Northern Archaeological Associates

STAMFORD BRIDGE

WATER PIPELINE

ARCHAEOLOGICAL WATCHING BRIEF

AND EXCAVATION

POST-EXCAVATION ASSESSMENT REPORT

prepared for

LAING O'ROURKE

on behalf of

YORKSHIRE WATER SERVICES LTD

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STAMFORD BRIDGE WATER PIPELINE

ARCHAEOLOGICAL POST-EXCAVATION ASSESSMENT

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Summary

This document presents the results of an archaeological watching brief (a 'scheme of observation, investigation and recording') and excavations undertaken during the construction of a new water main (part of the Etton Wold Water Treatment Works Nitrate Reduction Scheme) located to the south of Stamford Bridge, East Yorkshire. The watching brief was undertaken along the entire pipeline route identifying three areas where archaeological features were concentrated.

*Area C was located along the base of a hill slope close to the eastern bank of the River Derwent, south-west of Stamford Bridge, where it bisected the projected line of a Roman road (centered on SE 7057 5454). The site comprised the remains of a road embankment (*agger*) with an associated roadside ditch where the road approached a presumed former river crossing. Pottery recovered during excavation dated the agger to the Romano-British period (2nd to 3rd century).*

Area D was located some 80m to the east of Area C (centered on SE 7082 5450) and ran parallel with a series of extensive cropmarks. These had been previously recorded by aerial photographs some 15m to the north of the pipeline corridor and are indicative of a Romano-British settlement. The site comprised a concentration of settlement related features, which extended over a length of 260m along the pipeline corridor. The complex of features comprised a series of enclosure ditches, 'corn drying' kilns and watering holes as well as a small number of human inhumations and cremations. Initially two phases of activity were identified within the settlement, one dated from the 1st to early 3rd centuries the second from the late 2nd to early 4th centuries. All of these features had been truncated by medieval farming activity.

Area G was located some 400m to the east of Area D and comprised two groups of features. The largest group (centered on SE 7167 5459) comprised a large 'burnt mound' and a number of associated pits dating to the Bronze Age. The second group (centered on SE 7186 5464) comprised a section across a former cobbled road, probably Romano-British. All of these features were truncated by medieval farming activity.

Both the Bronze Age and Romano-British features and finds from Stamford Bridge are considered to be of regional significance. Very few lowland Bronze Age burnt mounds have previously been discovered in the Vale of York and hence further research would provide a valuable addition to the corpus of current data. The Romano-British settlement has long been known about from both aerial photographs and documentary evidence, and has been suggested as being the site of the Roman town of Derventio. Little excavation work has been done previously within this area and therefore warrants further analysis of the site archive, especially in relation to the pottery assemblage, small finds and environmental data. A final

publication report should be produced on selective aspects of the excavation for inclusion within an appropriate regional journal.

1.0 INTRODUCTION

1.1 Northern Archaeological Associates (NAA) were commissioned by Laing O'Rourke on behalf of Yorkshire Water Services Ltd to undertake a scheme of observation, investigation and recording (watching brief) and targeted excavation during the construction of a new water main at Stamford Bridge (SE 715 555) which forms part of the wider Etton Wold Water Treatment Works Nitrate Reduction Scheme (Figure 1). This report evaluates the results of the watching brief and excavations undertaken in three areas along the pipeline route; where the remains of a Roman road were recorded (Area C) and an associated Romano-British settlement (Area D), as well as a group of Bronze Age features and a second possible Roman road (Area G).

1.2 The watching brief and excavation undertaken during the construction works represented a final phase of the archaeological programme undertaken to mitigate the impact of the construction works of the new water main. This programme included an initial geophysical survey (GSB 2003) and desk-based assessment of the route (NAA 2003a). The watching brief was implemented as a result of the recommendations made in the desk-based assessment and undertaken in accordance with the project design (NAA 2003b). It was undertaken over a 14 week period between April and July 2003 under the direction of Jim Parry.

1.3 This document presents the details of the methodologies employed, and the results of the archaeological watching brief and excavations as well as summarising the specialist assessments of the finds and environmental material recovered. This report also assesses the potential for further analysis of the site archive and proposes a programme for further work to produce a final publication report in accordance with both the project design and published guidelines (English Heritage 1991).

2.0 LOCATION, TOPOGRAPHY AND GEOLOGY

Location

2.1 Stamford Bridge is located some 14.5km to the east of York, where the A166 crosses the River Derwent. The pipeline runs through two administrative areas, the City of York to the west of the River Derwent and the East Riding of Yorkshire to the east. The pipeline route runs to the west and south of the village and starts from the edge of fields 50m to the south of the A166, some 700m to the west of the center of Stamford Bridge (SE 7025 5545). The route then heads southwards towards the southern end of Young Tree Plantation (SE 7035 5500) where it turns to the south-east to cross under the River Derwent before heading south again at SE 7057 5490 following the extant field boundaries. The route then turns eastwards at SE 7055 5450 to follow the field boundaries until it crosses Low Catton Road and continues under the allotments and playing fields to the east of the road. After the playing fields (SE 7115 5455) the route runs alongside Millsike Beck, under High Catton Road before turning north-eastwards at SE 7190 5465 to cross under the abandoned York to Market Weighton railway line (SE 7195 5485) and joins the existing main on Moor Lane at SE 7200 5502 (Figure 2).

Topography and land-use

2.2 The route runs entirely through arable land apart from a section that was directionally drilled under allotments and a sports field (SE 7095 5455 to SE 7115 5455).

2.3 The pipeline route is located in very gently undulating agricultural land at a height of some 15m OD. The only major variation in topography is where the route drops down into the flood plain of the River Derwent at 9m OD.

Geology and soils

2.4 The underlying geology of the area is divided between Triassic mudstones to the east and Permian and Triassic sandstones in the west. Overlying this the quaternary geology is one of alluvial deposition from the River Derwent. From these deposits the soils that have developed along the route are of the Worcester Association alongside the course of the river and soils of the Everingham Association have developed across the wider valley bottom, this overlies Aeolian sands. The Worcester Association is a clayey alluvial soil principally occurring in the Vales of York and Pickering and overlies Permo-Triassic reddish mudstones (GSB 2003). The soils are prone to seasonal flooding and are often waterlogged (Jarvis *et al* 1984, 194). The Everingham Association consists of stoneless, fine sandy permeable soils in aeolian sand, often overlying clay. As with the Worcester Association the soils are often waterlogged (Jarvis *et al* 1984, 299).

3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 Research of the archaeological and historical background to the development area formed an integral part of the desk-based assessment (NAA 2003a), which included a geophysical survey (GSB 2003). What follows is a summary of this information.

3.2 A total of 30 archaeological sites (Table 1) were recorded within a 250m corridor of the pipeline route (Figure 2). A Registered Battlefield site was recorded and there were no Scheduled Monuments or Listed Buildings.

Table 1

Site Number	*Reference Number*	*Grid Reference*	*Description*	*Period/Date*	*Grade*
North Yorkshire					
1	--	SE 7004 5550	Roman road	Roman	2
City of York					
2	NY 5746	SE 7010 5513	Rectilinear fields	Uncertain	3
3	NY 5745	SE 7013 5513	Cropmark	Bronze Age	2
4	--	SE 7030 5510	Fieldwalking	Roman-C20th	3
5	NY 5744	SE 7032 5504	Cropmark	?Prehistoric	2
27	--	SE 7033 5514	Geophysical anomaly	?Prehistoric	2
28	--	SE 7034 5508	Geophysical anomaly	? Prehistoric	2
29	--	SE 7035 5504	Geophysical anomaly	? Prehistoric	2

Site Number	*Reference Number*	*Grid Reference*	*Description*	*Period/Date*	*Grade*
East Riding of Yorkshire					
6	NY 3888	SE 7080 5497	Cropmark - enclosure	?Prehistoric	2
7	Hu 3877	SE 7170 5490	Cropmark – field system	?Prehist/RB	3
8	Hu 18468	SE 7086 5483	Flint arrowhead	Prehistoric	3
9	Hu 3891	SE 7097 5485 to 7075 5462	Pottery finds	1st to 4th century	3
10	Hu 18032	SE 7099 5462	Settlement	Iron Age	2
11	Hu 3887	SE 7219 5458	Cropmarks – enclosures	?Prehist/RB	2
12	Hu 8194	SE 7209 5450	Cropmark – ditches	?Prehistoric	3
13	Hu 3312	SE 7209 5445	Curviliner enclosure	?Prehistoric	2
14	Hu 8158	SE 7199 5437	Cropmark – enclosure	?Prehistoric	2
15	Hu 8116	SE 7193 5433	Cropmark – square ditches	?Prehistoric	2
16	Hu 3315	SE 7099 5410	Cropmark – enclosure	?Prehistoric	2
17	Hu 9510	SE 7050 5420	Mill	Medieval	3
18	Hu 18031	SE 7050 5420	Carved stone head	C14th	3
19	Hu 3303	SE 7088 5487 to 7095 5467 to 7102 5453 to 7122 5422 to 7126 5412 to 7160 5391 to 7165 5382	Road	?medieval	3
20	Hu 3218	SE 7740 4870 to SE 7110 5550	Roman road	Roman	2
21	Hu 8818	SE 7110 5535	Railway	1847	2
22	NMR 59538 Hu 3876	SE 7200 5530	Battle of Stamford Bridge	1066	1
23	Lawton (1997)	*c*. SE 7075 5458 to SE 7325 5710	Roman road	Roman	2
24	Hu 1439 to SE 7360 5350	SE 7130 5560	Roman road	Roman	2
25	Hu 16380	SE 7045 5455	Roman bridge	Roman	2
26	--	SE 7070 5455 to SE 7250 5635	Roman road	Roman	2
30		SE 7096 5465 centred on	Roman settlement	Roman	2

Prehistoric

3.3 The majority of evidence for prehistoric activity within the study area consists of cropmarks recorded from aerial photographs and interpreted as being prehistoric in origin on the basis of form or their relationship to other features of known date.

3.4 A number of cropmark sites occur in fields around both the western and eastern ends of the proposed route. At the western end three sites show a potential for a prehistoric and/or Romano-British landscape. These include a field system (Site 2) a ring ditch of Bronze Age or earlier date (Site 3) at SE 7013 5513, along with a 3-sided rectangular enclosure (Site 5). In addition to these sites a geophysical survey recorded a further three potential circular features which could be either Bronze Age barrows or Iron Age hut circles (Sites 27, 28 and 29).

3.5 A group of Iron Age square barrows were recorded at SE 7181 5536, some 375m north-west of the eastern end of the pipeline route in an area now covered by housing.

Further prehistoric features have been recorded as cropmarks on either side of the eastern end of the route which show that there was once an extensive prehistoric, probably Iron Age, landscape. The cropmarks at Site 7 reflect the remains of a small field system whilst to the south of Millsike Beck at Site 11 a further field system is recorded. To the south-west of Site 11 four recorded sites (Sites 12, 13, 14 and 15) appear to be the remains of an extensive series of enclosures and square barrows.

3.6 This extensive range of cropmark sites appears to be aligned with the possible Roman road (Site 20) which may have been based upon an earlier prehistoric trackway.

3.7 Further evidence for Iron Age settlement activity has been recorded at Site 10 where fieldwalking has recovered Iron Age occupation material in the vicinity of 'Reckondales'. Geophysical survey through this area and further to the west along the pipeline corridor identified a number of weak curvilinear trends and pit-type responses which may reflect prehistoric activity, although they may also reflect variations in the subsurface geology.

Roman

3.8 It has been suggested that there was a Roman fort at Stamford Bridge, although the evidence is extremely limited. An oven or kiln discovered in 1954 behind the Daneswell Garage at SE 7152 5577 is thought to have been associated with a military site.

3.9 A fieldwalking programme carried out in fields to the west of the River Derwent and immediately south of the western end of the proposed pipeline route (Site 4) recovered a small number of objects, mostly dating from the 18th-20th centuries but included one Roman and two medieval coins (OSA 2001).

3.10 Several projected Roman roads cross the pipeline route. The modern A166 approaching the village from the west follows the line of a Roman road running from York (Site 1). To the north of the river, evidence has been recorded for a Roman road at SE 7132 5596 running west towards Chapel Garth. A Roman road is recorded running in a south-easterly direction towards Market Weighton (Site 20) from SE 7740 4870, immediately to the west of Stamford Bridge. Another parallel road has been suggested running south-east from SE 7130 5560, broadly following the line of Moor Lane (Site 24).

3.11 The area of Roman settlement to the south-west of the village (Site 30) was concentrated along a road running from east to west (Site 23). Another road branched from this road at SE 7045 5455 and ran to the north-east beneath the modern village (Site 26). It has been identified on aerial photographs continuing to the north-east of the village as far as SE 7325 5710 (Lawton 1997).

3.12 Excavation of an area of Romano-British settlement was undertaken in 1998 in advance of a housing development on Moor Lane in the Battle Flats area to the east of Stamford Bridge, centred on SE 7182 5533. This identified a small group of cremation burials of probable Roman date. These had been succeeded by intensive agricultural activity represented by at least two phases of ditched sub-rectangular enclosures arranged along trackways. Small rectangular structures, probably

agricultural in nature, were aligned to the enclosures, and other excavated features included a wicker-lined pit and a possible kiln or oven (Roe 2001).

3.13 An extensive Romano-British settlement has been recorded both to the east and west of the Derwent to the south of Stamford Bridge (Site 30) (Figures 2 and 3). This area has been subject to extensive metal detecting with 'numerous coins and brooches' having been recovered. The area of the settlement has been recorded from aerial photographs which shows a settlement aligned along the two roads (Sites 23 and 26), which probably extends beyond the recorded boundaries but this is not seen on the photographs due to disturbance by modern ploughing. The geophysical survey of the predicted route of the pipeline also identified a number of linear and rectilinear features that related to these settlement cropmarks.

Medieval

3.14 Stamford is Old English for 'stone or stony ford'. The first surviving documentary evidence for Stamford Bridge dates from *c*.1075 when it is called *Stanford brycg* (Mills 1998, 323), confirming the early presence of a bridge, although as described below, a bridge is mentioned in some accounts of the battle of Stamford Bridge of 1066.

3.15 The most significant event during the medieval period occurred on 25 September 1066 when Stamford Bridge was the site of a battle between the invading forces of King Harald Hardraada of Norway and the army of King Harold II of England. The main battle is thought to have occurred in the area of Battle Flat (a Registered Battlefield, Site 22) at the eastern end of the proposed route and is centred on SE 720 553. It is probable that there was fighting throughout the area of the eastern end of the proposed pipeline route. However, it should be noted that Lawton (1994) has suggested that a probable Roman bridge 1.3km south-west of the modern bridge may still have existed in some form at that time (Site 25), and hence that the site of the battle could have lain a corresponding distance further to the south-east.

3.16 The medieval village of Stamford Bridge appears to have been located to the north of the pipeline, probably overlain by the current village. There is widespread evidence for medieval or early post-medieval agriculture around Stamford Bridge in the form of ridge and furrow cultivation surviving as either cropmarks or upstanding earthworks. The geophysical survey confirmed the presence of traces of ridge and furrow cultivation along the sections from SE 7057 5474 to SE 7141 5455.

Post-medieval

3.17 The post-medieval period saw increasing industrialisation within the village and improved communications, particularly from the 18th century onwards. The pipeline route is crossed from north-west to south-east by the line of the dismantled railway running between York and Market Weighton (Site 21), constructed in 1847 for the York and North Midland Railway Company. The line was closed in 1965.

4.0 MONITORING AND EXCAVATION METHODOLOGY

4.1 Archaeological monitoring was undertaken during topsoil stripping of the entire length of the pipeline route and associated areas of construction works (such as launch and reception pits for areas of directional drilling) in accordance with an agreed archaeological methodology (NAA 2003b). The pipeline working width was typically 10m wide, from which a width of 6m was stripped of topsoil (and where appropriate subsoil), the remainder being used to accommodate the excavated topsoil and subsoil.

4.2 The full width of the corridor was stripped of topsoil (and in some areas subsoil) using a 360^{o} tracked excavator with a toothless ditching bucket, and was monitored by an archaeologist at all times. Where potential archaeological features or deposits were identified any necessary archaeological work was undertaken by hand unless either extensive or deep deposits required removal.

4.3 Where deep deposits sealed archaeological features (i.e. in Area C and the eastern end of Area D), the area of investigation was limited to that which would be disturbed by the construction methodology (i.e. the width and depth of the pipe trench).

4.4 Once an area was stripped it remained un-trafficked by the contractor until archaeological recording had been completed. A vehicular route along the corridor was made available to the contractor at the earliest opportunity after initial recording and investigation.

4.5 Monitoring of the pipe trench excavations was undertaken as necessary, the locations monitored were dependent upon the results of the investigations undertaken at the time of the topsoil strip.

4.6 Archaeological features identified during the monitoring were hand-cleaned, planned and recorded. Discrete features were hand excavated. This amounted to 50% of domestic and settlement features and 100% of features of a ritual or ceremonial nature (such as burials). Sample sections of linear features were excavated totalling up to 50% of the overall length within the stripped corridor.

4.7 Archaeological features were located onto an existing detailed survey of the pipeline route and tied into the Ordnance Survey National Grid.

4.8 All archaeological features were photographed and recorded at an appropriate scale. Sections were drawn at a scale of 1:10. Archaeological plans were drawn at a scale of 1:20. All levels were tied in to Ordnance Datum.

4.9 A written description of features was recorded using the NAA context recording system. The site code used was SBW.03. A photographic record of the site was taken using black and white prints and colour slides at a 35mm format.

4.10 Pottery and animal bone was collected as bulk samples whilst significant artefacts were three-dimensionally recorded prior to processing. Finds were recorded and processed using the NAA system and submitted for post-excavation assessment.

4.11 All finds recovered have been appropriately packaged and stored under optimum conditions. Finds recovery and storage strategies were in accordance with published guidelines (Watkinson and Neal 1998).

4.12 Forty-litre bulk palaeoenvironmental samples were taken from appropriate deposits (such as ditch and pit fills) and submitted for assessment. Recovery and sampling of environmental remains was undertaken in accordance with guidelines prepared by the English Heritage (2001).

4.13 Human remains (cremations and inhumations) encountered during the topsoil stripping were excavated, recorded and recovered along with associated artefacts.

4.14 A full report on the excavations at Stamford Bridge will be prepared, including full specialist analysis, as per the post-excavation programme recommended at the end of this report, and published in an appropriate national or regional journal (such as the *Yorkshire Archaeological Journal*).

4.15 Formal arrangements for the storage of the archive and the deposition of any finds will be made and finds deposited at an appropriate museum in accordance with national guidance. The archiving would be undertaken in accordance with published guidance (SMA 1995).

5.0 MONITORING AND EXCAVATION RESULTS

5.1 The monitoring results relate to the topsoil and subsoil stripping in nine areas (A to I, Figure 3) starting at the north-western extent of the pipeline corridor and terminating at the eastern extent.

Area I (Figure 3)

5.2 This area extended from the A166 south-west of Stamford Bridge to the west bank of the River Derwent, a distance of 650m. The route of the pipeline corridor ran through two arable fields, which lay on a gradual slope, steepening towards the western bank of the Derwent. The typical stratigraphy consisted of topsoil (1001) measuring on average 0.45m thick, overlying a silty former ploughsoil (1002) which as a result of colluviation increased in depth (0.1-0.35m thick) towards the west bank of the Derwent. The underlying natural deposit comprised sandy clay with bands of sand and gravel running through it.

