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Mythe to Mitcheldean Mains Reinforcement, Gloucestershire

Post-excavation Assessment Report and Proposed Publication Synopsis

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Mythe to Mitcheldean Mains Reinforcement, Gloucestershire

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Summary

Wessex Archaeology was commissioned by Morgan Sindall Plc to undertake archaeological mitigation works along the route of the Mythe to Mitcheldean Mains Reinforcement water pipeline between Coombe Hill and Churchdown, Gloucestershire (NGR 88991 19116 to 89167 26855), hereafter 'the Scheme'. The Scheme had previously been the subject of a desk-based assessment, geophysical survey and trial trenching.

Two areas were investigated through a scheme of 'strip, map and record' (Areas A and B, near Boddington and Bamfurlong respectively) and this work revealed no archaeological features or deposits and no stratified or significant artefacts.

Three areas were subject to open area excavation (Areas C, D1 and D2, by Junctions 11 and 11a of the M5). Area C contained part of a Late Iron Age stock enclosure with some evidence of a settlement beyond the excavated area.

The investigation of Areas D1 and D2 revealed activity that dated from the Late Iron Age through to the Late Romano-British period. A small rural Iron Age settlement that Included at least two roundhouses, continued to be occupied into the 4th century AD by which time the site was home to a thriving farmstead; the farmstead was represented by a multi-roomed building with stone foundations.

The material remains comprised a typical assemblage of Iron Age and Romano-British pottery, Romano-British ceramic building material and animal bone, as well as a few relatively high status items including decorated Samian ware and vessel and window glass. Significant quantities of charred cereal and other plant remains were recovered from a range of features, including one of the roundhouses. A roundhouse gully and several later features contained fragments of human bone; probably all derived from the disturbance of one prehistoric burial.

A watching brief during groundworks along the remainder of the Scheme only identified a post-medieval or modern ditch.

Further work is required in order to fully understand and refine the date, phasing and nature of the occupation and activity at in Areas C and D, and to consider the results in an appropriate local and regional context. It is recommended that further analysis is conducted on the stratigraphic evidence, pottery, metalwork, animal bones and charred plant remains, and that two samples are submitted for radiocarbon dating.

It is proposed that a final report of the results should be submitted for publication in the *Transactions of the Bristol and Gloucestershire Archaeological Society*.

The project archive has been compiled into a stable, fully cross-referenced and indexed. It is currently held by Wessex Archaeology under the project code 86081 and will be transferred to the Cheltenham Museum under accession number GLRCM 2012.11 in due course.

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Acknowledgements

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The project was managed for Wessex Archaeology by Andrew Norton. Susan Clelland directed the fieldwork with the assistance of Sam Fairhead. The fieldwork was undertaken by a team comprising Rob Barnett, Tom Burt, Jonathon Buttery, Jozef Dorran, Michael Hartwell, Martin Huggan, Michael Keech, Ray Kennedy, Jamie Partick, Jessica Tibber, Mariangela Vitolo, Rebecca Wills and Dane Wright. Their contribution to the project is gratefully acknowledged.

This report was written and compiled by Susan Clelland and Andrea Burgess, with contributions from Rachael Seager Smith (finds), Lorrain Higbee (animal bone) and Kirsten Egging Dinwiddy (human remains). The environmental samples were processed under the supervision of Nicki Mulhall and were assessed by Sarah F. Wyles with comments on sediments (including requirement and sampling for micro-fossils) by David Norcott. The illustrations were prepared by Chris Swales.

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1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology was commissioned by Morgan Sindall Infrastructure Plc (hereafter 'the Client') to undertake archaeological mitigation works along the route of the Mythe to Mitcheldean Mains Reinforcement water pipeline scheme, situated between Coombe Hill and Churchdown, Gloucestershire, between NGR 88991 19116 and 89167 26855 (hereafter 'the Scheme', **Figure 1**).

1.1.2 The Scheme has previously been subject to evaluation by desk-based assessment, geophysical survey and a trial trench evaluation (Wardell Armstrong 2010; North Pennine Archaeology 2010 and 2011); this work revealed evidence of rural Iron Age/Romano-British settlements in three areas along the route.

1.1.3 A programme of archaeological excavation and recording was requested by Gloucestershire County Council's Senior Archaeologist ('the Curator') in order to mitigate the impact of the construction of the Scheme. The mitigation works comprised (**Figure 1**):

- Detailed archaeological excavation of three areas identified by evaluation (Areas C, D1 and D2);
- 'Strip, map and sample' of two areas that were unavailable at the time of the evaluations (Areas A and B) and,
- A watching brief during construction along the remainder of the Scheme.

1.1.4 A Written Scheme of Investigation (WSI) detailing how Wessex Archaeology would carry out the work was approved by the Client and the Curator. The WSI (Wessex Archaeology 2012) was prepared in accordance with current industry best practice and the Institute for Archaeologists' Code of Conduct (IfA 2008 and 2010).

1.1.5 This Assessment Report summarises the results of the investigations and presents assessments of the evidence, the potential for further analysis and publication. It has been compiled in accordance with MAP2 guidelines (English Heritage 1991).

1.2 The Scheme

1.2.1 The route of the pipeline lies to the east of the city of Gloucester and to the west of the M5 motorway, and runs north to south between Churchdown and Coombehill (**Figure 1**). The pipeline was approximately 8.8km long and the construction corridor was 18m wide. From its southernmost extent the pipeline progressed from Churchdown to Bamfurlong Lane, largely following the route of the M5. From Bamfurlong Lane, the pipeline deviated to follow a more northerly path, joining the A4019 at Coombe Hill. The pipeline largely

traversed open agricultural land, with pasture dominating in the south and arable crops in the north.

1.2.2 The route lies at heights between 30m and 50m aOD. The underlying geology at the northern end of the Scheme comprises Rugby Limestone Member (mudstone and limestone inter-bedded). At the southern end of the Scheme the geology comprises Blue Lias Formation and Charmouth Mudstone formation.

2 ARCHAEOLOGICAL BACKGROUND

1.3 Introduction

1.3.1 The Scheme has previously been subject to a programme of evaluation and the following selected information is summarised from the desk-based assessment (Wardell Armstrong 2010).

1.4 Prehistoric

1.4.1 During the Neolithic and Bronze Age periods, the River Severn and its tributaries, such as the River Chelt at the northern end of the route, were utilised for communications and transport. Settlement activity became more intensive during the middle and later Bronze Age and is thought to have focussed upon raised gravel islands.

1.4.2 There is little previous evidence for Bronze Activity in the vicinity of the Scheme; a possible ring ditch lies approximately 170m west of the northern end of the pipeline route and the findspot of a Bronze Age strap lies 320m from the southern end of the route. Bronze Age activity has also been tentatively identified approximately 4km south of the Scheme, beneath the remains of a Roman villa at Hucclecote.

1.4.3 Iron Age activity has been recorded at Churchdown Hill, at the southern end of the pipeline. The hill has long been proposed as an Iron Age hillfort but although investigations in the 1960s and 1970s identified the presence of Iron Age pottery and ramparts at the site, a more recent trial trench excavation and watching brief did not find any archaeological remains.

1.5 Romano-British

1.5.1 While the city of Gloucester has been the focus of much archaeological research into the Roman period, there is relatively little known about the Romano-British landscape surrounding the city.

1.5.2 The Roman road to the fort at *Glevum* lies to the west of the Scheme; within 400m at its closest point at the northern end of the Scheme. At the southern end of the Scheme, Romano-British brick/tile has been found at the earlier hillfort at Churchdown Hill, indicating that activity, and perhaps settlement here, continued into the Roman period. Elsewhere a few pottery scatters and artefact find spots are recorded close to the route of the Scheme.

1.6 Medieval, post-medieval and modern

1.6.1 The Domesday Survey of AD1086 records a relatively dense distribution of medieval villages surrounding Gloucester, such as Hucclecote, Staverton, Bamfurlong and Boddington; demonstrating the existence of a well-developed medieval agrarian economy. Archaeologically, possible deserted medieval settlements are recorded within 150m of the

Scheme at Boddington and Churchdown. In addition, Boddington Mill may lie on the site of a mill recorded in the Domesday Book and Slate Mill, recorded in the 14th century, may also have been located in or near Boddington.

1.6.2 Nineteenth century tithe and enclosure maps depict a mainly agricultural landscape along the route of the Scheme. This is further evident in the survival of extant ridge and furrow earthworks at many points along the route but it is not known whether these are of medieval or later origin.

1.6.3 The first major developments in the area relate to WW2 and include RAF Staverton to the west of the Scheme, along with a number of pillboxes and an anti-aircraft battery. Covered reservoirs were built at Churchdown Hill in 1957 and the A40 was constructed in the late 1960s, and the M5 in the 1970s. After 1946 RAF Staverton became known as Staverton Airfield and since 1993 Gloucestershire Airport.

1.7 Recent investigations in the area

1.7.1 The northern end of the current Scheme connects with an existing pipeline which terminates at Coombe Hill. Archaeological investigations were carried out in advance of the construction of this pipeline in 2008-9 and included a desk-based assessment, geophysical survey and trial trenching. Bronze Age, Iron Age, medieval, post-medieval and modern activity was recorded, with evidence of Iron Age and Romano-British settlement at three locations within 3km, 6km and 12km of the northern end of the current Scheme (Wardell Armstrong 2010).

1.7.2 The desk-based assessment of the current Scheme was followed by a geophysical survey and trial trenching. The geophysical survey revealed several linear anomalies of possible archaeological origin and the results were tested by the excavation of 70 evaluation trenches along the route (North Pennines Archaeology 2010 and 2011).

1.7.3 Significant archaeological remains were identified in two sections of the Scheme; near Brockwell Road, east of Churchdown and near the B4063 east of Staverton Bridge. These remains comprised ditches, pits and postholes of Iron Age to Romano-British date. The early to Late Iron Age pottery assemblage consisted mainly of Jurassic limestone and fossil-shell-tempered wares, which are typical of the region, whilst the Romano-British component was mainly local wares such as Severn Valley ware (*ibid.* 2011).

2 METHODOLOGY

2.1 Investigation areas

2.1.1 As a result of the evaluation the Curator requested that three areas containing significant remains should be subject to detailed excavation and recording, and two areas that had not been available for evaluation should be subject to a strip, map and sample. The remainder of the route would be subject to a watching brief during construction (**Figure 1**).

Area A	Strip, map and sample	178m x 18m	389252E 225914N (centred)
Area B	Strip, map and sample	168m x 18m	389546E 222570N (centred)
Area C	Excavation	100m x 18m	389479E 221562N (centred)
Area D1	Excavation	140m x 18m	389434E 219573N (centred)
Area D2	Excavation	250m x 18m	389276E 219323N (centred)
	Watching brief	Remaining footprint of Scheme	

2.2 Aims and objectives

2.2.1 The archaeological investigations aimed to mitigate the destruction of archaeological remains during pipeline construction, through detailed excavation and recording to secure 'preservation by record' in accordance with the National Planning Policy Framework (DCLG 2012).

2.2.2 The objectives of the excavation of Areas C, D1 and D2 were:

- To record in detail all archaeological remains present within the excavation areas;
- To determine the phasing and degree of complexity of the horizontal and/or vertical stratigraphy present;
- To determine or confirm the approximate date or date range of the remains, by means of artefactual, stratigraphic or other evidence;
- To mitigate the loss of archaeological remains during development through preservation by record;
- To undertake assessment, detailed analysis, research and reporting, as required;
- To understande the earliest activity on site, its form and evolution through time;
- To understand how the archaeology of the site relates to the pattern of early landuse and activity seen elsewhere in the area; and
- To understand the nature of the recorded features and place them in a local, regional, national or international context as appropriate.

2.2.3 The objectives of the strip, map and sample of Areas A and B, and the watching brief were:

- To establish the extent of any buried archaeological remains within the pipeline route;
- To record in detail all archaeological remains present within the pipeline route;
- To record and retrieve artefactual and environmental evidence;
- To consider the archaeology of the route within its local, regional or national contex, as appropriate; and
- To make available the results of the work.

2.3 Fieldwork

2.3.1 Areas A, B, C, D1 and D2 were set out by means of a GPS system and tied into the Ordnance Survey National Grid (to within 0.1m). The investigation of these areas was completed in advance of the construction of the pipeline. Subsequently a watching brief was maintained during all groundworks within the pipeline corridor. All works were carried out to the same minimum standard methodology detailed below.

2.3.2 Topsoil and overburden were removed using a mechanical excavator fitted with a toothless ditching bucket, working under the continuous direct supervision of a suitably experienced archaeologist. Topsoil was removed in a series of level spits down to the level of the upper archaeological horizon, or the level of the natural geology, whichever was reached first.

2.3.3 The exposed surfaces were hand-cleaned (where necessary) to clarify the extent of revealed archaeological remains. Where archaeological features and deposits were encountered, they were defined and mapped using GPS followed by hand cleaning and excavation. A sufficient sample of each layer/feature type was excavated in order to establish the date, nature, extent and condition of the archaeological remains.

2.3.4 Archaeological features and deposits were investigated and stratigraphically excavated by hand. The percentage of any feature or group of features excavated was dependent on a number of factors. These included the achievement of the aims and objectives of the project, the significance or potential of the archaeological features/deposits, the stratigraphic record, health and safety considerations, and the requirements of the Curator.

2.4 Recording

2.4.1 All archaeological features and deposits encountered were recorded using Wessex Archaeology's *pro forma* recording sheets and a continuous unique numbering system. A stratigraphic matrix was compiled to record the relationships between features and deposits.

2.4.2 All investigations were located in relation to the Ordnance Survey grid, and other plans, sections and elevations of archaeological features and deposits were drawn as necessary at 1:10, 1:20 and 1:50 as appropriate. All drawings were made in pencil on permanent drafting film.

2.4.3 The spot height of all principal features and levels was calculated in metres relative to Ordnance Datum, correct to two decimal places. Plans, sections and elevations were annotated with spot heights as appropriate.

2.4.4 Photographs were taken of all archaeological features to produce a photographic record consisting of 35mm monochrome prints and colour slides; digital images (at least 10 megapixel) supplement the photographic record.

2.5 Artefacts

2.5.1 Finds were treated in accordance with the relevant guidance (UKIC 2001, MGC 1991 and English Heritage 2005), except where these are superseded by statements made below.

2.5.2 All artefacts from excavated contexts were recorded by context and retained, except those from features or deposits of obviously modern date.

2.5.3 All retained artefacts were, as a minimum, washed, weighed, counted and identified. Any artefacts requiring conservation or specific storage conditions were dealt with immediately in line with *First Aid for Finds* (Watkinson and Neal 1998).

2.6 Human remains

2.6.1 A Ministry of Justice licence was obtained. The excavation and recording of human remains was carried out in accordance with the conditions of the licence and professional standards (McKinley and Roberts 1993).

2.7 Environmental

2.7.1 Bulk environmental soil samples for plant macro-fossils, small animal and fish bones and other small artefacts were taken from appropriate well-sealed and dated/datable archaeological deposits. The collection and processing of environmental samples was undertaken in accordance with English Heritage guidelines (2011).

3 STRATIGRAPHIC SUMMARY

3.1 Introduction

3.1.1 The results of the investigations are summarised below by area. Where possible they are presented by phase with descriptions of significant features and contexts. Illustrated context and feature numbers are given in bold.

3.1.2 Evidence for activity dating from the Iron Age to the post-medieval periods was identified within the excavated areas. The chronological phasing presented below is, at this stage, provisional, and some features may be reassigned to other phases subsequent to more detailed analysis of the artefactual and palaeoenvironmental assemblage. However, in order to allow some degree of comparison across the areas and a framework for discussion, the results are presented within a structure of three broad chronological phases:

- Phase 1: Iron Age
- Phase 2: Romano-British
- Phase 3: Medieval to post-medieval

3.1.3 Not all phases were identified in each area and Area D2 contained evidence of successive sub-phases of activity within Phase 2.

