Grandson and Yarkhill.

Due to the substantial and frequent torrential downpours, the average depth of the water table was only approximately 1m with the level dropping an additional 0.5m after a period of sustained sunshine.

Obviously, from an engineering perspective, this was an unfortunate and dirty inconvenience, but for the archaeologist, this made excavation and recording particularly difficult. These constraints were in the main cheerfully overcome to the backdrop of water extraction pumps



Ledbury Trunk Main Refurbishment Scheme



going throughout the working day but, in two locations where finds of considerable antiquity were discovered, it was simply impossible to extract the water ingress faster than its arrival, thus unfortunately impeding substantially detailed recording.



Plate 4: Views south and southeast towards Lower Town and the A417 showing AP4 in late June 2007

An eloquent demonstration of this is revealed by the fact that, even on a non-raining night, two 72 square metre pits 3m deep would fill up with to 2m with groundwater by morning. Despite this most variable of summer weathers only three working days were lost.

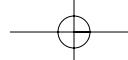
Summary of results

The following section is intended as a non-technical summary of the results of the works programme and a brief synopsis of the truly unexpected.

The programme of archaeological works undertaken by Border Archaeology can be subdivided for the purposes of this summary into two main phases:

Phase 1: Archaeological observation of topsoil strip and subsequent open-cut trenching operations between the DCWW facility at Bewdley Bank and Withington, and of access pit excavations between Yarkhill and the western perimeter of the Roman urban settlement located to the south of Stretton Grandison

Phase 2: Archaeological excavation of 13 engineering access pits situated within the designated area of the Roman settlement of Stretton Grandison to predetermine the nature and extent of the archaeological resource in advance of groundworks, including the excavation of two pits located within the Scheduled Area of the settlement immediately to the east of the A417.



Ledbury Trunk Main Refurbishment Scheme



Phase 1

Evidence was found for prehistoric, Roman and medieval activity, which included the following:

Evidence for prehistoric activity consisted of a possible flint flake found 150m north of Pipe Coppice, Pipe and Lyde, and the remains of worked wood fragments of possible prehistoric date found at a depth of 3.2m in trenching immediately W of the River Lugg, in Wergin's Meadow.

Roman activity along this section of the pipeline route was attested by scatters of Roman ceramics in the vicinity of Upper Lyde, Lower Lyde and Yarkhill, while possible evidence of medieval occupation was represented by isolated pottery scatters identified at Upper and Lower Lyde Farms and near Wergin's Meadow.

Phase 2

The programme of access pit excavations from Yarkhill to Canon Frome revealed significant evidence of prehistoric and Romano-British and early medieval settlement activity.

Evidence of prehistoric activity primarily consisted of two concentrations of worked wood fragments found at a considerable depth within Access Pits 2 and 5, which appeared to represent the remains of wooden hurdles or panels, constructed of alder and oak forming part of a larger structure, possibly a trackway over marshy ground or a fishtrap/weir. Radiocarbon dating of the wood fragments from AP5 yielded a date range of Cal BC 3930 to 3870 (Cal BP 5880 to 5820) and Cal BC 3810 to 3640 (Cal BP 5760 to 5590), indicating a late Mesolithic or early Neolithic origin for this particular structure.

Significant evidence of Roman settlement activity was found in the majority of the access pits excavated, with three main *foci* of occupation identified, in AP1 (to the northwest of the Frome), AP4 (to the south of the Frome) and in AP8 and AP9 within the area of a rectilinear enclosure immediately east of the A417 trunk road, designated as a Scheduled Ancient Monument.

The occupation features identified within AP1 consisted of series of domestic waste pits and postholes of uncertain function, as well as evidence for a metalled surface partially extending across the site, which, together with a significant assemblage of pottery and other domestic debris, appeared to be characteristic of a small Romano-British farmstead settlement; the date range for occupation extended from the mid 1st century through to the late 2nd-early 3rd century AD. The earliest evidence for Romano-British occupation was identified within waste pit [1012], which contained a sherd of a polychrome pillar bowl of Claudio-Neronian date.

The results of the excavations at AP4, on the south side of the River Frome, produced a highly significant body of results, representing several phases of occupation and burial activity in this area throughout the Romano-British and post-Roman/early medieval periods.

Features relating to the principal phase of occupation, dated to the 2nd-early 4th centuries AD, included the well-preserved remains of a stone-lined well shaft and a series of enclosure/drainage ditches, which may indicate the presence of a farmstead or villa complex in the immediate vicinity. Evidence for substantial grain-processing activity and a ceramic kiln further confirms the impression of a large, potentially high-status rural establishment.



A series of adult and neonatal burials appeared to be associated with these settlement features. Two of the burials were contained within wooden coffins, one of which, surviving in a remarkable state of preservation, was removed and subjected to a programme of detailed analysis and conservation. Analysis of the skeletal remains revealed that they represented a male aged over 46 years old and radiocarbon dating yielded a date of AD 10-210.

The random distribution of these early burials and their close proximity to the agricultural/settlement features suggests a localised, possibly familial grouping connected with a farmstead/villa complex, rather than an extensive, communal burial ground associated with a fully-fledged 'urban' settlement.

It should be emphasised, however, that the burials identified during this programme of excavations by no means represent the full extent of burial activity on this site; indeed, it is entirely possible that a significant proportion of burials still remain to be discovered.

The results from AP4 suggest there was a gradual decline in settlement activity from the late 3rd-early 4th century onwards, following which there was a phase of low-level occupation and burial activity which extended from the mid-4th century through to the middle of the 7th century.

These later burials were clearly distinguishable from the earlier phase of burial activity, and included the prone burial of an adolescent, which showed evidence of having been decapitated. The radiocarbon dating and the stratigraphic evidence indicate that this series of burials is likely to date from the late Roman or early post-Roman period (certainly later than c.340 AD and continuing up to c.550-650 AD).

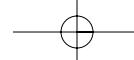
Several interpretations have been advanced for this later, post-Roman phase of burial activity, the most plausible being that it may represent a 'deviant burial ground' established on the fringes of a pre-existing cemetery site, of a type found quite frequently during the post-Roman period.

The excavations within AP8 and AP9, within the area of the defended enclosure to the east of the A417, identified evidence of prestigious occupation, represented by a significant concentration of decorated samian pottery suggestive of a high-status assemblage, CBM fragments and masonry remains indicating the presence of several substantial masonry buildings with tiled roofs and hypocaust floors, broadly dated to the late 1st-2nd century AD.

Evidence for significant cereal-processing activity within AP8 was also identified, which appeared to be associated with a composite structure identified as a corn-drying kiln, probably constructed in the early 2nd century and partially built over the top of an earlier well shaft.

These remains were interpreted as representing a high-status nucleation, the origins of which appear to have been associated either with the nearby Roman auxiliary fort near Canon Frome Court, or (more likely) the *mansio* or imperial posting station presumed to have been established at this important junction in the Roman military road network.

The presence of a substantial assemblage of decorated samian drinking vessels within AP8 might also have religious associations, implying the presence of a shrine or temple in the immediate vicinity, possibly forming part of the *mansio* complex.



Perhaps the highlights

There are a significant number of discoveries in our work but perhaps two can be singled for special mention.

The first—a 46+ year-old male revealed during our excavation in AP4—was adopted very rapidly as the iconic representation of the sheer quality and diversity of our findings and nicknamed ‘Lucius’, an appellation admittedly without specific confirmatory archaeological information but one that nevertheless endures. His discovery in a coffin was undoubtedly the “star event” even some two weeks before removal as we knew of its location but not function; it is a tribute to the personnel of the companies and their contractors involved in the works that a total news embargo was agreed and maintained until his safe removal, this being imposed to prevent out-of-hours visits from those with an non-archaeological agenda.

It is a considerable irony that the weather that so impinged upon our works overall on-site nevertheless assisted in the camouflaging of this major discovery by flooding on a nightly basis the initial evidence of the coffin.

We are particularly grateful to the advice and assistance of Ian Panter of York Archaeological Trust and John Carrot of Palaeoecology Services for their advice and on-site assistance in the early stages of the removal of both ‘Lucius’ and his coffin. An early decision was made by Border Archaeology that the coffin was not going to be sawn into sections to facilitate removal but, at whatever cost, it was to be removed intact.

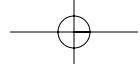
Shown below (**Plates 5-9**) are photographs of its removal undamaged and preserved. It is interesting to consider when viewing these photographs that the preparation to remove took one and a half days, ‘Lucius’ took half a day and the coffin, when finally released from its “preservative mud”, only an hour to lift and pack in polyethylene film.

We believe that the significance of these finds can be regarded as being of *national importance*, with the wooden coffin being amongst only three complete of its age, form and function ever found in the United Kingdom, the other two being excavated in Holborn London.

The second concerns the wooden stakes found in Access Pit 5 on the Stretton Grandsion excavation approximately 100m from the main works at Access Pit 4 (**Plate 10**). Whilst a much more detailed narrative is provided elsewhere within this Report, one startling fact is worthy of brief mention.

These, being in the age range between 5760 and 5590 years old, are of truly astounding antiquity and are among the earliest ever found in the UK almost rivalling those found in the Somerset levels and, interestingly, predate many of the Egyptian pyramids.

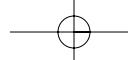
Such antiquity should perhaps be viewed within the perspective that man has been demonstrably occupying, using and adapting this local landscape of Herefordshire for nigh on 6000 years.



Ledbury Trunk Main Refurbishment Scheme



Plates 5-9: The coffin is released stage-by-stage from its 'preservative mud' and packaged securely for the journey to York Archaeological Trust's conservation laboratories



Ledbury Trunk Main Refurbishment Scheme

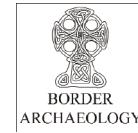


Plate 10: Vertical photograph showing position of stakes identified in AP5 (marked with pins).

Community awareness, public meetings and acknowledgements

A major pipeline project across much of North Herefordshire was never going to go unnoticed, but, from the start, two complementary policies were adopted, namely, that there would be, at Border Archaeology's instigation, public dissemination of the results of whatever importance and in whatever medium that circumstances dictated and that, if important remains were discovered, including and especially inhumations, there would be no publicity until such works were completed. As mentioned in the previous section, this latter policy was comprehensively observed. This substantial public dissemination policy was implemented in the following way and is, we believe, markedly more comprehensive than anything else done regionally, this being:

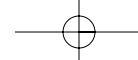
An informative glossy brochure created and written by Border Archaeology summarising the completed site works and its preliminary results was hand-delivered to all dwellings in the neighbouring villages of Stretton Grandison, Ashperton and along Watery Lane in Yarkhill, as well as being placed in local libraries and tourist offices.

Six public meetings were held between autumn 2007 and summer 2009 providing an illustrated lecture summarising the results and significance of the excavations followed by a Question and Answer session, these being:

An invitation only evening attended by the press for 90 people in Ledbury shortly after the cessation of fieldwork

Two public evenings organised by Ashperton Parish Council for more than 300 people attended by the press

Annual Archaeological Symposium at the Courtyard Theatre Hereford organised by Herefordshire Council



Ledbury Trunk Main Refurbishment Scheme



Local society meeting in Malvern

Annual Environmental Officers liaison meeting in Cilyfynnd organised by Dwr Cymru Welsh Water (DCWW)

Institute of Water Officers meeting in Nelson organised by officers working for DCWW and Laing O'Rourke

Acknowledgements and appreciation

This last element is perhaps the most difficult, since it will almost certainly involve unintentionally leaving out the contributions of someone whose efforts were central to all our efforts and to you I apologise in advance.

An engineering and archaeological undertaking of this scale, detail and distance succeeds or fails on the quality and commitment of those involved and the following individuals and companies deservedly merit our collective appreciation. Our thanks particularly go to:

Dwr Cymru Welsh Water for recognising the importance of our discoveries and to graciously funding extra research excavation

And...

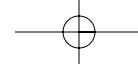
Richard Codd of Laing O'Rourke without whose wit and engineering talent the project would have been much the lesser

Dwr Cymru Welsh Water

Peter Childs
Richard Curtis
Fiona Jehu
Dusi Thomas
Jeff Morgan

Laing O'Rourke

Andrew Swift
Steve Baker
Chris Bastock
Phil Brookfield
Dave Curd
Alan Dadswell for Richard Rees and Partners
Mark Jones
Neil Redmond
Mark Rowley
Mike Stokes
Graham Walker
and the various site teams along the route

**Ledbury Trunk Main Refurbishment Scheme****English Heritage**

Lisa Moffet
Tony Fleming

Herefordshire Council

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Judy Stevenson

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Martin Morgan
James Price
and the staff

University of Durham

Charlotte O'Brien
Jennifer Jones
Anwen Caffell
and the staff at the Environmental Laboratories

Palaeoecology Research Services Ltd

Deborah Jacques
John Carrott

Pottery specialists

Jane Timby
Felicity Wild

Coffin Preservation

Ian Panter
Conservation Laboratories
York Archaeological Trust

Glass

Hilary Cool

Bone objects

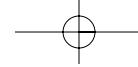
Nina Crummy

Coins

Adrian Popescu
Fitzwillian Museum
Cambridge

Flint

Adrian Evans & Randolph Donahue
Lithic Microwear Research Laboratory
University of Bradford



Ledbury Trunk Main Refurbishment Scheme



Geoarchaeology

Mike Allen

Allen Environmental Archaeology

Thanks also to...

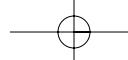
Peter Lawley for making Lucius' 'second coffin' on site on the day
 Martin Field Ashperton Parish Council

And finally, my gratitude and appreciation to the staff at Border Archaeology without whose commitment (especially in such appalling weather conditions) and involvement this whole archaeological enterprise and its revelations of what lies beneath a fraction of the fields of Herefordshire would not have been possible:

George Children
 Stephen Priestley
 James Archer
 Michele Bithell
 Will Logan
 Tom Wellicome
 Ross Shurety
 Nicola Hancox
 Jude Children
 Daniel Morgan

I hope that in reading the rest of this Report you find the full results almost as fascinating as we found making them and trust that this contribution to the archaeology of Herefordshire will engender debate and further research in the future.

Neil Shurety
 Summer 2009



PART TWO: Archaeological Observation

2.1 Landscape overview: Soils and geology

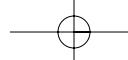
The complex multi-period landscape traversed by the pipeline is dominated by the alluviated valleys of the rivers Lugg and Frome and, in terms of soils and geology, can be characterised as follows, according to the *Soil Survey of England and Wales* (1983) classification.

An area of typical argillic brown earths overlying reddish till extends from the DCWW covered reservoir at Bewdley Bank in the direction of the A49 and River Lugg. These brown earths are of the ESCRICK 1 series (571p) and are composed of deep well-drained reddish coarse loamy soils, some similar soils with slowly permeable subsoils and slight seasonal waterlogging and some slowly permeable seasonally reddish fine silty soils.

Continuing east towards the A49 and entering the Lower Lugg valley to the south of Moreton-on-Lugg, the pipeline traverses typical argillic brown earths of the BROMYARD series (571b) overlying Devonian reddish silty shale, siltstone and sandstone. These consist of well-drained reddish fine silty soils over shale and siltstone, with some similar soils with slowly permeable subsoils and slight seasonal waterlogging and some well-drained coarse loamy soils over sandstone.

The pipeline then runs due east through an area of typical stagnogley soils of the VERNOLDS series (711k), characterised as slowly permeable seasonally waterlogged reddish silty soils overlying reddish till, continuing in an easterly direction towards the line of the Hereford to Shrewsbury Railway, crossing typical alluvial gley soils of the HOLLINGTON series (811c), consisting of deep stoneless reddish fine silty and clayey soils, variably affected by groundwater, overlying reddish river alluvium.

The pipeline turns southeast at the railway line towards Eau Withington, where it crosses typical argillic brown earths of the BROMYARD series (571b) (see above). Approaching Yarkhill, the pipeline enters the floodplain of the River Frome, which is characterised by typical brown alluvial soils of the LUGWARDINE series (561d). These consist of deep stoneless permeable reddish fine silty soils with similar coarse silty soils locally associated with fine silty soils variably affected by groundwater overlying reddish river alluvium.



2.2 Introduction

Border Archaeology carried out a comprehensive programme of archaeological observation covering all ground disturbance activities taking place outside the perimeter of the Roman urban settlement located to the south of Stretton Grandison, the settlement itself being the subject of a separate programme of archaeological mitigation detailed in Part Three. The engineering groundworks included:

- 1) Removal of topsoil to a depth of 0.3m along the pipeline corridor, excluding those sections, between the DCWW facility at Bewdley Bank (NGR SO 48768 44737) and the termination of the open-cut section of the scheme at a point located on the A4103 immediately to the north of Whitestone Business Park at Withington (SO 56547 42637)
- 2) Subsequent excavation of open cut trenching into the exposed subsoil deposits; and
- 3) Excavation of engineering access pits at c.100m intervals along that section of the pipeline extending from the road junction to the west of Yarkhill (SO 59775 42246) to the termination of the scheme at a valve chamber located to the southeast of Canon Frome Court (SO 64267 43068).

2.2.1 Aim of the archaeological observation

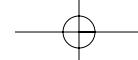
The aim of the programme of archaeological observation was to locate, record and, where deemed necessary, further investigate any archaeological remains revealed during the course of the groundworks and to confirm that no impact on the archaeological resource occurred without recording

2.2.2 Methodology

The observation of groundworks was carried out in accordance with guidelines set out in the Institute for Archaeologists *Standard and Guidance for an archaeological watching brief* (1994, revised 2001). Border Archaeology adheres to the *IfA Code of conduct* and *Code of approved practice for the regulation of contractual arrangements in field archaeology* and additionally to Herefordshire Archaeology's *Standards for Archaeological Projects in Herefordshire (Issue 1)* (Herefordshire Council, 2004).

Full written, drawn and photographic records were made using pro forma record forms and sheets, these being in accordance with Border Archaeology's *Site Recording Manual*. Where appropriate, plans, sections and elevations were produced at scales of 1:50, 1:20 or 1:10 on pro forma gridded archivally stable polyester film; artefact details were recorded at an appropriate scale. All plans, elevations and sections contain grid and level information relative to OS data and are numbered and listed in a drawing register, these numbers being cross-referenced to written site records.

A comprehensive photographic record of all stratigraphic units has been made using a high-resolution digital camera. This comprises record views of contexts, samples or artefacts, together with a representative photographic record of the progress of site works. All photographic records are indexed and cross-referenced to written site records. Details concerning subject and direction of view are maintained in a photographic register, indexed by frame number.



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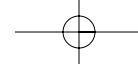
Location information is given as both a national grid reference (obtained using GPS) and a written description.

2.2.3 Results of archaeological observation

The results are presented map-by-map in the following format: map showing pipeline route, topographical description of that section of the route of the topsoil strip, results of archaeological observation of topsoil strip, including description of material found and historical context, results of open-cut trenching with discussion of significant findings

The results of the archaeological observation are presented in tabular form as an Appendix to this report (part five, **appendix 2**). Negative findings are recorded in the results column as No Archaeology Identified (NAI). Significant findings (as deemed according to the criteria below) are presented in bold and a brief description of the results given, with a more detailed discussion provided.

For the purposes of this report, significant archaeology is defined as that which is likely to contribute to archaeological knowledge within a local, regional, national or international context. Generally, unstratified remains or those commonly found and of recent origin are not considered archaeologically significant; however, it is recognised that unstratified items or remains may be of high intrinsic value, in which case these will be retained. Areas where the archaeological observation did not locate finds or features of significance are given limited stratigraphic relationship descriptions within the table. Further information regarding areas where no archaeology was located will be retained in the site archive.



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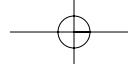


2.3 Topsoil strip & open-cut trenching (Bewdley Bank-Withington) DCWW/LOR scheme maps 1-5

2.3.1 General introduction

Topsoil was removed by machine and toothless ditching bucket to a depth of 0.3m along the length of the pipeline corridor between Bewdley Bank and Withington. The exposed land surface measured approximately 8m wide and was systematically scanned in 50m blocks for archaeological features/deposits and finds. Removed material was deposited along the edge of the excavation area and this was also scanned for finds.