5.3 The pipeline corridor bisected several modern land drains and field boundaries, the boundaries consisting primarily of modern wire-fenced enclosures. Though no archaeological features were identified, a total of 50 sherds of pottery and two fragments of ceramic building material (CBM) were recovered from the topsoil during machining. Both the pottery and the CBM indicate a broad date range of activity primarily relating to the medieval and post-medieval period with some residual Romano-British fragments.

Area A (Figure 3)

5.4 This area was located between two field boundaries to the east of the River Derwent, and extended to some 165m in length. The pipeline route lay entirely within an arable

field towards the base of a slope where it ran parallel with the flood plain of the Derwent. The natural deposits comprised bands of coarse gravels (6) and sand (7) which were scored in several places by modern plough trends (3). This was overlain by a silty sand subsoil (2) measuring up to 0.4m deep and was sealed by up to 0.4m of modern ploughsoil (1).

5.5 The only feature identified in the pipeline corridor was a single modern field drain (4 and 5) which cut the natural and the subsoil. Finds recovered from the topsoil and subsoil contexts comprised two flints, several fragments of CBM (Romano-British) and fragments of pottery ranging in date from the 3rd or 4th century through to the 16th century.

Area B (Figure 3)

5.6 This area was also located between two field boundaries to the south of Area A, and measured some 155m long. The pipeline route lay entirely within an arable field towards the base of a slope where it ran parallel with the flood plain to the east of the River Derwent. The underlying natural deposit comprised a gravelly boulder clay (102) which was overlain by sandy silt (101) some 0.15m thick. This was sealed by modern ploughsoil (100) measuring up to 0.45m thick.

5.7 The remains of medieval ridge and furrow were recorded cutting deposit 101. The furrows (104) measured some 2.8m wide by 0.1m deep and were filled with sandy silt (103). They were spaced some 3m apart and orientated east to west following the hill incline. Finds recovered from both deposits 100 and 101 were of similar date comprising pottery from predominantly the 19th and 20th centuries with some residual Romano-British fragments. Several fragments of Romano-British CBM and a Neolithic flint scraper were also recovered.

Area C (Figure 4)

5.8 This area was located to the south of Area B, measured some 200m in length and lay entirely within an arable field. For 75m it ran from a field boundary to the north, along the eastern edge of the Derwent's floodplain before turning south-east and heading up-slope for a further 125m. The section of pipeline corridor running along the eastern edge of the floodplain bisected the projected alignment of a Roman road extending west from an associated settlement. The settlement and roadside ditches are still visible as cropmarks some 50m to the east, and to a lesser degree some 100m to the west on the western side of the River Derwent. The south-eastern end of this section of pipeline corridor, which also lay in the vicinity of a number of cropmarks, had previously been disturbed during the installation of the Teeside to Saltend Ethylene Pipeline (TSEP) in 2001.

5.9 The underlying natural deposit comprised a sandy gravely deposit (204) with denser bands of gravel running through it. The natural deposits continued to slope downwards towards the west at a steeper gradient, the break of slope (219) representing the eastern edge of the Derwent's marginal marsh. Archaeological deposits and features (see 5.10 and 5.11) were overlain by a thick layer of colluvium up to 1.4m thick (201) and modern ploughsoil (200).

Phase 1: Roman

5.10 The earliest archaeological deposits identified comprised a sequence of sandy clay and silty sand deposits (216, 217, 218 and 220) measuring up to 0.72m thick, overlain by a stony silt deposit (215 and 228) measuring up to 0.18m thick. The earliest deposit recorded (220) contained fragments of 2nd to 3rd century Roman pottery as well as several flint fragments dating to the Late Neolithic or early Bronze Age. These deposits appear to represent the degraded remains of a Roman road embankment (*agger*) that ran westwards across the marginal marsh towards the river bank. Deposit 215/218 measured some 7.5m wide and was bordered along its southern edge by a ditch (221, Plate 1). The ditch measured 2.59m wide by 0.75m deep and only extended halfway across the trench before shallowing out and terminating (at the same point the *agger* deposits begin to show). The ditch was filled with three deposits; the primary fill (222) comprised a sandy gravel deposit 0.06m thick, which was sealed by a secondary deposit of sandy clay silt (223) 0.15m thick. This in turn was sealed by a tertiary fill (224) of sandy silt, which measured 0.4m thick. Ditch 221 was truncated along its southern edge by a ditch re-cut (229) measuring 0.8m wide by 0.36m deep, which in turn was filled by two deposits. The primary fill (226) comprised gravely sand 0.2m thick which was overlain by a secondary fill of sandy gravel (227) measuring up to 0.15m thick. No finds were recovered from any of the fills of either ditch cut.

Phase 2: Medieval

5.11 Medieval farming activity was recorded to the north of the ditch, which was evident in the form of the partial remains of ridge and furrow (205 and 207). The secondary fills of both ditches 221 and 229 also showed evidence of medieval activity, a thick deposit of silty sand and gravel (225) was recorded partially infilling and overlying the previous ditch fills and measured 0.42m thick. Pottery recovered from this deposit comprised two fragments of late medieval pottery as well as a residual fragment of Roman pottery.

5.12 These deposits were sealed by a layer of colluvium (201) measuring up to 1.4m thick and containing several lenses of silty sand (202, 206, 212 and 213) indicating various episodes of hill wash, and modern ploughsoil (200) measuring up to 0.4m thick. Finds recovered from the ploughsoil reflect the phases recorded above, comprising pottery sherds ranging in date from the 2nd and 3rd centuries, through the 14th and 15th centuries and up to the 18th and 19th centuries.

Area D (Figure 5)

5.13 This area was located to the east of Area C, measured 260m in length and lay entirely within an arable field. It ran parallel with a series of cropmarks whose concentration lay some 15m to the north of the pipeline corridor, and are indicative of a road (probably Roman) with an associated rectilinear roadside settlement. The geophysical survey of this section of the pipeline route (Area 6) recorded a number of negative linear features extending across the pipeline corridor in alignment with the bulk of the cropmarks to the north. The western end of this section of pipeline corridor, which also lay in the vicinity of a number of cropmarks, had previously been substantially disturbed during the installation of the TSEP pipeline in 2001.

5.14 The underlying natural deposit comprised a clay and gravel layer (337) partially overlain (but also natural in origin) by a sandy layer (338). Archaeological deposits and features (see 5.16–5.55) were overlain by a thick layer of post-medieval ploughsoil (301) and modern ploughsoil (300), both of which were stripped by machine.

5.15 Accurate phasing of activity at this time is difficult as few of the features exposed intercut within the area of the pipeline corridor (such is the nature of excavations within a narrow corridor traversing a much larger archaeological site). However where datable pottery has been recovered or features have intercut, a broad phasing of the area has been established.

Phase 1: Pre-Roman

5.16 No pre-Roman features were identified within Area D. However a range of flints (49 pieces) dating between the Late Mesolithic and early Bronze Age were recovered from later Romano-British contexts.

Phase 2: Early Roman (1st to early 3rd century)

5.17 There were two principle alignments of Roman features, here described as Phases 1 and 2. The earlier phase comprised a group of ditches and associated features that did not respect the orientation of the remaining linear ditches (which were broadly aligned north to south or east to west) nor their form, and hence may indicate an earlier phase of construction. This phasing is supported by the earlier range of pottery recovered from this group of features in comparison with the rest of Area D.

5.18 A total of six ditches and five smaller features formed this group. Four curvilinear ditches (321, 368, 358 and 370) were recorded some 185m west of the eastern end of Area D. Each ditch was U-shaped in profile and terminated near the terminae of the other ditches without intercutting. Ditches 321 and 368 ran parallel with each other (some 1.8m apart) and were broadly orientated east to west. Ditch 368 measured 1.73m wide by 0.32m deep and was filled with a single silty sand deposit (369). Ditch 321 was only partially exposed within the pipeline corridor and measured up to 1m wide by 0.42m deep and was filled with a single silty sand deposit (322). Ditch 358 was orientated north to south with its northern terminus located 1m west of ditch 368. It measured 1.65m wide by 0.65m deep and was filled by three deposits (359, 360 and 361) all of which comprised silty sand of varying hues. Ditch 370 was curvilinear, bending from the west to the south-east, its western terminus located 1.45m west of ditch 358 (Plate 2). It measured 1.8m wide by 0.65m deep and was filled by a single deposit of silty sand (371). Immediately west of ditch 370 and running parallel with the eastern edge of ditch 358, a shallow linear ditch (362) was recorded extending across the width of the trench. It measured 1.05m wide by 0.12m deep and was filled with silty sand (363). Finds recovered from these features included pottery suggesting a *terminus post quem* (TPQ) for deposition between the second half of the 1st century and the early 3rd century. Of particular note was a highly decorated trumpet brooch recovered from the fill of ditch 368.

5.19 Within the immediate vicinity of the ditches described above several smaller associated features were recorded. Two small ditches (379 and 422) extended some

2m south into the corridor before terminating. Ditch 422 measured 0.4m wide by 0.08m deep and ditch 379 measured 0.3m wide by 0.15m deep, both being filled with silty sand (423 and 378 respectively). A gully (424) orientated east to west intercut with ditch 379 and measured 0.26m wide by 0.07m deep and was also filled with silty sand (424). Immediately to the south of this feature a small posthole (375) was recorded cutting the northern edge of ditch 368. It measured 0.5m in diameter by 0.15m deep and was filled with silty sand (374). An irregular shaped pit (340) located to the south of ditch 368 also appears to be related to this phase of activity. The pit measured up to 2.4m wide by 0.25m deep and was filled with silty sand (339). Pottery recovered from this pit appears to date from around the 2nd century.

Phase 3: Roman (late 2nd to 4th century)

5.20 This phase of activity incorporates the majority of features recorded in Area D and is characterised by a series of linear enclosure ditches (323, 404, 428, 442, 453, 406, 506, 464, 559, 382 and 353) aligned north to south (at right angles to the orientation of the 'Roman road' some 50m to the north) and east to west. These reflect the enclosure of plots of land relating to boundaries visible as cropmarks to the north. Between these ditches numerous cut features were recorded including pits, kilns, ditches and human inhumations and cremations.

5.21 At the western end of Area D a series of irregular shaped intercutting hollows were recorded (415, 436, 532 and 534). These represent the remains of tree boles from which a small selection of finds were recovered. These included several fragments of pottery, the majority of which date from the 2nd or 3rd century, though a single fragment of 12th century pottery was also recovered (possibly intrusive). Some 8m to the east of these hollows the remains of an isolated cremation burial (308) were recorded overlying the natural sand (338) and enclosed by a sandy deposit (304/341 (see 5.52). The cremation comprised a crushed blue glass vessel (308 AA, Plate 3) overlain by the dispersed remains of highly fragmented calcined human bone (308 AB). Closer inspection of the cremation identified the remains of a second smaller glass vessel (308 AD), probably an unguent bottle incorporated as part of the initial burial. Both vessels appear to date to the 2nd century.

5.22 Extending from the northern edge of the pipeline corridor to the north-east of the cremation, four features were recorded (364, 350, 344 and 313). Feature 364 measured 1.85m wide by 0.32m deep and was filled with silty sand (365). It extended 1.2m south into the corridor before terminating. Linear feature 350 was located 1.75m to the east of 364 and measured 0.45m wide by 0.3m deep and was filled with silty sand (349), from which a single corroded iron nail shank was recovered. The linear extended 1.1m south into the corridor before terminating. Linear feature 344 was located 0.5m to the east of 350 and measured 2.35m wide by 0.32m deep and was filled with two deposits. The primary deposit (345) comprised sand 0.11m thick which was sealed by a secondary deposit of silty sand (343/346). The feature extended 3m south into the corridor before terminating. The fills of this feature were cut by a second much narrower and shorter linear (302) orientated approximately down the central axis of 344. This measured 0.64m wide by 0.32m deep and was filled with dark grey silty sand (303) and extended 1m south into the trench before terminating. A relatively large quantity of pottery (62 sherds) was recovered from this fill, all of which dates broadly to the 2nd century. Immediately south of the terminus of this linear a posthole (602) was recorded, also cutting the fills of linear 344. It

measured 0.6m in diameter by 0.3m deep and was filled with a deposit of silt and sandstone (603). These stones probably formed the packing for a post. Some 1.35m to the east of this group of features, a re-cut ditch (313/354 and 608) was recorded running north to south across the width of the trench. Linear 608 measured 0.27m wide by 0.3m deep and was filled with silty sand (609) and extended 0.5m south into the pipeline corridor. It was truncated along its eastern edge by ditch cut 313/354, which measured up to 1.3m wide by 0.78m deep and was filled with up to three deposits. The primary fill (355) comprised sandy silt up to 0.4m thick from which two iron nails were recovered. The secondary fill (314/356) comprised grey sandy silt up to 0.37m thick from which several fragments of 2nd to 3rd century pottery were recovered as well as several fragments of animal bone. The tertiary fill comprised sandy silt up to 0.17m thick from which five iron nail fragments and five sherds of undated pottery were recovered.

5.23 Immediately west of this ditch the remains of a large pit and a sequence of two 'kilns' were recorded (Figure 6). The earliest of this group of features was a large roughly circular pit (390). It measured some 2.5m wide by 0.85m deep and was filled by three deposits. The primary fill (444) comprised dark grey clay up to 0.25m thick, which lined much of the base of the pit. Set into this deposit and running down the northern edge of the pit, a series of rough steps (397) had been constructed from sandstone (possibly re-used from the walls of kiln 392), river cobbles and a large broken millstone fragment (447, Plate 5). The secondary fill (391) comprised silty sand measuring 0.45m thick. The tertiary fill (387) comprised clayey silty sand measuring some 0.18m thick. Pottery recovered from these deposits (including an almost complete mortarium) appears to indicate a 2nd century date.

5.24 Butting the western edge of this pit, a T-shaped kiln was recorded (group 408, Plate 4). The flue was orientated east to west (2.8m long by 0.8m wide) while the arms were orientated north to south (2.65m long by 0.6m wide). The cut for this kiln (392) measured up to 0.6m deep and enclosed the structural elements of the kiln, which consisted of un-worked blocks of sandstone (334). These lined both the base and sides of the cut, some of the stone (dispersed elements) showing evidence of heat damage. This kiln was backfilled with sandy clay (333) and dark brown silty sand (335/398). The relationship of these two deposits with each other was not clear, but appears contemporary. Finds recovered from these fills included sherds of pottery, provisionally dated to the late 3rd or 4th century, and an iron bracket. These deposits were truncated along the eastern edge of the north to south arm by a robber cut (336) measuring 0.6m wide by 0.45m deep. It extended from the southern limit of excavation and was truncated to the north by kiln 309 (see 5.25). It was filled with a single deposit of silty sand (332).

5.25 A second kiln was recorded (group 309) located directly over kiln 392 (see Plate 4). Kiln 309 was L-shaped in plan, the arm orientated east to west (2.6m long by 0.85m wide) and the flue north to south (4.2m long by 1m wide) with a small firing pit (305) at the southern end. The firing pit measured 2.15m wide by 0.24m deep and was filled with sandy silt (306), which contained numerous flecks of charcoal, several sherds of pottery dating between the late 2nd and early 3rd century and a fragment of quern stone (306 AA). Initial assessment of the environmental sample taken from 306 identified the remains of charred cereal grains as well as remains of possible burnt peat. Cutting this pit (though contemporary with it) was the cut for the flue (315),

which measured 1m wide. Un-worked sandstone formed the walls of the flue and arm (316) and survived up to a height of 0.4m. The surfaces of stones near to the opening onto pit 305 showed indications of heat damage. The kiln was filled by a deposit of silty sand (320) and a layer of collapsed stonework (318). Finds recovered from 320 comprised pottery dating between the 2nd and early 3rd century. A decorated copper alloy latch plate (318 AA) was recovered from amongst the collapsed stonework. Surrounding and partly overlying the kiln was a deposit of silty sand (317), which was truncated to the east by cut 336 (see 5.24). To the east of this deposit the uppermost fill of pit 390 was truncated by an oval cut (388) which measured 2.1m wide by 0.25m deep and was filled with a single deposit of silty sand (389).

5.26 The poorly preserved remains of a third kiln (311) were located some 2m east of ditch 354 and 1.5m east of the 309/408 kiln complex (Plate 6). It comprised a T-shaped kiln with the flue orientated north to south (3.6m long by 0.95m wide), the arm orientated east to west (3m long by 0.5m wide) and it lay within a slight natural hollow filled with silty sand (331). Only a single course of weathered sandstone (325) formed the remaining structure of the kiln, which survived up to a height of 0.08m. Below the line of the kiln walls concentrations of natural iron panning (342) were recorded, which may be a result of the degrading of minerals from the stone above. It was filled with a thin deposit of silty sand (326) with occasional clay inclusions (which may represent the remains of the bonding of the kiln walls). Two sherds of pottery and an iron nail were recovered from this context. At the northern end of the flue the remains of a possible firing pit (327) was recorded measuring 1.2m wide by 0.3m deep. It was filled with a single deposit of silty sand (328) from which two sherds of roman pottery and a single fragment of CBM were recovered. Immediately east of this pit an irregular shaped hollow was recorded filled with silty clay (330), which represents the remains of a tree bole.

5.27 To the east of this kiln a large enclosure ditch (323) was recorded running across the width of the corridor on a north to south axis. It was broadly U-shaped with a flat base in profile and measured 1.6m wide by 0.5m deep and was filled with silty sand (324). Finds recovered from this fill included several fragments of CBM and pottery, which appears to date to the late 3rd century onwards.

5.28 The remains of a second human cremation (307) were located some 4m east of this ditch against the southern limit of excavation. The cremation comprised a near complete roman greyware jar decorated with lightly burnished four-line chevrons (307 AA) which held a small quantity of highly fragmented calcined human bone (307 AB, Plate 7). This was enclosed by a deposit of silty sand (395), which overlay the natural sand (338).

5.29 A second enclosure ditch (404) was located some 46m east of ditch 323. It was U-shaped in profile, orientated north to south and extended across the width of the trench. It measured 1.2m wide by 0.37m deep and was filled with a single deposit of sandy silt (405). Finds recovered included a late Mesolithic to late Neolithic flint bladelet and several sherds of Roman pottery including a fragment of samian. The area enclosed by ditches 323 and 404 contained the remains of the series of curvilinear ditches and features recorded as part of Phase 2 (5.17 to 5.19).

5.30 To the east of ditch 404, a further four enclosure ditches were recorded over a distance of 48m, all orientated north to south and extending across the width of the corridor. Ditch 428 was located 7.6m east of ditch 404 and measured 1.26m wide by 0.21m deep, had a U-shaped profile, and was filled with a single deposit of sandy silt (429). Finds recovered comprised several sherds of undiagnostic Roman greyware. Ditch 442 was located 22.4m east of ditch 428, was roughly V-shaped in profile, and measured 2.15m wide by 0.52m deep and was filled with a single deposit of sandy silt (443). Running parallel with the eastern edge of this feature was a second narrower ditch (426), which measured 0.53m wide by 0.12m deep, was U-shaped in profile, and was filled with a single deposit of silty sand (427). Finds recovered from both ditches 426 and 442 comprised several sherds of undiagnostic Roman greywares, samian and amphorae. Some 0.4m east of ditch 426 a shallow oval depression (451) was recorded. It measured 2.3m long by 0.8m wide and up to 0.08m deep, had a U-shaped profile and was filled with silty sand (452). Finds recovered comprised several sherds of Romano-British pottery, animal bone, a nail and two Late Neolithic flint flakes. A spread of iron panning and several river cobbles were also noted at the northern end of the cut possibly indicating a structural function to this feature. Ditch 453 was located 17.3m east of ditch 426 and measured 1.23m wide by 0.6m deep, was roughly V-shaped in profile and was filled with two deposits of sandy silt (454 and 466). The primary fill (466) measured 0.33m thick, while the secondary fill (454) measured 0.36m thick. Finds recovered from both deposits comprised Romano-British pottery dating between the late 3rd and early 4th centuries, numerous fragments of burnt animal bone and several possible early Bronze Age flint flakes.