3.2 Areas A and B

3.2.1 Areas A and B comprised total excavation areas of 3204m^2 and 3024m^2 respectively (**Figure 1**).

3.2.2 No archaeological features or deposits were identified in either of these areas, although unstratified artefacts were recovered.

3.3 Area C

General

3.3.1 Area C comprised a total area of 725m^2 (**Figures 1** and **2**). Pronounced ridge and furrow earthworks, aligned east to west, were extant within the field prior to excavation.

3.3.2 The archaeological significance of Area C had been identified by Evaluation Trenches 35-37 (North Pennine Archaeology 2011), which revealed a ditch aligned north to south, measuring 0.9m wide by 0.5m deep and containing prehistoric pottery. Prehistoric pottery was also recovered from a gully aligned southwest to northeast and a larger east to west linear feature.

3.3.3 All of the significant archaeological features and deposits recorded within Area C are thought to be contemporary and to represent part of a Late Iron Age stock enclosure with some evidence of a settlement beyond the excavated area.

Natural deposits and soil sequence

3.3.4 The modern overburden generally comprised topsoil, typically mid dark grey brown sandy loam overlying, where present, orange brown sandy loam subsoil. Across the site, this sequence of deposits varied in thickness from 0.2m to 0.6m due to the impact of ridge and furrow. Underlying natural deposits comprised mid orange brown sandy gravel.

Phase 1: Late Iron Age

3.3.5 The north-western corner of a sub-rectangular enclosure formed by ditches **201** and **202** was identified in the southern part of Area C (**Figure 2**). The 1.1m wide and 0.5m deep ditches had an asymmetrical profile. These ditches appear to have filled gradually and were found to contain degraded fragments of mainly late prehistoric pottery. Fired clay, heat-affected stone and charcoal fragments were also present and are typical residues of occupation debris associated with hearth rake-out, and their presence suggests that an associated settlement lay in close proximity.

3.3.6 A single internal feature (pit **1107**; **Figure 2**) was identified within the enclosure. The pit measured 0.6m in diameter and was 0.25m deep with near vertical sides and a flat base. It had been deliberately backfilled and was densely packed with medium to large stones. Although *in situ* burning was not evident on the sides of the pit, the presence of numerous heat-affected stones within the backfill may suggest that these stones formed the base of a sunken hearth, with any evidence of overlying hearth debris either being dumped within the adjacent enclosure ditches or dispersed during subsequent ploughing.

3.3.7 Approximately 18m north of the enclosure lay an east to west aligned boundary ditch **200** (**Figure 2**). It was 2m wide and 1m deep with a U-shaped profile, and is considered to be an associated landscape boundary.

3.3.8 Ditch **203** lay 8m north of, and parallel to, ditch **200** (**Figure 2**). It was similar in size to ditch **200** although it tapered to a narrower, concave base, had a steep convex southern edge and a moderately concave northern edge. Although some occupation debris was evident within the material filling the ditch, it was not as prevalent as in ditch **200**. A notable quantity of occupation debris including pottery, animal bone, fired clay and a horn core were present within the ditch fills. Both ditches appear to have filled gradually and episodically within a largely stable environment.

Phase 3: Medieval to post-medieval activity

3.3.9 The pronounced remnants of ridge and furrow agriculture visible prior to excavation survived below-ground as furrows (**Figure 2**). Five furrows were recorded; the southern four were spaced 7.5m apart and the fifth was a further 11m to the north. These furrows had destroyed the relationship between earlier ditches **201** and **202**.

3.4 Area D1

General

3.4.1 Area D1 had a total excavation area of 2338m² (**Figures 1** and **3**).

3.4.2 The archaeological significance of this area was identified in Evaluation Trenches 6-8 (North Pennine Archaeology 2011), which revealed a 5.4m wide ditch, on a north-south alignment; it appeared to have a stepped, V-shaped profile and the fill contained large amounts of Romano-British pottery, animal bone and ceramic building material. A second, parallel, ditch lay to the east and a large pit to the west, both containing Romano-British pottery. Gullies were identified at the centre of the area, with two parallel ditches running east to west, identified at the northern end of the area.

3.4.3 Excavation of Area D1 revealed features relating to Iron Age and Romano-British phases of activity. Following the use of the area for stock enclosure during the Iron Age, the subsequent Romano-British activity was more complex and probably represents three distinct sub-phases of occupation, including a field system and the construction of a relatively high-status stone (or stone-footed) farmstead building/villa.

Natural deposits and soil sequence

3.4.4 The modern overburden generally comprised topsoil, typically dark grey silty clay overlying, where present, mid yellow orange sily clay subsoil. Across the site this sequence of deposits varied in thickness from 0.15m to 0.65m. The underlying natural deposits comprised limestone brash and lias clay.

Phase 1: Iron Age

3.4.5 Sited towards the northern end of the excavation area, a 7m long curvilinear gully (**304**) may have represented the eastern half of a ring ditch (**Figure 3**; **Plate 1**). Its fill derived from the weathering of the gully sides and adjacent subsoil and contained Iron Age pottery sherds and animal bone. The feature was similar in form to two roundhouses found in Area D2 (see below) but the absence of domestic debris in its fill suggests that it was not a dwelling; it was possibly a stock enclosure or ancillary building.

3.4.6 To the south, ditches **314**, **632** and **581** were the surviving remnants of a sub-rectangular enclosure, and ditch **319** was a steep sided curvilinear drainage boundary (**Figure 3**). Ditches **314**, **632** and **581** were between 1.3m and 2m wide and 0.2-0.35m deep and the associated fills exhibited signs of intermittent waterlogging. The upper part of ditch **319** had been heavily disturbed by later cuts but is thought to have been around 2.5m wide. Despite the truncation it was 0.95m deep with a narrow concave base. A distinct band of fairly densely packed, compact, heat-affected gravel (containing charcoal flecks and fired clay) overlay the primary ditch fills and was overlain by re-deposited natural - perhaps derived from an associated bank. The alignment and location of this early field system and drainage boundary would be re-established throughout Phase 2 and the upper fills of ditches **314** and **632** contained material derived from later re-use of the area.

3.4.7 Immediately west of ditch **319** was a 4.5m diameter circular pond or waterhole **785** (**Figure 3**; **Plate 2**). It is likely that this feature was used for watering stock kept in the

surrounding fields and enclosures and the lowest fills appear to have accumulated naturally. Iron Age pottery was recovered from the primary fills.

Phase 2a: Earlier Romano-British

3.4.8 Stratigraphically the earliest Phase 2 feature was ditch **310** (**Figure 3**). It had a U-shaped profile, measured 1.4m wide and 0.4m deep, and formed the south-eastern corner of an enclosure. Approximately 135m² of the interior of the enclosure lay within the excavated area. The northern end of the ditch (partially cut away by later ditch **547**) shallowed into a terminus, possibly constructed to direct groundwater run–off into the ditch. This enclosure appears to have replaced the Phase 1 enclosure **314**. Enclosure **310** contained a mixed assemblage of Iron Age and Romano-British pottery along with metalworking debris, kiln/oven fragments and animal bone.

3.4.9 It is likely that feature **785** continued to be used as a waterhole during this phase, possibly being backfilled at the end of Phase 2a (or beginning of 2b) in order to prepare the land for building. The fill of **785** contained Romano-British ceramic building material, pottery and fragments of lime mortar.

Phase 2b: Romano-British

3.4.10 This phase was dominated by the construction of a stone building in the centre of Area D2. The long-axis of building **320** followed the north to south alignment of earlier phases and cut through the Phase 2a enclosure (**Figure 3**; **Plate 3**).

3.4.11 The building appears to have originally measured 21m long and 11m wide. Only the south-eastern half of the structure lay within the excavated area, with walls (or foundation levels at least) extending unexcavated to the north and west of the site.

3.4.12 The walls were constructed from irregular limestone blocks bonded with a pale grey, moderately hard, sand-free lime mortar. The blocks had not been shaped or faced and varied in size between approximately 0.3m and 0.1m. The wall construction was also irregular, with no clear courses. Preservation was greatest at the southern end of the building where the wall was between two and three irregular courses high; elsewhere only one layer/course of stones survived.

3.4.13 The building faced east and comprised a north/south orientated corridor, 2.8m wide and at least 17m long. The remains suggest that the corridor was accessed from an east-facing open sided veranda. The interior of the building was divided into a single row of four rooms, of which two could be investigated. The southernmost room was the most complete. It measured 5.6m by 5.3m with a 1.4m wide gap in the eastern wall, which may have been an entrance, but did coincide with a later furrow. Notably this room was not accessed from the main corridor. The adjacent room was slightly smaller at 4.5m by 5.3m and was accessed from the corridor.

3.4.14 The sole internal feature was a small, 0.8m diameter, pit (**722**) within the southernmost room (**Figure 3**). Pottery from the pit fill indicates a date after AD150.

3.4.15 Two parallel ditches (**559** and **547**) may have flanked a 6.5m wide trackway to the north of the building (**Figure 3**). The most northern ditch (**559**) was the steeper and more pronounced of the two ditches. It was 1.6m wide and 0.7m deep with steep sides that tapered to a concave base. The fills contained mid Romano-British pottery and occupation debris and appeared to have derived from gradual weathering and erosion from the fields to the north. The southern trackway ditch (**547**) had a clear stratigraphic relationship with the two earlier phases of activity (enclosure ditches **581** and **310**) and had a more

moderate profile than ditch **559**. Ditch **547** was 1.1m wide and 0.6m deep with fills containing a range of domestic debris including pottery, oyster shells and animal bone.

Phase 2c: Later Romano-British

3.4.16 By the later Romano-British period, building **320** appears to have gone out of use, been demolished and the land put back to agricultural use.

3.4.17 The field system adopted during this period comprised north to south aligned shallow gullies **309** and **793** (**Figure 3**). Gullies **309** and **793** were 0.5m wide and both cut through the remains of building **320**.

3.4.18 Approximately 60m to the north of the Phase 2b trackway were ditches **300**-**303** and **504**, which formed a sequence of re-cuts of a field boundary probably all dating to Phase 2c (**Figure 3**; **Plate 1**). The stratigraphically earliest ditches (**300** and **302**) were steep-sided and concave whilst the later re-cuts were shallower and broader in profile. These boundary ditches were filled with a predominately topsoil-derived material containing abundant occupation debris (including some Late Roman pottery in ditch **300**).

Phase 3: Medieval and post-medieval

3.4.19 Remains of evenly spaced furrows were present across the whole of Area D1 (**Figure 3**). They were aligned north-west to south-east and were 5-7m apart. Ceramic land drains had subsequently been inserted into the base of many of these furrows.

Unphased features

3.4.20 Despite containing assemblages of broadly dated Romano-British artefacts, a number of features in Area D1 could not be securely associated with the stratigraphically defined phases at this stage of assessment.

3.4.21 Three ditches (**311**, **312** and **313**) located directly east of the Phase 2b building could represent drainage associated with the structure or may be boundaries relating to the Phase 2c field system (**Figure 3**). These ditches were approximately 1m wide with a flat base. No relationships with the building were recorded, mainly due to later truncation. Some stone rubble noted on the surface of ditch **313** may derive from the building, suggesting an origin for the ditches in Phase 2b.

3.4.22 To the south of the Phase 2a structure was a complex series of intercutting ditches (**Figure 3**). The earliest of these (ditch **319**) has been dated to Phase 1. It appears likely that this boundary was continually re-cut and/or drained during each of the subsequent Romano-British phases by ditches **315**-**319**, **339** and **340**. Of these, ditches **315**, **317** and **339** may also have functioned as an enclosure during Phase 2a, but the complex relationships of these intercutting ditches precludes phasing at this stage.

3.4.23 Approximately 28m north of the Phase 2a trackway, was a possible enclosure defined by ditches **512** and **306** (**Figure 3**). The southern and western sides of the enclosure were regular, and constructed from straight ditches 0.8m to 0.9m wide. The northern side was formed by a curvilinear ditch measuring 0.6m to 0.7m in width. The finds from these ditches included middle to Late Roman pottery (from **512**) suggesting a possible association with Phases 2b or 2c.

3.4.24 Gully **1048** was located 6m north of the Phase 2c boundary/drainage ditches in the northern part of Area D1 (**Figure 3**). It was 0.4m wide and 6m long on an east to west alignment before turning to the south for 1.4m before being truncated by a Phase 3 furrow.

3.5 Area D2

General

3.5.1 Area D2 had a total excavation area of 3438m² (**Figures 1** and **4**).

3.5.2 This area corresponds with Evaluation Trenches 11-13 (North Pennine Archaeology 2011), which revealed a 0.74m deep, V-shaped ditch, containing probable Iron Age pottery. Two concentric curvilinear features were also identified, and also contained Iron Age pottery. Postholes were also recorded in this area as well as a gully that contained probable Romano-British pottery sherds.

3.5.3 The archaeological features and deposits recorded within Area D2 relate to three phases of activity; an Iron Age settlement, a Romano-British field system and medieval/post-medieval cultivation.

Natural deposits and soil sequence

3.5.4 The modern overburden generally comprised topsoil, typically dark grey brown loam overlying, where present, orange brown sandy loam subsoil. Across the site this sequence of deposits varied in thickness from 0.45m to 0.6m. Underlying natural deposits comprised mid orange brown gravel within a sandy loam matrix with outcropping stiff clay.

Phase 1: Late Iron Age

3.5.5 The earliest activity in Area D2 is represented two roundhouses 21m apart and thought to be the remains of a small Late Iron Age farmstead (**Figure 4**).

3.5.6 Roundhouse A was defined by ring gullies **322**, **324** and **327** and had a projected internal diameter of 11m. Ring gully **324**, a re-cut, suggests maintenance and perhaps longevity of use. Gully **327**, which lay at right-angles to, and extended eastwards from, the eastern end of ring ditch **322**, may define an entrance. In the centre of Roundhouse A were four postholes arranged around a shallow pit, which may represent a central hearth area (**Figure 4**; **Plate 4**). No *in situ* burning was identified but fired clay and charcoal hearth debris were present within the fills of the surrounding ring gullies, as were fragments of human bone.

3.5.7 Roundhouse B was less well-preserved and survived as a single fragment of ring gully (**328**) and a contemporary posthole (**929**) that lay at the southeastern end of the gully (**Figure 4**; **Plate 5**). This posthole is likely to represent the remains of one of the posts at either side of an entrance. With a projected internal diameter of 9m, Roundhouse B was the smaller of the two buildings and was perhaps an ancillary structure. No internal features were identified although much of this area had been significantly disturbed by later ditches and furrows.

3.5.8 The fills of the ring gullies contained debris consistent with that associated with domestic and subsistence activities (charcoal, fired clay, pottery, animal bone and charred grain,) plus metal working debris in the fills of ring gully **328**.

3.5.9 A small, probably sub-rectangular enclosure (ditch **334**) lay approximately 50m north-east of Roundhouse B and had been damaged by later ploughing (**Figure 4**). The ditch fills were, in comparison to the roundhouse gully fills, limited in occupation debris and therefore this is likely to have been a stock enclosure.

Phase 2: Romano-British

3.5.10 Ditch **321** (**Figure 4**) was aligned northeast to southwest with a return at its southwestern end. This substantial U-shaped ditch, 1.2m deep and 2-3m wide may have formed a boundary or the southern flanking ditch for a trackway outside of the excavated area. The ditch contained a significant primary sequence of deposits overlain by secondary silting interspersed with deliberate dumps of occupation debris.