Trenching excavations were carried out following completion of the topsoil strip. Open-cut trenching was excavated by machine to a predetermined engineering width of 0.9m and to a depth of 1.4m, excepting where the pipeline extended beneath the River Lugg, in which case limited directional drilling with substantial access pits was employed. The resulting information is presented on a map-by-map basis and comprises 1) a detailed topographic description of the pipeline route, 2) the results of the archaeological observation of the topsoil strip area with accompanying interpretative discussion and 3) a tabular presentation (**part five, appendix 2**) of the results of the open-cut trenching observations.



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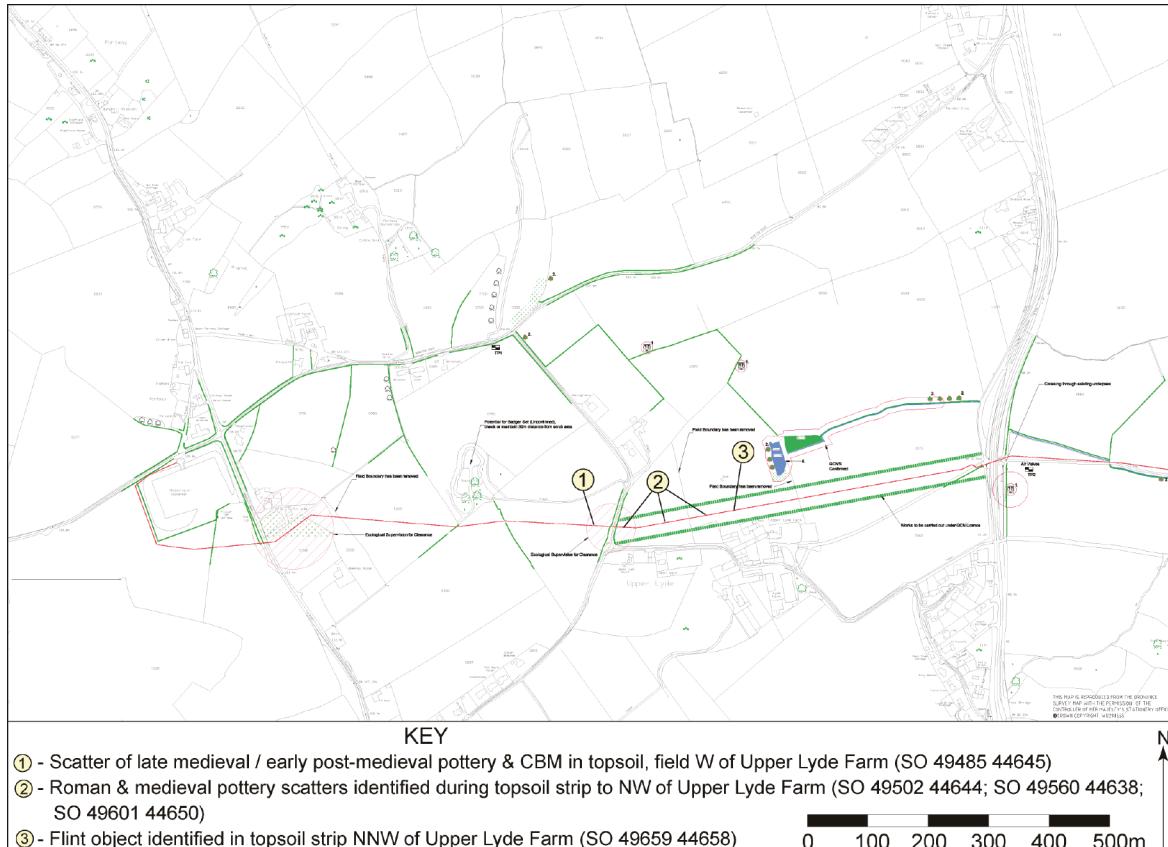
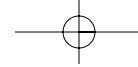
**2.3.2 DCWW/LOR SCHEME MAP 1****2.3.2.1 Description of pipeline route**

Fig. 5: Plan showing pipeline route and archaeological findspots

The initial section of the pipeline route extended for approximately 1.85km eastwards from the DCWW facility at Bewdley Bank, Portway (NGR SO 48768 44737), crossing the A4110, which preserves the line of the Roman road heading south from Leintwardine towards Hereford at NGR SO 48915 44894 (SMR No. 3938).

From this point, the route continues east across fields through an area which has been subject to extensive gravel extraction from the 19th century up to the present day. The pipeline runs to the south of the Upper Lyde Gravel Pit, where archaeological investigations carried out in 1999 identified evidence of fluvio-glacial deposition from the Pleistocene era (SMR No. 32819).

At NGR SO 49900 44070 the pipeline runs immediately to the north of Upper Lyde Farm, a farmstead settlement of medieval origin forming one of the four manors of Lyde recorded in the Domesday survey of 1086 and subsequently referred to as to *Lude Monachorum* in c.1160, denoting its tenure by the monks of St Peter's Hereford (Coplestone-Crow, 1989, 11-13). No buildings of medieval date have survived although the farmhouse is recorded by the RCHME as being of 17th century date (SMR No. 46234).



Ledbury Trunk Main Refurbishment Scheme



At NGR SO 49910 44080 the pipeline directly traverses a series of rectilinear cropmark features identified from aerial photography and presumably representing field enclosures of medieval or post-medieval date associated with the nearby settlement of Upper Lyde. From here, the route continues east, crossing the A49 major road about 200m to the north of Pipe and Lyde village, a small, straggling linear settlement of medieval origin, documented as 'Pipe' in 1086 (Thorn & Thorn, 1986, 182c).

2.3.2.2 Results of archaeological observation of topsoil strip

1. Assemblage of late medieval/early post-medieval pottery and CBM in topsoil (SO 49485 44645)

During the topsoil strip of a pasture field immediately west of the unclassified lane leading to Upper Lyde Farm, approximately 80m south of Appletree Cottage, a scatter of medieval and post-medieval pottery and CBM was found, concentrated at the east end of the field at NGR SO 49502 44604. The scatter mostly consisted of heavily abraded fragments of 17th-18th century slipware and brown, coarse salt glazed wares; however, occasional fragments of heavily abraded green glazed pottery were also noted.

This material was found at a depth of approximately 0.2m, embedded within the topsoil which comprised a loose to moderately compact mid reddish-brown sandy clay with frequent small, medium and large angular and subangular stones and moderate charcoal flecking.

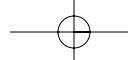
Interpretation

Although none of the medieval pottery fragments was actually found in section or in association with a pit, ditch or other cut feature and must be regarded as being residual in nature, they nevertheless help to corroborate the documentary evidence for the existence of a medieval manorial settlement at Upper Lyde. They further imply that the area of occupation might have originally extended further to the north of the present farm complex, a suggestion reinforced by the evidence of aerial photography.

2. Roman and Medieval pottery assemblage identified during topsoil strip immediately to northwest of Upper Lyde Farm (NGR SO 49560 44630)



Plate 11: View southeast towards Upper Lyde Farm showing area of topsoil strip



Ledbury Trunk Main Refurbishment Scheme

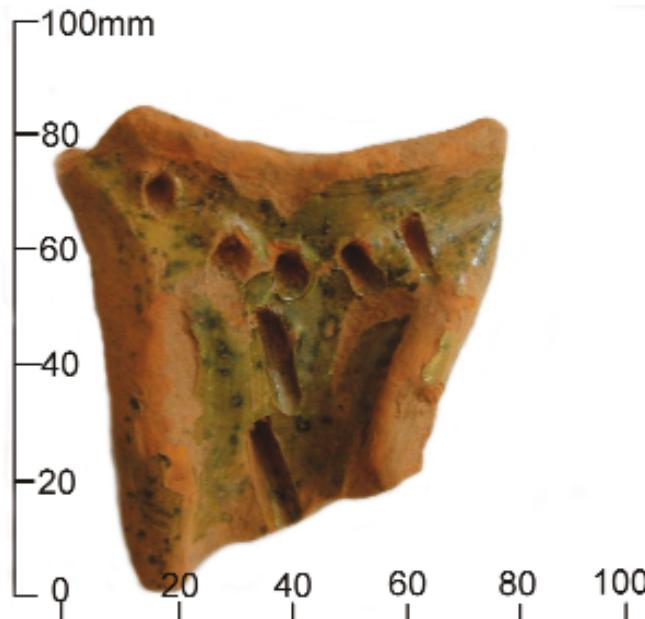


Plate 12: Handle from a single vessel, identified as a green glazed jug of the Herefordshire A7b type, found in a pottery scatter at NGR SO 49560 44638

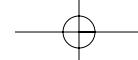
During the topsoil strip of the westernmost section of a large arable field extending east from an unclassified lane running south from Moreton Lane towards Lower Bewdley Bank down to the A49 major road, several scatters of Roman and medieval pottery were identified in three separate locations (SO 49601 44650, SO 49502 44644 & SO 49560 44638) approximately 40-50m northwest of Upper Lyde Farm.

At NGR SO 49601 44650 a small scatter was identified, consisting of a single, heavily abraded bodysherd of orange buff coloured Severn Valley oxidised ware and a thumbbed base of a glazed jug of the Herefordshire A7b series (which could date from the mid 13th early 15th century), while another scatter at NGR SO 49560 44638 consisted of several bodysherds and a handle belonging to a single vessel, identified as a green glazed jug of the Herefordshire A7b type (**Plate 12**). Another scatter material of material at NGR SO 49569 44642 consisted of a single abraded green glazed bodysherd of the Herefordshire A7b type and bodysherds of coarse brown glazed and slip wares of 17th century date.

These pottery fragments were found at a depth of approximately 0.3-0.4m embedded within the topsoil, a moderately compact mid to dark reddish-brown sandy silty clay containing frequent small-medium angular and subangular stones and shale fragments with evidence of heavy root disturbance and tree-planting activity reflecting the field's use as orchard from c. 1800.

Interpretation

The discovery of Roman ceramics in this area (albeit a single sherd) is of particular interest as little archaeological evidence of Roman activity has been previously recorded in this particular area. A section of the Roman road from Leintwardine towards Kenchester and Hereford (following the line of the present A4110) lies approximately 1km to the west of the findspot, while a possible prehistoric/Romano-British occupation site has been identified from aerial reconnaissance at Burghill, lying to the east of the A4110 (Cox, 2006).



Ledbury Trunk Main Refurbishment Scheme



The presence of medieval pottery in this area is not unexpected, in view of the proximity of Upper Lyde Farm, a settlement of medieval origin which formed one of the four manors of Lyde recorded in the Domesday survey of 1086 and subsequently referred to as to *Lude Monachorum* in c.1160, denoting its tenure by the monks of St Peter's Hereford.

Unfortunately none of the Roman and medieval pottery fragments was found in a securely dated context or in association with a pit, ditch or other cut feature. Nevertheless, the occurrence of Roman pottery might indicate the presence of a Roman settlement somewhere in the vicinity, while the presence of several scatters of 13th-15th century pottery provides further corroboration of the medieval settlement known to have existed here from the documentary sources and might indicate a possible extension of the settlement area to the northwest of Upper Lyde Farm.

3. Flint object found during topsoil strip to northwest of Upper Lyde Farm (NGR SO 49659 44658)

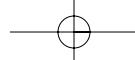
During the topsoil strip of the westernmost section of a large arable field extending east from an unclassified lane running south from Moreton Lane towards Lower Bewdley Bank down to the A49 major road, a single piece of grey flint measuring 10.1mm × 27.1mm × 9.4mm was identified (S220), embedded in the topsoil at a depth of 0.4m.

Interpretation

This was one of several fragments of flint recovered during the topsoil strip and subsequently analysed by the Lithic Microwear Research Laboratory, University of Bradford. Analysis concluded that there was little to indicate that the piece had been deliberately formed and was probably natural. A general surface scatter of late post-medieval pottery (19th century Staffordshire wares, blue and white transfer ware), bottle glass and CBM was observed in numerous locations along the pipeline corridor, with particular concentrations of this material noted between NGR SO 49670 44645-SO 49825 44670 and NGR SO 49825 44670-SO 50115 44740.

2.3.2.3 Results of open-cut trenching observations

A full description of the results of the open-cut trenching observations in tabular form can be found in part five, appendix 2.



Ledbury Trunk Main Refurbishment Scheme

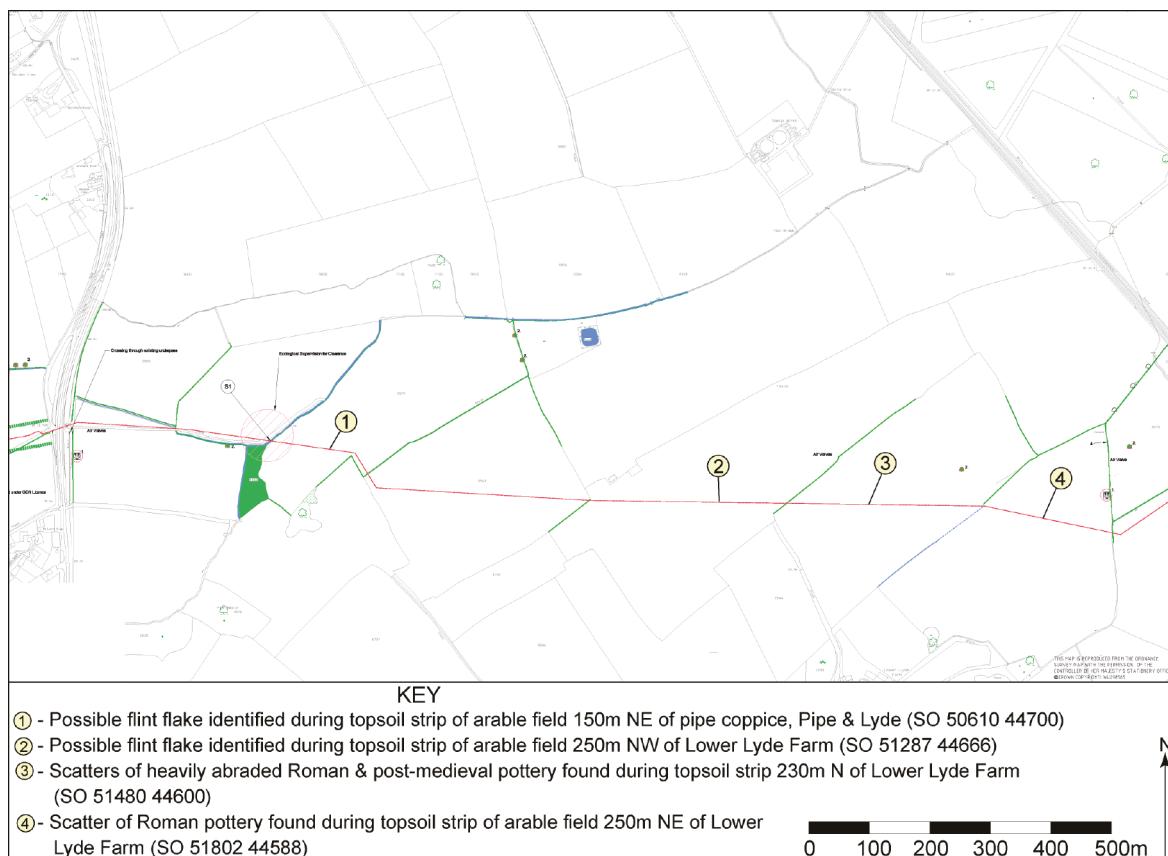
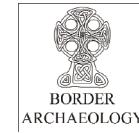
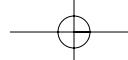
**2.3.3 DCWW / LOR Scheme Map 2****2.3.3.1 Description of pipeline route**

Fig. 6: Plan showing pipeline route and archaeological findspots

After crossing the A49 at NGR SO 50157 44736, the pipeline route continues in a roughly eastward direction for approximately 1.8km across an area of mixed farmland towards the Hereford-Shrewsbury railway line.

At NGR SO 5120 4450, the pipeline route runs immediately north of an ovoid cropmark identified from aerial photography, located about 250m northwest of Lower Lyde Farm. This cropmark does not correspond to the field boundaries shown on the Pipe and Lyde tithe map of 1838 or the OS 1st edition 6-inch map of 1884; which suggests that it probably predates the existing, post-medieval pattern of enclosure in this area. Furthermore, its irregular, ovoid shape suggests that it may represent a settlement feature of possible prehistoric date. Lower Lyde Farm has been identified as a medieval settlement, forming one of the four manors of Lyde recorded in Domesday Book and is documented as *Lyde Mucegros* in about 1220 (Coplestone-Crow, 1989, 11). The earliest surviving building, the farmhouse, has been dated by the RCHME (1932, 153) although evidence of a medieval moated site survives to the southeast at Lower Lyde Court (SMR No. 4048).

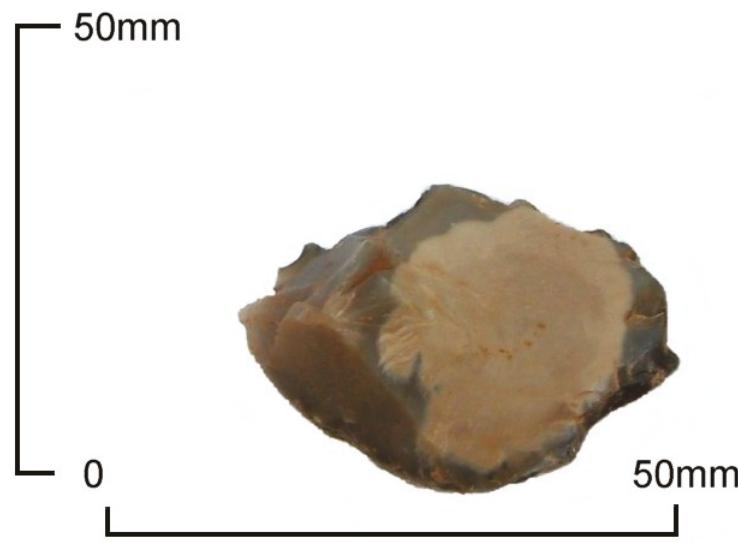


2.3.3.2 Observation of topsoil strip

1. Possible flint flake identified during topsoil of arable field 150m northeast of Pipe Coppice, Pipe and Lyde (NGR SO 50610 44700)

During the topsoil strip of a field situated approximately 150m northeast of Pipe Coppice and some 300m east of the A49 at Pipe and Lyde (150m × 9.5m × 0.3m), a single dark grey opaque flint fragment (S205) was identified at NGR SO 50610 44700, within the topsoil at a depth of 0.3m (**Plate 13**). The dimensions of the flake measured 37.7mm × 25.7mm × 9.9mm. The findspot was located approximately 100m east-southeast of the Pipe Brook, a stream running northeast from Pipe and Lyde village.

Plate 13: Dark grey opaque flint fragment identified at NGR SO 50610 44700, within the topsoil at a depth of 0.3m



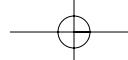
Interpretation

The discovery of this flint is of some interest, as no archaeological evidence of prehistoric activity has previously been identified in this area. The nearest recorded findspot of prehistoric date is a flint flake scatter recovered during a fieldwalking survey undertaken as part of the evaluation of a proposed route for the eastern Hereford bypass at Oldfield, to the west of the A49 approximately 0.5km south-southwest of Pipe and Lyde village (NGR SO 5000 4300) and a single stone spindle-whorl found at Munstone.

However, analysis of the flint indicated that the piece derives from a nodule that had been heavily water rolled and that many of its characteristics can be explained as being due to natural processes, consequently an anthropogenic origin for this piece remains uncertain.