5.31 To the east of ditch 453 a group of linear features (458, 514, 526 and 535), pits (518, 521 and 522) and inhumations (457, 499 and 502) were recorded, bounded to the east by a large enclosure ditch (406). Linear gully 535 was orientated east to west, measured 2.7m long by 0.6m wide by 0.1m deep and was filled with silty clay (536). Running parallel with this, a further gully (458) was recorded, measuring 3.45m long by 0.6m wide by 0.28m deep and was filled with two very similar deposits of silty sand (459 and 460). Three stakeholes (483, 485 and 487), all measuring 0.05m in diameter, were recorded cutting through the eastern end of this slot. The third linear gully (514) lay immediately east of 458 and measured 7m long by 0.68m wide by 0.14m deep and was filled with silty sand (515). Finds recovered from this feature comprised several pottery sherds from a late 3rd or 4th century jar. Some 2.6m south a fourth gully (526) was recorded measuring 8.3m long by up to 1.2m wide by 0.17m deep and was filled with silty sand (527). A single sherd of Roman oxidised ware was recovered from this fill.

5.32 Two of the three pits (520 and 522) were broadly oval in plan and measured up to 1.2m wide by 0.15m deep and were filled with pale sand (521/546 and 523 respectively). A number of finds were recovered from pit 520 comprising sherds of 2nd to 3rd century pottery, fragments of animal bone and a single piece of cherry wood (546 AA). Pit 524 was roughly rectangular in plan measuring 1.9m east to west, 0.6m wide by up to 0.47m deep and was filled with silty sand (525). This pit was U-shaped in profile with a flat base and was cut along its east to west axis by a modern field drain. Finds recovered from the fill of the pit show contamination from this 20th century intrusion and include a range of pottery sherds dating from the 2nd through to the 19th century, several corroded nails and a small assemblage of animal bone.

5.33 The westernmost burial (457) comprised an oval grave cut (455) measuring 1.96m long by 0.71m wide by 0.16m deep, orientated north-west to south-east and was filled with silt sand (456) which surrounded the skeletal remains (Figure 7a). The inhumation (457) lay in an extended posture with the skull to the north-west, a large fragment of pottery from the base of a jar sitting in the crook of the right arm (457 AA). Pottery recovered from the fill of the grave is broadly indicative of a 2nd century date. Two further intercutting inhumations were located some 10m west of inhumation 457 (Figure 7b). Both inhumations were extended and orientated east to west, one with the skull to the west (502) the other to the east (499). Skeleton 502 lay in cut 500, which was oval in plan and measured 2m long by 0.67m wide by 0.48 deep and was filled with silty sand (501). Finds recovered included several sherds of 3rd to 4th century mortaria. Truncating this was grave cut 497 containing skeleton 499. The grave was oval in plan and measured 2.4m long by 0.65m wide by 0.2m deep and was filled with sandy silt (498). Finds recovered from the fill included several fragments of 2nd to 3rd century greyware.

5.34 Enclosure ditch 406 was orientated west to east before turning a corner to the south-east, measured 1.82m wide by 0.66m deep and was filled with a single deposit of sandy silt (407). Finds recovered from this fill included animal bone and pottery dating to between the 3rd and 4th centuries. This ditch forms part of a group of enclosure ditches to the east, which include a continuation of ditch 406 along the southern extent of the corridor (segments *A* to *F*), a number of smaller north to south orientated ditches and a north to south orientated ditch (382) forming the eastern extent of the enclosure. Segment *A* revealed the east to west enclosure ditch cut (406/479) measuring up to 2.9m wide by 1.34m deep and filled with three deposits. The primary fill (482) comprised dark silty clay measuring 0.42m thick from which several fragments of animal bone and 2nd century pottery sherds were recovered. The secondary fill (481/496) comprised silty sand measuring up to 0.45m thick. The tertiary fill (480) comprised silty sand measuring up to 1m thick from which several fragments of animal bone and 2nd to 4th century pottery sherds were recovered. A lens of sand (495) was recorded within fill 480, from which a concave fragment from a copper-alloy object was recovered (495 AA).

5.35 Immediately to the north of this ditch segment a square posthole was recorded (575/604) cutting through the northern slope of ditch 479. Posthole 575 measured 0.6m wide by 0.5m deep tapering towards its flat base. It was filled with two deposits, the primary deposit (577/605) comprising sandy silt up to 0.5m thick. The secondary deposit (576) comprised silty clay up to 0.25m thick. This pit was sealed by deposit 480.

5.36 Segment *B* revealed the east to west enclosure ditch cut (479/506) was only partly exposed within the pipeline corridor, measuring up to 1.9m wide by 1.05m deep and filled with three deposits broadly comparable to those observed in cut 479. The primary fill (482/550) comprised dark sandy silt measuring 0.42m thick from which a large number of animal bone and predominantly 2nd century pottery sherds were recovered. Analysis of a sub-sample from this deposit identified taxa consistent with vegetation forming in a neglected area and charred material likely to have arrived in burnt peat or turves. Numerous insect remains recovered revealed a predominance of dung beetles and plant feeders. A narrow sandy clay lens (538) was recorded within this fill from which a single polished jet bead was recovered. A deposit of silty clay

(549) partially sealed the primary fill and probably reflects an episode of slumping from the southern edge of the ditch. Finds recovered included several fragments of animal bone and sherds of possible Crambeck ware. The secondary fill (496/574) comprised silty sand measuring up to 0.24m thick. Finds recovered included fragments of animal bone and sherds of Roman pottery. The tertiary fill (480/539) comprised silty sand measuring up to 0.57m thick from which numerous fragments of animal bone and sherds of possible Crambeck ware were recovered. A lens of clayey silt (548) was recorded within fill 539, from which fragments of animal bone and Roman pottery were recovered.

5.37 To the north of this ditch two oval pits were recorded (587 and 589) cutting through the northern slope of ditch 506. Pit 587 measured 0.67m wide by 0.3m deep and was vertically stepped on its southern side. It was filled with three deposits, the primary deposit (573) comprising clayey silt up to 0.16m thick. The secondary deposit (571/588) comprised clayey silt up to 0.18m thick from which several fragments of animal bone and sherds of 2nd to early 3rd century pottery were recovered. Pit 589 measured 0.44m wide by 0.15m deep and was filled with two deposits. The primary deposit comprised silty sand (569) measuring up to 0.17m thick, which was overlain by the secondary deposit (568) also comprising silty sand and measured up to 0.16m thick. No finds were recovered from these fills. Both of these pits were truncated by a later ditch (see 5.41).

5.38 Segment *C* revealed the east to west enclosure ditch cut (506/464) also only partly exposed within the pipeline corridor, measuring up to 1.3m wide by 1.05m deep and at this point filled only by a single deposit of clayey silt (465) 1.1m thick. Finds recovered included a coin (465 AA) (*antoninianus*) dating to AD 268-73 as well as fragments of animal bone and sherds of predominantly 3rd century pottery.

5.39 Segment *D* revealed the east to west enclosure ditch cut (464/559) was only partly exposed within the pipeline corridor, measuring up to 1.6m wide by 1m deep and filled with three deposits. The primary fill (561) comprised light sandy silt measuring 0.35m thick. The secondary fill (560) comprised silty sand measuring up to 0.2m thick. Finds recovered included fragments of animal bone and sherds of predominantly Roman greyware. The tertiary fill (579) comprised silty sand and small river cobbles measuring 0.1m thick, probably originating from the erosion of a cobbled surface to the north of the ditch (see 5.44).

5.40 Segments *E* and *F* sampled the east to west enclosure ditch cut (559/430), again only partly exposed within the pipeline corridor, measuring up to 1.9m wide by 1.03m deep and filled by six deposits (Plate 8). The primary fill (438/468) comprised sandy clayey silt measuring 0.2m thick from which a few fragments of animal bone were recovered along with a large quantity of possibly 3rd century pottery sherds, the majority originating from a single vessel (438 AB). The secondary fill (433/463) comprised sandy silt measuring up to 0.28m thick. Finds recovered included two pieces of polished stone, fragments of animal bone and sherds of 3rd century pottery including those from a Severan style bowl. A short length of iron chain was also recovered from this deposit (433 AA). The tertiary fill (432/467) comprised sandy silt measuring up to 0.22m thick from which fragments of animal bone and sherds of 3rd to mid-4th century pottery were recovered. A lens of sandy silt (448) was recorded within fill 432. Against the northern edge of the cut, a deposit of clay (471) was

recorded overlying deposit 467. The fourth fill (431/472) comprised sandy silt measuring up to 0.15m thick. Finds recovered comprised several sherds of later 2nd to 3rd century pottery including one shard which joined with a fragment recovered from deposit 432. The fifth fill (411) comprised sandy silt measuring up to 0.25m thick from which fragments of animal bone and sherds of 3rd to mid-4th century pottery were recovered. The sixth fill (412) comprised sandy silt measuring up to 0.36m thick from which fragments of animal bone and sherds of 3rd to mid-4th century pottery were recovered. In addition a small posthole (504) was recorded on the north facing side of ditch 430 near its junction with ditch 476 (see 5.46). It measured some 0.2m in diameter and was filled with a single deposit of silty sand (503).

5.41 A group of ditches from a slightly later phase were recorded extending to the north of enclosure ditch 406, sub-dividing the area to the north and cutting the enclosure ditch. Towards the western end of ditch 406, a re-cut (439/449) was recorded following the northern edge of ditch 406 but curving further to the north. It measured 1.5m wide by 0.36m deep and was filled with silty sand (440/450) from which several fragments of animal bone, sherds of 2nd century pottery and two small chips of lavastone were recovered. The base of the cut was overlain by a dispersed deposit of river cobbles (part of 440). This ditch was truncated at its eastern extent by ditch 418, which was orientated north to south and measured 1.3m wide by 0.38m deep. It was filled with a single deposit of silty sand (419) from which fragments of animal bone and a few sherds of Late Roman pottery (*c*. 4th century) were recovered.

5.42 Ditch 418 also branched to the east becoming ditch 606/511. Ditch 606 truncated pits 587 and 589 (see 5.36) and cut ditches 506 and 401. It measured up to 1.2m wide by 0.62m deep and was filled by seven deposits. The primary fill (562/570) comprised silty sand measuring up to 0.15m thick. The secondary fill (567) also comprised silty sand measuring up to 0.15m thick. The tertiary fill (565) comprised silty sand measuring up to 0.07m thick. The fourth fill (564) comprised silty sand measuring up to 0.1m thick. The fifth fill (566) comprised fine sand measuring up to 0.09m thick. The sixth fill (563) comprised silty sand measuring up to 0.3m deep from which a few fragments of animal bone and several fragments of 2nd to 3rd century pottery were recovered. Several lenses of grey silty sand (583/551) were recorded within deposit 563, from which several sherds of pottery dating between the late 2nd century and the 4th century were recovered. The seventh fill (512/607) comprised sandy silt with cobble inclusions measuring up to 0.27m thick from which fragments of animal bone, several fragments of late 3rd to 4th century pottery and translucent green glass bead (607 AA) were recovered.

5.43 Ditch 401 (413) was orientated north to south and was truncated at its southern extent by ditch 606 and 506. Ditch 401 measured 1.48m wide by 0.64m deep and was filled with two deposits. The primary fill (417) comprised clayey sand measuring up to 0.3m thick from which fragments of animal bone and sherds of late 3rd to early 4th century pottery were recovered. The secondary fill (402/414) comprised silty sand measuring up to 0.64m thick from which fragments of animal bone, sherds of 3rd to early 4th century pottery and an iron spike were recovered.

5.44 Ditch 399 ran parallel with ditch 401 and was partially cut by it along its western edge. Ditch 399 measured up to 1.4m wide by 0.43m deep and was filled with a single deposit of clayey sand (400). Finds recovered comprised sherds of 2nd to early 3rd

century pottery including numerous sherds from a single amphora, fragments of animal bone and a fragment of glass and an iron nail. A further ditch (474) orientated north to south was located some 6.4m to the west of ditch 399. It measured 0.5m wide by 0.6m deep and was filled with a single deposit of clayey silty sand (475) from which three sherds of late 3rd to 4th century pottery were recovered.

5.45 Within the area enclosed by these two ditches and enclosure ditch 464/559 to the south, a stony surface (470) and a large oval pit (420) were recorded. Oval pit 420 measured 4.25m by 2.25m in plan and up to 1.75m deep. A series of crudely constructed steps (581) had been set into the eastern side of the pit. These steps had been constructed from a mixture of river cobbles, sandstone slabs and a broken quernstone (581 AA). The pit was filled with five initial deposits. The primary fill (582) comprised dark brown silt measuring up to 0.15m thick from which two sherds of Romano-British greyware and a single fragment of samian were recovered. An initial biological assessment of a sample from this deposit identified vegetation and a number of snail shells indicative of a fresh water environment. The secondary fill (489/490) comprised silty clay measuring up to 0.13m thick, which lay deposited against each side of the pit and appears to indicate a period of slumping. The tertiary fill (446) comprised silty clay measuring up to 0.25m thick from which a biological assessment of a soil sample identified a large number of plant and insect remains indicative of the range of surrounding ecosystems. The fourth fill (445) comprised sandy silt measuring up to 0.1m thick from which several sherds of 3rd to 4th century pottery were recovered along with numerous fragments of animal bone including domesticated cow and horse. The fifth fill (441) comprised clayey silt measuring up to 0.25m thick from which sherds of 3rd to 4th century pottery and fragments of animal bone were recovered.

5.46 To the south of pit 420, a former occupation horizon (470) was recorded comprising a single layer of roughly deposited river cobbles set in a silty soil matrix and measured up to 0.1m thick. This roughly cobbled surface (Plate 10) extended to the east of ditch 474 by some 8.5m (542) and lay within a large hollow in the natural ground surface and measured up to 15m wide (east to west). Cobbled surface 542/529 was bounded to the south by enclosure ditch 559/430, to the east by a north to south orientated ditch (476) and extended to the north beyond the limit of excavation. It was bonded by a mixed clay deposit (530), which derived from the underlying natural. Finds recovered from this cobbled surface comprised numerous animal bones, a single sherd of undated pottery, a re-touched flint flake, two iron strap hinges (542 AA and AB) and a possible 2nd century coin (*sestertius*) (530 AB). This occupation horizon was sealed by a number of deposits. Deposit 470 was sealed by a layer of clay (473) measuring up to 0.08m thick. The western half of deposit 542 was sealed by silty sand (555) measuring up to 0.25m thick from which fragments of animal bone, a crudely re-touched natural flint flake, a lead seal or token (555 AA) and several unidentified iron objects as well as two iron nail fragments. The eastern half of deposit 542 was sealed by sandy silt (478) measuring up to 0.3m thick from which a large quantity of 3rd century pottery (including a concentration of possibly early 3rd century pottery sherds (509)), animal bone (585 pieces, many comprising cranial fragments from a horse and a cow), a worn flint blade, a lobed piece of lead (478 AA) and two iron nail fragments.

5.47 The above deposits, cobbled surface, pit 420, the southern enclosure ditch and ditch 474 were all partly infilled and/or sealed by a deposit of clayey silt (421) which measured up to 0.32m thick. Finds recovered included animal bone, late 3rd to 4th century pottery sherds, several fragments of CBM and a fragment from an iron binding strip (421 AB).

5.48 Ditch 476 was orientated north to south and formed the eastern boundary to the cobbled area (group 470), terminating within the southern enclosure ditch 430. It measured up to 1.2m wide by 0.85m deep, cut deposit 478, and was filled with a two deposits. The primary fill (578) comprised sandy silt measuring up to 0.25m thick from which three sherds of 3rd to 4th century pottery were recovered. The secondary fill (477) comprised dark sandy silt measuring up to 0.6m thick, from which a large quantity of pottery (312 sherds) dating from the late 3rd to 4th century were recovered along with several fragments of animal bone and a coin (477 AA) (*antoninianus*) dating to AD 268-70.

5.49 Some 20m to the east of ditch 476 a further north to south orientated ditch was recorded (382), which appeared to reflect the eastern extent of ditch 430. Ditch 382 measured up to 3m wide by 0.9m deep and was filled with two deposits. The primary fill (385) comprised clayey silt measuring up to 0.2m thick from which six sherds of Roman vesicular ware and two fragments of animal bone were recovered. The secondary fill (383) comprised dark sandy silt measuring up to 0.7m thick, from which a large quantity of pottery (103 sherds) dating from the late 3rd to 4th century were recovered along with several fragments of animal bone, a fragment of human bone, a strip of copper alloy wire (383 AB), an undefined iron object (383 AC), two retouched flints and a single piece of iron smithing slag.

5.50 The area defined by ditches 476, 430 and 382 was found to enclose two human inhumations (403 and 556) and a shallow pit (540). The westernmost inhumation (403) comprised an oval grave cut (394) measuring 2.03m long by 0.8m wide by 0.27m deep, filled with silt sand (393), which surrounded the skeletal remains (Figure 7c). The inhumation (403) lay face down in an extended posture with the skull to the west, several fragments of pottery from the lid or base of a jar (possibly 2nd to 3rd century) sitting on the right shoulder (403 AA). Pottery recovered from the fill of the grave is broadly indicative of a 2nd century date. Other finds recovered from the grave fill comprised three flint flakes (including one possible piercer) and six iron hobnails from within the region of the feet. The easternmost inhumation (556) comprised a roughly circular grave cut (553) measuring some 0.95m in diameter by 0.23m deep, filled with silt sand (554), which surrounded the skeletal remains (Figure 7d, Plate 11). The inhumation (556) lay tightly crouched with the skull to the south and the arms folded around the knees against the chest. A single sherd of pottery recovered from the fill of the grave implies a late 2nd century *terminus post quem*. Both of the above graves were sealed by a thin layer of silty sand (410), which measured up to 0.15m thick and was bordered by the surrounding ditches. Pit 540 was located some 2m south-west of inhumation 556, was roughly rectangular in shape and measured 1m wide by 0.1m deep. It was filled with a single deposit of silty sand (541) from which a single large stone was recovered as well as a few fragments of animal bone, a single flint flake and several small sherds of Roman pottery.

5.51 Some 13m to the east of ditch 382 a further north to south orientated ditch was recorded (353). It measured 2m wide by 0.52m deep and was filled with a single deposit (352). This fill comprised silty sand from which fragments of animal bone, sherds of possibly late 2nd to early 3rd century pottery, a fragment of pumice stone that had been used as a tool and a fragment of iron smithing slag, were recovered. Between these two enclosure ditches, two irregular shaped pits were recorded (373 and 380). The easternmost pit (373) measured up to 2m wide by 0.3m deep and had an uneven base. It was filled with a single deposit of sandy silt (372). Pit 380 measured some 1.8m wide by 0.27m deep and was filled with a single deposit of sandy silt (381). A single flint flake and several sherds of late 3rd or 4th century pottery were recovered. Both of these pits are probably natural in origin reflecting tree boles.