3.5.11 The varying depth of the ditch appeared to correlate to changes in the underlying geology. The ditch was deeper through areas of clay than those of sandy clay gravel and is therefore likely to be related to drainage. No distinct re-cutting episodes were observed but the mixed ceramic assemblage included a mixture of Late Iron Age and Romano-British ceramic wares and Romano-British vessel glass. The phasing of this feature is a little unclear as it may have originated in Phase 1 and been maintained during Phase 2, or it could belong in Phase 2 but contain residual prehistoric pottery.

3.5.12 Approximately 20m to the northeast, a second ditch (**954**) was aligned northwest to southeast, and was of similar substantial dimensions to ditch **321** (**Figure 4**). Ditch **954** truncated gully **327** (Roundhouse A) and contained Romano-British and Iron Age pottery within its fills. It also contained redeposited human bone and a spindle whorl.

3.5.13 At the northern end of Area D2, ditches **335**, **336** and **775** lay on a north-west to south-east alignment and represent a single, but continually re-established, field boundary (**Figure 4**). This boundary cut through the Phase 1 enclosure and contained Iron Age and Early to Middle Romano-British pottery. Abundant occupation debris and ceramics were present in the ditch fills, with the pottery surviving in larger sherds than from earlier phases of activity. This and the gradual silting of these ditches implies a stable and largely unchanging environment.

3.5.14 To the south, two parallel ditches containing Romano-British pottery (**332** and **333)** were aligned perpendicular to the field boundary **335**/**336**/**775**; these would have joined or intersected outside of the excavated area (**Figure 4**). Two postholes (**752** and **759**) were 11m apart and were both approximately 0.3m in diameter. Both had fills containing charcoal and fired clay fragments but could not be conclusively dated to this phase of activity.

3.5.15 In the central part of Area D2, ditches **329** and **330** cut Roundhouse B and each contained Early to Middle Romano-British ceramics and appear to represent additional elements and sub-phases of this rectilinear field system. Further south, ditches **331** and **852** may also belong in this phase; the former contained Iron Age pottery and the latter contained Romano-British but they both clearly fit within the alignment of the Phase 2 field system (**Figure 4**).

Phase 3: Medieval and post-medieval

3.5.16 Although not visible in the field prior to excavation, the remains of evenly spaced (5-7m apart) furrows were recorded aligned northeast to southwest throughout the excavation area (**Figure 4**). Post-medieval ceramic land drains had subsequently been inserted into the base of many of these furrows. The impact of the furrows on earlier remains varied and appeared to be directly related to the nature of the underlying geology; the furrows decreasing in depth where clay outcrops were encountered.

Unphased features

3.5.17 A number of discrete features could not be conclusively dated or phased. These were all located in the southern part of Area D2 and comprised: two 0.8m diameter pits (**538** and

536), an elongated pit measuring 0.6m by 2m (**518**) and a group of three pits of diameters 0.5m, 0.6m and 0.8m (**1015**, **1013** and **1017** respectively). Two of these features (**518** and **1013**) contained Iron Age pottery indicating that they belong in Phase 1, but the proximity of all of these features with the Phase 2 boundary ditch (**321**) suggests that the finds may be residual (**Figure 4**).

3.6 Watching brief

3.6.1 Only one archaeological feature was identified during the watching brief. A shallow 'U'-shaped east-west aligned ditch (**2001**) was identified in section only (**Figure 1**). The ditch was 4.2m wide and 0.9m deep. Post-medieval pottery was recovered from subsoil deposits overlying the ditch fill and in the absence of any associated features it is interpreted as a post-medieval field boundary.

4 ARTEFACTS

4.1 Summary

4.1.1 Approximately 81kg of finds were recovered from the excavated features and deposits. All artefacts have been quantified (number and weight of pieces) by material type within each context; this information is summarised in **Table 1**.

Table 1: Finds totals by material type (number of pieces/weight in grammes)

Material	Area C	Area D1	Area D2	Areas A, B and watching brief	Total
Animal bone	142/1229	1251/20228	1072/13132	41/96	2506/34685
Ceramic building material	1/28	50/2354	10/218	3/1024	64/3624
Clay tobacco pipe		1/1			1/1
Copper alloy		3/27	1/3		4/30
Fired clay	3/90	38/441	76/1218		117/1749
Flint		1/3			1/3
Glass		4/6	9/7		13/13
Human bone			22/286		22/286
Iron	1/4	16/174	4/34	1/16	22/228
Mortar		29/552			29/552
Pottery	110/652	1550/23388	932/8982	138/3645	2730/36667
Late Iron Age	74	93	465	11	643
Late Iron Age/Romano-British	21	164	78		263
Early Roman		179	3		182
Middle Roman		10	106	8	124
Late Roman		58	1	6	65
Roman	15	1042	279	113	1449
Post-medieval		4			4
Shell		1/10	5/65		6/75
Slag		6/149	14/66		20/215
Stone	5/178	14/2052	19/909		38/3139

4.1.2 The finds were also rapidly scanned on a context by context basis, to assess the date, range and condition of the material types present but feature groups were not considered at this stage. The pottery provided the primary dating evidence, but, where appropriate,

this was combined with information from other chronologically diagnostic artefact types (e.g. metal objects, glass, ceramic building materials) allowing broad spot-dates to be assigned on a context by context basis.

4.1.3 The main phase of activity spanned the Late Iron Age and Romano-British periods (1st century BC to the end of the 4th century AD). In general, the artefacts survived in moderate condition.

4.2 Pottery

4.2.1 The pottery is predominantly of Late Iron Age and Romano-British date, with just four pieces of post-medieval redware, all from Area D1, being identified. As part of this assessment, the sherds from each context were sub-divided into broad ware groups (e.g. calcareous rock-tempered wares) or known fabric types (e.g. Oxfordshire red colour-coated ware) and quantified by the number of pieces present. A breakdown of the assemblage by ware type is shown in **Table 2**. Spot-dates, used to inform the stratigraphic phasing, were then assigned to each fabric group and, in combination with the dating evidence provided by other artefact types, to the context as a whole.

Table 2: Pottery ware types, quantified by the number of sherds

Ware type	No. sherds
Late Iron Age	
'Malvernian' limestone tempered ware	463
Grog-tempered ware	177
Shell-tempered ware	2
Sandy ware	1
subtotal:	643
Romano-British	
Samian	11
Dressel 20 amphora	2
Unassigned amphora	2
Mortaria - northeast France	20
Oxon whiteware mortaria	4
Nene Valley colour-coated ware	4
Oxon colour-coated ware	13
Severn Valley oxidised ware	1073
Severn Valley grey ware	89
'Malvernian' limestone tempered ware	364
Greyware	165
South-east Dorset BB1	128
Oxidised ware	93
Grog-tempered ware	74
Pink grogged ware	26
Shell-tempered ware	10
Sandy ware	5
subtotal:	2083
Post-medieval	
Redware	4
subtotal:	4
Overall total	2730

4.2.2 The assemblage survives in only moderate condition. Overall, the mean sherd weight is 13.4g. Severe surface abrasion and edge damage were apparent among the softer, more

lightly fired sherds, especially the samian, Severn Valley wares and Oxfordshire products while many of the sherds tempered with calcareous inclusions are leached. Rims (217 sherds or groups of joining sherds) represent some 10% of the total number of sherds. These were not assigned to specific form types, but the number of measurable pieces (representing more than 7% of the circumference) present in each fabric group was noted.

Late Iron Age

4.2.3 The Late Iron Age sherds are dominated by the 'Malvernian' limestone tempered wares, a highly variable but generally coarse, grey-black, handmade fabric containing abundant shelly limestone and calcite inclusions as well as grog and quartz. These wares were probably made from the 2nd century BC onwards but their dating can be problematic. Evidence from sites such as the Uley shrines and hillfort and Bagendon (Leach 1993, 222) suggests that they only appeared in this area at the beginning of the 1st century AD but very similar wares were then used throughout the Roman period (e.g. Evans 2000, 44-7). Initially, the 'Malvernian' limestone tempered wares were used to produce a range of tubby, uneven, bead- and upright- rimmed jar and a few bowl forms (e.g. Leach 1993, fig. 164), which continued with relatively little typological change into the 2nd or even 3rd century AD (e.g. Evans 2000, fig. 136, type 1), after which styles gradually changed to imitate those of the south-east Dorset Black Burnished ware industry and the wheel was adopted in the production of jar forms, although bowls and storage jars continued to be made by hand (ibid., 44). In this assemblage, the 'Malvernian' limestone tempered wares were generally highly fragmentary, occurring as small plain bodies and immeasurable rims; in the absence of diagnostic pieces, dating has largely been based on associated fabrics and forms, pieces occurring in isolation or with the other three pre-Roman Iron Age fabrics being assigned a Late Iron Age date. Grog-tempered wares are also well-known in the area, although here, the majority of these sherds derived from just three semi-complete vessels from Area D2 – a shouldered jar with a short, upright rim from enclosure ditch **334** (fill 765; 73 sherds) and two bead rimmed jars from ditch **335** (fill 798; 45 sherds) and ditch **954** (fill 963; 27 sherds). The sandy and shell-tempered wares are represented by plain bodies only.

Romano-British

4.2.4 In total, 138 contexts contained Romano-British sherds although most occurred in very small numbers; just twenty contexts containing more than twenty sherds while seven contained more than 50 pieces, amounting to 32% of the assemblage as a whole. Overall, the assemblage spanned the entire Roman period, and comprised a standard range of fabrics and vessel forms occurring widely on contemporary sites in the region.

4.2.5 Imports, however, were strictly limited. The samian, all from Southern and Central Gaulish sources, is of later 1st to 2nd century AD date, the only diagnostic pieces being from a form 31 bowl and decorated bowl forms 29 and 37. Dressel 20 amphora sherds were found in two contexts; these vessels were used to transport olive oil from southern Spain from the 1st to at least the mid 3rd century AD, but were subsequently re-used, and probably widely traded in their own right, as empty containers. One of the sherds (Area C, context 1103, ditch **201**) has a trimmed neck characteristic of these re-used vessels. The other amphora sherds (topsoil **1100**) remain unassigned at this stage. Sherds from a single Gillam 238 mortaria from north-eastern France and of later 1st century AD date were found in trackway ditch **547** (Area D1, context 549), the only other mortaria being from the Oxfordshire region and of late 2nd to 4th century AD date.

4.2.6 Late Roman red colour-coated ware bowls were also obtained from the Oxfordshire region. Only one rim is present, from a necked bowl form probably of 4th century AD date (Young 1977, 164-6, types C74-80) while a bowl base from ditch **300** (Area D1, context

631) carries an abraded, probably illiterate stamp. Nene Valley colour-coated ware beaker sherds, dated from c. AD 150 onwards, were also found in pit **722** (Area D1, context 723) and ditch **316** (Area D1, context 771).

4.2.7 Overall, however, the assemblage is dominated by local coarsewares. Oxidised and, to a lesser extent, reduced Severn Valley wares were used for a wide range of utilitarian vessels from the mid 1st to 4th century AD (Webster 1976; Timby 1990). As noted above, the 'Malvernian' limestone tempered and grog-tempered wares continued in the pre-Roman Iron Age traditions of the area, while the oxidised and sandy greywares, again probably spanning the entire Roman period, mostly derived from as yet unlocated local centres, although some may be from the Oxfordshire kilns (Young 1977, 202-3). Black Burnished ware from south-east Dorset represented some 6% of the Romano-British sherds, the vessel forms indicating its arrival from c. AD 120/130 onwards. The pink grogged wares, too, have a wide distribution across the Midlands with known production at Stowe Park, Buckinghamshire (Booth and Green 1989; Taylor 2004). Although predominantly of late 3rd to 4th century AD date, earlier examples, dating from the 2nd century AD onwards, do occur within the source area (Booth and Green 1989, 82). The few shell-tempered sherds mostly belong within the East Midlands shell-tempered tradition; kilns at Harrold in Bedfordshire (Brown 1994) are the only known source although their wide distribution suggests that other, as yet unlocated, centres may have been involved in their manufacture. In this area, these wares predominantly date to the second half of the 4th century AD.

4.3 Copper alloy

4.3.1 The four copper alloy objects comprise three brooches and a flat strip, now broken at both ends. The three brooches are all of Early Romano-British date, the earliest being of Colchester type (Area D2, layer 584, building **320**), belonging within the middle decades of the 1st century AD, while a complete spring with a superior chord and three coils either side of the central pin (Area D2, fill 814, ditch **954**) may be from a second brooch of this type. The third brooch (Area D1, fill 609, ditch **315**) probably belongs to the slightly later (later 1st to 2nd century AD) Polden Hill type in that the spring is held on an axial bar passed through discs closing the ends of the crossbar, but the bow of this example has a straight rather than arched profile and the head crest is completely absent while the bow appears to be soldered onto the crossbar.

4.4 Iron

4.4.1 The majority of the iron objects are nail and nail shank fragments (18 examples). Although sizes varied, all are of the flat, round-headed type with square-sectioned, tapering shanks (Manning 1985, 134, type 1b); these are not closely datable although the likelihood is that most are Romano-British. Other objects comprise the tang end of a probable knife blade (Area D1, fill 680, ditch **316**), part of a round-sectioned rod, flattened at one end and perhaps part of brooch bow, a stylus or a needle (Area D2, fill 930, pit **328**) and two freshly broken bar or strip fragments (Area D1, fill 606, ditch **315**; fill 634, ditch **632**), the one from 634 with the remains of a nail or rivet at one end, perhaps forming part of a small hinge.

4.5 Slag

4.5.1 Small fragments of probable iron smelting (Area D1, fill 649, ditch **310**; Area D2, fill 853, ditch **852**) and smithing (Area D1, fill 513, ditch **512**; Area D1 fill 580, ditch **301**; Area D1, fill 650, ditch **310**) slag suggest that ironworking was taking place in the vicinity of Areas D1 and D2. In addition, eleven pieces (13g) of 'Midland grey' fuel ash slag were recovered from Roundhouse A (Area D2, fill 989, gully **322**); this lightweight, light coloured, vesicular,

slag-like material is formed by the reaction of wood ash with minerals such as sand. It is not necessarily of industrial or metallurgical origin, but is derived from relatively high-temperature pyrotechnical activities.

4.6 Glass

4.6.1 All the glass is of Romano-British date. Two small pieces of blue/green matt/glossy window glass were found in ditch **315** (Area D1, contexts 606 and 608), while the other fragments were from at least four vessels (Area D1, context 610, ditch **315**; Area D2, contexts 524 and 817, ditch **321**). The pieces from ditch **315** comprise part of the slightly out-turned, rolled-in rim of a blue/green vessel with a cylindrical neck, probably an unguent flask or bottle and likely to be of 1st – 2nd/early 3rd century AD date; the other vessels were too fragmentary to be identifiable.

4.7 Building materials

4.7.1 Identifiable building materials are present in only very small quantities. The ceramic building materials are predominantly of Romano-British date and include pieces from *tegula* and *imbrex* roof tiles, box flue (*tubulus*) or voussoir blocks and the small, thinner types of brick (*bessales*, *pedalis* or *lydion*). All the pieces are, however, very small and may have been brought to the area as hard-core rather than deriving from the excavated Romanised structure in Area D1 or providing direct evidence for a further substantial Romanised structure in the immediate vicinity.

4.7.2 Two small pieces of roof tile and one brick fragment (topsoil and furrow **305**) are of post-medieval or modern date.

4.7.3 A mortar sample from Area D1 building **320** (wall 543) indicates that it was bonded with a pale grey, moderately hard, sand-free lime mortar, while four other mortar lumps from pit/pond **785** (context 705) indicate the use of off-white, sandy, poorly-slaked lime mortar during the Roman period (dated by associated pottery and ceramic building material). Three flat, micaceous sandstone fragments from deposit **1117** may derive from a polygonal Roman roof tile but were too small (60g) for this to be anything more than a tentative suggestion.