2. Possible flint flake identified during topsoil strip of arable field 250m northwest of Lower Lyde Farm (NGR SO 51287 44666)

Situated approximately 600m east of the previous findspot, during the topsoil strip of a large arable field situated approximately 250m northwest of Lower Lyde Farm (250m × 9.5m × 0.3m), a small grey opaque flint flake (S215) embedded within the topsoil at a depth of 0.3m was identified at NGR SO 51287 44666. The dimensions of the flake measured 26.8mm × 18.7mm × 10.1mm.



Ledbury Trunk Main Refurbishment Scheme

*Interpretation*

No recorded evidence of human activity dating from the prehistoric era has been found in the immediate vicinity of Lower Lyde Farm to date. The nearest recorded evidence of prehistoric activity is represented by a flint flake scatter found during fieldwalking at Oldfield to the west of the A49 approximately 0.5km south-southwest of Pipe and Lyde village (NGR SO 5000 4300) and a stone spindle-whorl found at Munstone.

The formation of the flake is unclear as it is heavily modified from multiple directions; analysis concluded that the majority of surfaces have frequent flake scars that are generally less than 2mm in size. There is little evidence to suggest that this piece was deliberately formed and it is probably natural.

3. Scatters of heavily abraded Roman and post-medieval pottery, CBM and glass (NGR SO 5148 4460)



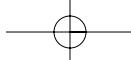
Plate 14: Rimsherd of oxidised Severn Valley ware identified during topsoil strip of arable field 250m northeast of Lower Lyde Farm (NGR SO 51802 44588)

During the topsoil strip of an area situated approximately 250m northwest of Lower Lyde Farm (dimensions approximately measuring 300m x 9m x 0.4m), a fairly extensive scatter of pottery, CBM (including glazed tile) and bottle glass fragments was noted within the topsoil, consisting of a loose to moderately compact light to mid reddish-brown sand silt clay with frequent small to medium angular and subangular stones and shale/slate fragments, frequent root disturbance and burnt wood fragments and moderate charcoal flecking.

The pottery mostly dated from the late post-medieval period (including late 18th-19th century Staffordshire ware, white transfer ware and stoneware); however, two heavily abraded sherds of oxidised Severn Valley ware, with a coarse orange buff coloured surface and a reduced grey core were also identified, one of which, a base sherd, showed evidence of having been partially burnt (**Plate 14**).

Interpretation

No evidence of Roman occupation has previously been identified in the immediate vicinity of Lower Lyde Farm. However, a systematic fieldwalking survey carried out in 1990 by HWCAS



along the line of the proposed eastern Hereford bypass route in Pipe and Lyde identified a significant 'background scatter' of Roman pottery amounting to 60 sherds, mostly small and heavily abraded, dispersed over an area of 1.6 hectares.

None of the pottery fragments was found within a stratified context and they must therefore be regarded as residual in nature. The small quantity of Roman pottery identified within the scatter, consisting almost entirely of post-medieval ceramics, suggests that this probably represents a random manuring scatter, although another, slightly larger concentration of Roman pottery was found further to the east at NGR SO 51802 44588, which may be indicative of Roman occupation somewhere in the locality.

4. Scatter of abraded Roman pottery found during topsoil strip of arable field 250m northeast of Lower Lyde Farm (NGR SO 51802 44588)

During the topsoil strip of an arable field to the northeast of Lower Lyde Farm (dimensions approximately measuring 200m × 9m × 0.4m), a scatter of small, heavily abraded pottery fragments, consisting of four body sherds and two rim sherds of coarse reddish-brown coloured Severn Valley oxidised ware with a reduced grey core (probably forming part of a single vessel) was noted at a depth of 0.4m in the topsoil, a friable, moderately compact mid reddish-brown silty sandy clay with frequent small to medium subangular and angular stones and shale fragments and moderate charcoal flecking, exhibiting evidence of considerable root disturbance associated with the field having been heavily planted with potato crops in recent years. The findspot, located at NGR SO 51802 44588, was situated some 250m northeast of Lower Lyde Farm and approximately 80m from the west boundary of the field.

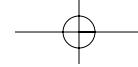
None of the pottery sherds was found in section or in association with a cut feature, such as a ditch or pit, and must therefore be considered to be of residual deposition. A moderate quantity of post-medieval CBM (ceramic drain and tile fragments) and pottery sherds, mostly consisting of 18th-19th century Staffordshire and white transfer ware was also identified during the topsoil strip. However, it should be noted that the sherds of Severn Valley ware were found in a separate location from the main concentration of post-medieval material.

Interpretation

No evidence of Roman occupation has previously been identified in the immediate vicinity of Lower Lyde Farm. However, a systematic fieldwalking survey carried out in 1990 by HWCAS along the line of the proposed eastern Hereford bypass route in Pipe and Lyde identified a significant 'background scatter' of Roman pottery amounting to 60 sherds, mostly small and heavily abraded, dispersed over an area of 1.6 hectares.

None of the pottery fragments was found within a stratified context and they must therefore be regarded as residual in nature. However, the fact that the sherds appear to derive from a single vessel is perhaps significant, suggesting that they may represent a background scatter of material associated with a nearby Roman occupation site, as opposed to a random scatter of domestic refuse spread over the fields as manure.

The discovery of this small scatter of Roman pottery further adds to the existing body of evidence indicating that this area was intensively farmed during the Roman period and points to the likely presence of one or several Roman domestic sites in the immediate locality, possibly at Lower Lyde Farm, a farmstead settlement of considerable antiquity documented



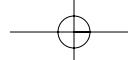
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as early as 1086 and probably dating back to well before the Norman Conquest.

2.3.3.3 Results of open-cut trenching observations

A full description of the results of the open-cut trenching observations in tabular form can be found in part five, appendix 2..



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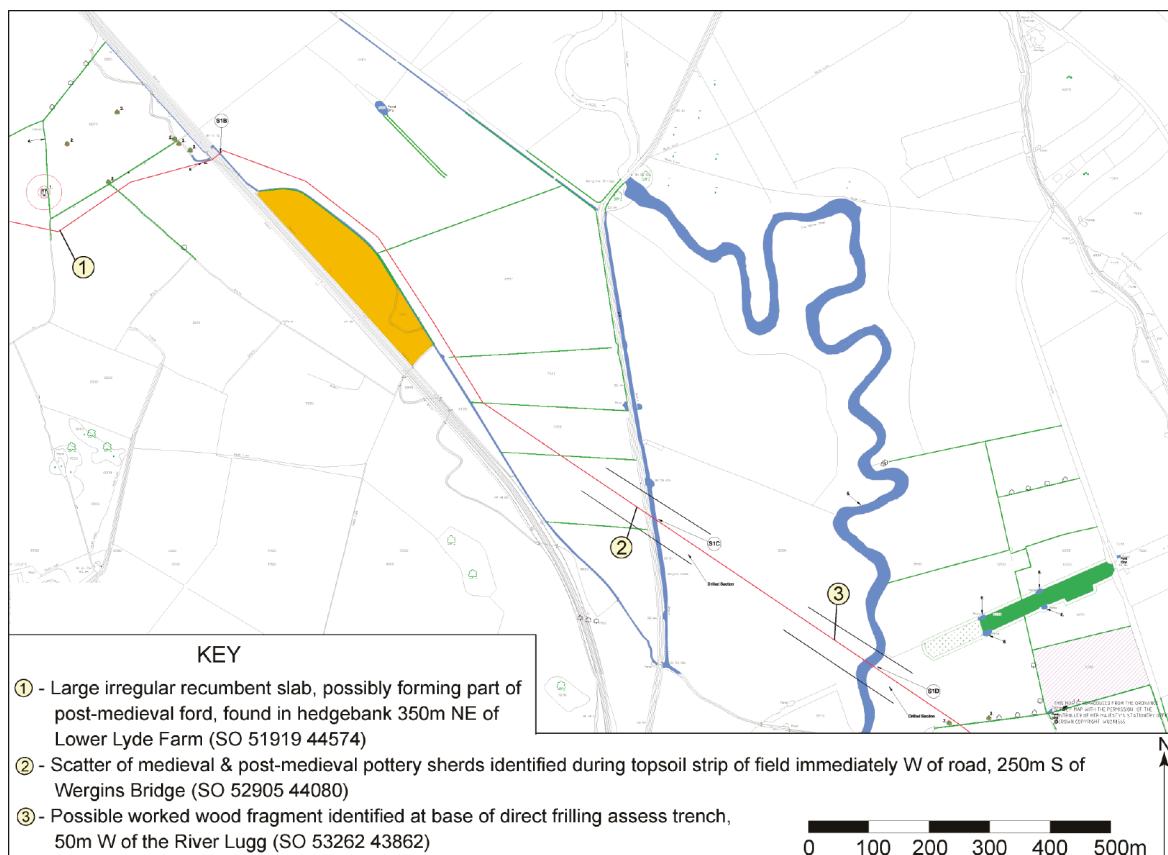
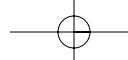
**2.3.4 DCWW / LOR Scheme Map 3****2.3.4.1 Description of pipeline route**

Fig. 7: Plan showing pipeline route and archaeological findspots

After crossing the railway line at NGR SO 52203 44684, the pipeline route turns sharply south-southeast running parallel with and to the east of the railway to NGR SO 52658 44271, at which point it turns southeast and proceeds across water meadows, crossing the unclassified road heading north towards Sutton St Nicholas and reaching the River Lugg at NGR SO 53301 43898.

The area traversed by this section of the pipeline route is marked on the Sutton St Nicholas tithe map of 1845 as Wergins Meadow and comprises a large area of long-established water meadow lying to the west of the Lugg. The pipeline route runs approximately 50m northeast of Wergins Stone (SMR No. 829) (NGR SO 5297 4297), a rough, unworked stone 1.4m high and 0.6m × 0.3m wide and deep, socketed into an irregular pentagonal base measuring 1.3m across by 0.3m high. Camden's late 16th century account describes the monument as comprising two stones, one upright and the other across it, suggestive of the remains of a Neolithic chambered tomb.

However, later antiquarian writers, including Blount and Duncumb, describe the monument as a 'meer stone' or land/water height marker associated with the management of the former Wergins Meadow common. It is possible that the stone may originally have formed part of a



Ledbury Trunk Main Refurbishment Scheme



prehistoric monument that was re-located and re-used as a 'meer stone' during the medieval or early post-medieval period (Bapt, 2007, 118).

Further to the southeast, the pipeline route runs immediately northeast of a sub-circular enclosure and a series of associated rectilinear features identified as cropmarks from aerial photography.

These cropmarks do not appear to be related to any field boundaries marked on the OS 1st edition map and the 1845 tithe map and consequently appear to be of early date. The pipeline continues to the southeast crossing the Lugg at NGR SO 5330 4382, in very close proximity to the remains of an aqueduct built in 1844 to carry the Hereford & Gloucester Canal over the Lugg and demolished in the 1920s (SMR No. 23297). The remains of this structure (referred to as 'Tovey's Castle' in 1868) consist of one of the stone piers still visible in the bed of the river when the water is low, together with the embankments on either side of the river as well as some of the siphons that carried the river under the aqueduct. Further remains of the canal are located some 100m northeast of the pipeline route, comprising a bridge and two well preserved brick culverts.

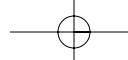
2.3.4.2 Results of archaeological observation of topsoil strip

1. Large irregular recumbent slab located at field boundary c.350m northeast of Lower Lyde Farm (SO 51919 44574).



Plate 15: Large recumbent sandstone slab that probably formed part of a late 18th century drainage system (SO 51919 44574)

A section was excavated through a substantial hedge bank and ditch at NGR SO 51919 44574 in order to provide access for machinery undertaking the topsoil strip (dimensions measuring 3.8m × 4.6m × 1.3m). Two contexts were revealed, comprising a light reddish-brown moderately compact sandy silty clay with frequent small to medium subangular and rounded stones with moderate root disturbance and occasional charcoal flecking, measuring 0.3m thick, which overlaid a moderately compact dark reddish-brown sandy silt clay,



Ledbury Trunk Main Refurbishment Scheme



extending to a depth of 1m with frequent small to medium subangular and rounded stones and moderate charcoal flecking with evidence of gleying towards the base, which was waterlogged.

Within (002), at a depth of approximately 0.8m, a large recumbent sandstone slab was identified, concealed by dense undergrowth and measuring 0.8m × 0.6m × 0.2m (**Plate 15**). Although the stone did not appear to have been worked, it did display evidence of considerable surface wear, which was probably explained by the fact that it had formed part of a group of similar slabs constituting a ford or bridge across a post-medieval ditch, situated some 20m east-northeast of the hedgebank.

Interpretation

The ditch constituted part of a drainage system shown on the 1838 parish tithe map, although the regularity of this network of ditches suggests they are not markedly earlier than this date and were probably established post 1750 as part of a programme of land improvement and reorganisation of field boundaries carried out by the then owners of the estate, Guy's Hospital.

2. Scatter of medieval and post-medieval pottery sherds identified in field immediately west of road approximately 250m south of Wergins Bridge (NGR SO 52905 44080)

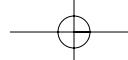
An area immediately west of the road running north-south between Shelwick Green and Sutton St Nicholas was reduced by 0.2-0.3m to create a level surface for the site compound. Two distinct topsoil deposits were identified in this area consisting of the following:

1/Within a narrow strip of land adjoining the eastern hedge boundary immediately north of the field entrance (measurements 46m × 2.5m) a moderately compact mid to dark reddish-brown silty clay was noted, with evidence of frequent root disturbance, small to medium angular and subangular stones, occasional ceramics and very frequent charcoal flecking.

2/Within the rest of the compound area (approximate measurements 55m × 35m), the topsoil consisted of a friable mid to dark greyish-brown silty clay with moderate small to medium angular and subangular stones, charcoal flecking and CBM fragments, extending to a depth of 0.2m.



Plate 16: View looking northeast showing area along eastern hedge boundary of field adjacent to road following topsoil strip



Ledbury Trunk Main Refurbishment Scheme

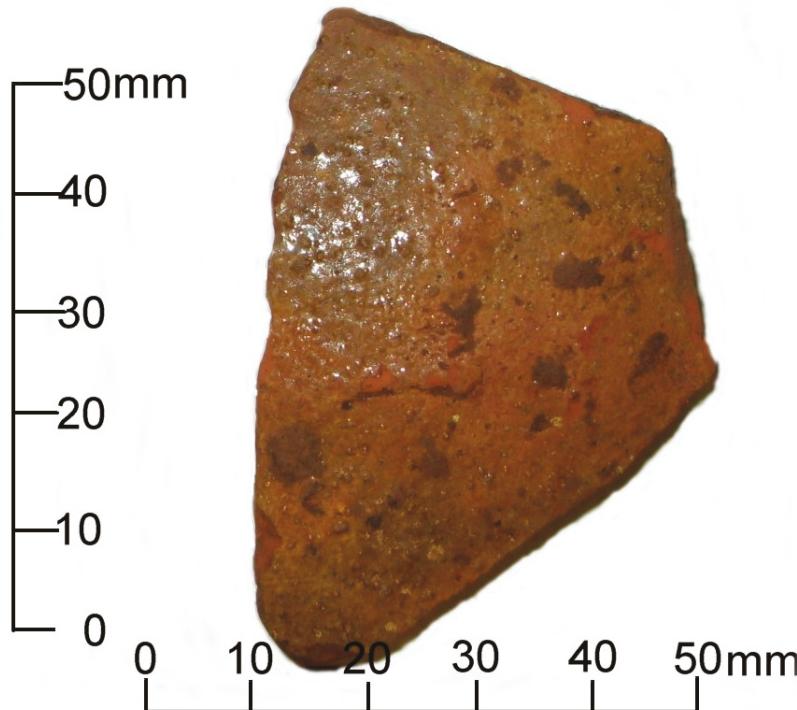


Plate 17: Bodysherd of heavily abraded pottery characteristic of Herefordshire A4 type 'tripod pitcher' ware of 13th-14th century date

A small assemblage of pottery was recovered from the topsoil deposit adjoining the eastern hedge boundary, comprising a single body sherd of heavily abraded pottery with an oxidised red surface and a grey core with a coarse patchy green and orange glaze (characteristic of Herefordshire A4 type 'tripod pitcher' ware of 13th-14th century date), and a small quantity of rim and bodysherds of various post-medieval wares (Staffordshire ware, blue and white transfer ware) (Plate 17).

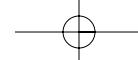
Interpretation

No evidence of building activity is shown on this area on the Sutton St Nicholas parish tithe map (1843), which shows the field as forming one of a series of rectilinear enclosures to the west of the road leading north-south from Sutton towards Shelwick Green, which are collectively described as 'Wergins'. The OS 1st edition 25-inch map of 1886 similarly shows no evidence of building activity within the field. The pottery assemblage appears to be generally characteristic of a manuring scatter of domestic refuse, although the fact that it was situated within an area of burning activity (indicated by the frequent charcoal flecking) might suggest a fire waste deposit.

2.3.4.3 Results of open-cut trenching observations

A full description of the results of the open-cut trenching observations in tabular form can be found in part five, appendix 2. One find potentially of considerable archaeological significance was identified on this section of the pipeline and this is described below.

1. Possible worked wood fragment identified at base of direct drilling access trench



Ledbury Trunk Main Refurbishment Scheme



situated approximately 50m west of River Lugg (NGR SO 53262 43862)

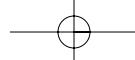
A section of trenching for direct drilling purposes measuring 11m × 3.8m × 3.2m was excavated approximately 50m west of the River Lugg (from SO 53262 43862-SO 53254 43868). The trench was significantly widened in order to locate the drill-bit; however, this also resulted in the trench sides becoming extremely unstable, a situation which was further accentuated by heavy rain and constant waterlogging towards the base of the excavation. The excavation revealed a moderately compact reddish-brown sand-silt-clay with frequent small rounded stones extending to a depth of 1.5m (001). Underlying this was (002) a moderately compacted dark bluish-grey silty clay with evidence of gleying and occasional small rounded stones, measuring 1.6m in thickness. At the base of the excavation in the south-facing section, a thin dark blackish-brown humic deposit (003), measuring 0.3m in thickness was exposed, which contained wood fragments and occasional small bone fragments. Located at the west end of the south facing section, at an approximate depth of 3.2m, a fragment of worked wood (004) (**Plate 18**) was identified (approximate visible dimensions 0.25m × 0.15m width), lying horizontally in section within (003); however, due to the excavation depth, the extremely unstable trench sides and frequent waterlogging towards the base of the excavation, it was not possible to undertake more detailed recording to determine the full dimensions of the wood fragment and whether it might have formed a structural component.



Plate 18: View looking north showing wood located at depth of 3.2m at west end of south-facing section

Interpretation

The heavily waterlogged conditions prevented a full record being made of the wood fragment identified *in situ* at the base of the trenching. The wood fragment showed evidence of conversion and appeared to be lying horizontally in section within (003); however, it was impossible to draw more detailed conclusions regarding its function; no other wood fragments were recorded *in situ* within the trench. The depth at which the wood was encountered, however, suggests that it might possibly be of prehistoric origin; one possible explanation is that it might have formed a component of a wooden trackway extending across marshy land adjoining the Lugg or perhaps even crossing the river, although further archaeological investigation would be required to confirm this hypothesis.