5.52 A series of deposits were recorded sealing some of the above features where they lay in natural depressions in the surface. At the western end of Area D a deposit of sandy silt (552) was recorded overlying the natural and sealing pits 415, 436, 532 and 534. It appeared to thin out towards the east and thicken slightly towards the west (down-slope). This in turn was sealed by a much larger deposit of silty sand (304/310/312/341), which extended from the western edge of ditch 323 for some 25m and measured up to 0.24m deep. Finds recovered included CBM and pottery sherds dating no later than the 2nd century (though one possible 12th century sherd was also recovered, probably intrusive), small fragments of glass (probably originating from vessel 308 AA), a number of iron nails, an unidentified iron object (310 AB) and several worked pieces of flint, one of which appears to be a scraper dating to the Beaker period (2500-1800 BC).

5.53 The group of features comprising the cobbled surface (470 and 542) and the large pit (420) enclosed by a series of ditches, were sealed by a deposit of clayey silt (384) which measured up to 0.3m thick. Finds recovered included a large quantity of animal bone (200 fragments) and pottery (534 sherds) dating from the 2nd century through to the 4th century, several pieces of iron smelting slag and a small number of iron nails.

5.54 At the eastern end of Area D, to the east of ditch 353, a shallow spread of silty sand (351) was recorded measuring up to 0.06m thick from which two pieces of mineralised wood and a single fragment of animal bone were recovered.

*Phase 4: Medieval to present day (*c.*12th century onwards)*

5.55 All of the above features and deposits were sealed by a former ploughsoil (possibly medieval) of varying thickness (up to 0.43m) from which a large number of finds were recovered including the cremations already mentioned above (see 5.21 and 5.28). The majority of the finds most likely originate from the underlying deposits, which have been disturbed by ploughing. Much of the finds assemblage from this deposit comprised animal bone, CBM and pottery sherds (most of which dated between the 1st and 4th centuries, though sherds of peri-Conquest and post-Medieval pottery were also identified). A number of metallic finds were also recovered including iron nails, a bolt from a medieval padlock, a number of iron strips associated with metal working, several lead objects including a spindle whorl and a small number of copper-alloy objects including a bowl rim fragment. Other finds included a number of worked flints, a few fragments of glass and a number of stones,

one a fragment of quern, another a fragment of pumice probably utilised in a specific task.

5.56 A ceramic land drain (434/493) was recorded cutting deposit 301 within the eastern half of Area D along its southern edge. Finds recovered from the fills of the drain cut (435 and 494) reflecting the range of material that the drain was excavated through.

5.57 Modern ploughsoil (300) sealed the whole of Area D to a depth of 0.5m, finds recovered reflecting the mixed nature of this deposit (finds originating from the 1st century through to the present day).

Areas E and F (Figure 3)

5.58 Area E was located to the east of Area D between Low Catton Road and Smackdam Beck and measured some 180m in length. The original plan to excavate a launch and reception pit in this area was abandoned and instead this stretch was directionally drilled through to Area F. No archaeological features or finds were recorded.

5.59 Area F was located to the east of Area E between Smackdam Beck and High Catton Road and ran along the northern bank of Smackdam Beck. It lay entirely within a modern deeply ploughed field and measured some 250m in length. Topsoil and subsoil (1000) were stripped exposing the natural sandy clay at a depth of 0.9m below ground level. No archaeological features were observed though several fragments of CBM and sherds of pottery dating between the 2nd century and the post-medieval period were recovered from the machine stripped deposits. It seems likely that deep ploughing has removed any underlying features.

Area G (Figure 8)

5.60 This area was located to the east of Area F, measured some 680m in length and lay entirely within an arable field. It ran parallel with Milksike Beck some 3m to the south with High Catton Road to the west and the dismantled York to Market Weighton railway line to the east. Though no cropmarks are recorded, the Romano-British settlement identified to the west probably extends into this field some 20m to the north of the pipeline corridor. In addition the projected route of a road (probably Roman) crosses the pipeline route some 100m east of High Catton Road.

5.61 The underlying natural deposit comprised a clay and sandy gravel layer (1155), which was overlain by a thin subsoil (1149), which comprised firmly compacted grey sandy silt. The natural deposits were of aeolian or lucastrine origins. Archaeological deposits and features (see 5.63 – 5.79) were cut into or overlay these deposits and these were disturbed by the remains of medieval ridge and furrow, which in turn was overlain by a thick layer (0.4m deep) of post-medieval and modern ploughsoil (1003), both of which were stripped by machine.

5.62 Two distinct concentrations of archaeological features and three phases of activity were recorded in Area G (identified through the stratigraphic sequence of deposits and spot dated pottery) though no direct relationship between two of the phases could be established, as they remained physically isolated from each other.

Phase 1: Bronze Age (Figure 8)

5.63 This phase of activity comprised the remains of a large 'burnt mound' deposit (thermally fractured stone and blackish silt) partly sealing six pits, which were identified upon the excavation of the modern ploughsoil and subsoil (1003). These features were located some 42m east of High Catton Road and were spread across the width of the pipeline corridor over a distance of some 18m.

5.64 Pits 1132 and 1146 were the westernmost of this group of features. Pit 1132 was rectangular in plan and measured 2.4m long by 1.1m wide, by 0.25m deep, with a flat base. Its sides were vertical and on some faces undercut by 0.05m. Dug into its base was a roughly circular cut (1146), which measured 1.12m long by 0.48m across by 0.46m deep. This lower cut was filled with charcoal flecked sandy clay and heat fractured cobbles (1147). Pit 1132 was filled with a similar deposit (1131) but with a greater percentage of thermally fractured cobbles. It seems likely that both pits are broadly contemporary with each other and may reflect a single phase of construction.

5.65 Pit 1130 was located 10.5m to the north-east of pit 1132, was roughly oval in plan and measured 1.3m long by 0.7m wide by 0.3m deep, with a deeper central void 0.9m long. It was filled with a single deposit (1129) comprising black silt with small thermally fractured pebble inclusions.

5.66 Pits 1128 and 1141 were located some 13m east of pit 1130. Pit 1128 was rectangular in plan and measured 1.33m long by 0.98m wide by 0.44m deep with a flat base. Its sides were vertical and undercut by 0.05m all around the pit base. The pit was filled with a single deposit (1127) comprising black sandy clay and thermally fractured cobbles with lenses of clay and charcoal. Analysis of a sub-sample from this fill indicated that much of the charcoal appears to derive from oak. A single fragment of thermally fractured quern stone (1127 AB) was recovered from this fill. Adjoining this pit to the north was a smaller oval pit (1141) measuring 0.46m by 0.44m by 0.21m deep filled with a single deposit (1142) comprising black silt, charcoal and thermally fractured cobbles. A single piece of fired clay was recovered from this fill.

5.67 Pit 1151 was located some 0.6m south of pit 1128 and was roughly circular in plan, measuring 1.9m in diameter by 0.5m deep with a wide 'U' profile. It was filled with a single deposit (1150) comprising clayey sandy silt and a small quantity of unburnt and non-fractured cobbles.

5.68 Pit 1124 was located some 5m to the east of pit 1151 and was roughly oval in plan measuring 3.2m long by 2.1m wide and 0.7m deep at its deepest point (Plate 13). It was a complex shaped feature having a three-tiered stepped profile; the edge of the upper tier had a rounded profile undercut. The primary fill of the pit (1148) measured 0.4m thick and filled the lower two tiers of the pit. It comprised silty sand and clay, charcoal and thermally fractured cobbles from which a single flint flake was recovered. The secondary fill (1125) measured 0.3m thick and comprised sandy silt, charcoal and thermally fractured cobbles. Analysis of a sub-sample from this fill indicated that much of the charcoal appears to derive from oak.

5.69 Pit 1122 was located some 7m north-east of pit 1124 and was circular in plan measuring 0.82m in diameter by 0.15m deep with sloping sides and a flat base. It was

filled with a single deposit (1121) comprising black silty sand and thermally fractured pebbles and cobbles.

5.70 Pit 1144 was located some 16m east of pit 1122 and was circular in plan measuring 0.5m in diameter by 0.05m deep. It was filled with a single deposit (1143) comprising sandy silt and small thermally fractured cobbles.

5.71 Two of the above-mentioned pits (1151 and 1124) were sealed by a deposit of thermally fractured cobbles and sandy, ashy silt with charcoal inclusions (1119, 1120, 1126, 1140 and 1145), which forms the remains of the burnt mound and measured up to 0.35m thick. The cobbles of which it was primarily composed were mostly sandstone with a minority of limestone, flint and dolerite types. They ranged in size from 0.05 to 0.17m in diameter and were well rounded and generally elongated. Most were thermally shattered with sharp, irregular fractures, crazing and hairline cracks. Many were heat reddened or blackened and all were charcoal and soot dusted. The 'soil' amongst which the cobbles were lying was grey silty sand with stone chips, mixed with powdered and small amounts of lump charcoal. This deposit intermittently covered an area measuring 280m² and most likely covered a much larger area prior to disturbance by medieval and post-medieval farming activity. Finds recovered from these burnt mound deposits comprised several very fragmented animal teeth, two sherds of Bronze Age pottery and a single sherd of samian (probably intrusive).

Phase 2: Roman (Figure 9)

5.72 This phase of activity comprised the remains of a former road or trackway, which was located on alignment with a long linear cropmark (the predicted line of the Stamford Bridge to Market Weighton Roman road), and is probably associated with the Romano-British settlement to the north-west. This feature was located some 90m east of High Catton Road (SE 719 547), spread across the width of the pipeline corridor and measured some 17m wide. The road appeared to be aligned along a north-east to south-west axis.

5.73 The road comprised a compact sandy silt deposit (1112) overlying the natural and measuring up to 0.05m thick. This was overlain by the bulk of the road make-up, which comprised a dispersed roughly cobbled deposit (1109) measuring up to 16m wide by up to 0.18m thick. No evidence for roadside ditches was found despite a targeted search.

5.74 These road make-up deposits were cut by an irregular gully (1117) extending across the full width of the road along an east to west axis (Plate 14). The gully measured up to 1.4m wide by 0.4m deep and was filled with two deposits. The primary fill (1114) comprised silty sand up to 0.34m thick; the secondary fill (1113) also comprised sandy silt though darker in colour and measured up to 0.13m thick. Both of these fills appear to be wind-blown deposits. Though undated this feature (possibly a culvert) appears broadly contemporary with the road as its length respects the road width exactly.

5.75 To the south-west of the road an isolated concentration of pottery sherds was recorded (1118) overlying the natural clay. No associated features were recorded.

Phase 3: Medieval to post-medieval (Figures 9 and 10)

5.76 Along the east to west orientated segment of the pipeline corridor in Area G, an extensive sequence of ridge and furrow were recorded orientated northeast to south-west, the furrows being spaced some 6m apart. This phase of activity truncated much of the burnt mound deposit and the cobbled road.

5.77 A number of post-medieval and undated features were also excavated; these comprised several linear slots, two postholes, two pits and one animal grave. Linear slot 1135 was located some 6m to the west of the road (1109) and measured 3.96m long by 0.66m wide and 0.26m deep and was filled with silty sand (1136). Postholes 1133 and 1137 were located 1m beyond the east terminal of linear trench 1135 and 0.4m from each other. Posthole 1133 measured 0.44m in diameter by 0.16m deep and was filled with silty sand (1134), a loose mid grey to brown. Posthole 1137 to the north measured 0.34m in diameter by 0.05m deep and contained post pipe 1138, which measured 0.25m in diameter by 0.04m deep and was filled with silty sand (1139). These three features may be associated with pit 1110 which lay some 9m to their east.

5.78 Pit 1110 cut both the Roman road surface (1109) and gully 1117. It was irregular in plan and measured up to 3.7m wide by 0.88m deep. It also had vertical sides and a flat base. It was filled with a mixture of sand, silt, clay and boulder rich gravel (1111). Finds recovered included mid 18th century pottery and a split, sawn, half oak tree bole 1.7m across. Linear slot 1116 was located at the eastern end of pit 1110 and cut the road surface. It was orientated on a north to south axis and measured 2.5m by 0.3m by up to 0.21m deep. It was filled with a single deposit of sandy silt (1115).

5.79 A group of three features were also noted at SE 719 458, some 150m north-east of road 1109 and were located in the predicted position of another Roman road. Two linear gullies were recorded (1104 and 1108) orientated east to west and positioned some 5m apart. They were both filled with clayey sandy silt (1103 and 1107 respectively). Between these two gullies a subrectangular pit was recorded (1106) which measured some 2m wide by 0.5m deep and was filled with a single deposit of sandy silt (1105).

5.80 Some 5m to the north of gully 1104 a shallow north to south orientated oval cut was recorded (1102) measuring 1.4m long, 0.5m wide and 0.08m deep. It contained the skeleton of a young calf (1100) and was backfilled with a mixture of clay and topsoil (1101). None of these features were datable though are most likely associated with post-medieval activity suggested by the nature of their fills.

Area H

5.81 This area was located to the north-east of Area G, measured some 160m in length and lay entirely within an arable field. It ran between the dismantled York to Market Weighton railway line to the west and Moor Lane to the east.

5.82 The underlying natural deposit comprised a clay and sandy gravel layer (2001), which was overlain by a deep deposit of topsoil (2000) measuring up to 0.45m thick from

which several fragments of late medieval and 20th century pottery were recovered. No archaeological features were identified.

6.0 ASSESSMENT OF SITE ARCHIVE

6.1 Initial analysis

As part of the assessment of the site the following analysis has been undertaken:

1. A provisional matrix for the site was drawn up showing the stratigraphic relationships of all contexts within the nine monitored areas (A to I).
2. Plans and sections were checked against context record sheets to ensure cross-referencing. Catalogues of context and finds records have been put onto a computerised database.

3. Catalogues of slide and print photographs, and illustrations have been input onto a computerised database.

The quantification of the site record is as follows:

Table 2: Primary archive inventory

Context descriptions	407
Plans	35
Sections	132
Colour slides (films)	13
Black and white photographs (films)	12
Colour photographs (films)	2

Recommendations for further analysis

6.2 Further work for all areas needs to be carried out on the site matrix, especially in consultation with the pottery specialist and small finds specialist, so that more reliably phased information on the site chronology can be attained. Once phased the context record can be listed and described by phase to produce a more accurate and detailed site narrative report. Detailed phase plans should also be drawn up which illustrate all structural features.

6.3 The results of the detailed analysis of the archive should be integrated with specialist analysis of the finds recovered and synthesised into an illustrated publication report.
Storage and curation

6.4 The written, drawn and photographic records and soil samples are currently held by NAA. A representative proportion of the soil samples was sent to Palaeoecology Research Services and has been processed for this assessment.

6.5 The retention and disposal policy for the assemblage from Stamford Bridge will be to retain the vast majority of artefacts. This is because a high proportion of the material is derived from secure contexts and the assemblage is important in both local and

regional terms. The archive will be deposited in the Sewerby Hall Museum in the East Riding of Yorkshire after completion of specialists' studies.

7.0 SPECIALIST FINDS ASSESSMENTS

Processing and quantification

7.1 Washing of the bulk finds, including animal bone, was completed and all finds recovered have been recorded, marked where appropriate, packed in labelled bags and placed in labelled museum storage boxes. A finds database was produced in order of context number. This database tabulates the artefact type, quantity and includes a brief description. The artefact assemblage from Stamford Bridge is summarised below. Once prepared the material was sent to the specialists for assessment.

Table 3: Finds assemblage

Pottery sherds	3915
Ceramic building materials	178
Clay pipe	6
Fired clay	31
Daub	2
Stone	10
Wood	5
Flint	151
Glass	24
Lead/lead alloy	10
Copper alloy	12
Silver alloy	1
Iron	107
Industrial waste	14
Jet	1
Animal bone fragments	2564
Human skeletons	5
Human bone	45
Shell	8
Environmental samples	275

Flint

P. Makey (Appendix B)

Summary

7.2 A total of 63 struck pieces of flint were recovered from 36 different contexts. A total of 88 pieces of natural flint were also recovered. The size of the assemblage is very small for the area and in no instance can any of the struck flint be considered to be contemporary with any of the features.

7.3 The assemblage encompasses Mesolithic, Neolithic and early Bronze Age material with probably a slightly larger Beaker component in the assemblage. There does not appear to any correlation between date and distribution. The assemblage is representative of a typical regional background scatter in an area away from the focus of prehistoric settlement and probably relates to casual losses. The flint assemblage is probably the by-product of a non-flint specific prehistoric activity or activities.

Recommendations

7.4 Further work should be done to examine whether there is any connection between raw material selection and archaeological period. Three of the scrapers and the notched flake are of illustrative quality.

Prehistoric pottery

Blaise Vyner (Appendix C)

Summary

7.5 A total of two sherds of prehistoric ceramic material weighing 60g were recovered from the excavations of a burnt mound. Both sherds were undecorated and in terms of their fabric, appear to be Bronze Age in date.

Recommendations

7.6 No further analysis or illustration is required on the assemblage.

Roman and Medieval Pottery

Peter Didsbury (Appendix D)

Summary

7.7 A total of 3915 sherds of ceramic material weighing 68190g were recovered from the excavations at Stamford Bridge, with an increased sherd count of 4013 analysed for the assessment (increase probably due to post-excavation breakage). The whole site assemblage suggests occupation from at least the earlier 2nd century to the mid 4th. Only a single vessel, from deposit 301, can legitimately be dated to the second half of the 4th century. The available evidence suggests that the site as excavated might have been laid out in the Hadrianic to early Antonine period (*c.* AD 120-60). The curvilinear ditches appear to have closed in the second half of the 2nd or earlier 3rd century, and may thus be distinguished from the two main groups of linear ditches, which probably closed in the first half of the 4th. There is a fairly clear suggestion that the linear ditches east of pit 390 were open from the second to mid 4th century. The opening date for the other group of linear ditches discussed above is less obvious.

Recommendations

7.8 The potential for publication is constrained by the poor quality of many of these ditch assemblages. There are, however, individual groups which deserve publication and

which should be published along with a general discursive essay on the whole site assemblage in any future site report. There is some potential for investigation of pottery supply to the settlement of Stamford Bridge and for comparison with pottery supply to York, as well as for recognition of local fabrics within the greywares. Samples of Stamford Bridge fabrics 1-3 were noted in small amounts within the assemblage. Examples are cited in the database.

7.9 It is recommended that publication of selected assemblages be included in the final site report. Time and illustration requirements cannot be suggested at this stage, before further work on the assemblages and information from specialists. Such a report would require prior specialist examination of the following:

Amphorae	217 sherds
Samian	97 sherds (of which 22 decorated, and 2 stamps)
Mortaria	31 sherds (no stamps)
Ceramic lamp	1 sherd

All material should be retained in an appropriate museum in the interests of future research in the region.

Ceramic building materials

John Tibbles (Appendix E)

Summary

7.10 A total of 178 fragments of ceramic building material (CBM) with a total weight of 8249g from 36 contexts were submitted for assessment. Five types of building material were identified, these comprised *bessales*, *tegulae, imbrices, tubili lingulati* and box flue-tile *(tubulae)*.

7.11 The majority of the ceramic building material assemblage is of a Romano-British date and represents the residual elements of Romano-British activity. The presence of the CBM among the finds assemblage could reflect a high status building within the vicinity. Although a range of ceramic building material normally associated with various aspects of Romano-British building construction was noted, the paucity suggests that the assemblage is likely to represent re-deposited material from Romano-British buildings within the vicinity. Despite the paucity of mortar adhesions, the assemblage does infer evidence for the re-use of ceramic building materials within smaller components of an agricultural settlement for example within construction of the corn drying kilns and for use as repairs or metalling of the road surfaces.