4.8 Stone

4.8.1 Part of a small (30mm in diameter, 4mm thick) stone spindle whorl was found in Area D2 ditch **954** (context 814); associated pottery suggests that it is of Romano-British date.

4.8.2 None of the other stone recovered shows any signs of deliberate working and most were probably collected accidentally, mistaken for other material types when dirty. The majority were of local limestone, often overtly fossiliferous, while three isolated fossils were also collected - a fossilised vertebral disc probably from a sea creature (Area D1, fill 712 ditch **316**), part of an oyster shell (Area D2, fill 758, ditch **333**) and a *gryphaea* (devil's toenail) from Area D2, fill 765 ditch **334**. A freshly broken sarsen flake found in Roundhouse A (Area D2, fill 928, gully **322**) has a single semi-polished surface but is too small (99g) to determine whether it derived from a deliberately-made object as polish of this type could simply be the result of natural erosion.

4.9 Fired clay

4.9.1 The fired clay fragments are predominantly amorphous in character, consisting of small, abraded fragments in poorly fired fabrics probably mostly derived from oven/hearth linings. Fragments from just two objects were recognised; part of a 50mm wide kiln/oven bar (Swan 1984, 62-6) made in a sand and fossiliferous limestone-tempered fabric found

in ditch **310** (Area D1, context 650) and part of a perforated triangular object in a sand, grog, ironstone and calcareous rock-tempered fabric from ditch **331** (Area D2, context 886). Although traditionally interpreted as loomweights, there is increasing evidence to suggest that perforated triangular objects may have been used as oven/hearth furniture (Lowther 1935; Poole 1995).These items are common in Late Iron Age contexts across the whole of southern Britain, remaining current well into the second century AD (Wild 2002, 10).

4.10 Other finds

4.10.1 Part of a small struck flint blade with retouch around its distal end and probably of Late Neolithic or Early Bronze Age date was found residually in Roundhouse A (Area D2, context 790 gully **324**). Small quantities of oyster shell were also found in Areas D1 and 2, the presence of both right and left valves suggesting their use as a minor food resource. Part of the stem of a post-medieval clay tobacco pipe was found in a cleaning layer in building **520** (Area D1, context 592, wall 337), but presumably derived from the adjacent furrow **305**.

5 HUMAN BONE

5.1 Introduction

5.1.1 Human bone from four contexts was subject to analysis, comprising redeposited bone from two of the gullies forming Roundhouse A (**322** and **327**) and two ditches. Ditch **954** cut Roundhouse A whilst ditch **852** was situated c. 25m to the southwest (**Figure 4**).

5.2 Methods

5.2.1 Bone condition was recorded using McKinley's grading system (2004, fig. 6.1-7). Age was assessed from the stage of tooth development and the patterns and degree of age-related changes to the bone (Van Beek 1983; Scheuer and Black 2000, Buikstra and Ubelaker 1994). Sex was ascertained from the sexually dimorphic traits of the skeleton (*ibid*; Bass 1987). Non-metric traits were recorded in accordance with Berry and Berry (1967).

Table 3: Summary of results of human bone assessment

Context	Feature	Quantification	Age/sex	Pathology
810	gully 327	*c.* 10% (skull)	adult >18 yr. ?male	enthesophytes – occipito-mastoid crest
853	ditch 852	*c.* 2% (skull)	adult >55 yr. ?male	*ante mortem* tooth loss; calculus; dental caries
928	gully 322	1 tooth crown	adult >25 yr.	calculus
964	ditch 954	1 fragment (skull)	subadult/adult >13 yr.	endocranial vessel impressions (parietal); hyperporosity - exocranial

5.3 Results

5.3.1 A summary of the results is presented here, full details are in the archive. The small size of the assemblage restricts the value of comparative discussion with regard to demography and pathology.

5.4 Disturbance and condition

5.4.1 Each of the features that contained human bone had been truncated by medieval/post-medieval furrows, whilst the bone in ditch **954** may well have come from the underlying gully. Fragmentation is slight to moderate, with most breaks occurring to dry bone in antiquity. However, in the case of the more complete skull portion from gully **327**, the nature of the fractures suggest that the bone was not entirely dry when it was broken. Root etching and slight erosion was the most common cause of deterioration, which was in most cases slight to moderate (grade 2-3). Most of the bone had a slightly 'soapy' texture.

5.4.2 Historical and archaeological evidence indicate that Iron Age mortuary rites often featured the ritualised treatment and manipulation of the human body, particularly the skull (Aldhouse-Green 2001, 97-109; McKinley 2009, 4). Somesuch activity may be represented within the current assemblage, however it is not clear if the material derived from a disturbed burial, or from some other mortuary rite recognised as a 'normal' part of the suite of Iron Age burial rites (Cunliffe 1992; McKinley 2009, 4). It is also possible that the material found its way into the deposits through inadvertent disturbance and redeposition, though with minimal reworking.

5.5 Demography

5.5.1 Based on the contextual and osteological evidence, the assemblage is considered to represent a minimum of one adult over c. 55 years, probably male.

5.6 Pathology

5.6.1 Slight calculus deposits at the gumline (calcified tartar/plaque; Brothwell 1972, fig. 58b) were seen on all seven teeth (minimum one dentition). One minor carious lesion (14.3%) was noted in a second mandibular incisor, originating on the distal aspect of the tooth neck. A substantially healed tooth socket (12.5%) shows that the left mandibular first molar had been lost *ante mortem*. Attrition is very heavy with the crowns worn down almost to the roots in most cases. Some wear extends onto the lingual surfaces, whilst overall buffing, transverse striations and moderate occlusal chipping are also apparent. Whilst it is recognised that diet, morphology and dental pathology can affect wear patterns, such modifications may also be associated with use of the teeth and jaws for fibre processing or other task-related activities (Egging Dinwiddy 2011, 103-4).

5.6.2 Abundant, healed capillary vessel impressions on the endocranial surface of the fragment of bone from ditch **852** indicates the individual's survival of some form of infection or irritation (i.e. haemorrhage) within the skull (Lewis 2004). Excessive porosity on the external cranial surface might be indicative of scalp irritation, as seen with persistent scratching due to head lice infestation (McKinley 2009, 15).

6 ANIMAL BONE

6.1 Introduction

6.1.1 The assemblage comprises 2506 fragments (or 34.685kg) of animal bone. The majority (84%) of this material was recovered by hand during the normal course of excavation, with an additional small quantity retrieved from the residues of bulk soil samples. Once conjoins are taken into account the above count falls to 1965 fragments.

6.1.2 Bone was recovered from 142 separate contexts dating from the Iron Age through to the post-medieval period (**Table 4**). The largest stratified groups are from Late Iron Age and Romano-British contexts, the majority of which are located in Areas D1 and D2.

6.2 Methods

6.2.1 The following information was recorded where applicable: species, skeletal element, preservation condition, fusion and tooth ageing data, butchery marks, metrical data, gnawing, burning, surface condition, pathology and non-metric traits. This information was directly recorded into a relational database (in MS Access) and cross-referenced with relevant contextual information.

Table 4: Number of identified specimens present (or NISP) by chronological period

Species	Phase 1 LIA	Phase 1/2 LIA/ ERB	Phase 2a ERB	Phase 2b RB	Phase 3 M/PM	UD	Total
cattle	66	12	14	148	9	9	258
sheep/goat	59	9	10	109	10	4	201
pig	10		2	11	1	3	27
horse	6	5	2	29	4		46
dog	2		1	2			5
red deer			1	1			2
Total identified	**143**	**26**	**30**	**300**	**24**	**16**	**539**
bird indet.	1						1
mammal	339	56	72	742	46	32	1287
Total unidentified	**340**	**56**	**72**	**742**	**46**	**32**	**1288**
Overall total	**621**	**82**	**102**	**1042**	**70**	**48**	**1965**

Where L = late, E = early, IA = Iron Age, RB = Romano-British, M/PM = medieval/post-medieval, UD = undated.

6.3 Preservation condition

6.3.1 Bone preservation is extremely good and only a very small percentage of fragments show signs of physical weathering. The general lack of poorly preserved fragments suggests that bone waste remained undisturbed after it was deposited.

6.3.2 The number of gnawed bones is quite low (c. 4%), and this generally supports the idea that refuse was discarded into open features out of the reach of *scavenging* carnivores rather than allowed to accumulate on the ground surface as midden deposits.

6.4 The assemblage by phase

Phase 1: Iron Age

6.4.1 A relatively large amount of bone was recovered from Iron Age contexts in Areas D1 and D2. The majority of the assemblage is from ditches **304**, **321** and **331**, and ring gullies **324** and **328**.

6.4.2 Most of the identified bones belong to livestock species, in particular cattle and sheep/goat, while pig bones are relatively rare. Body part data suggests that livestock were slaughtered locally and that there was little or no separation of waste from different processes in the carcass reduction sequence. In other words butchery waste and domestic refuse were disposed of in the same way, resulting in mixed deposits of bone waste.

6.4.3 A few horse and dog bones were recovered from ditch deposits in Areas D1 and D2. Most of the horse bones are from the head and feet, and these skeletal elements are generally removed with the hide, which means that the horse bone assemblage is almost entirely primary butchery waste. The dog remains include a fragment of maxilla from ditch **632** (Area D1) and a mandible from ditch **321** (Area D2). The skull fragment from ditch **632** is from a large, powerful breed of dog, while the mandible is from a smaller more gracile breed.

Phase 1/2: Late Iron Age/Early Romano-British

6.4.4 Bone was recovered from a small number of broadly dated contexts located in Area D2. Most of the identified bones belong to cattle and sheep/goat, but there are also a few horse bones, including a complete pelvis and mandible from an upper fill of ditch **321**.

Phase 2a: Early Romano-British

6.4.5 The small assemblage from securely dated Early Romano-British contexts, mostly ditch fills, includes some identifiable fragments, mostly cattle and sheep/goat, but also some pig, horse, dog and red deer. The latter is represented by a charred fragment of antler from trackway ditch **547** in Area D1.

Phase 2b: Romano-British

6.4.6 Most of the animal bone assemblage is from broadly dated Romano-British contexts. The majority of this material comes from ditches, in particular **310**, **315**, **340** and **341** in Area D1, with small amounts from gullies, layers, a pit and a waterhole.

6.4.7 Bones from livestock species dominate the assemblage, and based on the overall number of fragments it would seem the cattle were of prime importance overall, closely followed by sheep/goat. Cattle are the dominant species at a number of contemporary sites in the Upper Thames Valley, for example Longdoles Field, Claydon Pike (Sykes 2007a), Birdlip (Dobney and Jaques 1998) and Thornhill Farm, Fairford (Levine 2004).

6.4.8 Both cattle and sheep/goat are represented by a wide range of different skeletal elements, which suggests the local slaughter of livestock, and little or no separation of waste from different sources (e.g. primary butchery, secondary reduction, and domestic consumption). Of note amongst the cattle bone assemblage is a proximal tibia shaft that has been sawn through on two sides, forming a v-shaped piece of bone because of the natural morphology of the *crista tibiae*. The bone also has two perforations through the lateral side of the proximal shaft presumably created for the insertion of rivets or nails. It is unclear what type of object this piece represents, or indeed if it represents anything more than an off-cut from bone-working.

6.4.9 Pig bones are relatively rare in the assemblage and the majority are from juvenile or young adult animals. There are almost three times more horse bones in the assemblage than pig bones. Most areas of the horse carcass are represented and the bones are from animals of pony-size (i.e. <14.2 hands). It is also worth noting that at least one of the bones is from a juvenile and that the presence of this animal implies that horses were being bred and reared on site.

6.4.10 Less common species include dog and red deer. Dog is represented by two mandibles; one from a fairly large, powerful animal. The single red deer bone is a proximal radius, which was recovered from ditch **311** in Area D1.

Phase 3: Medieval/post-medieval

6.4.11 Cattle and sheep/goat bones dominate the small assemblage recovered from medieval/post-medieval furrows and layers, the majority of which are located in Area C. Other identified species include pig and horse.

Undated

6.4.12 A small number of cattle, sheep/goat and pig bones were recovered from various undated ditch fills. One of the cattle bones, a scapula from ditch **317** (Area D1) has a distinct pattern of butchery marks that indicate the meat had been preserved (i.e. cured) for long-term storage. The technique has its origins in the Roman military but was rapidly taken up by professional butchers that supplied the domestic market.

7 PALAEO-ENVIRONMENTAL EVIDENCE

7.1 Introduction

7.1.1 A total of 47 bulk samples were taken, mainly from ditches and roundhouse gullies. These sampled features have been dated to the Late Iron Age and Romano-British periods. The samples were processed for the recovery and assessment of charred plant remains and wood charcoals. The bulk samples break down into the following phase groups:

Table 5: Sample provenance summary

Area	Phase	No of samples	Volume (litres)	Feature types
C	Phase 1: LIA	13	174	Boundary and enclosure ditches
D2	Phase 1: LIA	19	323	Roundhouse ring gullies, ditches, posthole
D2	Phase 1/2: LIA-ERB	2	74	Boundary ditch
D1	Phase 2a: ERB	5	10.9	Boundary ditch
D1	Phase 2b: RB	8	89	Curvilinear ditch, boundary ditches
Totals		**47**	**670.9**	

7.1.2 A further 14 samples were taken from a number of Late Iron Age and Romano-British ditches in Area C and D for the recovery and assessment of mollusc remains. The samples came from ditch **200** in Area C, ditches **319**, **340**, **318** and **317** in Area D1, and ditch **321** in Area D2.

7.1.3 Two monoliths were taken through ditch groups **319**, **340** and **318** in Area D1.

7.2 Charred plant remains

7.2.1 The bulk samples were processed by standard flotation methods; the flot retained on a 0.5 mm mesh, residues fractionated into 5.6 mm, 2mm and 1mm fractions and dried. The coarse fractions (>5.6 mm) were sorted, weighed and discarded. Flots were scanned under a x10 – x40 stereo-binocular microscope and the preservation and nature of the charred plant and wood charcoal remains recorded in **Appendix 1**. Preliminary identifications of dominant or important taxa are noted below, following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary and Hopf (2000, Tables 3 and 5) for cereals.

7.2.2 The flots varied in size and there were generally low numbers of roots and modern seeds that may be indicative of stratigraphic movement and the possibility of contamination by later intrusive elements. Charred material comprised varying degrees of preservation.

Area C

7.2.3 Small charred plant assemblages were recovered from eleven of the samples from the Late Iron Age ditches in this area. The cereal remains observed include grain fragments of barley (*Hordeum vulgare*) and hulled wheat, emmer or spelt (*Triticum dicoccum/spelta*) and glume bases of hulled wheat, including those of emmer (*Triticum dicoccum*). The few weed seeds recorded include seeds of bedstraw (*Galium* sp.) and oat/brome grass (*Avena/Bromus* sp.). There are also a small number of fragments of hazelnut (*Corylus avellana*) shells and hawthorn (*Crataegus monogyna*) stones in five of the samples.

Area D

7.2.4 The Late Iron Age samples from Area D2 were generally richer than those from Area C. High numbers of charred plant remains were recorded from four of the thirteen samples from Roundhouse A, in particular from gully **327** (cut 811) and from four of the five samples from Roundhouse B, especially from gully **328** (cut 859). The large quantity of cereal remains includes grain fragments of hulled wheat and barley, together with hulled wheat chaff elements, comprising glume bases and spikelet forks, with those of emmer and spelt (*Triticum spelta*) identified. There are also a few culm nodes and oat (*Avena* sp.) awn fragments. The high numbers of weed seeds include seeds of oat/brome grass, vetch/wild pea (*Vicia/Lathyrus* sp.), meadow grass/cat's-tails (*Poa/Phleum* sp.), bedstraw, docks (*Rumex* sp.), brassica (*Brassica* sp.), wood-rush (*Luzula* sp.), clover/medick (*Trifolium/Medicago* sp.), black bindweed (*Fallopia convolvus*), ribwort plantain (*Plantago lanceolata*) and goosefoot (*Chenopodium* sp.). The other charred remains include fragments of hazelnut shells, hawthorn stone fragments, sloe (*Prunus spinosa*) stone fragments and a tuber of false-oat grass (*Arrhenatherum elatius* var. *bulbosum*).