Ledbury Trunk Main Refurbishment Scheme

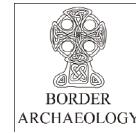
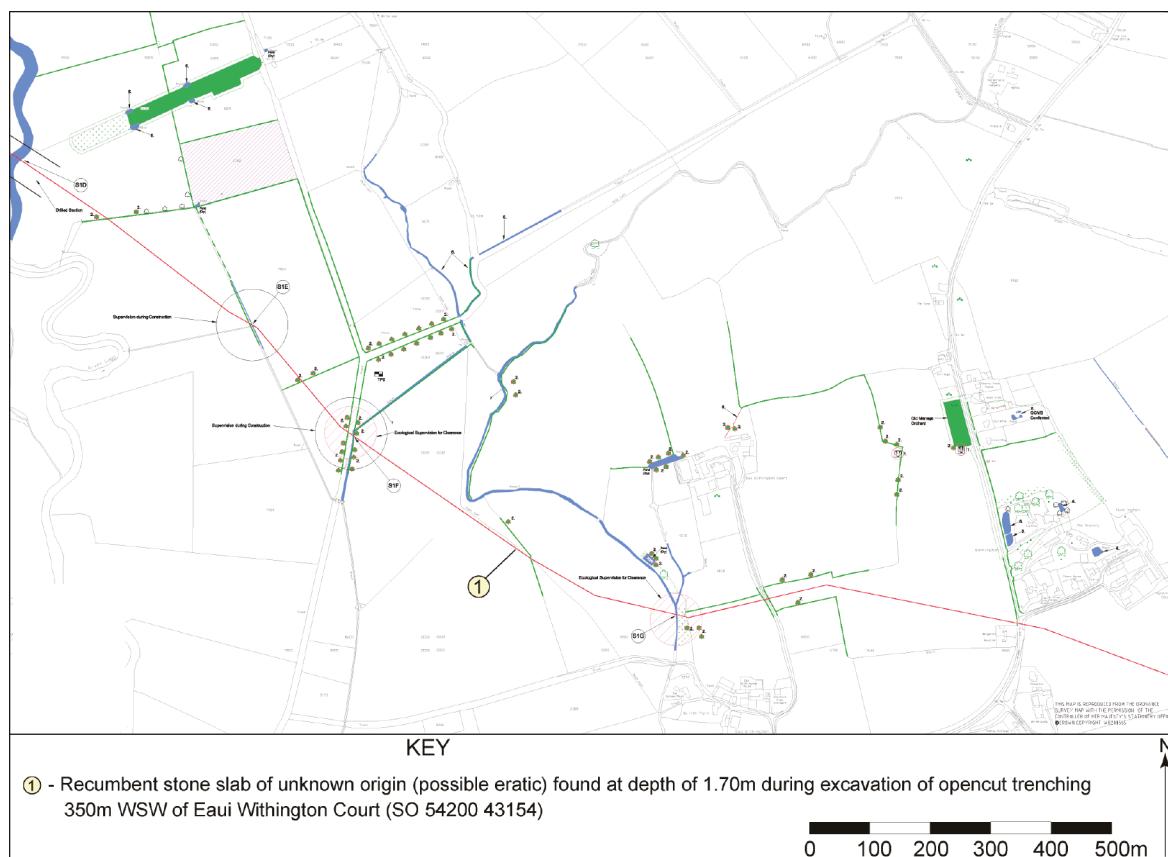
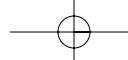
**2.3.5 DCWW / LOR Scheme Map 4****2.3.5.1 Description of pipeline route**

Fig. 8: Plan showing pipeline route and archaeological finds spots

This section of the pipeline extends from the crossing of the Lugg at NGR SO 53338 43879 and continues southeast across water meadows for a distance of 650m before reaching an unclassified lane running north-south at NGR SO 53875 43361, some 500m west of Eau Withington Court. From there, the pipeline route proceeds southeast across water meadows, subject to frequent flooding, towards the hamlet of Eau Withington, crossing the Little Lugg at NGR SO 54418 43046 and continuing in a roughly east direction, reaching the A465 road to the south of Nunnington at NGR SO 54994 43046.

The settlement at Eau Withington is of medieval origin (SMR No. 24820), forming one of three prebends or landholding units at Withington owned by the church of Hereford from before 1066 and is documented as *Ewithington* in the *Taxation of Pope Nicholas* (1291) in which it was assessed at a value of £10 and said to comprise four bovates of land and a watermill (Barrow, 2002, 37). Archaeological evidence suggests that the settlement at Eau Withington experienced a significant degree of contraction, possibly due to the onset of a major phase of flooding, which occurred no later than the 14th century.

Evidence of medieval occupation was previously identified at NGR SO 5400 4320 during an evaluation carried out in 1996 while the watching brief relating to the construction of the Lugg



Bridge-to-Withington gas pipeline in 1994 revealed substantial medieval structural remains in a field to the southwest of Eau Withington Court at NGR SO 5430 4320, comprising a series of stone walls and an associated flagstone surface dated by pottery evidence to the 13th-14th century, sealed beneath up to 0.75m of reddish-brown alluvium (SMR No. 21108).

2.3.5.2 Results of archaeological observation of topsoil strip

Approximately 0.25-0.3m depth of loose to moderately compact reddish-brown silty clay was removed under archaeological observation (**Plate 19**). A general scatter of post medieval and modern ceramics was noted along much of this section of the pipeline route; however, no features or deposits of archaeological significance were identified.



Plate 19: View southeast along topsoil strip at Sutton St Nicholas c.200m southeast of crossing over the R. Lugg

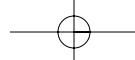
2.3.5.3 Results of open-cut trenching observations

A full description of the results of the open-cut trenching observations in tabular form can be found in part five, appendix 2. One find of potential of archaeological significance was identified on this section of the pipeline and this is described below.

1. Worked stone block found during excavation of open cut trenching c.350m west-southwest of Eau Withington Court (NGR SO 54200 43154)

A total of five contexts were recorded during the excavation of an 80m section of open-cut trenching, located approximately 150m southeast of the Little Lugg and 350m west-southwest of Eau Withington Court. The uppermost context (001) comprised a moderately compact reddish-brown sandy clay with frequent small subangular stones, 0.7m in thickness, underlying which was a moderately compact yellowish-brown silty clay (002) with bluish inclusions extending to a depth of 0.7m. This in turn overlaid a mid reddish-brown stone-free clay which measured 0.2m thick, underlying which was a loose dark greyish-brown gravelly clay with moderate charcoal flecking (003), which extended to the heavily waterlogged trench base.

Within this deposit, at an approximate depth of 1.4m below existing ground level, a roughly-hewn, rectangular sandstone block (004) was identified; the block was found in a recumbent



position, slightly tapering towards one end, its dimensions measuring 0.9m × 0.39m × 0.42m (**Plates 20 & 21**). The block showed clear evidence of having been anthropogenically worked, with evidence of squared edges, a small circular indentation at what appeared to be the base of the stone and a deep circular indentation on one side (towards the tapering end), which might possibly have been inserted for a gate hook, although no evidence of ironwork was noted *in situ*.

Interpretation

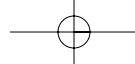
Plates 20 & 21: Worked stone block found during excavation of open-cut trenching c.350m west-southwest of Eau Withington Court, NGR SO 54200 43154



Evidently this worked stone block had been removed from another location; however, there was no discernable evidence of a cut for a pit within which the block would presumably have been deposited, although the deposit in which the stone was found contained moderate charcoal flecking suggestive of an occupation layer, sealed by later alluvial deposition represented by (001) and (002). The evidence of indentations in the side and the base of the stone suggests that it formed a component of a structure, possibly a gatepost, although another possibility, particularly in view of its floodplain location, is that it could represent a meir stone or a field boundary marker.



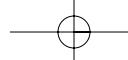
The date of the stone remains undetermined; no artefactual evidence was noted within the basal deposit in which the stone was found or in the overlying deposits. It is worth noting that substantial medieval structural remains were found in a field to the southwest of Eau Withington Court at NGR SO 5430 4320, comprising a series of stone walls and an associated flagstone surface dated by



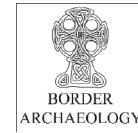
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pottery evidence to the 13th-14th century (SMR Record No. 21108). These remains were identified on the east bank of the Little Lugg approximately 110m east of where the worked stone was identified at NGR SO 54200 43154; while it is unlikely that there is any direct connection between the worked stone and these settlement features, it could possibly represent further evidence of medieval settlement activity extending to the west of the River Lugg.



Ledbury Trunk Main Refurbishment Scheme



2.3.6 DCWW / LOR Scheme Map 5

2.3.6.1 Description of pipeline route

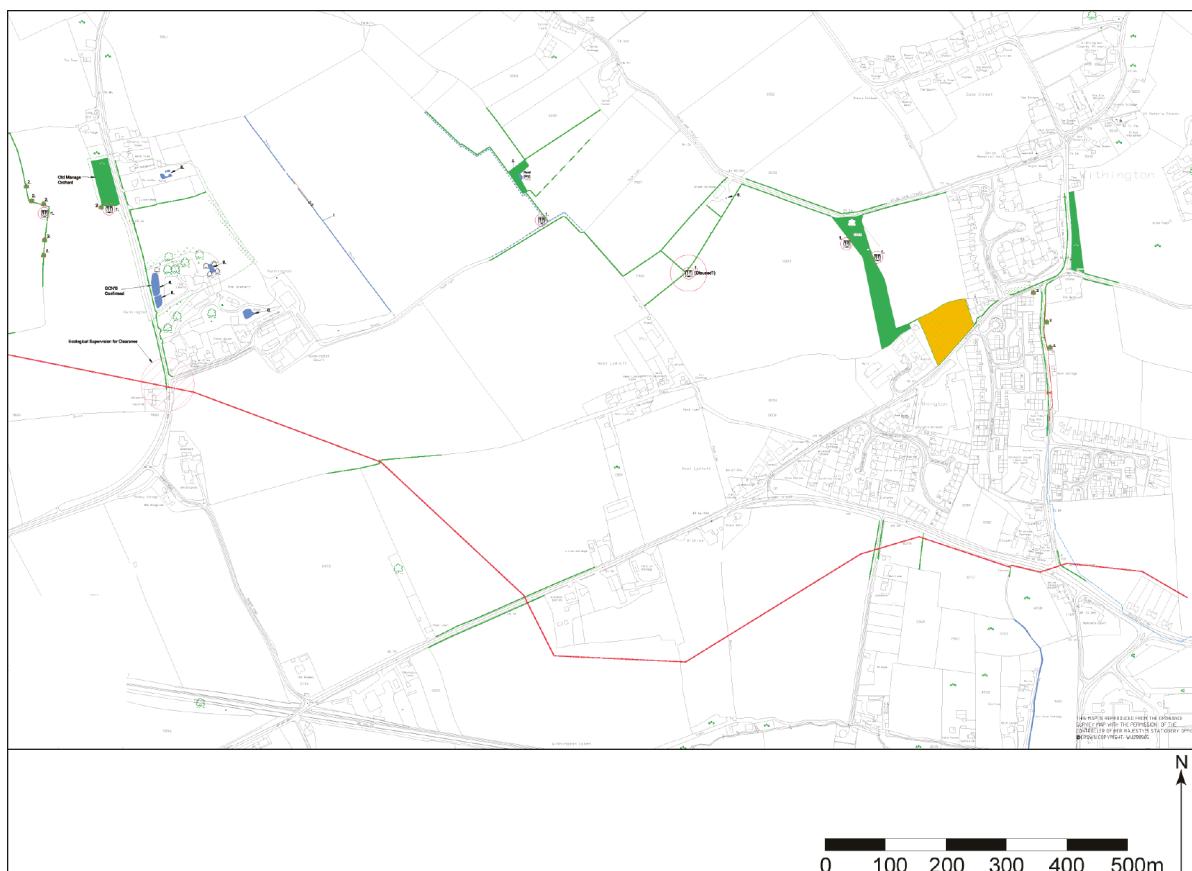
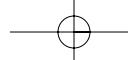


Fig. 9: Plan showing pipeline route and archaeological findspots

This section starts from the A465 on the southern outskirts of the small hamlet of Nunnington at NGR SO 54994 43046, approximately 50m to the southwest of Nunnington Court, a 17th century farmhouse (SMR No. 34587). Nunnington, documented as Imintinton in 1291, is a settlement of medieval origin, forming part of the manor of Withington and belonging to the estates of the church of Hereford in the 11th century, when the nuns of Hereford held two hides of land there from the bishop (Barrow, 2002, 51).

Archaeological evidence of earlier occupation in the vicinity was identified within an orchard to the north of the Lawns, located some 50m north of the pipeline route, where, in 1932, some pottery sherds of Roman date were identified some 3ft below the surface, associated with a stone structure interpreted as a culvert. Further excavation in 1955 revealed evidence of structural remains and a large quantity of Roman pottery dating from the 2nd century AD (SMR No. 6506).

From NGR SO 54994 43046, the pipeline proceeds southeast across fields for some 650m, crossing the A4103 at NGR SO 55571 42683, some 300m southwest of West Lydiatt Farm. From NGR SO 55349 42922 to SO 55571 42683, the pipeline route crossed a heavily



Ledbury Trunk Main Refurbishment Scheme



ploughed field in which evidence of a well-preserved ridge-and-furrow system, probably of medieval date, has been identified from aerial photography (SMR No. 7056). After crossing the A4103, the pipeline continued southeast for 50m then turns to the northeast, proceeding across fields for 600m before rejoining the A4103 at its junction with the Whitestone-to-Bartestree road at NGR SO 56432 42691, some 200m to the west of Whitestone, a southern outlier of the village of Withington which developed around a medieval wayside cross, which still survives at NGR SO 5645 4275 (SMR No. 6521). The pipeline route proceeds east-southeast for 220m up to the crossroads at Whitestone, approximately 5m from the remains of the wayside cross, from where it continues east for another 200m to its terminus at NGR SO 56547 42637.

2.3.6.2 Results of archaeological observation of topsoil strip

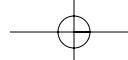
Approximately 0.25-0.3m depth of loose to moderately compact reddish-brown silty clay was removed under archaeological observation (**Plate 22**). A general scatter of late 19th-20th century ceramics was noted along much of this section of the pipeline route; however, no features or deposits of archaeological significance were identified.



Plate 22: Withington, view east along topsoil strip to south of A465

2.3.6.3 Results of open-cut trenching observations

A full description of the results of the open-cut trenching observations in tabular form can be found in part five, appendix 2.



2.3.7 Summary of results of topsoil strip and open-cut trenching

The topsoil strip and excavation of open-cut trenching along the section of the pipeline route extending from Bewdley Bank to Withington revealed a relatively small number of archaeological finds and features; the vast majority of the finds were unstratified.

Of particular importance was the identification of a worked wood fragment at the base of an access pit (3.2m in depth) excavated immediately to the west of the River Lugg at NGR SO 53262 43862. Unfortunately, due to the depth of the pit and the considerable waterlogging at its base (resulting in trench instability), it was not possible to undertake more detailed investigation and recording of this feature. However, the depth at which the wood was identified suggests that it might possibly be of prehistoric origin; one possible explanation is that it might have formed a component of a wooden trackway extending across marshy land adjoining the Lugg or perhaps even crossing the river.

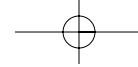
A small number of flints were found in the topsoil in several locations along the pipeline route, although further analysis concluded that the vast majority of these were probably formed by natural processes, with the possible exception of a flint flake found at NGR SO 50610 44700, approximately 250m northwest of Lower Lyde Farm.

Limited evidence was noted of Roman activity within the pipeline corridor, consisting of isolated finds of Severn Valley ware pottery to the northwest of Upper Lyde Farm (NGR SO 49601 44650) and northwest of Lower Lyde Farm (NGR SO 5180 4460), which appeared to be part of manuring scatters including medieval and post-medieval ceramics.

However, another pottery scatter of Roman date (consisting of rim and body sherds of oxidised Severn Valley ware, probably forming part of a single vessel), was found approximately 250m northeast of Lower Lyde at NGR SO 51802 44588; these sherds did not form part of a larger spread of medieval or post-medieval pottery, which suggests that they may relate to Roman occupation in the vicinity of the findspot, possibly close to Lower Lyde Farm.

Medieval occupation was slightly better attested, with evidence of small pottery scatters of 13th-16th century date identified in the vicinity of Upper Lyde and Lower Lyde Farms; archaeological and documentary evidence of medieval settlement has previously been identified in both of these locations. An isolated scatter of medieval pottery was also found to the south of Sutton St Nicholas at NGR SO 52905 44080; however, this appeared to be part of a larger manuring spread of post-medieval ceramics.

A general scatter of post-medieval pottery (china, Staffordshire ware, slipware and transfer ware), CBM and glass fragments was observed during the topsoil strip and open-cut trenching in many locations along the route of the pipeline route, which appeared generally to be characteristic of random manuring spreads of domestic refuse.

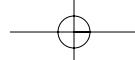


2.4 Results of Archaeological Observation of Directional Drilling Access Pit excavations (DCWW/LOR scheme maps 6, 7 & 8)

2.4.1 Introduction

Archaeological observation of groundworks relating to the section of pipeline extending from the road junction to the west of Yarkhill (SO 59775 42246) to the termination of the scheme at a point located to the southeast of Canon Frome Court (SO 64267 43068) reflects a change in engineering method from open-cut trenching to directional drill. Ground disturbance was thus restricted to the excavation of discrete engineering access pits spaced approximately at 100m intervals along the pipeline route.

It should be noted, however, that, where the pipeline crossed through the designated area of the Roman urban settlement located to the south of Stretton Grandison as defined in the *Central Marches Historic Towns Survey* (Buteux, 1996), a total of 13 access pits were excavated archaeologically to determine the nature and depth of the archaeological resource in this area. These 13 pits are thus excluded from the Archaeological Observation section of the report and the relevant findings are discussed in detail in Part Three.



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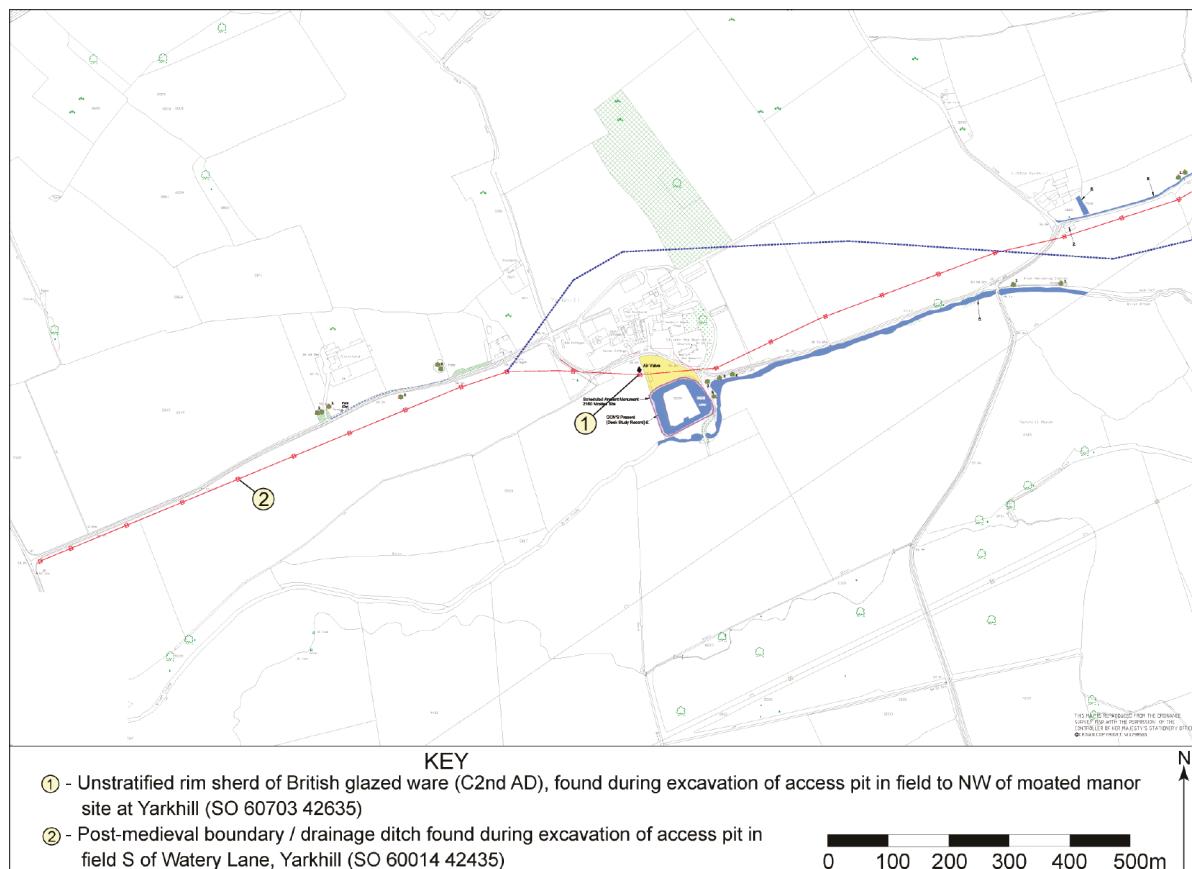
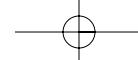
**2.4.2 DCWW / LOR Scheme Map 6****2.4.2.1 Description of pipeline route**

Fig. 10: Plan showing pipeline route and archaeological finds

This section of the pipeline route extends for approximately 1.8km from the junction of an unclassified road from Shucknall to Stoke Edith with Watery Lane, heading northeast towards the village of Yarkhill and continuing northeast, running parallel and to the north of Watery Lane before crossing the lane at NGR SO 61350 42830 , some 80m south of Little Yarkhill Farm.