7.12 The remainder of the assemblage is of medieval, post-medieval and modern date including roof tiles and land drains and most likely represents casual deposition and modern agricultural activity. Although the potential is limited at this level of analysis, the information gleaned is significant as it can add to the corpus of evidence of activity during this period for the area.

Recommendations

7.13 Fabric analysis should be completed, provisionally by visual examination to refine identification of the queried forms and dating. This should also be undertaken for comparative purposes with other Romano-British ceramic building assemblages within the region to try to ascertain source. Further scientific analysis should be undertaken if deemed worthy after further study.

7.14 It is recommended upon completion of work on this assemblage, samples of fabrics should be retained and a selective discard policy implemented prior to deposition of the finds assemblage as whole within the appropriate museum.

Clay pipe

Sarah Wilkinson (Appendix F)

Summary

7.15 A total of six clay pipe stems weighing 17g were recovered from the topsoil and subsoil. All the stem fragments were plain with a borehole size of 5. There were no distinguishing makers' marks or stamps to closely date the stems but they probably date from the late 17th century to the early 19th century.

Recommendations

No further analysis is required on the clay pipe assemblage.

Glass

H. Cool (Appendix G)

Summary

7.16 A total of some 350g of ancient glass sherds and a single glass bead were recovered during excavations. The fragments of glass from one human cremation-related context (308) revealed the remains of two glass vessels, both of which appear unusual in form in relation to function. The larger of the two vessels was globular in form with a pushed-in base ring. The lack of decoration and the size of the base suggest the sherds may have originated from a handled jar. It is possible that this was a specialist vessel, deliberately made for use as an urn. The second vessel was a small globular jar with a folded and flattened rim. This may have functioned as an unguent bottle and included in the burial as a grave good. Glass from six other contexts originates from typical household containers. The glass bead was cylindrical and green in colour and most likely would have formed part of a necklace. All of the glass fragments can be seen to date between the 1st and 3rd centuries.

Recommendations

7.17 It is recommended that the jar within context 308 be partially reconstructed and illustrated. Upon completion of work on this assemblage, the roman glass should be

retained and a discard policy implemented for modern glass fragments prior to deposition of the finds assemblage as whole within the appropriate museum.

Conservation assessment

J. Jones (Appendix H)

Summary

7.18 A total of 132 finds were submitted for assessment and 12 X-ray plates produced. The X-radiographs of iron objects showed that many had little remaining metal core and have corroded completely. A few nails from 384 AJ and 525 AA had mineralised wood remains on their shanks. The burial environment was aggressive to iron. The copper alloy finds were in poor condition, with many of the finds having 'bronze disease' and chemical stabilisation has been recommended. The lead was also in poor condition. A jet bead was in excellent condition, retaining sand/silt in interstices. It should remain stable for the long term.

7.19 ***Recommendations***

- Stabilisation of all copper alloys except 300 AB, which requires further cleaning. Investigative work is been recommended for: the possible lead seal 555AA and the barrel padlock 301AN.

- **Additional finds to conserve only if they are required for research**: 300 AA silver coin; 301 AY iron spike with MPO?; 304 AG nail shank with MPO; 310 AB; 316; hinge and brackets 333 AB, 542 AA and 542 AB; the hobnails from 393; 478 AA lead plug or clip; and jet bead 538 AA.

  Further cosmetic work or physical support may be required if any of these finds are selected for photography, illustration or display.

  Suggestions for further analysis and specialist support has been made.

- **XRF**: Plating on padlock 301 AN, and copper-alloy mounts 300 AB, and 318 AA.

- **MPO:** if any wood survives on 301 AY, 304 AG, 525 AA or leather on hobnails from 393.

- Refer the unidentified material to an archaeometallurgist.
- Refer all coins to numismatist for provisional dating and recommendations for further cleaning.Initial examination reveals that most of the coins retain elements of surface detail behind the corrosion. Denominations identified include *denarius, antoninianus and sestertius* dating to the 2nd and 3rd centuries.

- Four of the coins require specialist cleaning before further identification can be done.

Coins

R. Brickstock (Appendix I)

Summary

7.20 A total of five coins were recovered during the excavations, all of which are Roman in denomination. Initial examination reveals that most of the coins retain elements of surface detail behind the corrosion. Denominations identified include *denarius, antoninianus* and *sestertius* dating to the 2nd and 3rd centuries.

Recommendations

7.21 Four of the coins require specialist cleaning before further identification can be done.

Recorded finds

Jon Watt (Appendix J)

Summary

7.22 A total of 114 recorded finds were recovered during excavations. The finds were first examined by the York Archaeological Trust for assessment of their conservation needs and X-radiography of the metalwork (see 7.18).

7.23 The recorded finds comprised a variety of materials including iron, copper alloy, lead and jet and were each assigned to a functional group. Notable finds include a highly decorated trumpet brooch, an open lattice-work latch plate, a bolt from a barrel padlock, two strap hinges and a short length of chain. The majority of objects are difficult to assign to a specific period by form or decoration. However, the assemblage certainly contains a Romano-British element, with objects dating from the late 1st or early 2nd to the 4th century. There are also a number of medieval and post-medieval objects, particularly from the topsoil and subsoil.

7.24 The Romano-British material is characteristic of a domestic setting, whereas the later material is more characteristic of agricultural activity. Most of the metal-working debris was recovered from the subsoil, context 301, in Area D, though two pieces were recovered from earlier (Roman?) features. The lead probably results from local building and/or demolition work, but the ironwork suggests smithing within the local area.

7.25 Of the Roman material the jet bead would have been part of a relatively expensive piece of jewellery. The lack of tools, particularly agricultural equipment, and the number of items from domestic furniture within the assemblage is more indicative of a relatively affluent urban, perhaps commercial or industrial, rather than a rural settlement.

Recommendations

7.26 Further research should be undertaken on the bulk of the recorded finds leading to full publication of the assemblage.

7.27 Prior to this investigative conservation should be undertaken on eight of the metal artefacts. A section across the spines of the barrel padlock bolt, RF 301 AN, should be partially cleaned ('poodled') to determine the layout of the spring leaves. The closing plate should also be partially cleaned to expose the non-ferrous plating, which should then be identified by XRF analysis. Both terminals of RF 301 AY should be partially cleaned and mineralised organic material investigated. RF 333 AB should be partially cleaned across the lower arm to reveal its cross-section and possible nail head. The central region of RF 542 AA should be partially cleaned to expose the hinge and pin.

7.28 The white metal plating on the copper-alloy stud RF 300 AB should be identified through XRF. The lock plate, RF 318 AA should be cleaned to reveal the central perforation and any plating identified by XRF. RF 495 AA should be cleaned and the soil within the concave surface removed.

7.29 The lead seal or token, RF 555 AA, should be cleaned to reveal the surface decoration.

7.30 It is recommended that thirteen objects be illustrated for publication.

Stone

E Wright (Appendix K)

Summary

7.31 A total of ten fragments of worked stone (excluding the millstones, see 7.31) were recovered from the excavations. Several fragments were those originating from quern stones, the others, mostly fragments of igneous or pyroclastic rock, appearing to have had some specialist function, notably smoothing or sanding a finished product.

Recommendations

7.32 It is recommended that the closer identification of the raw material of 301 AC, 463 AB, 581 AA, 352 and 454 be sought from a geological specialist on the grounds that it is an unusual rock and probably imported.

Millstones

P Johnson (Appendix L)

Summary

7.33 Two large fragments of two different millstones were recovered from two separate pits. Both fragments are examples of upper, over-driven millstones using animal or

human power, which are relatively rare and had been re-used as steps to facilitate access to the base of two probable watering holes.

Recommendations

7.34 No further work is recommended on the millstones at this stage, but both items should be retained to facilitate future research. Both millstones should be fully illustrated and publication should be undertaken as a part of the overall report for the project.

Slag

J Cowgill (Appendix M)

Summary

7.35 A total of 1509g (46 pieces) of slag and associated materials were submitted for recording. Although 46 finds have been catalogued here only seven pieces (359g) are probably a by-product of iron smithing. All of these slags may be the by-products of a single smithy that used coal as the sole fuel in the hearth, a characteristic of mainly urban and villa Romano-British sites because of the transport implications. The two probable proto-hearth bottoms are small and dense examples and both contain evidence for copper-alloy working as well as iron smithing in the same hearth. Although it is not surprising that a smith would work both metals (many iron objects have copper-alloy fittings) evidence for it is surprisingly uncommon. It is therefore likely that all of this assemblage derived from the same smithy, but due to the lack of hammerscale, these pieces may have been discarded at some distance from it.

Recommendations

7.36 No further analysis is required.

Human skeletal remains

J Higgins (Appendix N)

Summary

7.37 A total of five inhumation burials and two cremation deposits, one within a greyware urn and one in a glass vessel, were recovered from the excavations. The inhumation burials (all adults) were distributed over a wide area, with only two burials occurring side by side. Four of the skeletons were extended and supine, and one was tightly crouched. The burials were of variable orientation. Two burials were each accompanied by a large fragment of greyware, possibly intentional grave inclusions.

7.38 The dispersed character of rural Romano-British burials and the present-day tendency towards partial excavation has led to difficulties in acquiring a sample of sufficient size for the study of burial custom and skeletal biology of rural populations. It is therefore important to fully record all burials from these contexts.

Recommendations

7.39 The articulated inhumations should be subject to full basic analysis. Age, sex, pathologies, metric and non-metric data should be recorded where possible. Significant variation in skeletal biology or burial rites should be examined, and comparisons with contemporary inhumations may be drawn to demonstrate any unusual findings.

7.40 The maximum amount of skeletal information obtainable by macroscopic examination for each cremation deposit should be recorded. Any data retrieved could be compared with contemporary cremation deposits.

7.41 The disarticulated bone from additional contexts should be identified, and unusual pathologies or other abnormalities should be noted.

7.42 The skeletal remains should be retained in a suitable location subsequent to analysis, for future research purposes.

Biological remains

A Hall, J Carrot and D Jaques (Appendix O)

Summary

7.43 Sixty-three bulk sediment samples, two column tins, a very small amount of hand-collected shell, five boxes of hand-collected bone and five bags of spot samples of wood, were recovered from the excavations and submitted for an assessment of their bioarchaeological potential. Three areas of excavation (Areas C, D and G) encountered deposits of prehistoric (including Bronze Age) to Romano-British date with some preservation of organic remains.

7.44 The column samples (Area C) revealed that, in general, there was little potential for study of the represented deposit sequence via pollen and none for diatoms. Only that part of the sequence relating to context 217 gave any interpretatively useful microfossil remains, including well preserved pollen and a single trichurid parasite egg. Only two fragments of bone were recovered from this area.

7.45 Most of the recovered remains were from Romano-British deposits in Area D. Some of the deposits yielded rather rich assemblages of plant and invertebrate (mainly insect) remains mostly preserved by anoxic waterlogging, with a background of charred material including some probable evidence for ash from burnt peat and/or turves. One deposit associated with a firing pit, provided an assemblage of grain and chaff typical of the period, though in a very poor state of preservation. Area D also produced by far the largest quantity of vertebrate remains. The preservation of this material was poor resulting in there being few measurable fragments. The assemblage was dominated by the main domestic species, with most parts of the animals represented. Most of the remains were recovered from features associated with rear property boundaries and are highly likely to represent refuse both from carcass preparation and from consumption. One deposit (Context 478) included many freshly broken cranium fragments from the skulls of one horse and one cow and may

represent a ritual deposit. Context 582 gave a single *Helix pomatia* L. (the 'Roman' or 'edible snail'), the only hand-collected shell of interpretative value perhaps representing human food waste.

7.46 Ancient biological remains in the samples from the Bronze Age burnt mound and associated deposits in Area G were limited to very small concentrations of charcoal. The small amount of hand-collected bone from this area included the skeleton of a young calf. Although immature, the animal represented was quite large and the preservation of the remains was such that a modern burial cannot be ruled out.

7.47 The nature of the local environment and some aspects of human activity could be explored through the use of larger subsamples from those deposits from Area D with good preservation of plant and invertebrate remains, and microfossils from Context 217 (Area C) may supply additional supporting information. Very few rural Romano-British sites have been investigated in this area and those that have often produced very little animal bone. Although the vertebrate assemblage is not particularly well preserved, it could still contribute valuable information to any synthetic studies of the area.

Recommendations

7.48 The nature of the local environment and some aspects of human activity could be explored through the use of larger subsamples from those deposits from Area D with good preservation of plant and insect remains by anoxic waterlogging. They will add usefully to a growing body of evidence for plant and invertebrate remains from sites in the south-east of the Vale of York and adjacent Yorkshire Wolds area for the Iron Age and Romano-British periods, valuable for synthesis. Providing dating can be obtained, some further study of the microfossil content of the deposit sequence around the assessment subsample from context 217 may provide additional supporting information from Area C.

7.49 No further study of the hand-collected shell is warranted.

7.50 Vertebrate material from rural Romano-British sites is rare and, therefore, even though this assemblage is not well preserved, it could provide an important contribution to any synthetic studies of this area. In view of this, a basic archive, including biometrical and age-at-death data, should be produced for the current vertebrate remains from all well-dated deposits.

8.0 DISCUSSION OF RESULTS

8.1 The excavations at Stamford Bridge have recorded the remains of a Bronze Age burnt mound and related pits, the location of two Roman roads and part of a Romano-British settlement revealing areas of agricultural, industrial and funerary activity.

8.2 The Bronze Age burnt mound complex comprised an extensive deposit of thermally fractured river cobbles and charcoal overlying and infilling a number of pits located along the bank of Millsike Beck. The mound was most probably created by numerous episodes of open fires being lit for the heating or baking of field cobbles to be rapidly placed into the associated rectangular water filled 'cooking pits' to heat the water for

cooking, steam bathing or industrial functions such as textile dying or felting. It is thought that cooking is the more likely function. The baked cobbles were prone to shatter due to thermal shock on emersion in cold water and were discarded after damage. Most of the associated 'cooking pits' were backfilled with burnt mound debris suggesting that the mound was extended frequently. The site was therefore subject to prolonged use and as the mound was extended the cooking activities were forced to migrate along the north bank of Millsike Beck over time. It is not known whether this type of site was utilised daily, seasonally, annually or at other frequencies, it is therefore impossible to guess at the sites length of utilisation. As no stone was visible in the neighbouring beck it appears likely that the stone was transported up from the River Derwent.

8.3 The courses of two Roman roads were bisected in two different locations along the pipeline corridor. Both roads had been substantially disturbed through later farming activity with only a thin road surface layer surviving and little in the way of evidence for roadside ditches. The section of road recorded in Area C forms part of the main road running from Roman York (*Eboracum*) and links an area of roadside settlement to the west of the Derwent with that to the east. Though poorly degraded in its nature, this section of road appears to represent the location where the form of road surface changed from a stone surface overlying the natural to an agger with a stone surface where it crossed the marshy approaches to the banks of the Derwent. The second section of road, recorded in Area G, forms an important addition to the known north-west to south-east alignment of a Roman road previously only recorded further to the south-east. The absence of any evidence for the road recorded in Area C extending through Area G confirms the lack of both geophysical and cropmark evidence for such a feature and suggests the road either terminated at its junction with the road previously mentioned above in Area G or has been truncated to such an extent by modern ploughing that no trace now survives.

8.4 The bulk of archaeological features identified in Area D represent enclosures with primarily agricultural and small industrial scale activity being undertaken, that are periferal to the more concentrated area of Roman settlement activity which lay focused around the east to west orientated road to the north of the (pipeline corridor (also recorded in Area C). Two broad phases of activity were identified within the settlement with some evidence for the site having been laid out in the Hadrianic to early Antonine period (*c.* AD 120-60) and the majority of activity dated to the mid 3rd to early 4th century.

8.5 The area of archaeological remains was sub-divided by a series of north to south and east to west orientated enclosure ditches which appear to define property boundaries relating to possible structures visible as cropmarks to the north of the excavated area. Further evidence for buildings in the field to the north is also suggested by a number of cut stone blocks that have been recovered from the field during ploughing (J Smith pers. com.). The enclosures were of varying sizes and appear to define areas with a range of uses. The presence of possible 'corn-drying' kilns at the western end of Area D and the area of cobbled surface (470), pits and large quantities of animal bone at the eastern end reflect this range in function. The finds recovered from this area also reflect the range of activities being practiced in the surrounding area, industrial waste indicating some localised metalwork production, over-driven millstones and querns reflecting the agricultural aspect to the economy and possibly locally produced

pottery. Finds of Roman building material also suggest that there may have been a high status structure within the wider settlement area.

8.6 The remains of five human skeletons in graves and two cremations re-deposited from their original setting were recovered from this back plot area. The presence of a cemetery outwith the area of settlement, adjacent to a road, conforms to the usual pattern of Romano-British sites, although the low number and dispersed nature of the burials is of note and may instead reflect the presence of a much larger cemetery nearby and the relative distance from the road.

9.0 STATEMENT OF POTENTIAL

Site potential

9.1 No known burnt mounds had been located in the Vale of York until the recognition of the Stamford Bridge example (T Manby pers. com.), although another has subsequently been identified at Little Ouseburn (NAA forthcoming). Other recent finds of burnt mounds in lowland locations have been made in Shropshire (SCC 1998) and Leicestershire (Ripper 1997). This lies in stark contrast to the large number of burnt mound sites identified in upland locations both on the North York Moors an in the Yorkshire Dales. A regional research framework has recently been put forward for the West Midlands (Hodder 2000), which highlight the number (40-50) and frequency of such sites within a specific geographical region of lowland Britain where targeted research has been active since 1980.

9.2 There has been one recent excavation of a Romano-British settlement within Stamford Bridge, as well as several small watching briefs, which have identified the extent of settlement to the west of the Derwent and courses of some of the surrounding Roman road network (Lawton 1994 and 1997). The recent excavation work was undertaken on the eastern outskirts of Stamford Bridge at Moor Lane (SE 7182 5533) during monitoring of a new housing development. This site comprised a section of road, focused around which was a network of enclosure ditches. These reflected two different forms of agricultural practice operating simultaneously on either side of the road.

9.3 Within the York hinterland, recent archaeological excavations have included a small number of Romano-British settlement sites. A Romano-British settlement was encountered and partially excavated during monitoring of a water pipeline at Stockton Moor West (SE 648 545) (Pearson 1996; Hall and Stockdale 1997). A further Romano-British settlement was discovered during monitoring of a water pipeline at Mill House Farm on the west side of Kexby (SE 6930 5135) (Pearson 1997). Investigations of the cropmarks at Lingcroft Farm near Naburn have also revealed remains of a Romano-British (and earlier) field sytstem (Jones 1988).

9.4 English Heritage and York City Council research objectives for the region around the extensively excavated Roman settlement of York. are outlined in a project design for a York Hinterland Survey (Ove Arup and Partners 1991). One of the main two objectives of the paper is focused on ‘the relationship between York and its hinterland through the Roman, Anglian, Anglo-Scandinavian and Medieval periods’ focussing

on four principal themes 'demography, trade … the agricultural economy … and the study of political and administrative boundaries' (*ibid,* 3). The relationship of rural settlements to their landscape and urban centres is an archaeological agenda identified by James and Millet (2001, 53), who have recognised that 'all too often we have satisfied ourselves by noting … the presence of settlements without addressing that 'agricultural communities were clearly concerned with access to, and the arrangement of, the wider world around them, both for agricultural production and in mediating their relationships with others.' English Heritage's research priorities for the period *c.*AD 200 to AD 700 focus on the nature of the change in Romano-British society in the 3rd and 4th centuries (English Heritage 1997, 44).