7.2.5 Moderate assemblages were recovered from the Late Iron Age/Early Romano-British boundary ditch **954**. These include barley grain fragments, hulled wheat grain, spikelet fork and glum base fragments and seeds of oat/brome grass, vetch/wild pea and brassicas.

7.2.6 Only sparse assemblages were recorded from the Romano-British boundary ditch group **340** in Area D1.

7.2.7 Four of the eight samples taken from Romano-British ditches produced moderate to good quantities of charred plant remains, particularly those from Area D1 boundary ditches **302** (cut 626) and **315** (cut 607). The cereal remains represented were again of barley and hulled wheat, although the chaff is only firmly identified as being that of spelt. There is a similar range of weed seeds observed to those seen in the Late Iron Age samples, including seeds of vetch/wild pea, oat/brome grass, clover/medick, bedstraw, dock and goosefoot. The other remains include stone fragments of sloe and hawthorn and a tuber of false-oat grass. Hawthorn stone fragments were also recovered in relatively large quantities from boundary ditch **321** (cut 816).

7.2.8 These plant assemblages are typical of general settlement waste and the majority of the weed seeds are species found in arable or field margin environments. Barley and hulled wheat are common cereals during this period and there may be an indication of a change from emmer and spelt wheat in the Late Iron Age to spelt wheat in the Romano-British period. Some of the other plant remains are indicative of the presence of a scrub/hedgerow environment in the area, in particular in the vicinity of boundary ditch **321**. Such remains might come from the collection of scrub/hedge material for use as fuel, given the presence of thorns, however, berries of sloe and hawthorn, along with hazelnuts, might equally have been collected for food as a supplement to the cereal diet.

7.2.9 The plant assemblages from a few Romano-British ditch deposits from south-east of Tewkesbury also contained cereal remains of hulled wheat and barley, with the only glume bases identifiable to species being those of spelt (Stevens 2004). Spelt and emmer wheat were recovered, together with barley, from Middle to Late Iron Age pit deposits at Church Road, Bishop's Cleeve (Lovell *et al* 2007).

7.3 Wood charcoal

7.3.1 Wood charcoal was noted from the flots of the bulk samples and is recorded in **Appendix 1**. Charcoal fragments of greater than 4 mm were retrieved in moderately high numbers from boundary ditch **200** (Area C), Roundhouse A (Area D2, gully **327**), Roundhouse B (Area D2, gully **328**). The wood charcoal includes mature wood, round wood and twig wood fragments.

7.4 Land and aquatic molluscs

7.4.1 A total of fourteen samples of 600-2000g were processed by standard methods (Evans 1972) for land snails. The flots (0.5mm) were rapidly assessed by scanning under a x 10 – x 40 stereo-binocular microscope to provide some information about shell preservation and species representation. The numbers of shells and the presence of taxonomic groups were quantified (**Appendix 2**). Nomenclature is according to Anderson (2005) and the habitat information follows Kerney (1999).

7.4.2 Mollusc numbers vary with high numbers being recovered from two samples from boundary ditch **200** (Area C) and one sample from boundary ditch **321** (Area D2).

7.4.3 The mollusc assemblages from the Phase 1 boundary ditch **200** are generally indicative of an open grassy environment with some woodland element in the vicinity, as shown by the presence of *Acanthinula aculeata*, *Clausilia bidentata* and *Merdigera obscura* in particular. The local aquatic environment is likely to be one of localised, possibly seasonal, flooding and damp grassland. This is hinted at by the high numbers of the amphibious species *Galba truncatula*.

7.4.4 The mollusc assemblages from Phase 1 and 2 boundary ditches in Area D are broadly indicative of an area of open grassland with less evidence for woodland in the immediate vicinity. The local aquatic environment again appears to be generally one of localised flooding and damp grassland. A more permanently wet environment within ditch group **340**, although this could be stagnant rather than flowing water, is indicated by the high number of shells of *Gyraulus crista* within this deposit.

7.4.5 The molluscs recovered within the bulk samples were also scanned to ascertain the range of species present. Similar ranges of species were observed within these samples. The mollusc assemblages within the bulk samples from Area C also indicate the presence of a woodland environment in the vicinity of this area. The majority of the aquatic species observed in the bulk samples are the amphibious species *Galba truncatula* and *Anisus leucostoma*, although there is more evidence from the Phase 2 boundary ditch **954** in Area D for long wet grass and flowing water with the presence of *Gyraulus crista*, *Radix balthica* and *Pisidium* within the assemblage.

7.5 Sediments

Two monolith samples were taken through ditch groups **318**, **319** and **340**, part of a series of intercutting ditches in Area D1. The archive relating to the monolith samples (primarily digital photographs, section drawings and site records) was examined thoroughly by a geoarchaeologist, and the samples themselves reviewed.

8 STATEMENT OF POTENTIAL

8.1 Stratigraphic evidence

8.1.1 The archaeological remains recorded at Areas C, D1 and D2 is fairly well understood, although further stratigraphic analysis will be required in order to better understand the sequence of activity at the sites and its duration, for example confirming whether any Phase 1 enclosures or structures continued to be utilised into Phase 2.

8.1.2 Further artefactual and environmental analysis and radiocarbon dating may also provide data to allow fine tuning of the phases and sub-phases presented in this assessment, with the aim of providing a more detailed and coherent overview of the nature, development and decline of activity in all areas and, in particular, to allow the interpretation of Areas D1 and D2 as a single archaeological site.

8.1.3 Finally, further analysis will also re-consider the previous desk-based survey and geophysical survey interpretations, in order to determine whether any potential continuations of dated and phased features from Areas C, D1 and D2 can be established, and to consider the activity and phasing in a wider landscape context.

8.2 Artefactual evidence

8.2.1 The excavations produced a relatively small finds assemblage with no items of particular intrinsic interest. Chronological evidence, predominantly from the pottery, indicates that activity spans the period from the 1st century BC to the second half of the 4th century AD, but the range of material culture is relatively restricted, with only the pottery and animal bone occurring in any quantity. The pottery provides evidence for sources of supply and the types of vessels used, but there is only limited additional structural evidence (ceramic building materials, mortar, nails), or evidence for craft/industrial activities (metalworking debris, fired clay, stone spindle whorl) or economy (animal bone, oyster shell).

8.2.2 More detailed analysis including identification of vessel form type is likely to result in the further refinement of the chronology, at least within the three broad divisions of the Romano-British period, and therefore offers potential to contribute to refining the site phasing.

8.3 Animal bone

8.3.1 A moderate-sized assemblage of well-preserved animal bone was recovered from the excavations. The assemblage includes material of Iron Age and Romano-British date, however, the phased samples are relatively small and will only provide a basic insight into the pastoral economy of the sites during these periods. Comparison with contemporary assemblages from the Upper Thames Valley should help clarify the picture and place the Mythe to Mitcheldean assemblage into a wider regional context.

8.4 Human bone

8.4.1 The limited human bone assemblage does not have potential to enhance the interpretation of these sites through further osteological analysis. However, radiocarbon dating of the remains is feasible and will allow interpretation of the remains in a more specific time-frame than is attainable from the archaeological evidence.

8.5 Environmental evidence

Charred plant remains

8.5.1 The analysis of the charred plant remains from a selection of samples has the potential to provide information on the nature of the settlement, the local environment, and species range and the agricultural practices and crop-processing techniques in this area during the Late Iron Age and Romano-British periods. It may also be possible to determine a transition from the use of spelt and emmer wheat to just spelt wheat on the site. These results can be compared with other sites in the area such as at Tewkesbury (Stevens 2004) and Bishop's Cleeve (Lovell *et al* 2007).

Wood charcoal

8.5.2 The analysis of a selection of samples from the Late Iron Age Roundhouse A and Roundhouse B has the potential to provide information on the range of species and the management and exploitation of the local woodland resource during this period. It may also elucidate whether there was any species selection for specific activities taking place on the settlement, such as salt production.

Land snails and fresh/brackish water molluscs

8.5.3 Although the analysis of mollusc assemblages has the potential to provide evidence for the nature of the immediate landscape and the nature of the aquatic environment, it is unlikely that this would be provide more detailed information than that ascertained from the assessment, due to the relatively low shell numbers in most of the samples.

Sediments

8.5.4 Because of the nature of the sediments sampled (largely homogenous clays from complex intercutting features), there is no potential for detailed palaeoenvironmental work.

Pollen

8.5.5 There is no potential for pollen analysis due to the nature of the sequences sampled (complex intercutting features).

9 RESEARCH AIMS

9.1 Reappraisal of project aims

9.1.1 The investigations aimed to mitigate the destruction of archaeological remains during pipeline construction through detailed excavation and recording to secure 'preservation by record' in accordance with the National Planning Policy Framework (DCLG 2012).

9.1.2 The objectives of the excavation of Areas C, D1 and D2 were:

a. To record in detail all archaeological remains present within the excavation areas;

b. To determine the phasing and degree of complexity of the horizontal and/or vertical stratigraphy present;

c. To determine or confirm the approximate date or date range of the remains, by means of artefactual, stratigraphic or other evidence;

d. To mitigate the loss of archaeological remains during development through preservation by record;

e. To undertake assessment, detailed analysis, research and reporting, as required;

f. To understande the earliest activity on site, its form and evolution through time;

g. To understand how the archaeology of the site relates to the pattern of early landuse and activity seen elsewhere in the area; and

h. To understand the nature of the recorded features and place them in a local, regional, national or international context as appropriate.

9.1.3 Each of these has been progressed during the investigation and assessment process and Aims a-d have been achieved in full. The fulfilment of the remaining aims requires further analysis but all are considered achievable.

9.1.4 The stratigraphic evidence and the finds and environmental assemblages - specifically the pottery and environmental remains - all offer potential for further clarifying and refining the date, character and significance of the site.

9.2 Updated aims

9.2.1 The significance and potential of the archaeology of Gloucestershire has been appraised in two recent resource assessments and research agendas (Webster 2007; Grove and Croft 2012) and these provide a framework for updating the project aims. In addition to Aims e-h above, the archaeology of Areas C, D1 and D2 has potential to contribute to the following regional research aims:

Economies and subsistence

9.2.2 Improve our understanding of wild and cultivated plants and the environmental aspects of farming in the Iron Age and Roman periods through detailed analysis of charred plant remains and wood charcoal (Aims 20-1, Webster 2007, 284).

9.2.3 Improve our understanding of agricultural intensification and diversification in later prehistory and to assess the impact of the Roman empire on farming through detailed analysis of environmental and stratigraphic evidence (Aims 40-1, Webster 2007, 289-90; Theme E, Grove and Croft 2012, 16).

Settlement and landscape

9.2.4 Improve our understanding of settlement sites and landscapes and address our lack of understanding of the late prehistoric-to-Roman and Late Roman-to-post-Roman transitional periods through detailed stratigraphic and artefactual analysis (Aim 10, Webster 2007, 29; Theme A, Grove and Croft 2012, 29).

9.2.5 Improve our understanding of non-villa Roman settlement through analysis of the stratigraphic, artefactual and environmental evidence (Aim 29, Webster 2007, 286).

10 RECOMMENDATIONS

10.1 Summary interpretation

10.1.1 The archaeological investigations and post-excavation assessments have established evidence for Late Iron Age settlement and both arable and pastoral farming in Area C, and for a significant multi-phased farmstead that was occupied from the Late Iron Age into the Romano-British period in Areas D1 and D2. Despite the presence of a stone-built (or stone-founded) structure, it is uncertain whether this was a highly Romanised site and it is better defined as a rural Romano-British unenclosed farmstead.

10.1.2 Together Areas D1 and D2 appear to represent continued settlement from the Late Iron Age into, and through, the Romano-British period. Several elements of the Romano-British field and stock enclosure ditches may have earlier origins and could provide evidence for the organisation of the landscape surrounding the settlement represented by the roundhouses. The animal bone and grain deposits (food and farming) and hearth debris (cooking) provide evidence for a small mixed agricultural settlement. The range and the quantity of the materials and artefacts recovered represent a selection of everyday subsistence activities. Although window glass and other relatively high status building material was recovered from the site, the material only survived in small quantities and may have been imported as hardcore.

10.1.3 During the Early Romano-British period the landscape was sub-divided, building upon the divisions established during the Late Iron Age. However, the later boundaries, enclosures and trackways appear to be more extensive and to more closely follow coherent alignments. Although the occupation of the area appears to be continuous, there may have been a slight shift in the focus of the settlement during this time.

10.1.4 The changing agricultural practices implied by the increase in land enclosure may be reflected in the charred grain deposits by a switch to only spelt wheat production from the earlier spelt and emmer wheat mix. The maintenance of existing ditched boundaries and alignments during the Romano-British periods suggests gradual adaptation and expansion of these field systems and strongly suggests continuous occupation.

10.1.5 By the Early to Middle Romano-British period, occupation was centred on a small stone-built farmstead. It is not clear whether the building was entirely built of stone or was a timber structure on stone foundations. Compared to earlier phases it would probably have dominated the surrounding rural landscape. Again there is evidence of continuity from earlier phases, with the building reflecting the alignment and location of earlier ditched enclosures.

10.1.6 There is evidence that activity continued in this area after the farmstead building fell out of use. Some new ditches and gullies were cut through the foundations, suggesting continued agricultural use. It is not clear whether there was a hiatus in activity prior to the construction of these later ditches, but there is a continuation of the established building and field alignments. There was little evidence of demolition debris from the stone structure and it is possible that the building materials were re-used for structures located outside of the excavation areas.

10.1.7 Further work is required in order to fully understand the date, phasing and nature of the occupation and activity at the site and to consider the results in an appropriate local and regional context. It is recommended that further work is required on the stratigraphic evidence (including research), pottery, metalwork and charred plant remains, and that two samples are submitted for radiocarbon dating. Each of these pieces of work will contribute to an illustrated report to be submitted for publication in the *Transactions of the Bristol and Gloucestershire Archaeological Society.*

10.2 Stratigraphic and other archaeological evidence

10.2.1 The site phasing and interpretation should be refined following receipt of detailed artefactual and environmental analysis and scientific dating.

10.2.2 The results of the Scheme's previous archaeological investigations (desk-based assessment, geophysical survey and trial trenching) in the vicinity of Areas C and D

should be reviewed and considered during the refining of the site phasing and interpretations. The results should be incorporated where relevant.

10.2.3 Similar and/or nearby archaeological sites should be researched sufficient to place the Scheme results in an appropriate local and regional context. This would include consideration of the Area D's relationships with local rural Romano-British settlement and as part of the wider hinterland of *Glevum* (Gloucester).

10.3 Pottery

10.3.1 It is proposed that the fabric groups should be quantified by weight and the number and type of the vessel forms present should be recorded, so that the records conform to the national recommended guidelines for the archiving of Romano-British pottery (Darling 1994). This more detailed identification of vessel form type is also likely to result in the further refinement of the chronology at least within the three broad divisions of the Romano-British period.

10.3.2 The pottery assemblage should also been considered and discussed in the final report, in its feature groups and in relation to other assemblages from contemporary sites in the area. Significant, stratigraphically-coherent key groups (e.g. containing at least 50 sherds and/or 20 measurable rims) should be subject to full, detailed fabric/form analysis.