The pipeline route runs directly through the village of Yarkhill, a small, nucleated settlement of early medieval origin lying immediately north of the River Frome, first documented as Geardcylle (denoting a 'kiln with a yard or enclosure') in a charter of AD 811 (Perry, 2002, 51). The pipeline route runs through a paddock approximately 30m north of the parish church of St John the Baptist (SMR No. 6858), the fabric of which largely dates from the 13th century, while to the south of the pipeline route are the substantial remains of a quadrangular moated site of medieval date (SMR No 1581).

The site consists of a low platform surrounded by a moat (about 2m wide on the west and 4-5m on the east), which is water-filled, but no visible remains of buildings are visible on the heavily overgrown platform. A timber-framed structure occupied the site, which was pulled



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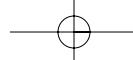


down in the early 19th century (the house was apparently abandoned in 1804); the Yarkhill tithe map of 1845 marks the area as 'site of Old House and Green' and the OS 1st edition 6-inch map of 1886 shows that the moated site had been converted to orcharding. An evaluation on the site carried out by HWCC in 1998 revealed evidence of waterlogged medieval deposition the south and southeast sides of the moat, containing environmental material and 12th-13th century pottery suggesting that the origins of the site are of this date (Hurst, 1998).

Evidence of considerably earlier settlement in Yarkhill, dating from the Roman period, was identified during archaeological observation of DCWW mains trenching carried out in 1979 in the vicinity of the paddock traversed by the current pipeline. The remains of a pit were found containing Roman pottery (SMR Nos. 1711, 1755).

2.4.2.2 Results of archaeological observation

A full description of the results of the directional drilling access pit observations in tabular form can be found in part five, appendix 2.



Ledbury Trunk Main Refurbishment Scheme



2.4.3 DCWW/LOR Scheme Map 7

2.4.3.1 Description of pipeline route

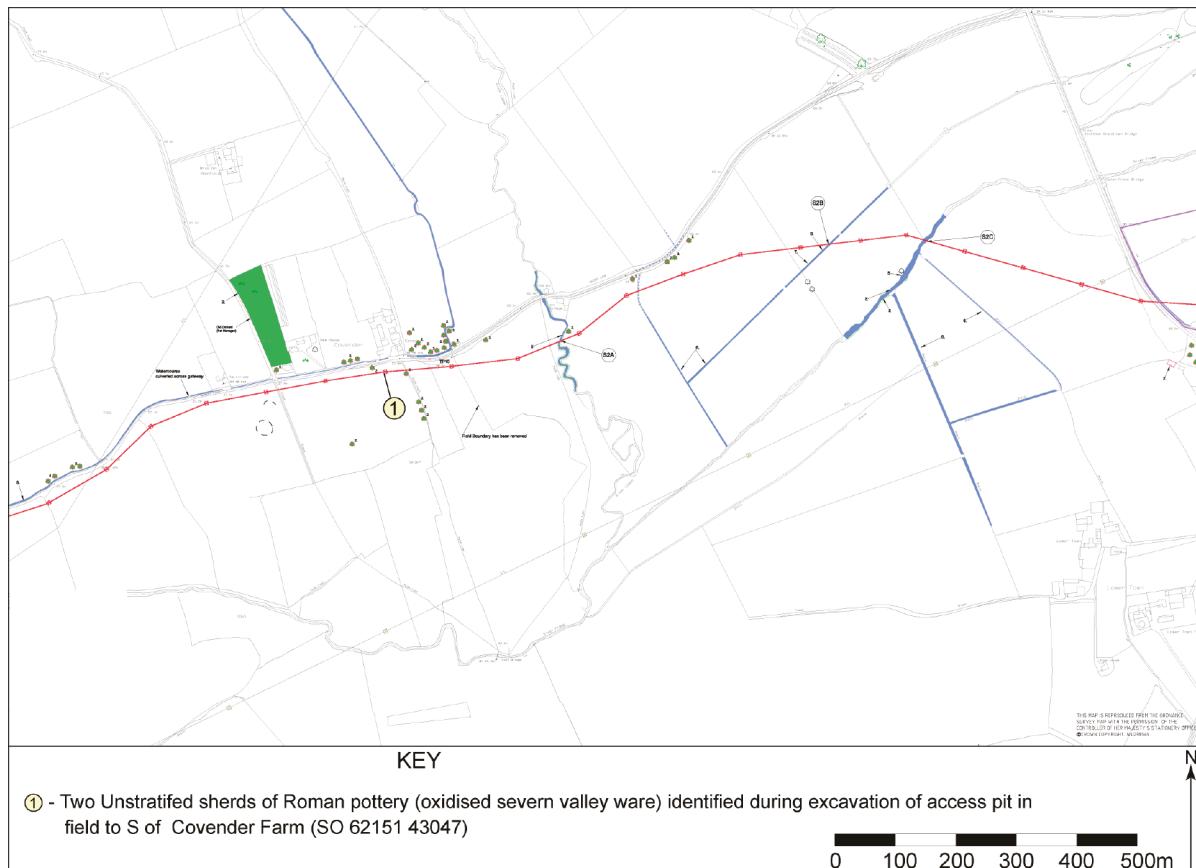
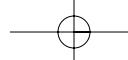


Fig. 11: Plan showing pipeline route and archaeological finds

The pipeline route continues in a roughly east-northeast direction from NGR SO 61590 42875, through fields parallel with and to the south of Watery Lane for approximately 1.2km, crossing the River Lodon, a tributary of the River Frome, at NGR SO 62345 43180 and proceeding east-northeast for approximately 500m before reaching the edge of the designated area of the Roman settlement of Stretton Grandison, as given in the *Central Marches Historic Towns Survey* (Buteux, 1996). The access pits to the east of this boundary were archaeologically excavated, the results of which are contained in Part Three of this report.

At NGR SO 6185 4296, the pipeline route traverses a field marked as 'Palace Croft' on the Yarkhill tithe map of 1845. The origin of this field name is unclear; no documentary evidence has been found to indicate the presence of a substantial building on this site.

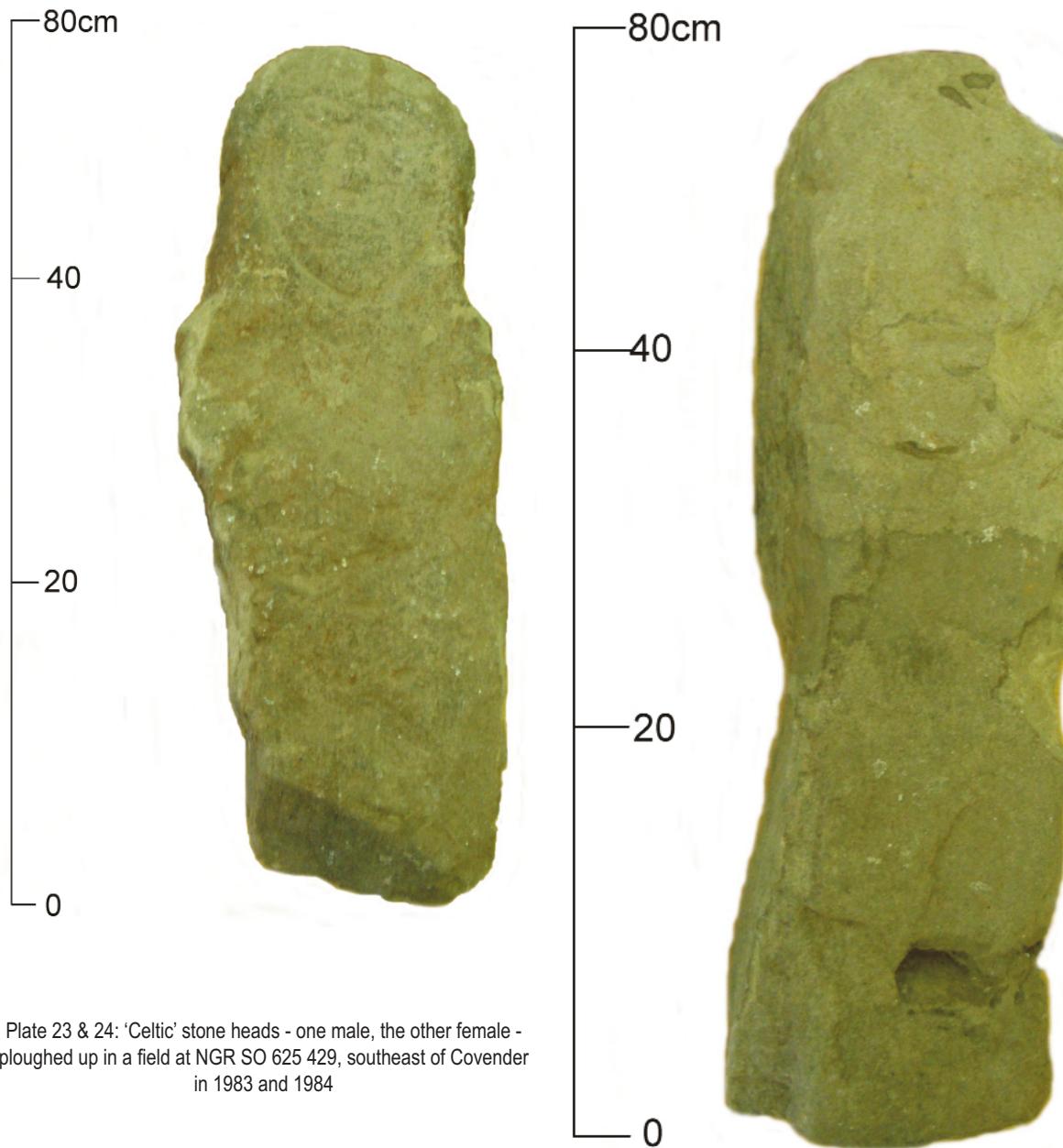
About 200m east of this location, the pipeline route runs through a ploughed field, within which a series of cropmark features have been identified from aerial photography at NGR SO 621 429 (SMR No. 6098), comprising a possible ring ditch feature and a series of associated rectilinear and subcircular features (possibly indicative of settlement enclosures). The



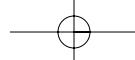
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pipeline route runs approximately 20m to the north of these cropmark features, which may represent evidence of settlement and funerary activity of prehistoric date.



Further archaeological evidence of prehistoric or Romano-British activity (SMR No. 2594) has been identified some 400m further to the east at NGR SO 625 429, southeast of Covender, where two 'Celtic' stone heads - one male, the other female - were ploughed up in a field on two separate occasions in 1983 and 1984 (**Plates 23 & 24**). The location of these stones in close proximity to the Frome suggests that they may have been connected with a Celtic shrine or water cult; however, no other finds have been made in the same field (O'Donnell, 1986, 501). The pipeline route runs through the northernmost part of this field approximately 60m from the findspot.



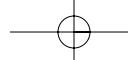
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The eastern end of this section of the pipeline route lies within the northeast corner of the Roman urban settlement of Stretton Grandison as defined by the *Central Marches Historic Towns Survey* and significant archaeological evidence of Roman activity has been found in this area.

2.4.3.2 Results of archaeological observation

A full description of the results of the directional drilling access pit observations in tabular form can be found in part five, appendix 2.



Ledbury Trunk Main Refurbishment Scheme



2.4.4 DCWW / LOR Scheme Map 8 (Access Pits excavated outside designated area of Roman settlement)

2.4.4.1 Description of pipeline route

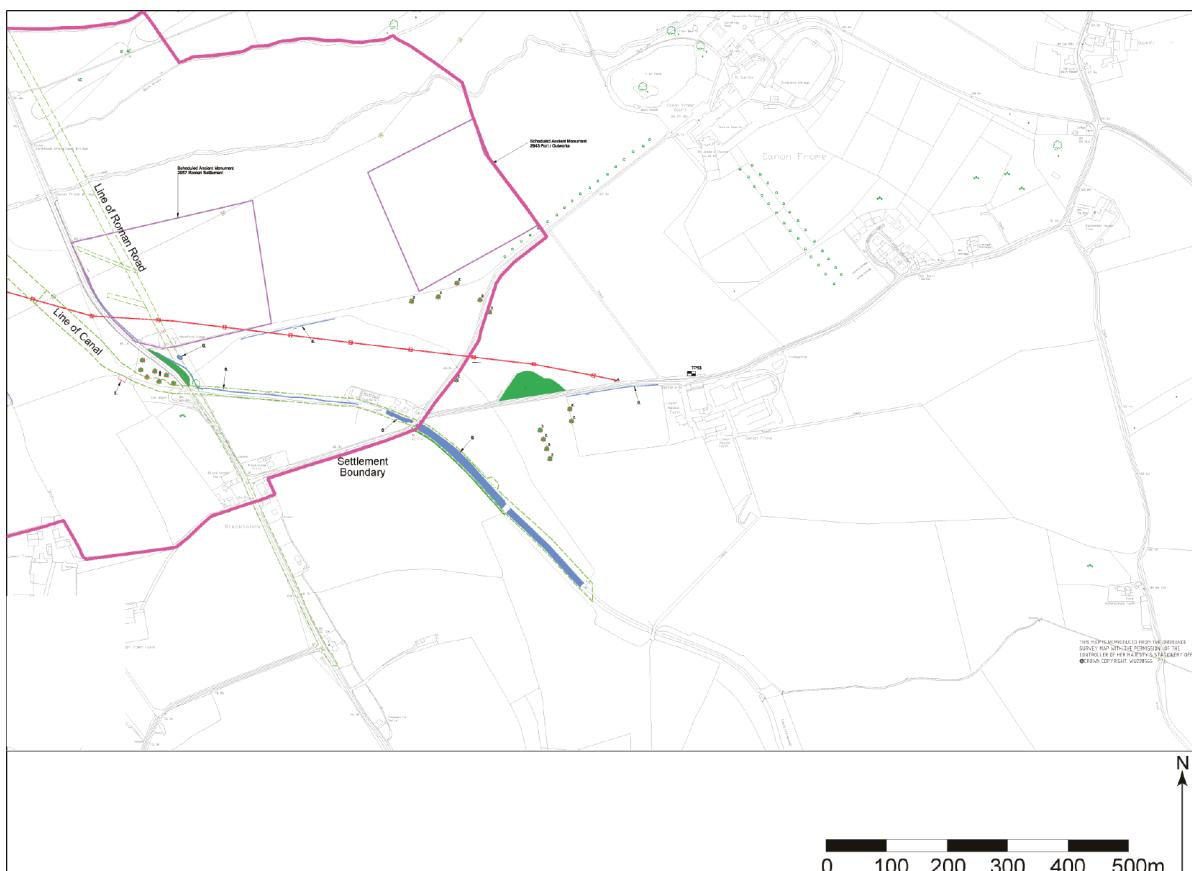
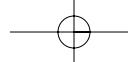


Fig. 12: Plan showing pipeline route and archaeological findspots

This section of the pipeline route, which covers that part of Map 8 not within the designated area of the Roman settlement of Stretton Grandison, extends for a distance of 250m from NGR SO 64110 43146, approximately 150m northeast of the kennels at Ledbury Lodge, to NGR SO 64267 43068, 50m northwest of Lower House Farm. Although this area lies outside the designated area of the Roman urban settlement, there is, nonetheless, significant evidence of Roman activity in the vicinity, represented by the scheduled earthworks of a probable Roman auxiliary fort, situated approximately 250m east of the defended enclosure.

2.4.4.2 Results of archaeological observation

A full description of the results of the directional drilling access pit observations in tabular form can be found in part five, appendix 2.

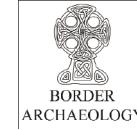
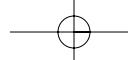


2.4.5 Summary of results of observation of Access Pits (maps 6-8)

The programme of archaeological observation undertaken during the excavation of these access pits (excepting those within the designated area of the Roman settlement of Stretton Grandison) revealed little evidence of stratified archaeological deposits or features. A small quantity of Roman pottery was identified in two pits, one (LT 27) was located to the south of Covender Farm at NGR SO 62151 43047 close to an area where evidence of Romano-British activity has previously been identified, while the other (LT 39) was situated at NGR SO 64110 43146, approximately 150m east of the scheduled area of the defended enclosure (SAM Herefordshire 330).

The extremely small quantity of pottery recovered from these pits precludes any detailed conclusions being drawn concerning the nature and extent of Roman occupation in these areas. However, in general terms, it is noticeable that there was a significant decrease in the density of Roman finds to the southeast of the scheduled area of the defended enclosure, also evidenced in Access Pits 10-13. This is somewhat surprising, in view of the proximity of the Roman auxiliary fort at Canon Frome, situated approximately 250m further to the east, and the presence of a possible prehistoric hut circle site at SO 6390 4310. However, in connection with this, it is worth noting that a watching brief undertaken at Blacklands Farm in 1997, situated further to the south, produced negative results (Hoverd, 1997).

It is possible that this marked reduction in finds and features could have partially resulted from intensive farming activity and fieldwalking over much of this area. Nevertheless, it may be suggested that the main focus of Roman settlement activity extended to the north, northwest and west of the defended enclosure, extending towards the river, a hypothesis partially confirmed by the results of the archaeological excavation of Access Pits 1-13. Evidence of medieval activity was restricted to a single body sherd of green glazed pottery (Herefordshire A7b ware) found in the topsoil during excavation of access pit LT 02, immediately northwest of the medieval moated manor site at Yarkhill. The line of a probable drainage or boundary ditch of post-medieval date was identified in Access Pit LT 08 (NGR SO 60014 42345) situated immediately south of Watery Lane.



PART THREE: Archaeological excavation

3.1 Introduction

Where the pipeline crossed the Romano-British settlement area at Stretton Grandison, as designated in the *Central Marches Historic Towns Survey* (Buteux, 1996), the preferred engineering method of directional drill necessitated the excavation of 13 access pits spaced at intervals of approximately 100m to a depth determined by topography and by the nature and extent of the buried archaeological resource. These pits were excavated by Border Archaeology, under instruction from Laing O'Rourke, to establish the nature and depth of archaeological deposits prior to drilling and to preserve by record any significant remains encountered which lay within the course of the pipeline and which would thus be directly impacted by the groundworks.

3.1.1 Aim of the archaeological excavation

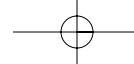
The aim of the programme of archaeological excavation was to examine the archaeological resource at specified locations within the area of known Roman settlement at Stretton Grandison within a framework of defined research objectives, to seek a better understanding of and compile a lasting record of that resource, and to analyse, interpret and disseminate the results.

3.1.2 Methodology

The archaeological programme of work was conducted in accordance with guidelines set out in *Standard and Guidance for archaeological excavation* (IfA, 2001) and *Management of Research Projects in the Historic Environment* (English Heritage, 2006). Border Archaeology adheres to the IfA *Code of conduct* and *Code of approved practice for the regulation of contractual arrangements in field archaeology* and additionally to Herefordshire Archaeology's *Standards for Archaeological Projects in Herefordshire (Issue 1)* (Herefordshire Council, 2004).