9.5 The results of the excavation at Stamford Bridge have the potential to address these agendas, in looking at the relationship of the settlement to the wider landscape, and in comparisons with the other excavated sites within the hinterland of York and their relationship with the Roman colony of *Eboracum*. Through examination of cropmark evidence there is also the potential to place the site within a contemporaneous settlement pattern in the landscape.

Site archive potential

9.6 The excavation of the burnt mound at Stamford Bridge provide a unique opportunity to further our understanding of Bronze Age settlement in the Vale of York and add to the limited corpus of material on burnt mounds in lowland ares. The date of the burnt mound and related pits may parallel the period at which the climate was deteriorating in the late Bronze Age and there was a resulting shift from the uplands to more hospitable lowland areas (Muir 1997).

9.7 The excavation of the Romano-British features provide not only an opportunity to further our understanding of the Roman settlement of Stamford Bridge but also of the Romano-British hinterland around York. Of particular interest within the stratigraphic record is the re-organisation of the settlement during the 2nd century, after which the main phase of activity took place. This may parallel the point when York gained promotion to colonial status and underwent extensive replanning during the early 3rd century (Wacher 1974, 156). These changes to the settlement at York may well have extended to a reorganisation of the hinterland around York, and a greater formalisation of the agrarian settlements, which were presumably supplying agricultural produce to the city. The majority of archaeological attention of this area has been theoretical, predicting models for how the hinterland interacted with the Roman settlement of York. Thus any archaeological evidence, which can shed light and help test theories and models for the relationship of York with the surrounding settlements during the Roman period, is of regional significance.

9.8 The potential for further analysis of the pottery is constrained by the poor quality of many of these ditch assemblages. There are, however, individual groups which deserve further research and which should be published along with a general discursive essay on the whole site assemblage. There is some potential for investigation of pottery supply to the town of Stamford Bridge and for comparison with pottery supply to York, as well as for recognition of local fabrics within the greywares.

9.9 The ceramic building material is of limited potential, however the information gleaned is significant as it can add to the corpus of evidence of activity during this period for the area. Fabric analysis should be completed, provisionally by visual examination to refine identification of the queried forms and dating. This should also be undertaken for comparative purposes with other Romano-British ceramic building assemblages within the region to try to ascertain source.

9.10 The small finds are of significance with respect to the broad range of artefacts recovered and the light they can shed on the activities and status of the settlement. The assemblage warrants further study to aid placing the settlement within its regional setting.

9.11 The small number of inhumations is of limited value for bioarchaeological population studies. Although comparisons with other archaeological populations could be made, results are unlikely to be conclusive. However, the dispersed character of rural Romano-British burials and the present day tendency towards partial excavation has led to difficulties in acquiring a sample of sufficient size for the study of burial custom and skeletal biology of rural populations. It is therefore important to fully record all burials from these contexts.

9.12 The potential for further study for both cremation deposits is limited by generally small fragment size and moderate preservation. The level of information each bone deposit will provide is expected to be low, and probable displacement from their original situation will also restrict interpretation of associated burial rites.

9.13 The potential for further study of the biological remains lies in exploring the nature of the local environment and some aspects of human activity through the use of larger subsamples from those deposits from Area D with good preservation of plant and insect remains by anoxic waterlogging. They will add usefully to a growing body of evidence for plant and invertebrate remains from sites in the south east of the Vale of York and adjacent Yorkshire Wolds area for the Iron Age and Romano-British periods, valuable for synthesis. Providing dating can be obtained, some further study of the microfossil content of the deposit sequence around the assessment subsample from Context 217 may provide additional supporting information from Area C.

9.14 Vertebrate material from rural Romano-British sites is rare and, therefore, even though this assemblage is not well preserved, it could provide an important contribution to any synthetic studies of this area. In view of this, a basic archive, including biometrical and age-at-death data, should be produced for the current vertebrate remains from all well-dated deposits.

9.15 Charcoal recovered from several pits directly relating to the burnt mound could provide valuable dating evidence,if submitted for radiocarbon dating, for the period at which Bronze Age occupation was occurring in the lowland areas of the Vale of York.

9.16 The worked slag and stone artifacts are of limited potential but may reveal insights into the technology, activities and subsistence nature of the site.

9.17 Due to the relatively small number of excavated sites from this period within the hinterland of York the combined results, stratigraphic, artefactual and environmental, of the archaeological excavation of the Romano-British settlement site at Stamford Bridge is of regional significance. The artefactual assemblages and environmental record recovered from Stamford Bridge have the potential to add to our understanding of the function of a rural Romano-British settlement within the hinterland of York.

10.0 PROPOSED POST-EXCAVATION PROGRAMME

Summary

10.1 The aim of the post-excavation programme will be to produce a final report for publication and a well ordered, clearly indexed archive for deposition in the Sewerby Hall Museum in the East Riding of Yorkshire.

In accordance with English Heritage guidelines (1991, 21) this work will be approached in two stages:

1. Compilation of a research archive, involving work on the stratigraphy, artefacts and environmental data and the production of catalogues, illustrative material and both narrative and artefact reports.

2. Selection of data from the research archive to produce an integrated report text for publication.

The overall sequence of the programme would be as follows:

Stage 1: stratigraphic analysis

Stage 2: site narrative and archive illustrations

Stage 3: preparation of specialist reports and radiocarbon dates

Stage 4: integration and synthesis of stratigraphic and artefactual records

Stage 5: preparation of publication report text and illustrations

Stage 6: archive deposition

Stratigraphic record

10.2 Stage 1: The need to finalise a secure understanding for the sequence of events in Area D is of primary importance. In particular attention should be paid to clarifying the phasing and subsequently examining changes from Phase II to Phase III, both when the changes occurred and what implications they have on the organisation and function of the settlement. It is important that the stratigraphic matrix represents an accurate chronology of the excavated evidence, as this will form the basis of all further research and analysis.

Stage 2: Once the stratigraphic sequence has been established a detailed site narrative report, based upon each phase of the site development, will be prepared. Archive illustration phase plans will also be drawn up.

Stage 3: Further literary research of other excavated sites would be undertaken to assist with the interpretation of the excavated evidence, and to place both the Bronze Age and Roman remains within their local, regional and national contexts. Parallels with other Bronze Age and Romano-British sites need to be examined, particularly the pottery assemblages and types of kiln represented.

Stage 4: The stratigraphic and structural evidence will be integrated with the artefactual and environmental reports. The chronology and distribution of artefacts will be analysed to establish the use of structures and function of different site areas within each phase.

Stage 5: Upon receipt of the relevant specialist material a synthesised summary text will be prepared for publication in a regional jounal (i.e. *Yorkshire Archaeological Journal* or *The East Riding Archaeologist*). The features differed greatly in character between the two main areas of the site. Artefactual and environmental analysis may enable the nature and function of the kilns and the areas within the site to be understood, whether domestic, industrial, funerary or agricultural.

Stage 6: Upon completion of the publication report and associated specialist assessments the indexed site archive (paper and artefactual records) will be deposited at the East Riding Museum in Sewerby.

Artefactual record

10.3 The finds recovered combine to form a significant assemblage with respect to the relative dearth of material from similar Romano-British sites within the hinterland of York in the Roman period. Selective elements of the assemblage require more detailed interpretation, publication and illustration, including the pottery assemblage, small finds and environmental samples, which should shed light on the activities and status of the settlement.

11.0 CONCLUSION

11.1 During the archaeological monitoring and excavation undertaken during the topsoil stripping of the pipeline, previously known and unknown concentrations of archaeological remains were recorded at three different locations along the pipeline route. These are referred to as Areas C, D and G.

11.2 Area C was located close to the eastern bank of the River Derwent, south west of Stamford Bridge. The site consisted of a degraded road surface with an associated roadside ditch. Pottery recovered during excavation dated the enclosure to the Romano-British period.

11.3 Area D was located some 80m to the east of Area C. The site comprised a concentration of settlement related features, which extended for a length of 260m along the pipeline corridor. The complex of features consisted of a series of enclosure ditches, 'corn drying' kilns and watering holes and a number of human inhumations and cremations, reflecting an area of a settlement and possibly a nearby cemetery, all of Romano-British date. Initially two phases of activity were identified within the settlement. These were truncated by medieval plough furrows.

11.4 Area G was located some 400m to the east of Area D and comprised two groups of features. One group comprised a large spread of burnt stone (a 'burnt mound') and a number of associated pits dating to the Bronze Age. The second group comprised a section across a probable Roman road. These were also truncated by medieval plough furrows.

11.5 Both the Bronze Age and Romano-British features and finds from Stamford Bridge are considered to be of regional significance. Only one other lowland Bronze Age burnt mound has previously been discovered in the Vale of York and hence further research would provide a valuable addition to the corpus of current data. The Romano-British settlement has long been known about from both aerial photographs and documentary evidence, and has been suggested as being the site of the Roman town of Derventio. Little excavation work has been done previously within this area and therefore warrants further analysis of the site archive, especially in relation to the pottery assemblage, small finds and environmental data. A final publication report should be produced on selective aspects of the excavation for inclusion within an appropriate regional journal.

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Edited by: Peter Cardwell and Mike Bishop
Illustrations: Cath Chisman

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Appendix A
CONTEXT AND FINDS CATALOGUE

Context	Description	Area	Notes	animal bone	Ag alloy	burnt clay	cbm	charcoal	clay pipe	Cu alloy	Fe	fired clay	flint	glass	human bone	ind waste	jet	lava stone	organic	Pb	complete pot	pottery	sample	shell	human skeleton	stone	wood
1	ploughsoil	A					18						3	1								14					
2	subsoil	A	red sandy silt				2																				
3	ploughtrends	A					1						2														
4	fill of 5	A	clay and stone																								
5	field drain cut	A																									
6	natural layer	A	stony silt																								
7	natural layer	A	course sand																								
100	ploughsoil	B					8															8					
101	subsoil	B					2		2				1									2					
102	natural	B	silty clay and stone																								
103	fill of 104	B																									
104	cut of ridge and furrow	B																									
105	fill of 106	B					1																				
106	cut of modern field drain	B																									
200	ploughsoil	C					11		1							3						18					
201	colluvium	C	silty sand																								
202	deposit	C	lens within 201																								
203	fill of 205	C	clay silty sand																								
204	natural layer	C	silty sand																								
205	cut of furrow	C																									
206	deposit	C	same as 201																								
207	cut of furrow	C																									
208	deposit	C	lens within 201																								
209	fill of 210	C	silty sand																								

Context	Description	Area	Notes	animal bone	Ag alloy	burnt clay	cbm	charcoal	clay pipe	Cu alloy	Fe	fired clay	flint	glass	human bone	ind waste	jet	lava stone	organic	Pb	complete pot	pottery	sample	shell	human skeleton	stone	wood
210	drain cut	C																									
211	ceramic drain	C	within 210																								
212	deposit	C	silty sand lens within 201																								
213	deposit	C	sand, lens within 201																								
214	colluvium	C	same as 201																				1				
215	deposit	C	overlies 216																				1				
216	deposit	C	overlies 217																				1				
217	deposit	C	overlies 218																				2				
218	deposit	C	overlies 220, column sample C1																				2				
219	slope of marginal marsh	C																					1				
220	deposit	C	overlies 219									3	10									19	4				
221	cut of ditch	C																									
222	fill of 221	C	primary fill	1																			1	2			
223	fill of 221	C	secondary fill																								
224	fill of 221	C	tertiary fill																				3				
225	deposit	C	overlies fill of ditch 221	1			2					1	2									3					
226	fill of 229	C	primary fill																								
227	fill of 221	C	secondary fill																								
228	stony deposit?	C	same as 215																								
229	cut of ditch	C	re-cut of 221																								
300	topsoil	D		12	1		4		1	1	1				1					1		36					
01	subsoil	D		86			51	2	1	3	19	5	11	2		1				7		408	7			4	
302	cut	D																									
303	fill of 302	D		5		1	1				1		1									62					
304	deposit	D	sand	9			8				11	3	4	3	1	1					2	96	3			1	
305	pit cut	D	part of 309																								

Context	Description	Area	Notes	animal bone	Ag alloy	burnt clay	cbm	charcoal	clay pipe	Cu alloy	Fe	fired clay	flint	glass	human bone	ind waste	jet	lava stone	organic	Pb	complete pot	pottery	sample	shell	human skeleton	stone	wood
306	fill of 305	D		3									1									24	8			2	
307	cremation urn	D	greyware												1							1	1				
308	cremation urn	D	glass											10	1								6				
309	western furnace	D	group number																								
310	deposit	D	similar to 301, around 309				11				3		3									50		1			
311	eastern furnace	D	group number																								
312	deposit	D	similar to 301, around 311				4				1		5									15					
313	ditch cut	D																									
314	fill of 313	D		38			1				1	3										26	3				
315	cut for furnace	D	part of 309																								
316	furnace wall	D	part of 309								1																
317	deposit	D	part of 309				1																				
318	fill of 315	D	secondary fill				5			1												2	1				
319	deposit	D	part of 317																								
320	fill of 315	D	primary fill							1													3				
321	ditch cut	D																									
322	fill of 321	D				1	3						1									17	3				
323	ditch cut	D																									
324	fill of 323	D					5						1									13	2				
325	T-shaped furnace	D	part of 311																								
326	fill within 325	D	part of 311								1	3										2					
327	pit cut	D	part of 311																								
328	fill of 327	D	part of 311				1															2	3				
329	fill of 305	D	part of 309																								
330	tree bole	D											13														
331	deposit	D	silty sand				3																				
332	fill of 336	D																									

Context	Description	Area	Notes	animal bone	Ag alloy	burnt clay	cbm	charcoal	clay pipe	Cu alloy	Fe	fired clay	flint	glass	human bone	ind waste	jet	lava stone	organic	Pb	complete pot	pottery	sample	shell	human skeleton	stone	wood
333	fill of 392	D	secondary fill	3							1											16	2				
334	fill of 392	D	stone																								
335	fill of 336	D																									
336	robber trench cut	D	cuts 392																								
337	natural deposit	D	clay																								
338	natural deposit	D	sand																								
339	fill of 340	D		12							1											3	3			2	
340	pit cut	D																									
341	deposit	D	same as 304								3											5					
342	deposit	D	iron panning below 331 + 325																								
343	fill of 344	D	primary fill																								
344	ditch cut	D																									
345	fill of 344	D	redeposited natural																								
346	fill of 344	D	secondary fill																								
347	ditch cut	D																									
348	fill of 347	D																									
349	fill of 350	D									1																
350	ditch cut	D																									
351	deposit	D	below 301	1															2								
352	fill of 353	D		13			1						1			1						22	3			1	
353	ditch cut	D																									
354	ditch cut	D	same as 313																								
355	fill of 354	D	same as 314	3							2																
356	fill of 354	D	secondary fill																			8	1				
357	fill of 354	D	tertiary fill								5		1									5					
358	ditch cut	D	ditch terminus																								
359	fill of 358	D	primary fill																			3					

Context	Description	Area	Notes	animal bone	Ag alloy	burnt clay	cbm	charcoal	clay pipe	Cu alloy	Fe	fired clay	flint	glass	human bone	ind waste	jet	lava stone	organic	Pb	complete pot	pottery	sample	shell	human skeleton	stone	wood
360	fill of 358	D	secondary fill									1										3					
361	fill of 358	D	tertiary fill								1	3	4	1								20					
362	ditch cut	D																									
363	fill of 362	D																									
364	cut	D																									
365	fill of 364	D																									
366	deposit	D	below 322																								
367	natural	D	clay																								
368	ditch cut	D																									
369	fill of 368	D								1												4					
370	ditch cut	D																									
371	fill of ditch 370	D		12									2									9				1	
372	fill of 373	D																									
373	pit cut	D																									
374	fill of 375	D																									
375	posthole	D																									
376	ditch cut	D																									
377	fill of 376	D																									
378	fill of 379	D																									
379	ditch cut	D																									
380	pit cut	D																									
381	fill of 380	D											3									11					
382	ditch cut	D																									
383	fill of 382	D		73						1	1	1	5		1	1						103	4				
384	deposit	D	black silty sand	200			1				7		5			1						534	5			1	
385	fill of 382	D	primary fill	2																		6	3				
386	deposit	D	similar to 251													1						5					
387	fill of 390	D																				3	2				
388	pit cut	D	robber cut																								
389	fill of 388	D		15			2															11	2				

Context	Description	Area	Notes	animal bone	Ag alloy	burnt clay	cbm	charcoal	clay pipe	Cu alloy	Fe	fired clay	flint	glass	human bone	ind waste	jet	lava stone	organic	Pb	complete pot	pottery	sample	shell	human skeleton	stone	wood
390	pit cut	D	stone lined																								
391	fill of 390	D	primary fill	24																		4	4				
392	furnace cut	D	furnace below 309																								
393	fill of 394	D									10		3		1							16	13				
394	grave cut	D																									
395	deposit	D	surrounds 307																								
396	fill of 390	D	secondary fill																								
397	fill of 390	D	stone stepping	44																		3					
398	fill of 392	D	backfill	1																		15					
399	ditch cut	D																									
400	fill of 399	D		37							1			1								141					
401	ditch cut	D	same as 413																								
402	fill of 401	D	same as 414	51							1	1	1									47	3				
403	skeleton	D	within 394																			4			1		
404	ditch cut	D																									
405	fill of 404	D											1			4					1	13	3				
406	ditch cut	D																									
407	fill of 406	D		55									1									48	3				
408	furnace	D	group number																								
409		D																									
410	deposit	D	clayey sand below 301	1																		9					
411	fill of 430	D	sixth fill	3									4									76	4			1	
412	fill of 430-	D	seventh fill	23																		83					
413	ditch cut	D	same as 401																								
414	fill of 413	D	same as 402	9			2						6									31					
415	root bole	D																									
416	fill of 415	D									1		1										3				
417	fill of 413	D	primary fill	34																		44					
418	ditch cut	D																									

Context	Description	Area	Notes	animal bone	Ag alloy	burnt clay	cbm	charcoal	clay pipe	Cu alloy	Fe	fired clay	flint	glass	human bone	ind waste	jet	lava stone	organic	Pb	complete pot	pottery	sample	shell	human skeleton	stone	wood
419	fill of 418	D		3																		5					
420	pit cut	D	water collecting pond ?																								
421	deposit	D	below 384	87			3				2											91	3			1	
422	ditch cut	D																									
423	fill of 422	D																									
424	cut	D	cuts 379																								
425	fill of 424	D																									
426	ditch cut	D																									
427	fill of 426	D											1									14					
428	ditch cut	D																									
429	fill of 428	D																				8					
430	ditch cut	D	same as 406																								
431	fill of 430	D	fifth fill																			14					
432	fill of 430	D	tertiary fill										2									3	1				
433	fill of 430	D	secondary fill	6							1		1									24					
434	field drain cut	D	same as 493																								
435	fill of 434	D	same as 494	14																		9					
436	root bole	D																									
437	fill of 436	D		3																		5	3				
438	fill of 430	D	same as 468	3																		162	3				
439	ditch cut	D	same as 406/449																								
440	fill of 439	D		1														2				3					
441	fill of 420	D	group no. 593	34																		18					
442	ditch cut	D																									
443	fill of 442	D		14																		10					
444	fill of 390	D	primary fill																			6	3				
445	fill of 420	D	below 441	37																		7					
446	fill of 420	D	below 490	2																			6				
447	quern fragment in 397	D																								1	