10.3.3 Provision should be made for the illustration of up to 30 vessels.

10.4 Other artefacts

10.4.1 X-radiography is recommended for the iron, to provide a permanent archive record of this inherently unstable material type, and for the copper alloy, as an aid to the identification of the manufacturing technology used for the brooches. The brooches will also require specialist conservation cleaning and stabilisation. Descriptions and comments made in the archive and this report may require modification based on the results of the x-rays.

10.4.2 At this stage, no further analysis is proposed for the other material types, although all should be considered in their feature groups following the detailed stratigraphic analysis; the comments made in this report should then be modified and augmented as required, including pertinent comparisons with other contemporary assemblages from the area, and used for publication.

10.5 Human remains

10.5.1 A radiocarbon date for the skull fragment will allow consideration of the burial in an accurate and specific time-frame. No further osteological analysis is required but the report should be updated when the remains have been radiocarbon dated.

10.6 Animal bone

10.6.1 The Iron Age and Romano-British assemblages merit further analysis to record basic (i.e. species, skeletal element etc) and more detailed information, which will form the basis for discussion and complete the animal bone archive. This should be carried out following any re-phasing of the sites. A short report detailing the results of the analysis will be prepared and should consider the following points: spatial distribution, species range, body part distribution, mortality profiles and butchery. The significance of any similarities or differences with contemporary assemblages or similar deposits of animal bone should also be fully explored in the report. The medieval/post-medieval assemblage is too small to merit further consideration.

10.6.2 Where appropriate the following information will be recorded for each identifiable fragment; species, element, anatomical zone (after Serjeantson 1996, 195-200; Cohen and Serjeantson 1996, 110-12), anatomical position, fusion data (after O'Connor 1989), tooth ageing data (after Grant 1982; Halstead 1985; Hambleton 1999; Payne 1973), butchery marks (after Lauwerier 1988; Sykes 2007b), metrical data (after von den Driesch 1976; Payne and Bull 1988), gnawing, burning, surface condition, pathology (after Vann and Thomas 2006) and non-metric traits. This information will be directly recorded into a relational database (in MS Access) and cross-referenced with relevant contextual information.

10.7 Charred plant remains

10.7.1 Analysis of the charred plant assemblages is proposed for 14 samples, which are summarised in **Table 6** below and indicated with a 'P' in the analysis column in **Appendix 1**.

Table 6: Charred plant remains for further analysis

Area	Feature	Phase/date
C	Ditch 200	Phase 1 Iron Age
C	Ditch 203	Phase 1 Iron Age
D2	Roundhouse A gully 322	Phase 1 Iron Age
D2	Roundhouse A gully 324	Phase 1 Iron Age
D2	Roundhouse A gully 327	Phase 1 Iron Age
D2	Roundhouse B gully 859	Phase 1 Iron Age
D2	Roundhouse B gully 328	Phase 1 Iron Age
D2	Ditch 954	Phase 2 Romano-British
D2	Ditch 321	Phase 2 Romano-British
D1	Ditch 302	Unphased Romano-British
D1	Ditch 315	Unphased Romano-British

10.7.2 All identifiable charred plant macrofossils will be extracted from the 2 and 1mm residues together with the flot. Identification will be undertaken using stereo incident light microscopy at magnifications of up to x40 using a Leica MS5 microscope, following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary and Hopf (2000, Tables 3, page 28 and 5, page 65), for cereals with reference to modern reference collections where appropriate, quantified and the results tabulated.

10.8 Wood charcoal

10.8.1 Analysis of the wood charcoal assemblages is proposed from a targeted selection of three samples associated with the Late Iron Age roundhouses A and B in Area D2.

10.8.2 Identifiable charcoal will be extracted from the 2mm residue together and the flot (>2mm). Larger richer samples will be sub-sampled. Fragments will be prepared for identification according to the standard methodology of Leney and Casteel (1975, see also Gale and Cutler 2000). Charcoal pieces will be fractured with a razor blade so that three planes can be seen: transverse section (TS), radial longitudinal section (RL) and tangential longitudinal section (TL). They will then be examined under bi-focal epi-illuminated microscopy at magnifications of x50, x100 and x400 using a Kyowa ME-LUX2

microscope. Identification will be undertaken according to the anatomical characteristics described by Schweingruber (1990) and Butterfield and Meylan (1980). Identification will be to the lowest taxonomic level possible, usually that of genus and nomenclature according to Stace (1997), individual taxon (mature and twig) will be separated, quantified, and the results tabulated.

10.8.3 The samples proposed for charcoal analysis are indicated with a 'C' in the analysis column in **Appendix 1**.

10.9 Land snails and aquatic molluscs

10.9.1 No further work is proposed on these samples but the assessment results should be written up for publication.

10.10 Sediments

10.10.1 The monoliths are recommended for discard.

10.11 Pollen

10.11.1 No pollen work is recommended.

10.12 Radiocarbon dating

10.12.1 It is recommended that the human skull fragment is submitted for radiocarbon dating. This will clarify whether the human remains are contemporary with Phase 1 or derive from an earlier burial that was disturbed (or curated) and redeposited.

10.12.2 It is also recommended that charred grain or animal bone from Roundhouse A (Phase 1) is submitted for radiocarbon dating. Phase 1 is currently not well-dated and a scientific date for the roundhouse would clarify this. A date for the roundhouse will provide a useful comparison for contextualising the human remains.

10.12.3 Radiocarbon dates for the human remains and from a roundhouse context containing pottery will contribute to an understanding of the pottery assemblage as a whole and contribute to the regional dataset.

10.13 Publication

10.13.1 The site is of sufficient significance to warrant publication in a regional journal in order that the results are disseminated to a wide audience. It is proposed that the *Transactions of the Bristol and Gloucestershire Archaeological Society* is the most appropriate journal for this purpose.

10.13.2 The publication report will comprise a fully illustrated account of the investigations, including a summary background to the project, methodology, results and discussion.

10.13.3 It is proposed that the article will be c. 8500 words in length, equating to approximately nine pages of text at 900 words per page, and four pages of illustrations (**Table 7**).

10.13.4 Details of the journal's requirements for articles are available online at http://www.bgas.org.uk/pdfs/Notes-for-Contributors_2012.pdf

Table 7: Details of proposed publication

Description	*No Words*	*No pages*
Introduction, background, method	450	0.25
Results	1800	2.0
Artefacts	1350	1.5
Human remains	450	0.5
Animal bone	900	1
Environmental remains	1800	2
Radiocarbon dating	225	0.25
Discussion	900	1
Bibliography	450	0.5
Site location and plan		0.5
Plan of Area C		0.5
Phase plans of Area D		0.5
Sections x 4		1
Plates		0.5
Pottery illustrations x 30		2
Total	8325	15

10.14 Archive storage and curation

10.14.1 It is recommended that the project archive resulting from the excavation be deposited with Cheltenham Museum. The Museum has agreed in principle to accept the project archive on completion of the project. Deposition of the finds with the Museum will only be carried out with the full agreement of the landowner.

10.14.2 The artefacts and accompanying documentary records from the excavation have been compiled into a stable, fully cross referenced, and indexed archive in accordance with Appendix 6 of *Management of Archaeological Projects* (English Heritage 1991).

10.14.3 The complete site archive, which will include paper records, photographic records, graphics, digital data, artefacts and ecofacts, will be prepared following the standard procedures for the transfer of archaeological archives to Cheltenham Museum, and in general following nationally recommended guidelines (UKIC 2001; Richards and Robinson 2000; Brown 2007). It is currently stored at the offices of Wessex Archaeology, Salisbury, Wiltshire, under accession number **GLRCM 2012.11** and Wessex Archaeology Project code **84960**.

10.14.4 In line with current best practice, on completion of the project a security copy of the paper records will be prepared, in the form of microfilm. The master jackets and one diazo copy of the microfilm will be submitted to the National Archaeological Record (English Heritage), a second diazo copy will be deposited with the paper records, and a third diazo copy will be retained by Wessex Archaeology.

10.15 Discard policy

10.15.1 No recommendations for discard of archive materials or artefacts have been made, but this will be reviewed upon the completion of the analysis stage of work.

10.15.2 Discard of soil monolith samples has been recommended by the specialist and will be carried out upon acceptance of this assessment report. The discard of environmental remains and samples follows the guidelines laid out in Wessex Archaeology's 'Archive and Dispersal Policy for Environmental Remains and Samples'. The archive policy

conforms with nationally recommended guidelines (English Heritage 2011) and is available upon request.

10.16 Copyright

10.16.1 The full copyright of the written/illustrative archive relating to the site will be retained by Wessex Archaeology Ltd under the Copyright, Designs and Patents Act 1998 with all rights reserved. The recipient museum, however, will be granted an exclusive licence for the use of the archive for educational purpose, including academic research, providing that such use shall be non-profitmaking, and conforms with the Copyright and Related Rights regulations 2003.

10.16.2 Wessex Archaeology retains full copyright of any report under the Copyright, Designs and Patents Act 1988 with all rights reserved; excepting that it hereby provides an exclusive licence to the Client for the use of the report by the Client in all matters directly relating to the project as described in the specification. Any document produced to meet planning requirements can be copied for planning purposes by the Local Planning Authority.

11 RESOURCES AND PROGRAMME

11.1 Named project team

Project manager	Andrew Norton
Main author	Andrew Powell
Artefacts	Lorraine Mepham and Rachel Seager Smith
Human bone	Kirsten Egging Dinwiddy
Animal bone	Lorrain Higbee
Environmental	Sarah Wyles
Illustrator	Ken Lymer

11.2 Task list

Table 8: Publication tasks

Task	*Description*	*Grade*	*Days*
1	Review stratigraphic and archaeological evidence	Powell A	1.5
2	Research local and regional context	Powell A	1
3	Detailed pottery analysis and report	Seagar Smith R	7
4	Review other artefacts and report	Powell A	0.5
5	Review and update human remains report	Egging Dinwiddy K	0.5
6	Review and update animal bone report	Higbee L	1
7	Extract charred plant remains (14 samples)	Wyles S	4
8	Analysis and reporting of charred plant remains	Wyles S	5
9	Analysis and reporting of wood charcoal (3 samples)	Challinor D	2
10	Reporting of assessment of molluscs	Wyles S	0.5
11	Overview and palaeoenvironmental summary	Wyles S	1
12	Select C14	Wyles S	1
13	Radiometric dating (2 samples)	SUERC	2
14	Pottery illustrations (up to 30 vessels)	James E	2.75
15	Prepare report	Powell A	3.5
16	Site illustrations	James E	3
17	Collate and finalise publication report	Powell A	2
18	QA and submit to journal	Bradley P	1
19	Archive preparation and deposition	PA	1

See Appendix 3 for Gantt Chart

11.3 Management structure

11.3.1 Wessex Archaeology operates a project management system. The team is headed by a Project Manager, who assumes ultimate responsibility for the implementation and execution of the project, and the achievement of performance targets (academic, budgetary or scheduled).

11.3.2 The Project Manager will define and control the scope and form of the post-excavation programme and will have a major input into the writing of the publication report. The Project Manager may delegate specific aspects of the project to other key staff, who will both supervise others and have a direct input into the compilation of the report. They may also undertake direct liaison with external consultants and specialists who are contributing to the publication report, and the museum named as the recipient of the project archive.

11.4 Performance monitoring and quality standards

11.4.1 The Project Manager will ensure that the report meets internal quality standards as defined in Wessex Archaeology's guidelines. The overall progress and quality will be monitored internally by the Quality and Publications Manager.

11.4.2 Communication between all team members will be facilitated by project meetings at key points during the project.

11.4.3 In addition to internal monitoring and checking, quality standards will be maintained by internal and/or external academic advisers, as appropriate. These referees will appraise the academic quality of the report prior to the submission of a draft publication text to the Curator for approval.

11.5 Programme

11.5.1 The analysis programme will commence immediately on approval of the proposals by the Client and Curator. Subject to instruction by the Client, it is anticipated that a **draft publication text and illustrations** would be available by the end of **January 2014**. Subject to approval it is anticipated that the finalised text and illustrations can be submitted to the editor of the *Transactions of the Bristol and Gloucestershire Archaeological Society* by March 2014 (prior to the editor's final submission date of the end of July 2014); subject to acceptance by the editor it is anticipated that the article would be published in the 2015 volume of the Journal.

11.5.2 The finds and archive will be prepared and deposited with the Cheltenham Museum (under the accession code GLRCM 2012.11) on completion of the analysis programme; it is anticipated that this will take place by the end of **March 2014**. The Curator will be informed when the archive has been deposited.

11.5.3 Wessex Archaeology understands that submission of the article to the editor of the journal for publication and deposition of the finds and archive will represent the completion of the programme of archaeological work.

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APPENDIX 1

Assessment of the charred plant remains and charcoal

Feature	Context	Sample	Vol (L)/ Weight (G)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis
Area C													
Late Iron Age													
Boundary Ditches													
1114 gp 200	1117	54	17	175	3	C	-	Indet. grain frags	C	*Crataegus monogyna* stone frags, *Corylus avellana* frags	10/5 ml	Moll-t (A**)	P
	1117	54M	1500g	40	3	C	-	Indet. grain frags	-	-	1/3 ml	Moll-t (A)	
	1119	55	7	125	3	-	-	-	C	*Corylus avellana* shell frags, *Galium*, stem frags	15/12 ml	Moll-t (A**), Moll-f (B), Sab (C)	
	1119	55M	1500g	40	3	-	-	-	C	*Corylus avellana* shell frags	3/4 ml	Moll-t(A*), Moll-f (C)	
	1120	60	9	60	3	C	-	Barley grain frags	C	*Avena/Bromus*	3/3 ml	Moll-t (A*), Moll-f (C), Sab (C)	P
	1121	56	15	40	5	C	-	Indet. grain frags	-	-	0/1 ml	Moll-t (A*), Moll-f (A), Sab (C)	
1122 gp 200	1123	57	9	5	20	-	-	-	-	-	-	Moll-t (A)	
	1124	58	18	25	5	C	-	Indet. grain frag	-	-	0/1 ml	Moll-t (A*), Moll-f (A), Sab (C)	
	1126	59	19	50	5	C	-	Indet. grain frags	C	*Corylus avellana* shell frags	0/2 ml	Moll-t (A*), Moll-f (C)	
1111 gp 203	1113	50	18	150	3	B	B	?Hulled wheat grain frags, glume bases including emmer	C	*Crataegus monogyna* stone frags	0/1 ml	Moll-t (A**), Moll-f (A*), Sab (B)	P

Feature	Context	Sample	Vol (L)/ Weight (G)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis
	1112	51	18	100	3	C	-	Indet. grain frags	-	-	<1/1 ml	Moll-t (A**), Moll-f (A), Sab (B)	
	1115	52	5	45	2	-	-	-	-	-	1/1 ml	Moll-t (A**), Moll-f (A), Sab (B)	
Enclosure Ditch group 201													
1102	1104	53	36	40	20	C	-	Indet. grain frags	-	-	1/2 ml	Moll-t (A	
Area D													
Late Iron Age													
Roundhouse A Ring Gullies													
926 gp 322	928	29	16	250	5	A	-	Hulled wheat and barley grain frags	C	*Vicia/Lathyrus*, stem frags	10/10 ml	Sab (C), Moll-t (C), Moll-f (C)	
975 gp 322	977	30	18	200	7	A	C	Hulled wheat and barley grain frags, glume bases including spelt	C	*Vicia/Lathyrus*, thorn frags, stem frags	10/10 ml	Moll-t (B)	P
	976	31	17	125	3	B	B	Hulled wheat and barley grain frags, glume bases including spelt	C	*Avena/Bromus*, stem frags	7/10 ml	Sab (C), Moll-t (C)	
987 gp 322	989	38	19	120	25	C	-	Indet. grain frags	C	*Galium, Avena/Bromus, Corylus avellana* shell frags	3/5 ml	Sab (C), Moll-t (A)	
	988	39	17	50	20	C	C	Indet. grain frags, glume base frags	C	Thorn frag	1/1 ml	Moll-t (A)	
789 gp 324	790	32	17	50	50	-	-	-	-	-	1/2 ml	Moll-t (C)	
	990	33	4	20	40	C	-	Indet. grain frag	-	-	-	-	