A total of 13 Access Pits were opened within the Roman urban settlement area, two of which (AP8 & AP9) were located within the defended settlement enclosure (SAM Herefordshire 330) and these excavations are described within the main body of the report. Access pits were spaced roughly 100m apart with precise locations established by Laing O'Rourke according to engineering criteria. Excavations were undertaken to an agreed methodology intended to maximise the archaeological potential of each pit while maintaining a safe working environment by ensuring the stability of sections. This was achieved by creating a stepped profile such that no section stood more than 1.5m high.

Each access pit was centred on co-ordinates supplied by Laing O'Rourke. Access pits (APs) 1-13 excluding 8, 9 and 10 measured 9m x 8m; AP8 and AP9 measured 6m x 5m and AP10 measured 5m x 4m. After the removal of ploughsoil, each access pit was excavated to a depth of 1m and thereafter stepped in 1.5m for each metre of depth to a maximum of 3m, resulting in a basal excavation area of 3m x 2m. Access pits 3, 6 and 8 were all extended for engineering requirements, details of which are supplied in the following relevant sections.



Ledbury Trunk Main Refurbishment Scheme



Full written, drawn and photographic records were made using pro forma record forms and sheets, these being in accordance with Border Archaeology's *Site Recording Manual* and with established archaeological practice.

A detailed written stratigraphic record was produced for each access pit and individual Harris matrices compiled. Plans, sections and elevations were produced at scales of 1:20 or 1:10, as appropriate, on pro forma gridded archivally stable polyester film; artefact details were recorded at an appropriate scale. All plans, elevations and sections contain grid and level information relative to OS data and are numbered and listed in a drawing register, these numbers being cross-referenced to written site records.

A comprehensive photographic record of all stratigraphic units was made using a high-resolution digital camera. This comprises record views of contexts, samples or artefacts, together with a representative photographic record detailing the progress of site works. All photographic records were indexed and cross-referenced to written site records. Details concerning subject and direction of view were maintained in a photographic register, indexed by frame number.

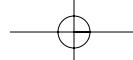
3.1.3 Description of pipeline route

The pipeline route continued east-northeast to Covender, where it crossed the River Lodon, an area characterised by typical brown alluvial soils of the LUGWARDINE series (561d), consisting of deep, stoneless, permeable reddish fine silty soils, with similar coarse silty soils locally, associated with fine silty soils variably affected by groundwater. These soils overlie reddish river alluvium. The pipeline then extended east-southeast through typical argillic brown earths of the BROMYARD series (571b), consisting of well-drained reddish fine silty soils over shale and siltstone, with some similar soils with slowly permeable subsoils and slight seasonal waterlogging and some well-drained coarse loamy soils, over sandstone (SSEW, 1983).

The first Access Pit (AP1) was positioned immediately within the northwest boundary of the Roman urban settlement area, as designated in the *Central Marches Historic Towns Survey*, at NGR SO 62916 43255. From there, the pipeline extended for 1km in a roughly southeast direction, traversing the line of the disused Hereford to Gloucester Canal at NGR SO 63422 43216 and crossing the A417 at NGR SO 63492 43184, some 50m northwest of 'Hereford Lodge'.

Continuing southeast from this point, the pipeline crossed a large ploughed field within the area of a defended Roman settlement enclosure, the rectangular outline of which has been identified from aerial photography and which has been designated as a Scheduled Ancient Monument (Herefordshire 330). Within this area, at NGR SO 63585 43164, the pipeline route crossed the line of the Roman road running north from Gloucester, just to the south of its intersection with another road running off to the west in the direction of the Roman town of *Magnis* (Kenchester).

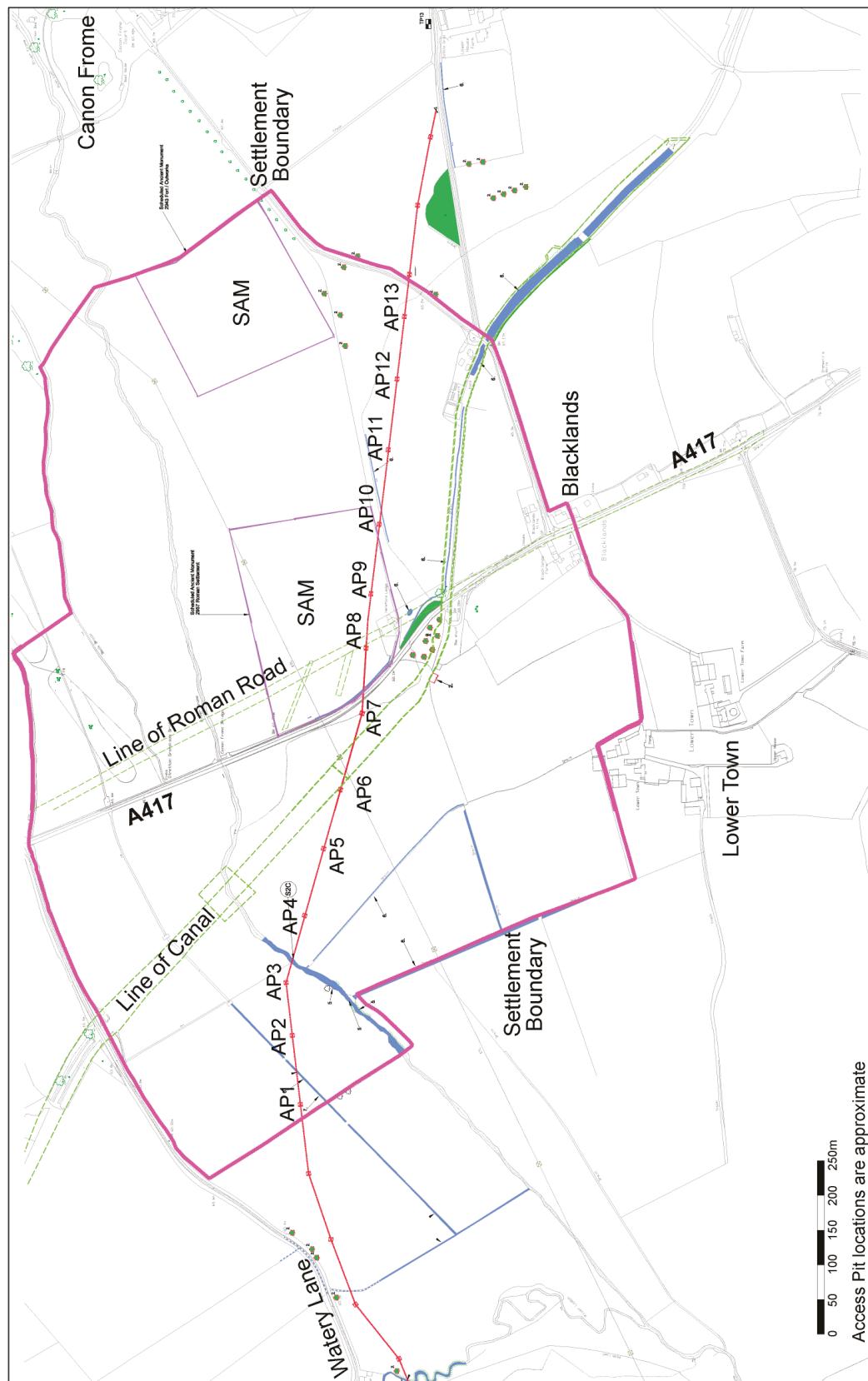
The pipeline route exited the scheduled area at NGR SO 63730 43163 and continued southeast for another 600m before terminating at a valve chamber some 100m west of Lower House Farm (NGR SO 64331 43070). It should be noted that the earthworks of a Roman fort, comprising a bivallate rectangular enclosure covering some 4.8 acres, have been identified at NGR SO 6440 4330, together with a series of roughly circular enclosures

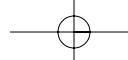


Ledbury Trunk Main Refurbishment Scheme



at NGR SO 6390 4310, approximately 20m south of the pipeline, which have been provisionally interpreted, based on aerial photographic evidence, as prehistoric hut circles.





3.2 ACCESS PIT (AP) 1

3.2.1 Site Location

Access Pit 1 (AP 1) was located at NGR SO 62275 43360, approximately 350m east of Ark Cottage on Watery Lane and lying just within the western perimeter of the designated area of the Romano-British settlement of Stretton Grandison as defined in the Central Marches Historic Towns Survey.

3.2.2 Description

A total of 37 contexts were recorded in AP1, the uppermost of which was (1001), a moderately compacted friable mid reddish-brown silty clay topsoil with very occasional small angular stones, measuring 0.35m in thickness, which in turn overlaid (1002), a firm mid reddish-brown silty clay with occasional small subangular stones, extending to a depth of 0.9m.

Beneath these sterile alluvial deposits, at an approximate depth of 1.2-1.3m, the first evidence for Roman activity was encountered, represented by (1003), a thin band of firm mid pinkish-brown silty clay measuring approximately 0.1m in thickness, containing occasional charcoal flecking and sherds of oxidised Severn Valley ware towards the base of the deposit, which was interpreted as representing the uppermost level of Roman occupation. Underlying this was (1004) a firm mid greyish-brown silty clay, measuring approximately 0.35m in thickness, containing very frequent charcoal flecking, frequent Roman pottery sherds (145 in total) and CBM fragments and one flint piece, which clearly represented a substantial occupation deposit. The thickness of this deposit and the frequency of the pottery contained within it suggest fairly intensive occupation over an extended period, a date range for which can be established from the late 1st century through to the late 2nd-3rd century AD.

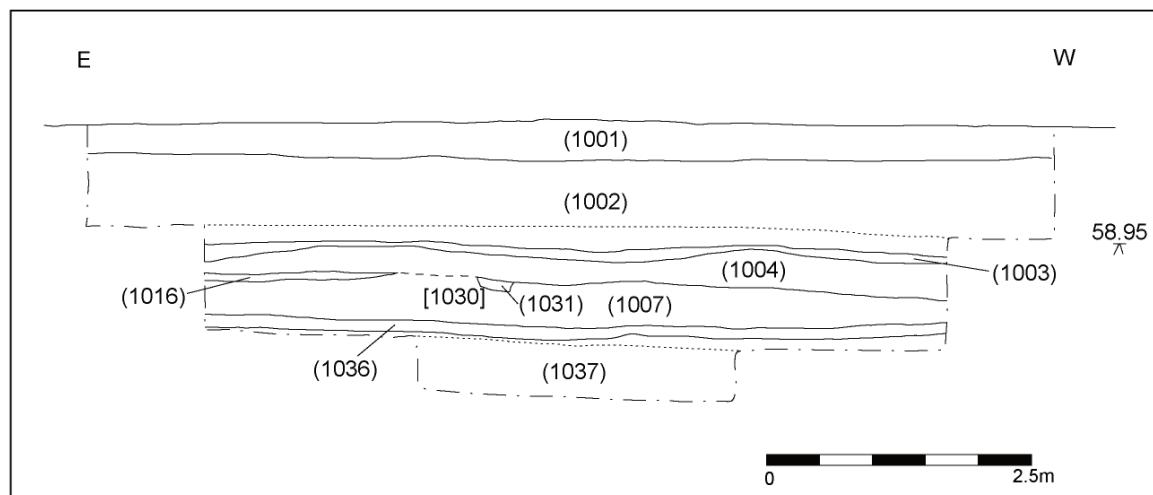


Fig. 13: North-facing section of Access Pit 1

The largest proportion of the sherds recovered from (1004) consisted of Severn Valley oxidised ware, the majority of which appeared to belong to a fabric type produced during the late 2nd-3rd century AD, while the samian ware chiefly consisted of south Gaulish ware of



Flavian-Trajanic date with the exception of a single sherd of Les Martres-de-Veyre fabric, dating from the Trajanic-Hadrianic period. Also present were three sherds of Baetican *amphorae* imported from Baetica, southern Spain, probably deriving from the globular amphora Dressel 20, used for transporting olive oil and the commonest type to be found on British sites.

The assemblage in (1004) has survived in a remarkably well-preserved condition, particularly when compared with the assemblages recovered from other contexts within AP1; a possible explanation for this could be that this deposit represents a dispersed surface midden (Timby, 2008). A single feature was cut into this deposit consisting of a shallow sub-circular pit [1006] with a largely gradual break of slope at the top of the profile, concave sides and a slightly concave base measuring 0.85m × 0.9m × 0.07m. This was filled by (1005), a loose light greyish-brown clayey gravel devoid of finds (**Fig. 14**).

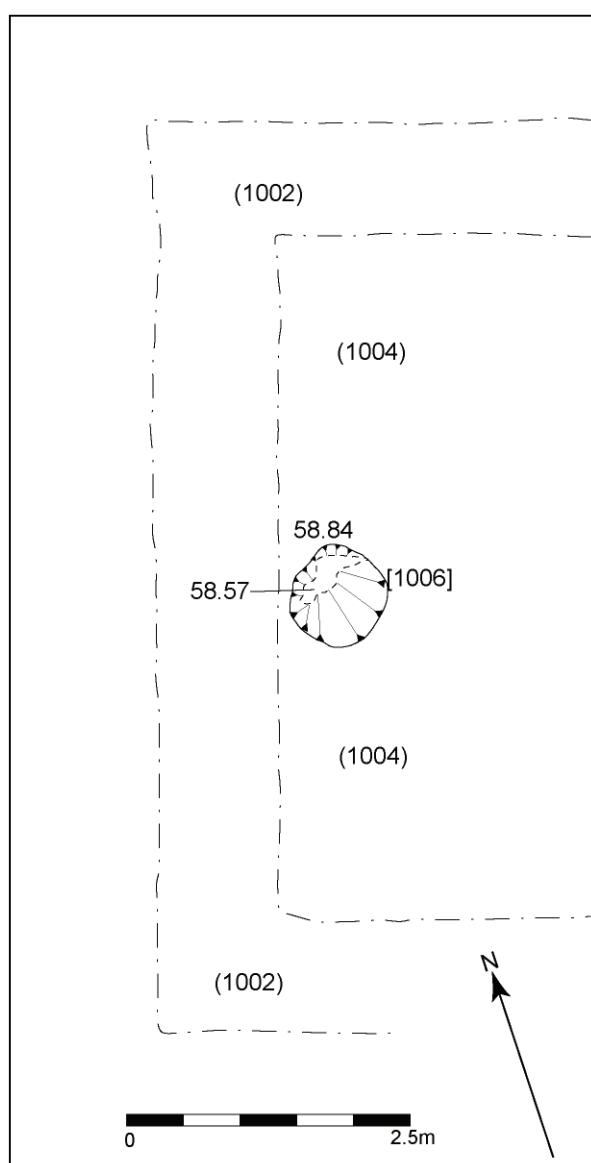
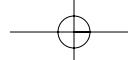


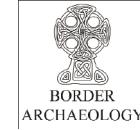
Fig. 14: Plan of pit [1006]

Underlying (1004), a further occupation deposit (1007) was encountered consisting of firm mid reddish-brown silty clay with very frequent charcoal flecking and moderate quantities of oxidised Severn Valley ware and sherds of grey ware. (1007) extended across most of the excavated area to an approximate depth of 0.45m, with the exception of the southeast corner of the pit, where a distinct area of firm pinkish-brown clayey gravel was identified (1016), its visible dimensions measuring 1.4m (east-west) × 0.9m (north-south) × 0.05m (**Plate 25; Fig. 15**). (1016) was interpreted as forming part of a gravel surface of unknown function, possibly a courtyard or roadway; it contained a moderate pottery assemblage, including sherds of oxidised and reduced Severn Valley ware, together with a rim and several body sherds of South Gaulish samian ware of Flavian-Trajanic date, which exhibited evidence of having been burnt. A quantity of heavily eroded animal bone was also recovered from this deposit, including caprovid teeth and a caprovid metacarpal.

Occupation deposit (1007) was cut by a series of three sub-circular pits ([1008], [1010], [1012]) interpreted as domestic waste pits, together with a number of probable postholes and a linear feature of uncertain function. Pit [1008], located in the northwest corner of AP1, measured 0.7m × 0.8m × 0.06m with a slightly concave base (**Plate 26; Figs. 15 & 16**). Its fill (1009), consisting of a moderately compact dark



Ledbury Trunk Main Refurbishment Scheme



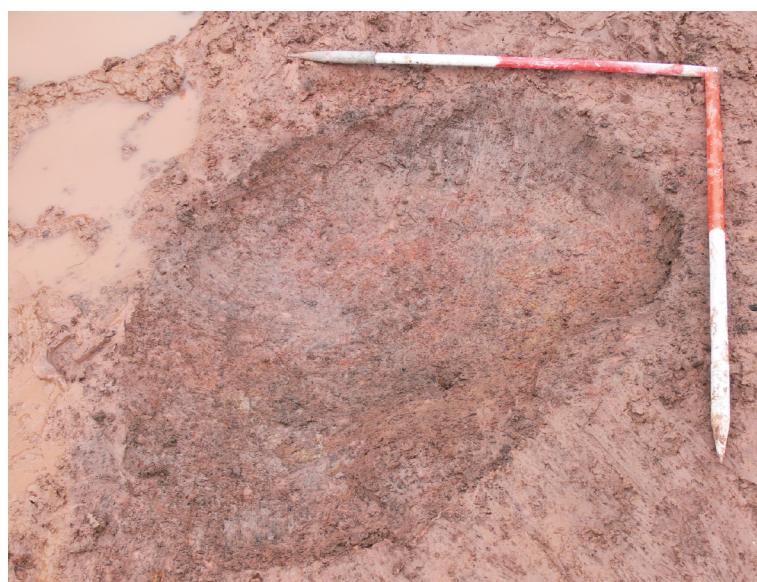
greyish-brown silty clay with frequent charcoal flecking, calcined bone, metal dust and a small assemblage of largely undiagnostic Roman ceramics, including a single sherd of grey ware, was characteristic of domestic fire waste.

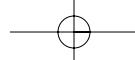
Plate 25: View looking east showing gravel layer (1016) identified in southeast corner of Access Pit 1



Pit [1010] located roughly 0.95m south-southeast of [1008], was again sub-circular in form, although slightly larger in extent, measuring 1.25m × 0.9m × 0.17m (**Plate 27; Figs. 15 & 16**). Its profile differed slightly from [1008], having steeply sloping sides and a flat base. The fill of the pit (1011) was likewise characteristic of domestic fire waste, comprising a firm dark greyish-brown silty clay with occasional ceramic sherds, moderate charcoal fragments, frequent charcoal flecking and calcined bone fragments, hazelnut shell fragments and three glass chips. (1011) contained a substantial quantity of Roman ceramics, the majority consisting of sherds of oxidised Severn Valley wares; however, a noticeable proportion of the assemblage appeared to be of a mid 1st-early 2nd century date, comprising sherds of Malvernian metamorphic ware and grog-tempered fabric.

Plate 26: View looking north showing domestic fire waste pit [1008]





Ledbury Trunk Main Refurbishment Scheme



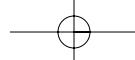
Plate 27: View looking north showing half-sectioned profile of pit [1010]



Located approximately 1.8m southwest of [1010] was another sub-circular pit [1012], measuring 1.15m × 0.85m × 0.22m, with moderately sloping sides and a flat base (**Plate 28**). Two fills were identified within this pit, the primary fill (1017) consisting of a firm mid pinkish-brown gravelly clay with occasional pottery sherds and occasional charcoal flecking and mortar fragments, while the secondary fill (1013) comprised a dark greyish-brown silty clay (1013) with abundant charcoal flecking (characteristic of a fire waste deposit) and frequent pottery sherds. The ceramic assemblage recovered from this pit appeared to date from the mid-late 1st century AD; the pottery in (1017) was restricted to sherds of Malvernian rock- and limestone-tempered ware and Severn valley ware, while the pottery from (1013) had a slightly broader range, in terms of type and date, containing sherds of south Gaulish samian of probable Flavian date, single sherds of Dressel 20 and Gauloise *amphorae*, and 30 per cent Severn Valley wares.