Context	Description	Area	Notes	animal bone	Ag alloy	burnt clay	cbm	charcoal	clay pipe	Cu alloy	Fe	fired clay	flint	glass	human bone	ind waste	jet	lava stone	organic	Pb	complete pot	pottery	sample	shell	human skeleton	stone	wood
448	lens within 432	D	silt																								
449	ditch cut	D	same as 439																								
450	fill of 449	D	same as 440	4																		13					
451	oval cuut	D																									
452	fill of 451	D		6							1		2	1								20					
453	ditch cut	D																									
454	fill of 453	D	secondary fill	90			3				1		11	1								61				1	
455	grave cut	D																									
456	fill of 455	D		8									1		11							13	21				
457	skeleton	D	within 455																			1			1		
458	ditch cut	D																									
459	fill of 458	D	secondary fill	4																							
460	fill of 458	D	primary fill																								
461	ditch cut	D																									
462	fill of 461	D																									
463	fill of 430	D	secondary fill	13									1									84	3			2	
464	ditch cut	D	continuation of 506																								
465	fill of ditch 464	D		41						1												61	6				
466	fill of 453	D	primary fill	31																		32	2				
467	fill of 430	D	tertiary fill	21																		15	3				
468	fill of 430	D	primary fill																			13					
469		D																									
470	stone surface	D	group number																								
471	fill of 430	D	fourth fill																								
472	fill of 430	D	same as 431																								
473	deposit	D	over 470																								
474	ditch cut	D																									
475	fill of 474	D																				3					
476	ditch cut	D																									
477	fill of ditch 476	D		91			4			1			3									312	3				

Context	Description	Area	Notes	animal bone	Ag alloy	burnt clay	cbm	charcoal	clay pipe	Cu alloy	Fe	fired clay	flint	glass	human bone	ind waste	jet	lava stone	organic	Pb	complete pot	pottery	sample	shell	human skeleton	stone	wood
478	deposit	D		585							2		9							1		129	2			1	
479	ditch cut	D	continuation of 406																								
480	fill of 479	D	tertiary fill	24																		58					
481	fill of 479	D	secondary fill																								
482	fill of 479	D	primary fill	11																		12	3				
483	posthole	D																									
484	fill of 483	D																									
485	posthole	D																									
486	fill of 485	D																									
487	posthole	D																									
488	fill of 487	D																									
489	fill of 420	D																									
490	fill of 420	D																									
491		D																									
492		D																									
493	field drain cut	D	same as 434																								
494	fill of 493	D	same as 435																								
495	fill of 479	D	lens in 480							1																	
496	fill of 479	D	same as 481																								
497	grave cut	D																									
498	fill of 497	D		7								5			10							18	7				
499	skeleton	D	within 497																			1			1		
500	grave cut	D																									
501	fill of 500	D		1											18							6	35				
502	skeleton	D	within 500																						1		
503	fill of 504	D																									
504	posthole	D	cuts 430																								
505	deposit	D																									
506	ditch cut	D	continuation of 479																								
507	deposit	D	dumping layer, same as 547																								

Context	Description	Area	Notes	animal bone	Ag alloy	burnt clay	cbm	charcoal	clay pipe	Cu alloy	Fe	fired clay	flint	glass	human bone	ind waste	jet	lava stone	organic	Pb	complete pot	pottery	sample	shell	human skeleton	stone	wood
508	deposit	D	same as 539																								
509	pottery deposit	D	within 478	1																		38					
510	stone layer	D	within 511	2																							
511	ditch cut	D																									
512	fill of 511	D		12																		28	2				
513	deposit	D		1																		23					
514	ditch cut	D																									
515	fill of 514	D		2																		9					
516	ditch cut	D																									
517	fill of 516	D																									
518	tree bowl	D																									
519	fill of 518	D		17									1									2					
520	irregular cut	D																									
521	fill of 520	D																									
522	irregular cut	D																									
523	fill of 522	D																									
524	oval cut	D																									
525	fill of 524	D		12							17											10					
526	ditch cut	D																									
527	fill of 526	D																				1					
528		D																									
529	stone surface	D	same as 542																								
530	clay lens	D	within 542	10						1			1									1					
531	fill of 532	D											5										2				
532	pit cut	D																									
533	fill of 534	D																					2				
534	pit cut	D																									
535	gully cut	D																									
536	fill of 535	D																									
537	deposit	D	iron pan																								

Context	Description	Area	Notes	animal bone	Ag alloy	burnt clay	cbm	charcoal	clay pipe	Cu alloy	Fe	fired clay	flint	glass	human bone	ind waste	jet	lava stone	organic	Pb	complete pot	pottery	sample	shell	human skeleton	stone	wood
538	fill of 506	D															1										
539	fill of 506	D	tertiarty fill	83																		41					1
540	pit cut	D																									
541	fill of 540	D		2									1									5					
542	stone surface	D	same as 529	15							2																
543		D																									
544		D																									
545		D																									
546	fill of 520	D	same as 521	4			1															16					1
547	fill of 511	D	same as 512	25			2															12					
548	fill of 506	D		18																		23					
549	fill of 506	D		8																		16					1
550	fill of 506	D		83										1								11	3				
551	fill of 606	D	same as 583	2																		23					1
552	deposit	D																									
553	grave cut	D																									
554	fill of 553	D		82																		1	10				
555	deposit	D	above 542	16							4		7							1		21					
556	skeleton	D	within 553																						1		
557	ditch cut	D	same as 526																								
558	fill of 557	D	same as 527										1									15					
559	ditch cut	D	continuation of 464																								
560	fill of 559	D	below 579	13									1									29					
561	fill of 559	D																									
562	fill of 511	D	primary fill																								
563	fill of 606	D	primary fill	9																		13					
564	fill of 606	D																									
565	fill of 606	D																									
566	fill of 606	D																									
567	fill of 606	D																									

Context	Description	Area	Notes	animal bone	Ag alloy	burnt clay	cbm	charcoal	clay pipe	Cu alloy	Fe	fired clay	flint	glass	human bone	ind waste	jet	lava stone	organic	Pb	complete pot	pottery	sample	shell	human skeleton	stone	wood
568	fill of 589	D																									
569	fill of 589	D																									
570	fill of 606	D																									
571	fill of 587	D		18			1															14					
572	fill of 587	D	lens																								
573	fill of 587	D																									
574	fill of 506	D		26																		7					
575	posthole	D	below 480																								
576	fill of 575	D	secondary fill																								
577	fill of 575	D	primary fill																								
578	fill of 476	D		2																		9	2				
579	fill of 559	D	stone layer																								
580	deposit	D																									
581	fill of 420	D	course stone steps																							1	1
582	fill of 420	D	primary fill				1															3	2	5			
583	fill of 606	D	same as 551	23								1										12					
584	natural	D																									
585	natural	D																									
586	natural	D																									
587	pit cut	D																									
588	fill of 587	D																									
589	pit cut	D																									
590	pit cut	D																									
591	group number for 390	D																									
592	group number for 430	D																									
593	group number for pit 420	D																									
602	posthole	D																									
603	fill of 602	D																									
604	posthole	D	same as 575																								

Context	Description	Area	Notes	animal bone	Ag alloy	burnt clay	cbm	charcoal	clay pipe	Cu alloy	Fe	fired clay	flint	glass	human bone	ind waste	jet	lava stone	organic	Pb	complete pot	pottery	sample	shell	human skeleton	stone	wood
605	fill of 604	D	same as 577																								
606	ditch cut	D																									
607	fill of 606	D		26										1								10					
1000	unstratified from Area F	F					2															14					
1001	machine clearance	I	topsoil																			9					
1002	machine clearance	I					2															41					
1003	topsoil	I					2				3		1	1								46					
1004	ploughsoil	I																									
1005	natural	I																									
1100	cow skeleton	G	within 1102	117																							
1101	fill of 1102	G																									
1102	oval pit cut	G																									
1103	fill of 1104	G																									
1104	ditch cut	G																									
1105	fill of 1106	G																									
1106	ditch cut	G																									
1107	fill of 1108	G																									
1108	ditch cut	G																									
1109	deposit	G	road surface													1											
1110	pit cut	G																									
1111	fill of 1110																										
1112	deposit	G	below 1109																								
1113	deposit	G	associated with 1109																								
1114	deposit	G	associated with 1109																								
1115	fill of 116	G																									
1116	ditch cut	G																									
1117	ditch cut	G																									
1118	pottery spread	G																				43					

Context	Description	Area	Notes	animal bone	Ag alloy	burnt clay	cbm	charcoal	clay pipe	Cu alloy	Fe	fired clay	flint	glass	human bone	ind waste	jet	lava stone	organic	Pb	complete pot	pottery	sample	shell	human skeleton	stone	wood
1119	deposit	G	burnt mound																				4				
1120	deposit	G	burnt mound	16																			6				
1121	fill of 1122	G																					1				
1122	pit cut	G																									
1123	deposit	G	burnt mound																								
1124	pit cut	G																									
1125	fill of 1124	G																					3				
1126	deposit	G	burnt mound										1													1	
1127	fill of 1128	G																					3			1	
1128	pit cut	G																									
1129	fill of 1130	G																					2				
1130	pit cut	G																									
1131	fill of 1132	G																					3				
1132	pit cut	G																									
1133	pit cut	G																									
1134	fill of 1133	G																									
1135	gully cut	G																									
1136	fill of 1135	G																									
1137	posthole	G																									
1138	fill of 1137	G	secondary fill																								
1139	fill of 1137	G	primary fill																								
1140	deposit	G	burnt mound																			2					
1141	pit cut	G																									
1142	fill of 1141	G										1											1				
1143	fill of 1144	G																									
1144	pit cut	G																									
1145	deposit	G	part of 1119	7																		1					
1146	circular cut	G	within 1132																								
1147	fill of 1146	G																					2				

Context	Description	Area	Notes	animal bone	Ag alloy	burnt clay	cbm	charcoal	clay pipe	Cu alloy	Fe	fired clay	flint	glass	human bone	ind waste	jet	lava stone	organic	Pb	complete pot	pottery	sample	shell	human skeleton	stone	wood
1148	fill of 1124	G	primary deposit										1										4				
1149	deposit	G	below 1120																								
1150	fill of 1151	G																					3				
1151	pit cut	G																									
1152	fill of 1153	G																									
1153	pit cut	G																									
1154	natural hollow	G																									
1155	natural	G																									
2000	topsoil	H					8		1					1								12					
2001	natural	H																									
				2564	1	2	178	2	6	12	107	31	147	24	45	14	1	2	2	10	3	3915	275	8	5	22	5

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Appendix B

FLINT

P. Makey

1.0 INTRODUCTION

The flint assemblage comprises sixty three struck pieces of flint (Table B1), from thirty six different contexts. The distribution of these is given in Tables B2 & B3. A further eleven contexts produced only natural un-struck gravel flint. Altogether eighty eight pieces of natural were recovered.

The size of the assemblage is very small for the area and in no instance can any of the struck flint be considered to be contemporary with any of the features. There is no assemblage homogeneity. None of the pieces can be said to be contemporary. The ratio of cores and debitage to retouched implements is extremely low *c.*1:1.4. Retouched and utilised pieces account for nearly 43% (twenty seven pieces) of the material. This is a far higher ratio of retouched pieces than might be expected. Despite the high ratio of retouched pieces, the range of retouched pieces is rather restricted.

2.0 ASSEMBLAGE STATE

In crude terms the state of the material is poor. At least thirty four pieces (54%) have been rolled and are clearly in residual contexts such as graves and ditch fills. These pieces are from re-worked deposits. Some twelve pieces (20%) have moderate degree of edge damage, fine examples of this being a flake from pit 309 and a flake from pit 380. Only seven of the pieces (11%) are in a very fresh state. Three of these came from ditch 358, and three from layer 220. Layer 220 also contained two pieces in a moderate state of preservation.

Despite the predominately residual contexts the assemblage exhibits a surprisingly low degree of breakage. Only seven pieces (11%) have been subjected to breakage. The incidence and degree does not appear to show any spatial or chronological patterning. At least fifteen pieces (23%) have been subjected to varying degrees of plough damage.

3.0 TRAITS

Patina
Twenty-six pieces (41%) exhibit traces of patination. The colour varies from light grey to creamy white in colour. A densely covered grey patina is the most common. The incidence of the trait appears to be evenly distributed. Due to the nature of the assemblage the degree of patination is surprisingly low.

Burning
Traces of light to moderate burning are present on four (6%) of the pieces. All are from area D, but there is no clear spatial patterning of this trait.

Use wear
Macroscopic traces of moderate to very heavy use wear is evident on sixteen of the pieces, fourteen of which are retouched. Most of the scrapers have been heavily used. The scraper fragment from ditch 382 probably represents a breakage that has been initiated due to utilisation. Micro-wear may be present on two pieces.

4.0 REDUCTION SEQUENCE AND RAW MATERIAL TECHNOLOGY

It is notable that the assemblage does not contain any cores. A core rejuvenation flake was recovered from ditch 358 but this is a crude example. Most of the knapping appears to have been by the application of hard hammers. A high proportion of the material (thirty-six pieces, 57%) is from tertiary (final) stages of knapping. The remaining pieces are nearly all from later secondary stages of knapping. It appears as though the majority of flint knapping was being conducted away from the area of the site. Although some raw material may have been obtained from the local area.

The quality of the knapping tends to be poor, with the exception of the blades and bladelets. Though the mixed period nature of the assemblage complicates considerations of knapping techniques. A wide variety of flints have been used. At least three are from chalk; fluviatile gravel was the raw material source for eight to ten pieces. Till and gravel till was used for the manufacture of between fifty and fifty two pieces. In many cases (seventeen instances) the flint is of poor quality, bordering on being classified as chert. There are five main colour groupings, light grey, olive, olive brown, yellowish orange and reddish brown. The cherty material tends to be reddish brown to orange in colour. It is notable that the high quality dark olive Wolds till flint has been used for the manufacture of many of the edge retouched flakes and blades. This material may have been imported.

The wide range of natural, un-struck pieces was recovered and this does contain some chert contain some pieces of chert. It may be of note that a double end and side scraper (record 6) was recovered from Area B, subsoil 101. Within the deposit there was a spread of natural flint gravel of similar type to that on which the implement was manufactured.

In at least five instances natural rolled flint gravel was selected for retouching. For example, ditch 430 (context 432) produced a miscellaneously retouched flake; the fill of grave 394 produced a crude piercer and ditch 358 produced an edge-retouched flake. The prehistoric procurement of quality, raw material was probably difficult. In some cases old broken flakes were re-used. An example of this was a miscellaneously retouched flake (record 114) from ditch 453. Extensive re-working of prehistoric deposits has occurred. Some pieces have been manufactured on rolled pieces that have subsequently been re-rolled. This re-working may be due to water action.

5.0 DISTRIBUTION

Nearly 78% of the struck pieces come from Area D. Other than this there is no clear pattern to the distribution. If there is any focus for the prehistoric lithic activity, Area C, layer 220 is probably the most significant context.

Area A	Topsoil	= 2 pieces	
Area B	Subsoil	= 1 piece	A double end and side scraper
Area C		= 8 pieces	7 from layer 220 plus a flake from ditch 221.
Area D		= 49 pieces	Various contexts.
Area G		= 3 pieces	Various contexts.

6.0 CHRONOLOGY

The assemblage encompasses Mesolithic, Neolithic and early Bronze Age material. There is probably a slightly larger Beaker component in the assemblage. There does not appear to be any correlation between date and distribution. The knife fragment, piercer and notched flakes

are probably of early Bronze Age date. The scrapers encompass all periods. Some of the blades are probably later Mesolithic to early Neolithic in date.

7.0 THE REGIONAL SIGNIFICANCE

The assemblage potential for further study is limited due to its multi-period nature and small size.

The assemblage is of no great archaeological significance except for the aspect of prehistoric raw material procurement, although the procurement of raw material in the Vale of York is a subject that needs further study. The occurrence of natural flint is significant. There may be a localised deposit of flinty gravel associated with the York Moraine.

On the basis of the raw material one might expect lithic scatters near the area of the pipeline, though the excavations have produced no evidence. The use of non-local flint is a significant factor.

The assemblage is representative of a typical regional background scatter in an area away from the focus of prehistoric settlement. The material probably relates to casual losses. The flint assemblage is probably the by-product of a non-flint specific prehistoric activity or activities.

8.0 THE MAIN POINTS OF THE ASSEMBLAGE

The assemblage is small and residual.

The assemblage contains a relatively high proportion of retouched pieces.

The assemblage is a multi-period admixture of later Mesolithic, Neolithic and early Bronze Age material. Possibly containing a Beaker element.

The assemblage is domestic in nature, but does not relate to settlement. If there is a focus it is probably in the area of deposit 220.

The assemblage material is probably the result of casual loss.

None of the features can be related to the lithic assemblage.

There is no clear on-site evidence for knapping, though some flint was brought into the area.

A wide range of raw material was employed.

9.0 RECOMMENDATIONS

Further work should be done to examine whether there is any connection between raw material selection and archaeological period.

10.0 ILLUSTRATION

Three of the scrapers and the notched flake should be illustrated for inclusion within the site publication report.

Table B1: The Total Assemblage

FLINT ID	TOTAL	NUMBER BROKEN
Debitage		
Chunks & chippings	4	1
Flakes & spalls	28	2
Blades & bladelets	4	1
CORES		
Core rejuvenation flakes	1	0
Utilised		
Utilised chunks	1	0
Edge utilised flakes	2	1
Edge utilised blades	1	0
Retouched		
Edge retouched flakes	7	0
Misc retouched flakes	6	0
Indeterminate retouched	1	1
Scrapers:- End	1	0
Double end & side	1	0
Side & end	2	1
Knives	1	0
Piercers	1	0
Notches	2	0
TOTALS	**63**	**7**

Table B2: The Flint Assemblage From Features

FIINT ID	Total	Broken	FEATURE CONTEXTS																			
			Ditch 221	Ditch 321	Ditch 354	Ditch 358	Ditch 370	Ditch 382	Ditch 401	Ditch 404	Ditch 413	Ditch 426	Ditch 430	Ditch 453	Pit 309	Pit 380	Pit 540	Pit 1124	Grave 394	Grave 455	Oval Cut 451	Drain 302
Debitage																						
Chunks Chippings	**4**	**1**									**1**	**1**		**1**						**1**		
Flakes & spalls	**13**	**0**	**1**		**1**		**1**		**1**		**1**				**1**	**1**	**1**	**1**	**2**		**2**	
Blades - bladelets	**3**	**2**				**2**				**1**												
Cores																						
Core Rejuvenation	**1**	**0**				**1**																
Utilised																						
Utilised Chunks	**1**	**0**												**1**								
Utilised flakes	**0**	**0**																				
Utilised blades	**0**	**0**																				
Retouched																						
Edge ret flakes	**3**	**0**		**1**		**1**		**1**														
Misc ret flakes	**3**	**0**											**1**	**1**								**1**
Indeterminate ret	**0**	**0**																				
Scrapers	**2**	**1**						**1**			**1**											
Knives	**0**	**0**																				
Piercers	**1**	**0**																	**1**			
Notches	**0**	**0**																				
Total = 31	**4**	**1**	**1**	**1**	**4**	**1**	**2**	**1**	**1**	**3**	**1**	**1**	**3**	**1**	**1**	**1**	**1**	**3**	**1**	**2**	**1**	

Table B3: The Flint Assemblage From Deposits & Natural Contexts

Flint ID	Total	Broken	DEPOSITS & NATURAL CONTEXTS															
			Deposit 220	Deposit 301	Deposit 304	Deposit 310	Deposit 312	Deposit 384	Deposit 478	Deposit 530	Deposit 555	501?	Topsoil 01	Topsoil 03	Topsoil 1003	Topsoil 1126	Subsoil 1001	Tree-Bole 518
DEBITAGE																		
Chunks Chippings	**0**	**0**																
Flakes & Spalls	**15**	**1**	**4**	**4**			**1**	**1**				**3**		**1**				**1**
Blades - Bladelets	**1**	**0**							**1**									
CORES																		
Core Rejuvenation	**0**	**0**																
UTILISED																		
Utilised Chunks	**0**	**0**																
Utilised Flakes	**2**	**1**			**2**													
Utilised Blades	**1**	**0**											**1**					
RETOUCHED																		
Edge Ret Flakes	**4**	**0**	**1**					**1**			**1**				**1**			
Misc Ret Flakes	**3**	**0**		**1**				**1**		**1**								
Indeterminate Ret	**1**	**1**														**1**		
Scrapers	**2**	**0**			**1**												**1**	
Knives	**1**	**0**	**1**															
Piercers	**0**	**0**																
Notches	**2**	**0**	**1**		**1**													
Total = 32	**3**	**7**	**5**	**2**	**2**	**1**	**3**	**1**	**1**	**1**	**3**	**1**	**1**	**1**	**1**	**1**	**1**	

Appendix C

PREHISTORIC POTTERY

Blaise Vyner

1.0 INTRODUCTION

A total of two sherds of prehistoric ceramic material weighing 60g were recovered from the excavations of a burnt mound (Site G) at Stamford Bridge. Both sherds were undecorated and in terms of their fabric appear to be Bronze Age in date.