Feature	Context	Sample	Vol (L)/ Weight (G)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis
969 gp 324	970	34	18	120	30	C	-	Indet. grain frags	C	*Vicia/Lathyrus*	5/5 ml	Sab (C)	
	991	35	8	40	30	C	-	Indet. grain frags	-	-	2/2 ml	Moll-t (C), Moll-f (C)	
971 gp 324	972	36	17	150	25	A	C	Hulled wheat and barley grain frags, glume bases	B	*Rumex, Vicia/Lathyrus, Brassica*	5/5 ml	Sab (C), Moll-t (C)	P
	992	37	7	60	20	B	-	Hulled wheat grain frags	-	-	1/3 ml	Sab (C), Moll-t (A)	
811 gp 327	812	23	39	375	10	A	A	Hulled wheat and barley grain fragments, glume bases and spikelet forks	A*	*Avena/Bromus, Corylus avellana* shell frags, *Vicia/Lathyrus, Brassica, Rumex, Galium, Luzula, Prunus spinosa* stone with fruit frag, stem frags	20/15 ml	Sab (C), Moll-t (C), Moll-f (C)	P C
Roundhouse A Posthole group 323													
1011	1012	40	7	50	30	C	-	Barley grain frags	B	*Avena/Bromus, Vicia/Lathyrus, Poa/Phleum, Arrhenatherum elatius* tuber	0/<1 ml	Moll-t (C), Moll-f (C)	
Roundhouse B Ditch													
936	937	24	36	120	5	B	A	Hulled wheat and barley grain fragments, glume bases	A	*Corylus avellana* shell frags, *Crataegus monogyna, Vicia/Lathyrus, Avena/Bromus*	2/5 ml	Sab (C), Moll-t (B)	P
Roundhouse B Ring Gully group 328													
859	861	25	18	225	5	A	A*	Hulled wheat grain frags, glume bases including spelt and emmer, spikelet forks	A	*Avena/Bromus, Lolium/Festuca, Poa/Phleum, Rumex*, thorn frags, stem frags	20/15 ml	Sab (C), Moll-f (C)	P C

Feature	Context	Sample	Vol (L)/ Weight (G)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis
857	858	26	9	120	3	B	A*	Hulled wheat grain frags, glume bases including spelt and cf. emmer, awns	B	*Avena/Bromus, Fallopia, Trifolium/Medicago*	15/10 ml	Sab (C)	
862	863	27	6	30	5	C	C	Indet. grain frags, glume base frags, culm node	C	*Vicia/Lathyrus*	1/3 ml	-	
864	866	28	18	150	3	A	A*	Hulled wheat and Barley grain frags, glume bases and spikelet forks including spelt, culm nodes	B	*Avena/Bromus, Poa/Phleum, Chenopodium*	15/10 ml	Sab (C), Moll-t (C)	P C
Ditch													
632	634	2	32	225	40	B	B	Hulled wheat and barley grain fragments, glume bases	C	*Vicia/Lathyrus, Plantago lanceolata, Poa/Phleum*	3/7 ml	Moll-t (B), Sab (C)	
Late Iron Age / Early Romano-British													
Boundary Ditch													
954	814	41	39	250	15	B	A	Hulled wheat and barley grain fragments, glume bases and spikelet forks	B	*Avena/Bromus, Vicia/Lathyrus, Brassica*	5/5 ml	Moll-t (A), Moll-f (A)	P
	962	42	35	450	10	C	B	Indet. grain frags, Glume bases including spelt	-	-	1/10 ml	Moll-t (A**), Moll-f (A**)	

Feature	Context	Sample	Vol (L)/ Weight (G)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis
Early Romano-British													
Boundary Ditch group 340													
867	801	6	1500g	15	5	C	C	Indet. grain frags, glume base	-	-	0/<1 ml	Moll-t (A*), Moll-f (A)	
	801	18	1400g	5	10	-	-	-	C	*Chenopodium*	-	Moll-t (B), Moll-f (C)	
819	820	11	1500g	10	10	-	-	-	C	?sloe stone frag, ?thorn frag	-	Moll-t (A), Moll-f (C)	
	820	20	5	35	10	-	-	-	-	-	0/1 ml	Moll-t (A), Moll-f (A), Sab (C)	
	820	20 M	1500g	15	10	-	-	-	-	-	0/1 ml	Moll-t (A), Moll-f (A)	
Romano-British													
Curvilinear Ditch group 304													
565	566	4	39	50	40	-	-	-	-	-	0/2 ml	Moll-t (B)	
Boundary Ditches													
626 gp 302	628	3	35	175	15	B	B	Hulled wheat and barley grain fragments, glume bases including spelt	A	*Vicia/Lathyrus, Prunus spinosa* stone frag, *Trifolium/Medicago Avena/Bromus, ,* stem frags	3/10 ml	Moll-t (A*), Moll-f (B), Sab (C)	P
832 gp 318	833	8	1500g	10	30	-	-	-	C	*Avena/Bromus*	0/<1 ml	Moll-t (A), Moll-f (B)	
816 gp 321	817	16	10	120	20	C	-	Indet. grain frags	A	*Crataegus monogyna (A), Galium*	5/10 ml	Moll-t (A*), Sab (C)	P
	817	16a	10	110	15	-	-	-	A	*Crataegus monogyna, Galium, Arrhenatherum elatius* tuber	12/10 ml	Moll-t (A*), Sab (C)	P
	854	17	8	60	7	C	-	Indet. grain frags	-	-	1/3 ml	Moll-t (A*), Moll-f (C), Sab (C)	

Feature	Context	Sample	Vol (L)/ Weight (G)	Flot size	Roots %	Grain	Chaff	Cereal Notes	Charred Other	Notes for Table	Charcoal > 4/2mm	Other	Analysis
	854	17a	7	90	10	C	-	Indet. grain frags	C	*Crataegus monogyna*	1/2 ml	Moll-t (A*), Moll-f (C), Sab (C)	
	854	17 M	1500g	30	10	-	-	-	C	*Crataegus monogyna*	1/4 ml	Moll-t (A*), Moll-f (B), Sab (C)	
607 gp 315	636	1	16	60	20	A	B	Hulled wheat and barley grain fragments, glume bases	A	*Rumex, Vicia/Lathyrus, Avena/Bromus, Galium, Chenopodium, Trifolium/Medicago*	2/4 ml	Moll-t (B)	P

Key: A*** = exceptional, A** = 100+, A* = 30-99, A = >10, B = 9-5, C = <5; sab/f = small animal/fish bones, Moll-t = terrestrial molluscs, Moll-f = freshwater molluscs; Analysis: C = charcoal, P = plant

APPENDIX 2

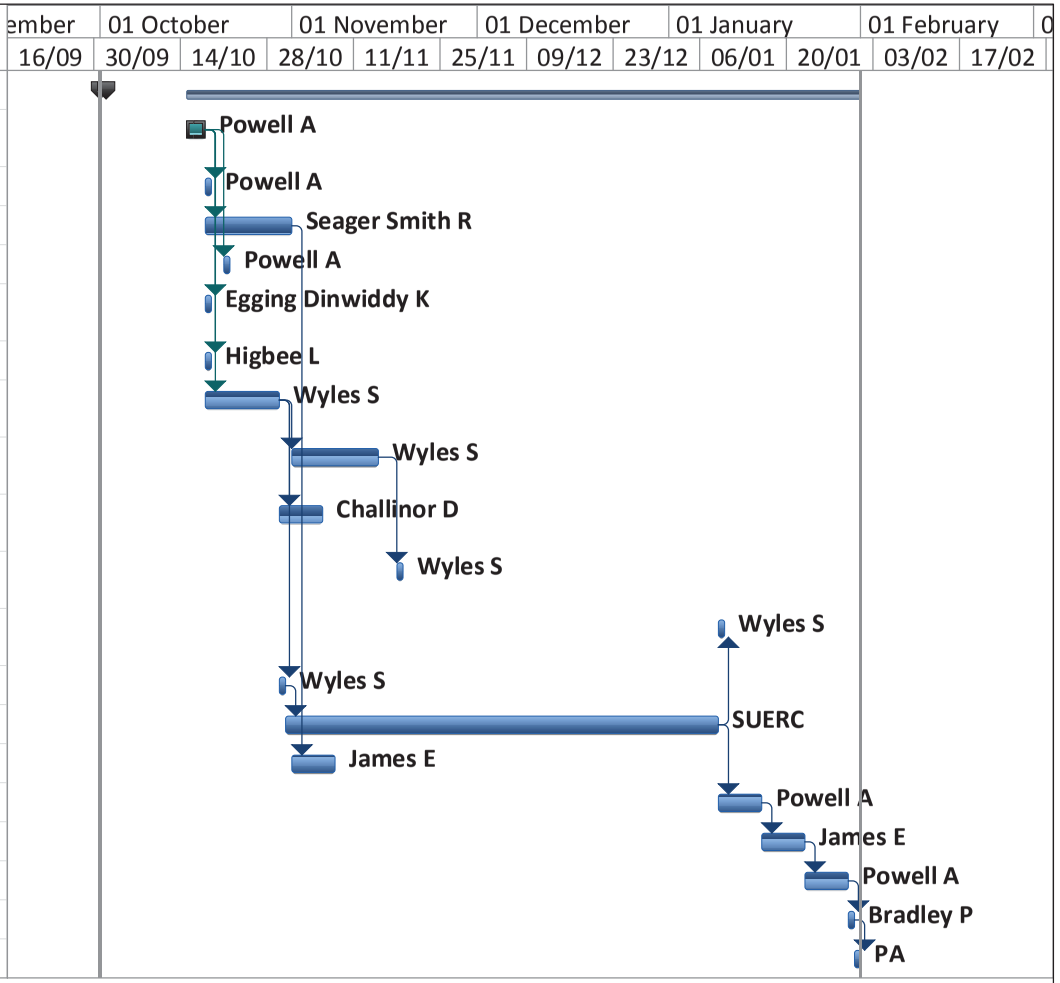
Land and aquatic snail assessment

Phase	LIA			IA		ERB	RB	ERB		RB	ERB	RB		
Group	Boundary ditch													
Group Number	200			319		340	318	340		321	340	317	340	
Feature Type	Ditch			Drainage Ditch						Ditch	Drainage Ditch			
Feature	1114			367	867		832	876	819	816	867	826	819	967
Context	1117	1119	1121	831	830	801	833	822	820	854	801	828	820	968
Series				10	10	10	10	13	13		22	22	22	22
Sample	54M	55M	56M	9	7	6	8	12	11	17 M	18	19	20 M	21
Vol (L)	1500g	1500g	1500g	2000g	2000g	1500g	1500g	1500g	1500g	1500g	1400g	600g	1500g	1000g
Open country species														
Pupilla muscorum	C	C	-	-	C	C	C	-	B	C	C	-	C	-
Vertigo spp.	-	A	C	-	C	C	C	-	C	C	-	-	C	-
Helicella itala	-	-	-	-	-	-	-	-	C	-	-	-	-	-
Vallonia spp.	A	A	A	-	C	B	A	-	A	A	B	C	B	C
Intro. Helicellids	-	-	-	-	-	-	C	-	-	-	-	-	-	-
Intermediate species														
Trochulus hispidus	-	C	B	-	C	C	C	-	B	A	-	-	C	-
Cochlicopa spp.	-	B	C	-	-	-	-	-	-	C	-	-	-	-
Cepaea spp	+	C	C	-	+	-	C	+	-	B	+	-	-	-
Punctum pygmaeum	-	C	-	-	-	-	-	-	-	C	-	-	-	-
Vitrina pellucida	-	-	C	-	-	-	-	-	-	-	-	-	-	-
Limax	-	-	-	-	C	-	-	-	-	-	-	-	C	-
Shade-loving species														
Carychium	-	C	C	-	-	-	-	-	-	A	C	-	C	-
Discus rotundatus	C	A	C	-	+	C	+	-	C	B	+	-	B	-
Oxychilus cellarius	-	C	C	-	-	C	-	-	C	C	-	-	-	-
Aegopinella nitidula	-	B	B	-	-	-	-	C	C	A	-	-	-	-

Phase	LIA			IA		ERB	RB	ERB		RB	ERB	RB		
Group	Boundary ditch													
Group Number	200			319		340	318	340		321	340	317	340	
Feature Type	Ditch			Drainage Ditch						Ditch	Drainage Ditch			
Feature	1114			367	867		832	876	819	816	867	826	819	967
Context	1117	1119	1121	831	830	801	833	822	820	854	801	828	820	968
Series				10	10	10	10	13	13		22	22	22	22
Sample	54M	55M	56M	9	7	6	8	12	11	17 M	18	19	20 M	21
Acanthinula aculeata	-	B	-	-	-	-	-	-	-	-	-	-	-	-
Clausilia bidentata	-	C	+	-	-	-	-	-	-	C	-	-	-	-
Merdigera obscura	-	C	-	-	-	-	-	-	-	-	-	-	-	-
Vitrea	-	C	-	-	-	-	-	C	-	C	-	-	-	-
Aquatic species														
Galba truncatula	-	C	A*	-	A	A	B	-	B	C	C	C	B	C
Anisus leucostoma	-	C	-	-	-	-	-	-	-	-	-	-	-	-
Radix balthica	-	-	C	-	C	-	-	-	-	-	C	-	C	-
Gyraulus crista	-	-	-	-	-	-	-	-	-	-	-	-	A	-
Bithynia operculum	-	-	-	-	C	-	-	-	-	-	-	-	-	-
Pisidium	-	-	-	-	-	-	-	-	-	B	-	-	-	-
Approx totals	12	85	100	0	20	30	30	2	35	90	12	5	40	2