Plate 28: Post-ex view of sub-circular pit [1012]





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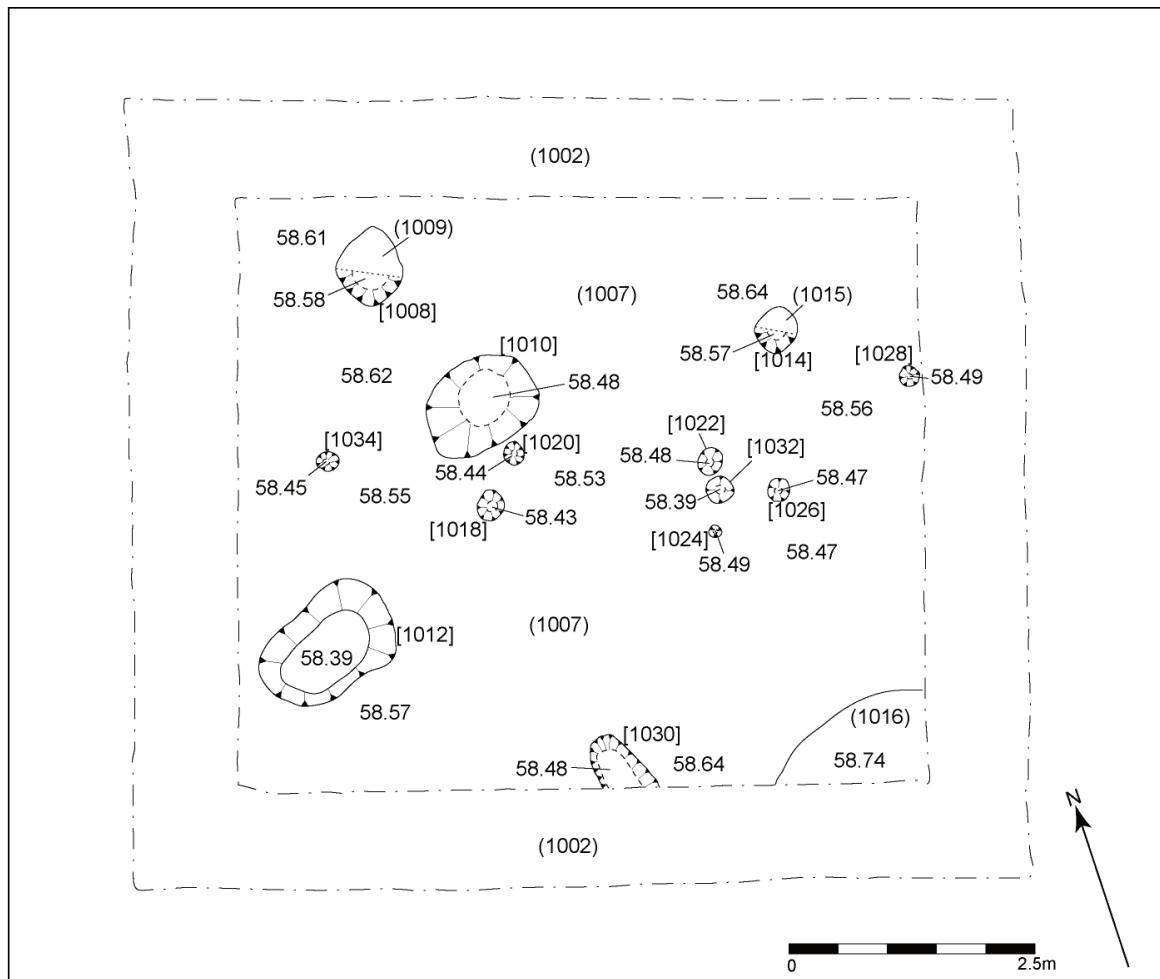
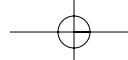


Fig. 15: Plan showing features identified in Access Pit 1

A mid-to-late 1st century origin for this pit was further strengthened by the presence of glass sherds belonging to a polychrome pillar moulded bowl characteristic of Claudio-Neronian sites (AD 43-69). Such vessels were becoming less common by the last third of the 1st century AD and are thus indicative of an early phase of activity. The one firmly identifiable fragment consisted of a dark yellowish-brown glass chip with opaque white speckles, which retained part of the vessel's rib; a second very small fragment of dark yellowish-brown glass lacking original surfaces may have been from the same vessel.

Feature [1014] was a circular cut measuring 0.38m × 0.1m with concave sides and base; based on the pottery assemblage appeared to be of mid-late 1st century date (**Plate 29; Figs. 15 & 16**). The fill (1015) consisted of firm mid greyish-brown silty clay, with very occasional calcined and unburnt bone, metal dust, moderate small rounded stones and charcoal flecks. Several large sherds from a single storage jar (of oxidised Severn Valley ware) were found in the fill; this could either represent domestic waste or packing material placed around a post.

In addition to these sub-circular pits, all of which appeared to have been used for the disposal of domestic waste, and circular pit/posthole feature [1014], a series of sub-circular features, probably representing postholes, was identified, extending roughly east-west across the excavated area, all of which appeared to be cut from occupation deposit (1007)



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Plate 29: View looking north showing half-sectioned circular pitposthole feature [1014]

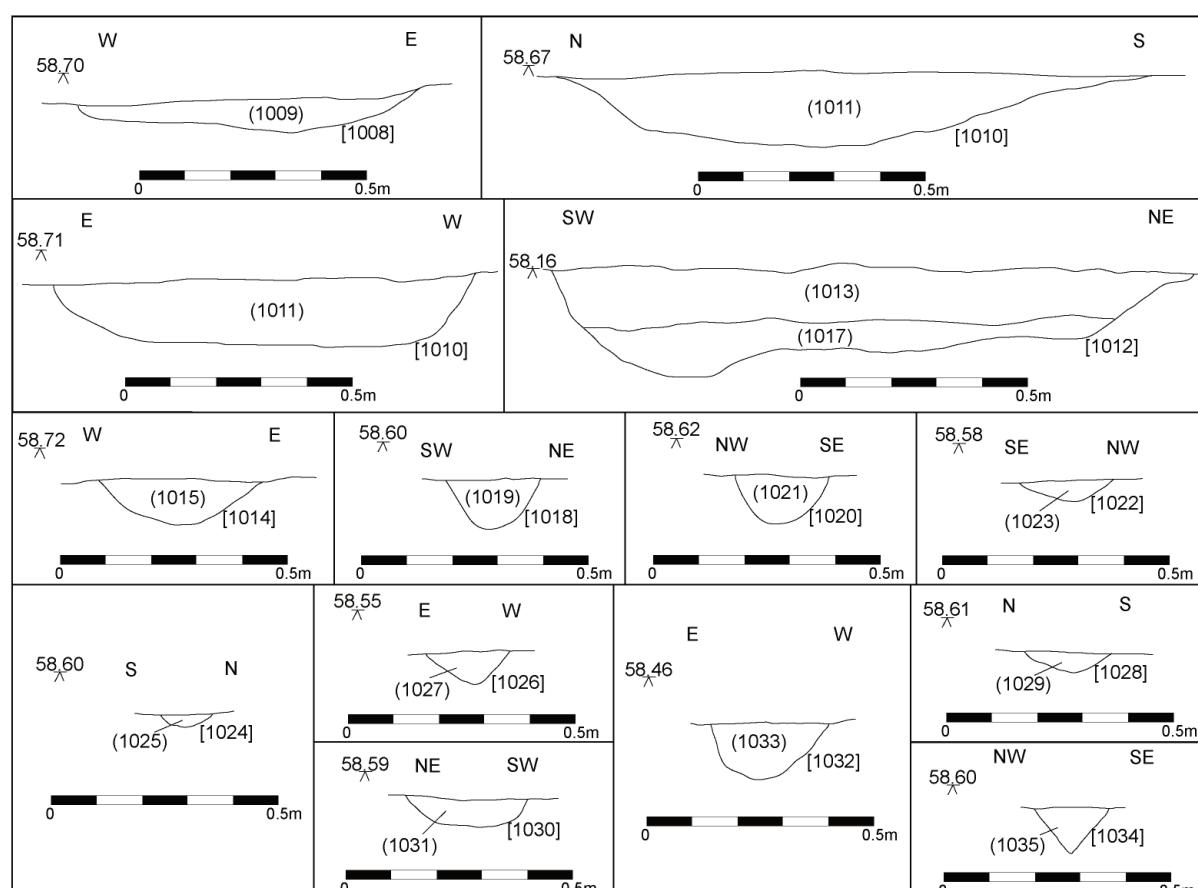
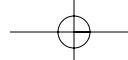
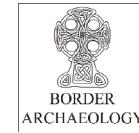


Fig. 16: Profiles of features in Access Pit 1



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(Plate 30; Fig. 15). The majority of the postholes appeared to represent roughly two distinct alignments, the northern one consisting of [1034], [1020], [1022] and possibly [1028] further to the northeast, while the southern alignment consisted of [1018] [1032] and [1026]. All the postholes appeared to be filled with a firm mid greyish-brown silty clay with moderate charcoal flecking; dating evidence was retrieved from a single posthole [1032], which contained a bodysherd of Malvernian grog-tempered ware, which could potentially be of late Iron Age or early Roman date. The moderate charcoal flecking observed in the pits appeared to be characteristic of occupation rather than evidence of a specific burning event. Also cutting (1007) was a shallow linear feature of unknown function [1030], its visible dimensions measuring 0.6m northwest-southeast × 0.28m southwest-northeast × 0.06m with a sharp break of slope at the top of the profile, gradually sloping sides and a concave base. Only a small part of [1030] was visible, the rest disappearing into the north-facing section of the access pit. The fill of [1030], (1031), consisted of a moderately compact dark greyish-brown silty clay with frequent small gravels and occasional pottery and glass fragments. The date range of the artefactual evidence from (1031) ranged from the late 1st century through to the 3rd century AD, including a rim of south Gaulish samian ware dating from c.70-85 AD and a fragment of blue/green glass from a square bottle, a vessel form which continued in use to the end of the 2nd century with some still in use in the 3rd century.

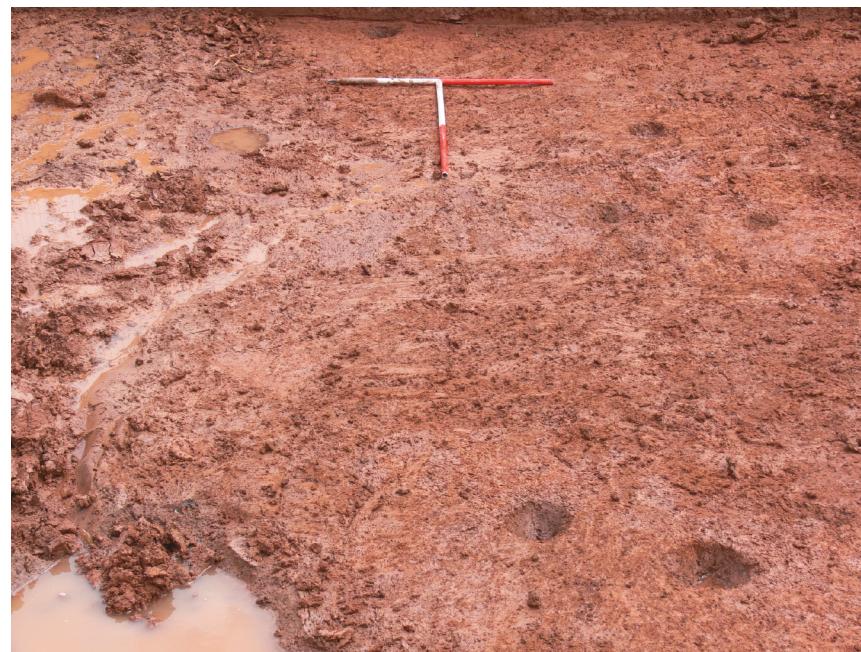
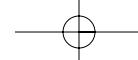


Plate 30: View looking east showing series of posthole features extending across Access Pit 1

Underlying (1007) was natural deposition (1036), consisting of a thin band of firm light pinkish-brown highly organic silty clay measuring 0.1m in thickness, which, in turn, overlaid (1037), consisting of loose grey gravels interpreted as natural deposition, which extended to the base of the access pit.



3.2.3 Summary Conclusions

The excavation of AP1 identified the uppermost level of Roman occupation deposits at an approximate depth of 1.25m below existing ground level, which extended down to a depth of a further 1m before natural deposits were encountered. The Roman occupation deposits in AP1 occurred at a noticeably higher depth than those identified in the auger transect undertaken by HWCC in 1989-90, which occurred at a depth of 1.7m. This may reflect the fact that this area was relatively well drained during the Roman period.

Several broad conclusions can be drawn from the occupation features and deposits encountered in AP1. The chronology for the initial phase of settlement in this area appears to be reasonably well defined based on the evidence of the artefactual assemblage from occupation layer (1007) and the fills of the various pit/posthole features cut from this deposit, the date range of which appears to extend from the mid 1st century to the mid-late 2nd century AD.

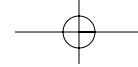
The pits, postholes and linear features cut from (1007) represent a period of relatively dense activity that appears to be domestic and small-scale in character, more likely to be associated with a nearby rural farmstead rather than a large-scale animal processing or industrial site.

It was not possible to establish the full extent of the feature represented by the two groups of postholes extending east-west across the site. Although these postholes all appeared to be cut from the same deposit (1007), it is unclear whether they were precisely contemporary with each other or (as seems more likely) one set of postholes represented a redefinition of an earlier boundary. The dating evidence from the fills of the postholes was regrettably limited, although a single sherd of Malvernian grog-tempered ware was recovered from the fill of [1032], which suggests a probable early Roman date for this feature. The function of the posthole alignments is likewise uncertain; they might possibly have formed components of a structure in the immediate vicinity, although a more plausible explanation is that they represent a property boundary, defining two specific zones of occupation.

Sub-circular pits [1008], [1010] and [1012] may be characterised broadly as general domestic waste pits, the fills of which contained a mixture of burnt pottery, animal bone and occasional glass fragments and quantities of fuel ash slag. However, there was a noticeable absence of charred cereal remains from these pits, which may indicate that they also had a more specific function, possibly associated with the disposal of secondary butchery waste indicated by the presence of a number of metapodial fragments. The dating evidence from the fills of these pits generally indicates a mid-to-late 1st century date for the active use of [1012], while [1010] appears to have had a somewhat longer lifespan, with pottery ranging from the mid-to-late 1st century up to the late 2nd century AD. The pottery from [1008] was too undiagnostic to define a date range for the active use of this particular pit.

The presence of a series of large domestic waste pits and a later midden deposit suggests that this area had a long-established usage as a domestic refuse site, either lying within or on the periphery of a settlement. It was not possible to define the full extent of this settlement, due to engineering constraints; consequently, it is probable that further evidence of it remains to be identified.

Gravel layer (1016) appears to represent evidence of a roadway or an attempt to regularise



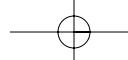
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the settlement and/or define a particular zone of occupation by establishing a metalled surface; the dating evidence appears to suggest a late 1st-early 2nd century date, roughly contemporary with or slightly later than occupation layer (1007) and the associated pits and posthole features. (1004) appears to represent, both in chronological and stratigraphic terms, a later phase of occupation, probably datable to the later 2nd-3rd century AD, based on the pottery evidence.

The relative lack of features cutting (1004) might indicate that this occupation phase was relatively less dense than (1007); however, the ceramic assemblage recovered from the former deposit was considerably larger, including a quantity of late 1st-2nd century samian ware, which presumably must be regarded as residual.

It is possible that (1004) may represent a dispersed surface midden, based on the relatively well-preserved condition of the pottery in this deposit compared to the heavily abraded sherds recovered from the fills of the earlier features. (1003) appears to represent the final phase of Romano-British occupation on the site; the relatively small assemblage recovered from this deposit hints at a much lower density of occupation compared to the earlier phases, represented by (1004) and (1007).



3.3 ACCESS PIT 2 (AP 2)

3.3.1 Site Location

Access Pit 2 was located at NGR SO 62850 43365, approximately 100m east-northeast of AP 1 and 80m northwest of the River Frome.

3.3.2 Description

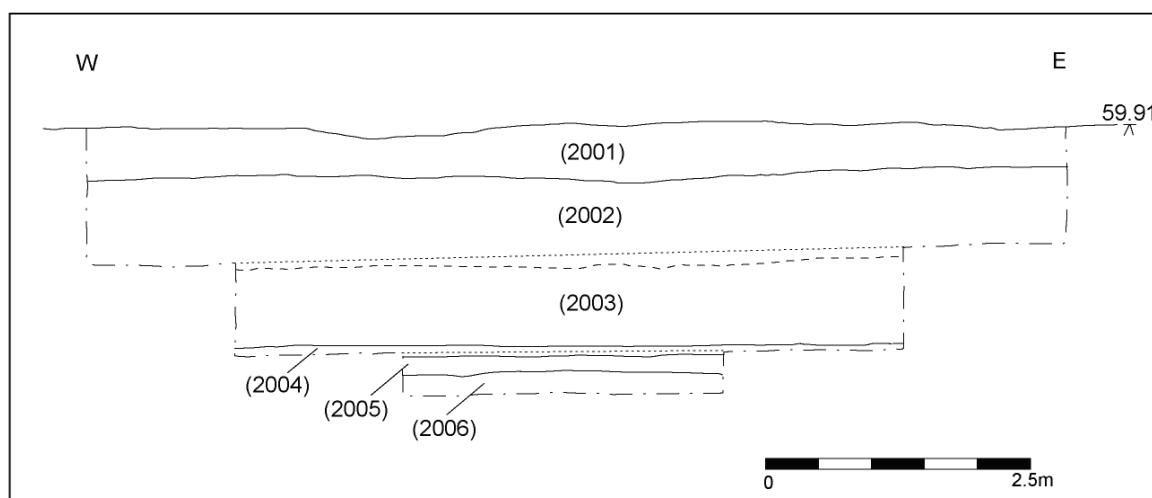
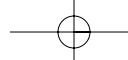


Fig. 17: South-facing section of Access Pit 2

A total of six contexts were recorded during the excavation of this access pit (Fig. 17), the uppermost of which was a modern ploughsoil (2001) extending to a depth of 0.45m and consisting of loose orangey-brown sandy clay silt with very infrequent charcoal flecking. Underlying this was a seasonally deposited riverine silt (2002) extending to a depth of 0.7m and consisting of moderately compact reddish-brown stone-free silty clay, with very occasional charcoal flecking.

Beneath (2002) was a 0.8m-thick layer of moderately compact reddish-brown stone-free silty clay (2003) containing moderate sherds of reduced and oxidised Severn Valley ware and moderate to frequent charcoal flecking and occasional animal bone (including one cattle phalanx fragment). Although the composition of (2003) was generally similar to riverine silt deposit (2002), the presence of fairly frequent charcoal flecking and a moderate quantity of Roman ceramics suggests that this deposit represents evidence of intermittent, low-level occupation over a prolonged period, interrupted by episodes of water ingress.

Underlying (2003) was a heavily waterlogged silt deposit (2004) comprising a moderately compact orangey-brown clayey silt with occasional charcoal flecking and degraded mollusc shells, measuring 0.1m in thickness which, in turn, overlaid (2005), a moderately compact dark greyish-brown sandy silt, also heavily waterlogged, with moderate to frequent charcoal fragments and occasional mollusc fragments and three pieces of Malvernian rock-tempered ware, extending to an approximate depth of 0.2m. A single piece of worked oak (*Quercus robur*) and several other fragments of wood (species alder – *Alnus glutinosa*) showing possible evidence of conversion were recovered from this deposit and sent for analysis; the



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worked oak fragment showed clear evidence of having been worked with no bark surviving, one end broken and the other cut off at an angle (ASUD, 2007). (2005) in turn overlaid (2006), a loose to moderately compact dark reddish-brown, waterlogged stone-free silty clay containing very occasional mollusc fragments and three fragments of unburnt animal bone (caprovid and pig); this appeared to extend to the base of the excavation (although this could not be positively verified, due to the heavily waterlogged conditions). Towards the base of this deposit, at an approximate depth of 2.45m below ground level (57.45m AOD), a significant concentration of wood fragments was identified in the eastern half of the pit, from which a sample was recovered for analysis, which was found to be alder (*Alnus glutinosa*) (Fig. 18).

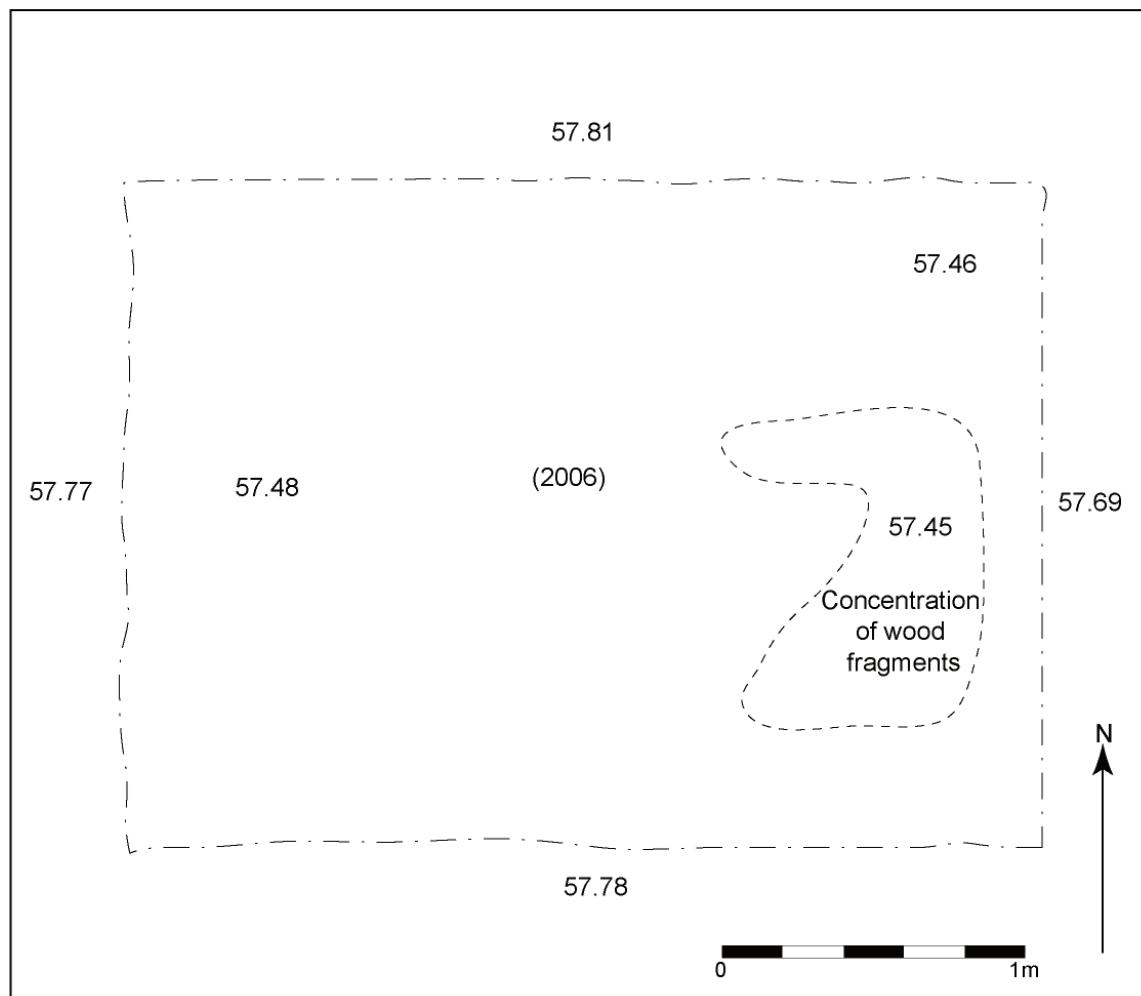
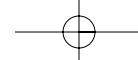


Fig.18: Post-ex plan showing concentration of wood fragments, indicated by dotted line

Further analysis of these wood fragments revealed that the majority were probably wood conversion debris (i.e. material removed during the cutting and trimming of larger pieces), which was primarily indicated by their size and shape, as most of the pieces were too heavily abraded to display evidence of working (ASUD, 2007).

However, a number of fragments showed clear evidence of having been worked, including one particular piece (dimensions measuring 0.69m x 0.22m x 0.14m) which had one face compressed in the centre, probably from having formed part of a woven panel (ASUD, 2007). Due to constant waterlogging, which seriously hampered the recording of the lower levels of



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the access pit, it was impossible to determine the full nature and extent of the feature represented by this concentration of wood fragments and from where they were actually cut (**Plate 31**).



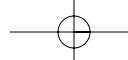
Plate 31: View looking north showing heavily waterlogged basal deposit in Access Pit 2 with approximate location of concentration of wood debris marked by rod to centre-right of picture

3.3.3 Summary Conclusions

The pattern of landscape change and settlement activity revealed in Access Pit 2 was noticeably different to that identified in AP1, characterised by episodic, possibly seasonal occupation within an open landscape, with areas of permanent and/or seasonal wetland; the density of occupation was at a significantly lower level than that encountered in AP 1. Based on the ceramic assemblage, plant macrofossils, worked wood, mollusc fragments and other evidence recovered from AP2, it is possible to establish an approximate chronology of environmental change and human activity in this specific area during the prehistoric and Romano-British periods.

The earliest evidence for human activity was represented by the series of worked wood fragments and associated conversion debris in (2006) (**Plates 31 & 32; Fig. 18**). These were extremely difficult to interpret, due to the heavily waterlogged conditions in which they were identified; none of the fragments was found *in situ* within a discernable feature. However, at least one piece (and probably several more) appeared to form part of a woven hurdle or panel, which would have been constructed from a series of small similar-sized pieces of alder branches (rods) woven around evenly spaced larger cross-pieces (sails). The use of alder is particularly significant, as it is a species that is especially resistant to decay when partly immersed in water; consequently, it is likely that the structure to which these fragments relate was either wholly or partly immersed in a stream or pool.

The most plausible interpretation of the wood fragments found in basal deposit (2006) is that



Ledbury Trunk Main Refurbishment Scheme



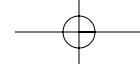
they formed components of a structure, most likely a trackway, over marshy ground; the possibility of a fish trap or weir cannot be altogether dismissed, although this seems unlikely, as the latter are more commonly found in tidal environments. The dating of the worked wood in (2006) remains undetermined; however, the considerable depth at which these fragments were identified (almost 2.5m below existing ground level) strongly suggests an early prehistoric date. Examples of trackways constructed from wooden hurdles have been identified in other heavily alluviated environments such as the Somerset Levels and the Thames Estuary, most of which have been dated to the Neolithic/Bronze Age period. The prevailing environmental conditions around the time when the timber structure found in (2006) was constructed appear to have been characterised by tracts of damp woodland (evidenced by the presence of alder, hawthorn and elder) which appear to have existed alongside areas of wetland (indicated by the presence of water plantain, spike-rush and rushes). The presence of faunal remains in (2006), including caprovid and pig bone, is of particular significance; this would appear to indicate that animal husbandry was being practised on the site at some time during the prehistoric period, potentially at a very early date.

Plate 32: Fragment of worked alder wood (*Alnus glutinosa*) showing compression in centre indicating that it may well have formed part of a woven hurdle



The assessment of plant macrofossil evidence from (2004) and (2005) appears to indicate a significant change in environmental conditions compared to those evidenced in (2006), with evidence of a heavily waterlogged, marshland environment, evidenced by the presence of ruderal taxa such as crowfoot, horned pondweed and water plantain, typically found in areas of marshy or swampy ground, as well as a number of wetland taxa (e.g. hairy buttercup and sedge) and rushes in context (2005) which would have been occupying the damp ground associated with standing or slow-moving water. Further evidence of the prevailing waterlogged environment in this area was represented by small assemblages of freshwater snails, in particular, *Bithynia tentaculata*, a species common in lowland rivers, favouring muddy substrates and areas with dense aquatic vegetation.

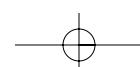
Some evidence of human activity was noted in (2005), albeit of an ephemeral, limited nature, represented by the worked oak and alder fragments recovered from this deposit. These wood fragments were difficult to place in context, although stratigraphically they appeared to be separate from the concentration of wood debris identified in (2006). It is possible that it may



Ledbury Trunk Main Refurbishment Scheme



have formed part of a later wooden trackway across the same area, although there was insufficient evidence on which to base more detailed conclusions as to date and function. Three sherds of Malvernian rock-tempered ware were also recovered from (2005), probably dating (in this context) to the mid or late Iron Age period. The relative abundance of aquatic and wetland taxa in (2005) appears to be indicative of an open, regularly flooded environment; however, there is limited evidence for a growing level of human disturbance which may have been associated with increasingly drier conditions, indicated by the presence of charred plant macrofossils (including a spelt wheat glume base) and common nettle in (2004).





3.4 ACCESS PIT 3 (AP 3)

3.4.1 Site Location

Access Pit 3 was located at NGR SO 62910 43375 approximately 70m east of AP2 and 40m northwest of the River Frome. Its original dimensions measured 9m (north-south) × 8m (east-west) × 3m; however, a substantial extension to the east of the original pit was also excavated for engineering purposes measuring 15m (east-west) × 7m (north-south) × 3m (depth).

3.4.2 Description

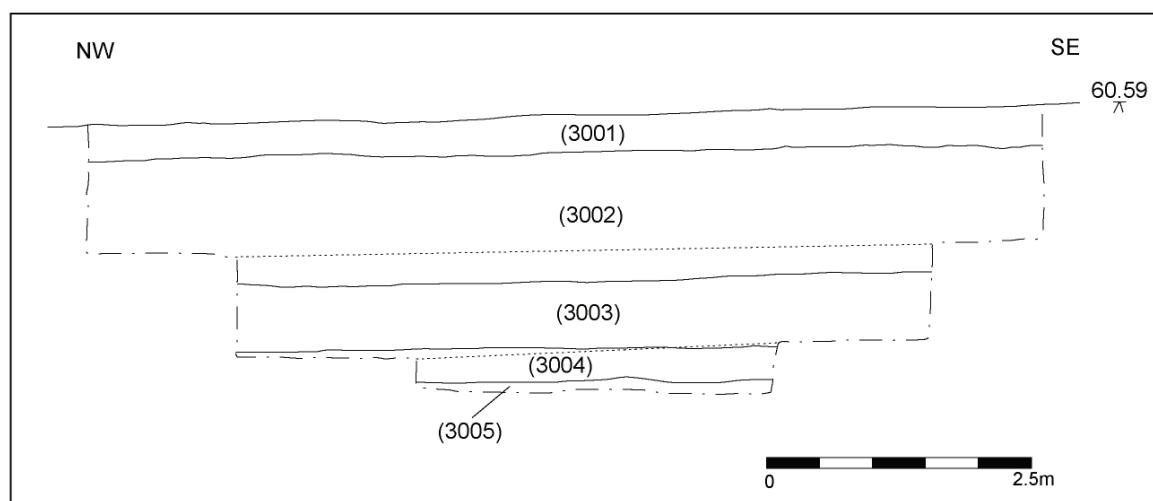
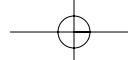


Fig. 19: Southwest-facing section of Access Pit 3

A total of five contexts were recorded in this access pit and its eastward extension, the uppermost of which (3001) consisted of a loose to moderately compact mid brown sand-clay-silt with very occasional charcoal flecking extending to a depth of 0.3m, beneath which was a moderately compact reddish-brown silt-clay-sand with occasional charcoal flecking (3002), extending to a depth of 1m, interpreted as a substantial alluvial deposit. Underlying (3002) was (3003), a firm greyish-brown silty clay with an orangey-brown hue extending to a depth of 0.5m, containing frequent ceramic sherds of Roman date and occasional charcoal flecking, occasional bone fragments (consisting of probable cattle teeth enamel and three unidentified large mammal shaft fragments) and iron fragments. (3003) was interpreted as a probable Romano-British occupation layer, the thickness of which suggests that it accumulated over a lengthy period of time, accentuated by episodes of alluviation, possibly seasonal. However, the noticeable absence of ruderal or wetland taxa in AP3, characteristic of a marshy environment, would appear indicate that this particular area was generally well drained during the main period of Romano-British occupation and probably earlier.

The substantial quantity of ceramics (141 sherds in total) recovered from this layer, together with small quantities of animal bone and charcoal could indicate the presence of a dispersed midden deposit associated with nearby settlement activity, although no evidence of occupation features was noted within the excavation area. The relatively small amount of charcoal present in (3003) was characteristic of a background level associated with low-level



Ledbury Trunk Main Refurbishment Scheme



occupation, within an area that may well have been exposed to prolonged periods of alluviation as a result of seasonal flooding.

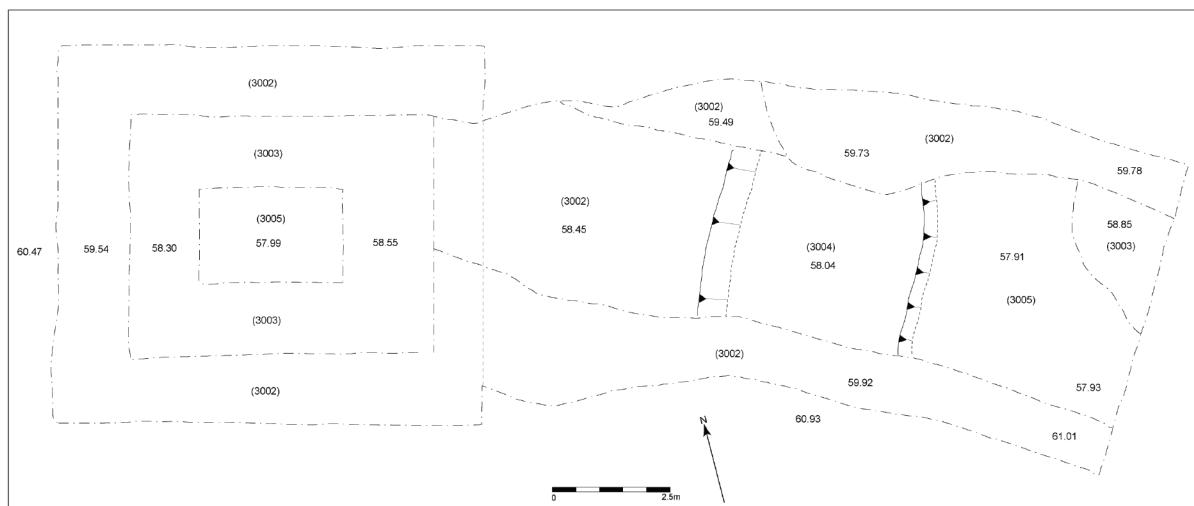


Fig. 20: Plan of Access Pit 3 and 3a

The pottery recovered from this deposit chiefly consisted of oxidised Severn Valley wares, with a significant quantity of Baetican *amphorae* sherds. The presence of a quantity of sherds of Malvernian metamorphic ware and Malvernian limestone-tempered ware suggests a relatively early date; the latest identifiable sherds include Wroxeter whiteware (dating from the mid-late 2nd century) and central Gaulish samian of Antonine (i.e. mid 2nd century) date. Analysis of samples taken from this deposit identified a small amount of charred plant macrofossils, including spelt wheat glume bases and other indeterminate cereals that may be indicative of limited cereal processing activity in the vicinity (ASUD, 2007). (3003) in turn overlaid (3004), a possible light occupation deposit consisting of firm light brownish-grey silty clay, with occasional charcoal flecking, beneath which was (3005), consisting of loose light greyish-brown gravels, set within a silty sand matrix which extended to the base of the pit, which was heavily waterlogged.

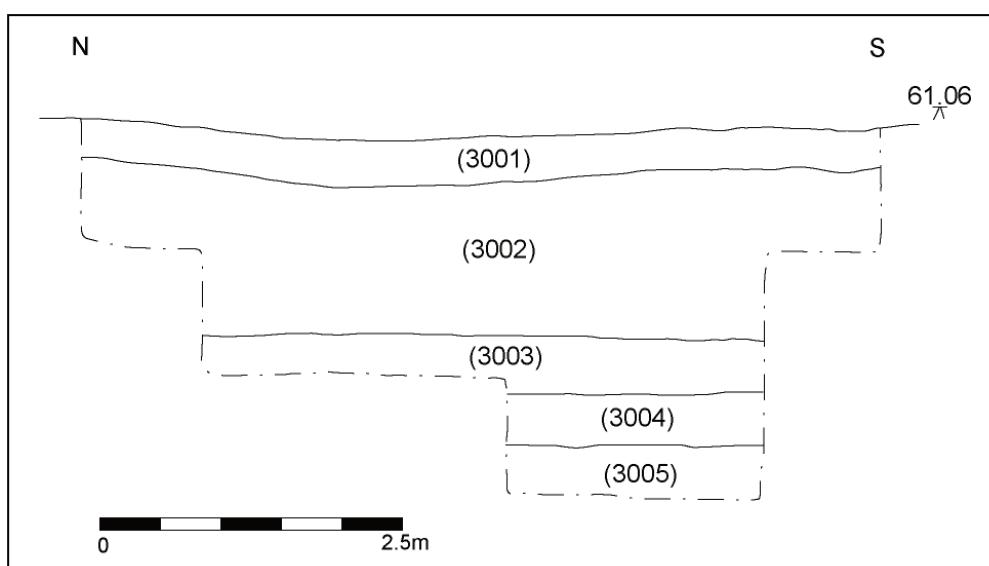
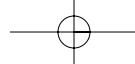


Fig. 21: West-facing section of Access Pit 3a



Ledbury Trunk Main Refurbishment Scheme



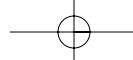
Plate 33: View looking northeast showing southwest-facing section of AP3

3.4.3 Summary Conclusions

The excavation of Access Pit 3 identified Roman deposits at an approximate depth of 1.3m below existing ground level, which is noticeably higher than those identified in the auger transect undertaken by HWCC in 1989-90, which occurred at a depth of 1.7m (Dinn & Roseff, 1992).

The relatively large quantity of Roman ceramics, together with smaller quantities of charcoal, animal bone and charred cereal grains obtained from occupation layer (3003) suggests that it could have represented a dispersed surface midden deposit associated with settlement activity in the immediate vicinity. However, the precise nature and extent of this occupation remains unclear; no evidence of occupation features was noted either within Access Pit 3 or its eastward extension.

The majority of the datable pottery within (3003) was assigned to the mid-late 2nd century (Timby, 2008), chiefly dominated by oxidised Severn Valley wares and Baetican *amphorae* sherds, although the presence of Malvernian metamorphic and limestone-tempered wares appears to push the date back slightly further to the late 1st–early 2nd century.



Ledbury Trunk Main Refurbishment Scheme



The small quantity of charred cereal grains, including spelt wheat glume bases recovered from this deposit may also be indicative of limited cereal processing activity in this area.

Significantly, there was a marked absence of ruderal or wetland taxa, associated with marshy environments, contrasting markedly with AP 2, where there was a relative abundance of waterlogged seeds. This would appear to suggest that the area centred on AP 3 was relatively well drained during the Romano-British period, and probably much earlier, in marked contrast to AP 2, where a marshland environment, subject to periodic flooding, appears to have prevailed throughout the prehistoric and much of the Roman period. In overall terms, the deposits observed in AP 3 appeared to be characteristic of low-level occupation on the periphery of a settlement; the main period of activity appears to be restricted to the late 1st-2nd centuries AD with an apparent decline in activity after the end of the 2nd century, based on the ceramic dating evidence.