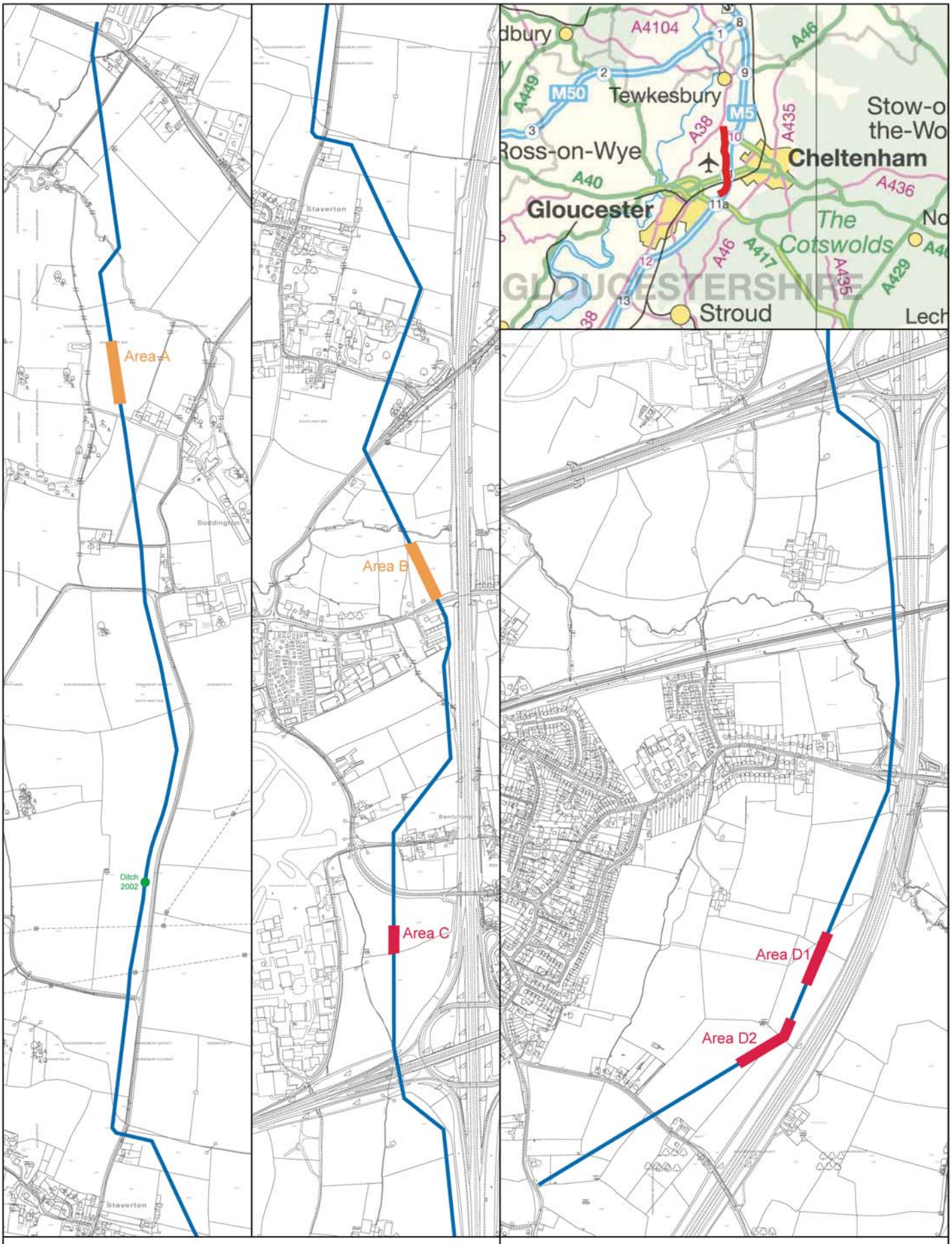
Key: A* = 30+, A = >10, B = 9-5, C = <5, + = present

ID	Text10	Task Name	Days	Resource Names
1		**Mythe to Micheldene PX**		
2	1	Review stratigraphic and archaeological evidence	1.5	Powell A
3	2	Research local and regional context	1	Powell A
4	3	Detailed pottery analysis and report	7	Seager Smith R
5	4	Review other artefacts and report	0.5	Powell A
6	5	Review and update human remains report	0.5	Egging Dinwiddy K
7	6	Review and update animal bone report	1	Higbee L
8	7	Extract charred plant remains (14 samples)	4	Wyles S
9	8	Analysis and reporting of charred plant remains	5	Wyles S
10	9	Analysis and reporting of wood charcoal (3 samples)	2	Challinor D
11	10	Reporting of assessment of molluscs	0.5	Wyles S
12	11	Overview and palaeoenvironmental summary	1	Wyles S
13	12	Select c14 sample	1	Wyles S
14	13	Radiometric dating (2 samples)	2	SUERC
15	14	Pottery illustrations (up to 30 vessels)	2.75	James E
16	15	Prepare report	3.5	Powell A
17	16	Site illustrations	3	James E
18	17	Collate and finalise publication report	2	Powell A
19	18	QA and submit to journal	1	Bradley P
20	19	Archive preparation and deposition	1	PA



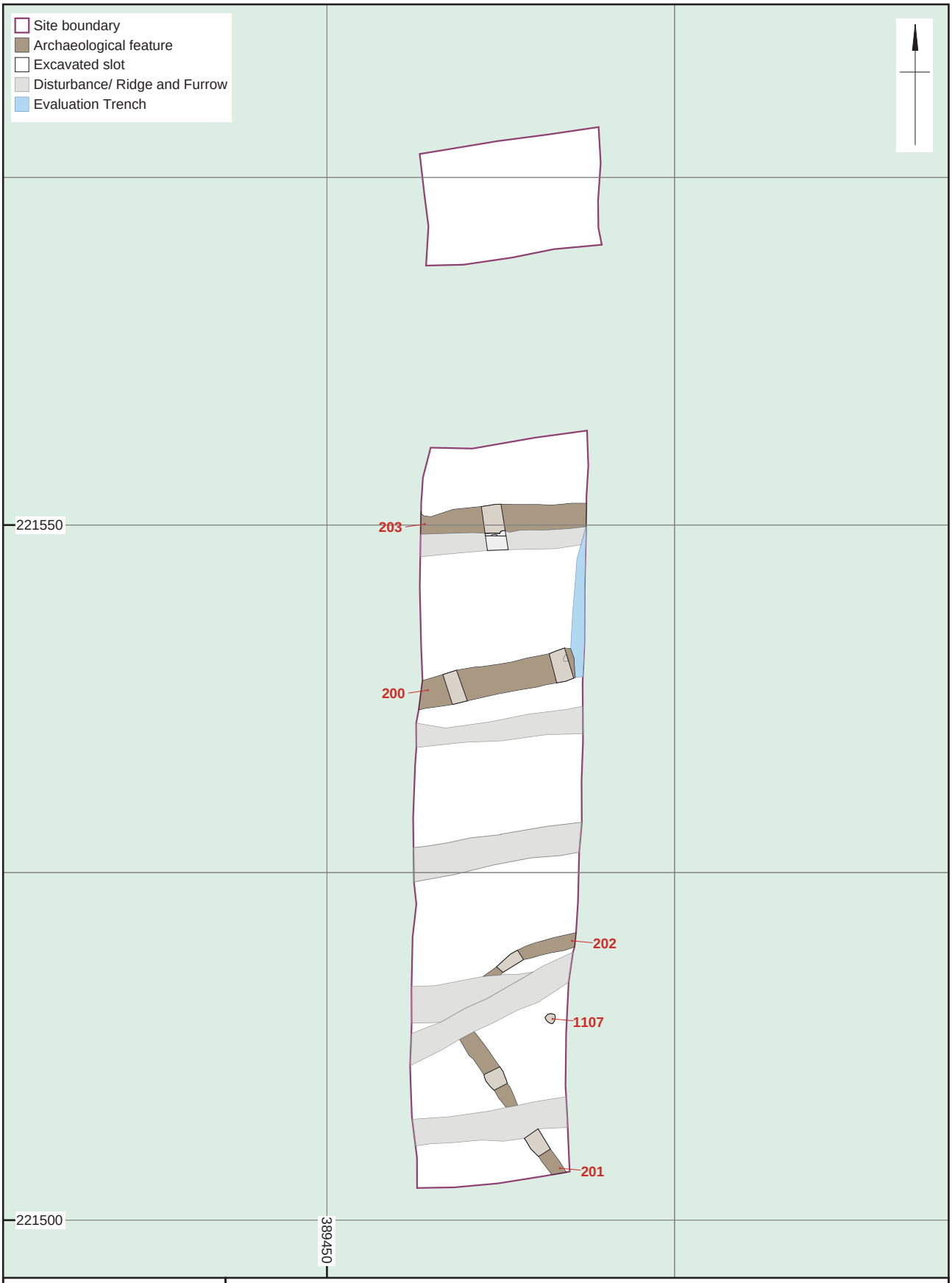
Project: Mythe draft ver1
Date: Thu 27/06/13

Task	External Milestone	Manual Summary Rollup	
Split	Inactive Task	Manual Summary	
Milestone	Inactive Milestone	Start-only	
Summary	Inactive Summary	Finish-only	
Project Summary	Manual Task	Deadline	
External Tasks	Duration-only	Progress	



Site location

Figure 1



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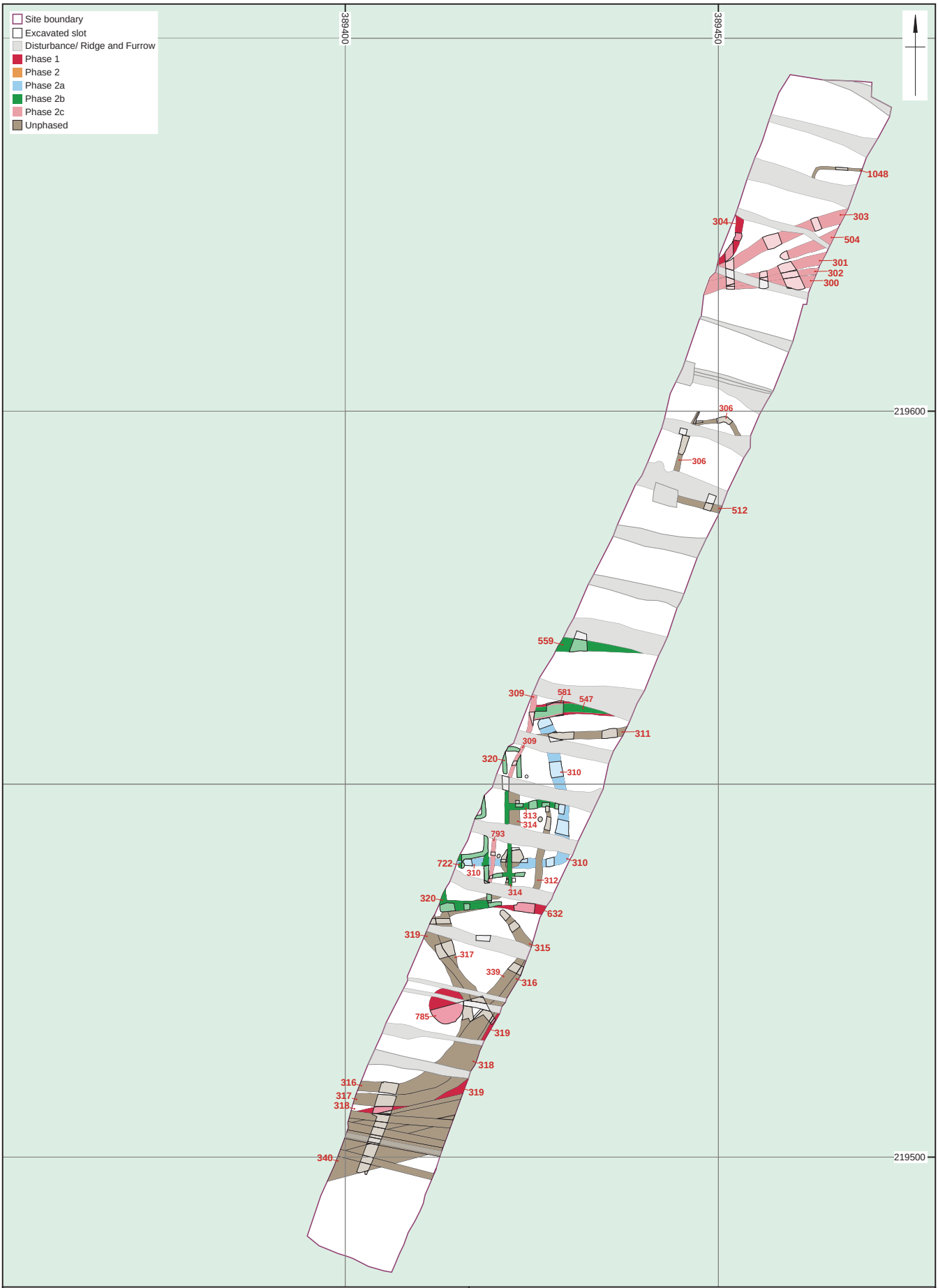
Path:	Y:\Projects\84962_Mythe\Drawing Office\Report Figs\Final\2013-13-03		

Plan of Area C

Figure 2



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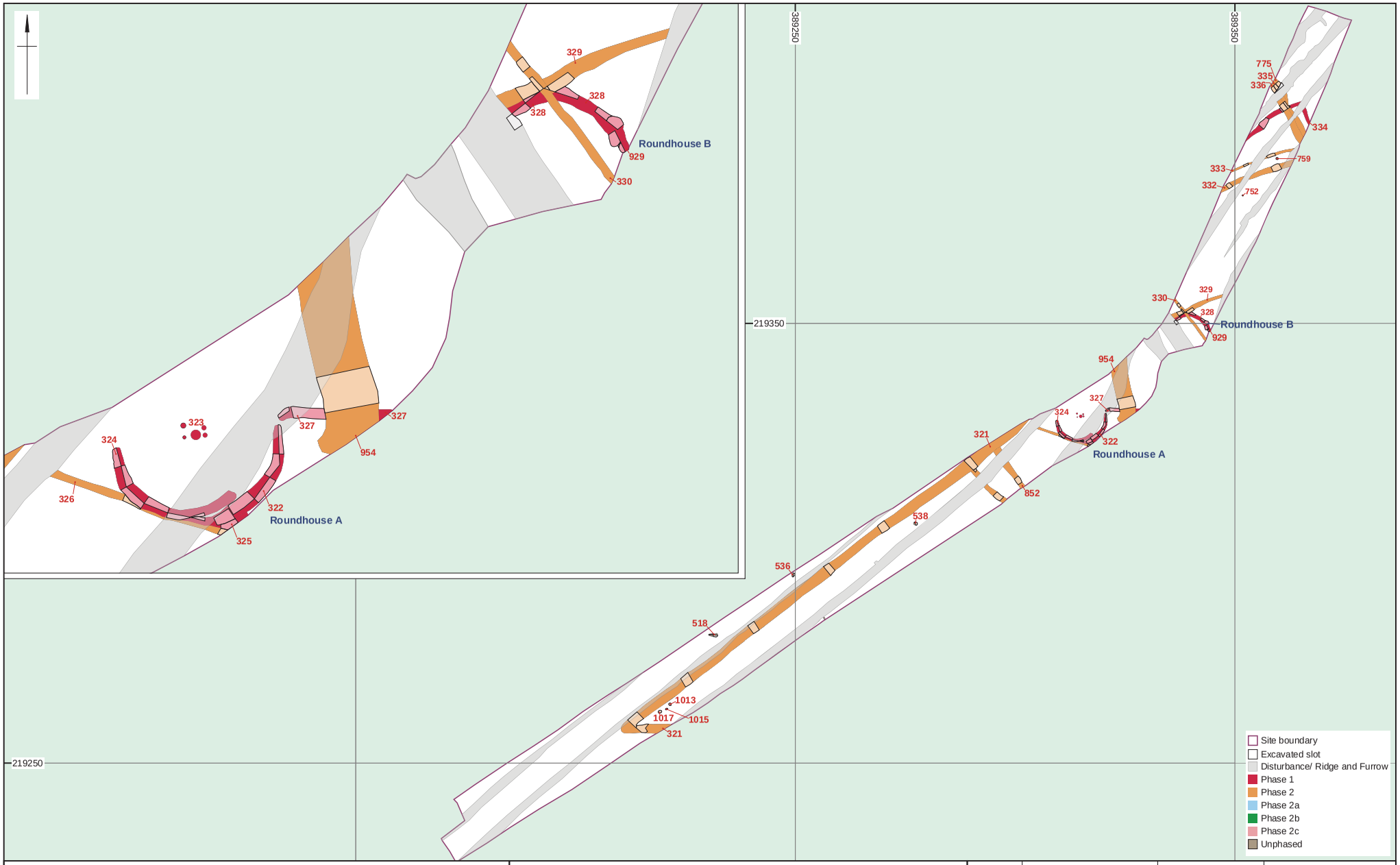
Plan of Area D1 and phasing

Figure 3



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Plan of Area D2

Figure 4

Plate 1: Area D1 Ring Ditch **304** and ditches **301-303**, looking north

Plate 2: Area D1 Waterhole **785**

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Plate 3: Area D1 Building **320**, looking south

Plate 4: Area D2 Roundhouse A, looking north

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Plate 5: Area D2 Roundhouse B, looking southeast

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