2.0 BASIC FABRIC DATA

Context 1140

Sherd 1
Jar, body sherd, mid-brown exterior surface, brown-grey interior surface, fabric core dark grey merging to surface colours. Sparse small and medium sized angular mixed igneous and sandstone grits, occasional small angular cavities from which the calcitic grits have leached. A fragment of shell(?) is visible in the break. The wall thickness is typically 13mm. No decoration is present.

Sherd 2
Jar, body sherd, buff-brown exterior surface, dark grey interior surface, fabric core varying between the surface colours and displaying some lamination. Numerous small and medium sized angular quartzitic grits. Wall thickness is typically 14mm. No decoration visible as the exterior surface is spalling.

3.0 DISCUSSION

Sherd 1
This sherd is of uncertain date, but the fairly soft fabric combined with the thickness of the wall suggests a Bronze Age rather than Iron Age date

Sherd 2
Whilst this fabric could belong to the pre-Roman Iron Age, the wall thickness and association with the above sherd suggests it, too, might be Bronze Age. If so the plain nature of both vessels would suggest a date in the later Bronze Age.

4.0 RECOMENDATIONS

No further work is recommended on the analysis of the two sherds. However both should be illustrated and included within the publication of selected assemblages within the final site report.

Appendix D

POTTERY

Peter Didsbury

1.0 INTRODUCTION AND METHODOLOGY

A total of 4027 sherds of pottery and other ceramic, weighing 68190g, and having an average sherd weight (ASW) of 16.9g, were recovered from the excavations. Material was quantified by the two measures of sherd count and sherd weight, according to fabric or material category within archaeological context. Data was entered onto an Access database, which is supplied as an integral part of this report and which should be consulted on matters of detail where appropriate. In particular, the database often contains more detailed information on published parallels than the main report text. It is advised that the database should be included in any hard-copy version of the report which may be produced. Fabric and other codes employed in the database are set out in an appendix, below.

2.0 FABRICS AND BASIC CERAMIC DATA

Roman material was designated by a combination of generic and more specific fabric codes (*e.g.* RG = greyware, RG1 = Crambeck greyware). These codes appear in the 'Fabric' column of the database. Post-Roman material is designated as 'medieval', 'post-medieval' or 'modern' in the 'Fabric column', but more specific codes for the constituent fabrics are employed in the 'remarks' column (see Appendix).

There were 2 sherds of Bronze Age pottery (60g), and 209 sherds of medieval and modern pottery (1857g). There were also fourteen fragments of fired clay and ceramic building material (190g). The remaining pottery, amounting to between 94.4% and 96.9% of the entire site assemblage, according to measure of quantification, was of Roman date. The proportional distribution of the main fabric categories within Roman assemblage is given in Table D1, below:

Table D1. Fabric distribution within the whole site Roman assemblage

Fabric	% sherds (n = 3802)	% weight (n = 66083g)
Black Burnished and -type	1.1	1.0
Butt beaker?	0.03	0.2
Dales-type	0.4	0.5
Dalesware?	0.03	0.02
Ebor red-painted ware	0.03	0.02
Amphorae	5.7	19.0
Colour-coated	1.6	0.5
Fine greyware	0.2	0.1
Greyware	49.9	45.5
Rusticated ware	0.1	0.1
Crambeck greyware	1.0	1.5
Mortaria	0.8	6.1
Oxidised wares	10.9	6.6
Samian	2.6	1.2

Fabric	% sherds	% weight
	(n = 3802)	(n = 66083g)
Vesicular	24.9	17.3
Whitewares	0.6	0.3
Unattributed Roman	0.1	0.1
TOTALS	100.0	100.0

3.0 THE SCOPE OF THE REPORT

The report addresses 'Management of Archaeological Projects Two' requirements, in assessing the amounts, types and chronological range of the material present, together with its potential for further research. Detailed attention has been given to chronology of the main elements of site phasing, though questions of taphonomy have been beyond its present scope. The main site elements are discussed as arranged in the interim excavation summary provided to specialists. It should be noted that this does not deal with all contexts. For assemblages not mentioned in the text, the reader is referred to the detail of the database, and to a feature-by-feature spot-dating list which has been provided for the archive. The dating conclusions presented here are interim, and have the potential to be refined both by specialist examination of the samian, mortaria and amphorae, and further research into the coarse pottery. It may be noted that the assessment has been undertaken without the benefit of small-finds information.

4.0 THE ASSEMBLAGES: DISCUSSION

4.1 Area C *(contexts 200-228)*

Pottery was recovered from topsoil 200, deposit 220 and fill 225 of ditch 220.

Topsoil (200) yielded eighteen sherds of pottery (ASW 13.2g). The largest and latest material was a sherd of nineteenth-century coarseware. A further five sherds were mediaeval, perhaps with a 14th- to 15th-century date-range. The remaining sherds were Roman, comprising grey and oxidised wares, amphora and samian. The earliest material in this component is probably of 2nd century date, but the full date-range has not been established.

Deposit 220, which lies over 219 (described as the slope of the original marsh) contained eighteen sherds (ASW 7.6g), all of Romano-British date, comprising grey and oxidised wares, amphora and vesicular scrap. The only chronologically diagnostic ware is a greyware bowl, the triangular rim of which suggests a late 2nd to earlier 3rd century (Severan) date.

Context 225, the sixth and uppermost fill of ditch 221, contained two large sherds of 14th or 15th century Humberware (ASW 24.0g) and a single small fragment of Romano-British vesicular ware (4.0g).

It will be noted that the evidential value of the Area C material is limited.

4.2 Area D

4.2.1 *The curvilinear ditches*

Curvilinear ditches 368, 358 and 370 are distinguished in terms of morphology and orientation from the linear ditches on the site.

Ditch 368 was aceramic.

Ditch 358 produced an aggregated assemblage of twenty-seven sherds (ASW 14.0g) from primary, secondary and tertiary fills 359, 360 and 361, consisting of grey and oxidised wares, amphora, a mortarium, Black Burnished Ware (hereafter BB) and flakes of ceramic building material (hereafter CBM). The fills cannot chronologically be distinguished and are therefore treated as a whole. A BB jar body with acute-angled lattice should be of 2nd or earlier 3rd century date, perhaps no later than *c.*AD 230. Similar decoration appears among the otherwise undistinguished greyware body sherds, and a possible outbent rim from a greyware dish/bowl is likely to be broadly contemporary. Body fragments of a light-coloured mortarium with mixed dark and white trituration have the potential to refine the dating of this ditch group after specialist opinion is obtained.

Single fill 371 of ditch 370 contained nine sherds (ASW 37.0g), consisting of two large amphora bodies, two scraps of greyware, and four large sherds from a single oxidised vessel. Approximately one third of the rim circuit and two thirds of the vessel profile are represented. The vessel is identified as a campanulate bowl, cf. Gillam Type 212 (AD 160-200).

The available evidence suggests a *terminus post quem* (hereafter TPQ) for deposition into these ditches in the second half of the 2nd century, perhaps into the earlier 3rd. They may thus belong to an earlier phase of site activity than the main group of linear ditches, where the pottery in the fills appears largely to be of later 3rd to mid 4th century date (see below)

Hollow way 362, associated with the above ditches, contained no pottery.

4.2.2 *The main linear ditches*

Pottery was recovered from ditches 323, 353, 382, 404, 428, 442, 453, 464, 506, and 559. These are summarised individually below, each entry giving the fill number(s), number of sherds, ASW, fabrics present (utilising database fabric codes), and selected dating or other information. The database may be consulted for further details. The dating evidence for this group of features as a whole is then summarised.

Ditch 323, fill 324. fourteen sherds, ASW 5.7g. RG, RG1(?), RO, RV, RW. The RG1(?) is a simple rim dish with external groove, and is almost certainly Crambeck greyware, though discoloured. The Crambeck industry was in operation from *c.*AD 270/280, though it took some time to be distributed outside its immediate production area, and a 4th century date is perhaps therefore more likely. The RFW is probably part of a hemispherical flanged bowl, also made at Crambeck among other centre.

Ditch 353, fill 352. Twenty sherds, ASW 6.2g. RA?, RCC, RG, RO, RS, RV. The evidential value of this largely scrap assemblage is severely constrained. A one-gram fragment of probable Nene Valley colour-coated beaker would imply a TPQ in the late 2nd to early 3rd century at the earliest.

Ditch 382, fills 385 (primary) and 383. The primary fill contained eight sherds of RV, from two vessels. These included the rim of a Knapton-type jar. Such jars are considered to be typical of mid 3rd century assemblages at York (Monaghan 1997, 985), though their overall date-range in the region is probably from the late 2nd to the early 4th. Secondary fill 383 contained 102 sherds, ASW 10.1g, in fabrics CBM, RG, RG1, RO, RS, RV and RW. The presence of Crambeck greyware may once again be noted. The largest component (sixty sherds) consists of greywares. Dark-faced red-cored fabrics suggest some that some 3rd century, perhaps early 3rd century, material is present, but these sherds display a high degree of brokenness. The largest and most diagnostic sherds appear to be East Yorkshire Greywares of Holme-On-Spalding-Moor type (hereafter HOSM). These include a dish with heavy bead

rim (cf. HOSM form B6, but still with basal chamfer); and a wide-mouthed bowl cf. HOSM B2 forms (form series *sensu* Creighton 1999). These wares are of later 3rd or 4th century date.

Ditch 404, fill 405. thirteen sherds, ASW 8.2g. RG, RG(RUS), RO, RS, RV. Again, this is an assemblage composed largely of scrap body sherds. The presence of a sherd of rusticated ware is of interest in suggesting site-activity at some level in the Flavian to Hadrianic or very early Antonine period (*c.*AD 70-130/150).

Ditch 428, fill 429. Eight sherds, ASW 3.5g. RG, RO, entirely scrap.

Ditch 442, fill 443. Nine sherds, ASW 7.0g. RG, RV, entirely scrap.

Ditch 453, fills 466 (primary) and 454 (secondary). The primary fill had thirty-two sherds, ASW 7.7g. Fabrics CBM, RA, RG, RG1, RO, RV. The latest material is once again Crambeck greyware. The other greywares consist mainly of bodies/scrap, but include a sherd with stab decoration on an applied encircling strip, cf. 4th century material from Messingham (Rigby and Stead 1976), and a wide-mouthed bowl rim in HOSM fabric, cf. HOSM type B1. The secondary fill contained sixty sherds, ASW 13.0g. RA, RCC, RG, RO, RS, RV. There is little of diagnostic value, though the presence of a greyware simple rim dish, of a kind particularly popular in the third and fourth centuries, may be noted.

Ditch 464, fill 465. Sixty-one sherds, ASW 12.7g. RG, RG1, RO, RS, RV, RW. The presence of Crambeck greyware bodies implies a late 3rd or 4th century date for the latest material. A Knapton-type jar rim may be contemporary. The greywares could all be of 3rd century date, and an oxidised form 37 bowl imitation in Ebor-type fabric is comparable with York form BH1, *c.*AD 120-200. (York form series *sensu* Monaghan 1997).

Ditch 506 had fills 539, 548, 549, 550 and 574. The aggregate assemblage amounted to ninety-six sherds, ASW 15.4g. Fabrics FC, RA, RCC. The latest material is a Crambeck greyware straight-sided flanged bowl from 574 (Corder 1937, Type 1). Crambeck greyware is also possibly present in 539 and 548. 2nd century material is recognised under the shape of a shallow dish with rim thickened both internally and externally, from 550. A whiteware shouldered bowl from 539 may also be early, but needs further research.

Ditch 559 yielded pottery from fills 560 and 578. Fill 560 contained thirty sherds, ASW 8.5g. RG, RO, RV. There is nothing chronologically diagnostic, though the RV includes sherds which may be from a 3rd or earlier 4th century Dalesware or Knapton jar. Fill 578 contained nine large sherds, ASW 49.9g. DT, RG, RV. The Dales-type jar in a coarse gritty greyware is of later 3rd or earlier 4th century date and the greyware includes a large sherd from a HOSM wide-mouthed bowl, cf. HOSM Type B2 series, which is certainly broadly contemporary.

Despite the low quality and low ASW of these ditch assemblages, it seems clear that their latest contents belong to a later 3rd or earlier 4th century phase of site activity. Several assemblages are above the 'Crambeck horizon', and Holme-On-Spalding-Moor greywares are also very evident. Other chronologically associated types are Knapton and Dales-type jars. It may be noted that no types indicative of the second half of the 4th century, e.g. Huntcliff jars and painted Crambeck and late Crambeck greyware types, were present. 2nd century material occurs in some contexts, as might be expected, and the presence of a sherd of rusticated ware is of interest in relation to site chronology as a whole. It must be remembered that the evidence above provides a TPQ for deposition into the ditches, and can shed no light upon the date at which they were dug.

4.2.3 Pit 390 and furnaces

Pit 390 contained fills 391 and 444, and stone stepping 397. These contexts produced an aggregated assemblage of fifteen sherds, ASW 126.3g. This high value reflects the presence of a two-thirds complete mortarium weighing 1442g. If this is excluded, the remaining sherds have an ASW of 37.8g. Fabrics present were RA, RG, RO, RS, RV. Diagnostic material would appear to suggest dates in the 2nd century. This includes the base of a probable samian 18/31R from fill 387 (first half of the 2nd century); the rim of a probable Antonine carinated jar from 397; and the mortarium already referred to. This was found in fill 387 and consists of three joining sherds, representing some three quarters of the rim circuit and the complete profile. The vessel is a 'bead and flange' type close to Gillam Type 246 (AD 120-60), though the fabric is not the same. The vessel is in a sandy orange-red ware with multi-coloured grits, including grey, white and black stone and possible orange-red grog (tile or pot).

The pit was cut by furnace cut 392, which has secondary fill 333 and backfill 398. Fill 333 contained a single sherd of greyware and seventeen sherds of oxidised ware, from an estimated three vessels. ASW of the assemblage was 11.1g. One of the oxidised vessels has combed wavy line decoration. Very similar decoration occurs on form J.3.1 in a reduced fabric at Catterick (Evans *et al* 2002), where the form appears to be restricted to Phases 7 and 7-8 (AD 200/220-75 and possibly into 275-350). Sherds of the same vessel are probably present in backfill 398 of this feature, and possibly also in fill 433 of ditch 430. Backfill 398 contained a single sherd of amphora and fourteen of oxidised ware, including the inter-contextual join noted above. ASW was low, at 5.3g.

Furnace cut 392 was overlain by furnace 309 (group number), which contained pottery in secondary fill 318 of cut 315. This comprised a single sherd of greyware and two of amphora, with an ASW of 24.0g. The greyware sherd is from a jar shoulder, thin-walled, with a girth groove and two cursive intersecting wavy lines. It is reminiscent of Dragonby barrel jars and other vessels (May 1996, *e.g.* nos 832, 833, 868, 1000 etc.). At Dragonby the decoration seems to be restricted to the 2nd and perhaps earlier 3rd century. If furnace 392 has been correctly dated, then this sherd must be residual. Further research is needed on both this sherd and the combed oxidised wares from 392.

Unrelated furnace 311, in a different enclosure, produced pottery from fill 326. This consisted of single undiagnostic sherds of grey and oxidised ware (18g and 1g respectively).

It seems clear that the material from pit 390 is of 2nd century date. The dating of the furnaces is ambiguous at present, and has not been resolved.

4.2.4 *Enclosures and other features to the east of pit 390*

A group of enclosure ditches was situated some 100m to the east of pit 390 and the furnaces. Pottery was recovered from ditches 399, 401, 406, 418, 439, 476, 479 and 606. These are summarised individually below, each entry giving the fill number(s), number of sherds, ASW, fabrics present (utilising database fabric codes), and selected dating or other information. The database may be consulted for further details. The dating evidence for this group of features as a whole is then summarised.

Ditch 399, fill 400. The largest component was 114 amphora sherds, weighing 4472g. The majority of these probably derive from a single Dressel 20, but there is at least one other vessel present, in a different fabric. The remainder of the assemblage consisted of twenty seven sherds, ASW 8.8g, in fabrics RCC, RG, RO and RS. Chronologically diagnostic material is all of later 2nd to early 3rd century date, viz. colour-coated beakers cf. York forms KB1 and KB3 (AD 160-200/225); late 2nd century beaker sherds with clay particle roughcast; and an oxidised small jar/beaker cf. York form JB2 (AD 160-225+).

Ditch 401, fill 402. Fourty-seven sherds, ASW 14.7g. Fabrics RA, RG, RG1(?), RO, RS, RV. The greyware is mainly body sherds, but includes a jar rim approximating to Gillam Type 133 (AD 160-220), and a bowl in hard dense dark greyware, cf. York form BT1 (Throlam-type bowl, at York post AD 225 to 360, less common AD 360-410). The oxidised wares include a flagon rim and neck with short square-cut outbent rim, and handle stump. The profile is that of the unhandled flask York form FF, no. 3751, dated as possibly 200-360. The latest material in this ditch group must be dated *c.* AD 225-360. If the possible Crambeck greyware is correctly attributed, then a date after *c.*AD 270/280, and probably in the first half of the four4th century, is indicated. The presence of material broadly contemporary with that in ditch 399 should, however, be noted.

Ditch 406, fill 407. Fourty-eight sherds, ASW 13.3g. Fabrics RCC, RG, RG(RUS), RG1, RM, RO, RS, RV. The latest diagnostic material in this rather scrappy assemblage is a Crambeck greyware Type 1 bowl, and the earliest a sherd of rusticated ware. The database should be consulted for further details.

Ditch 418, fill 419. Five sherds, ASW 14.8g. RG, RO, RV. Parallels for a large distinctive greyware jar rim have not yet been found. A short vesicular jar rim may just be within the Knapton range, in which case a 3rd century TPQ for the assemblage may be postulated.

Ditch 439, fill 440. Three sherds, ASW 9.0g. RG, RO. The only diagnostic material is the rim of an imitation form 37, probably in an Ebor oxidised ware, York form BH1, dated *c.* AD 120-200.

Ditch 476, fill 477. 313 sherds, ASW 19.1g. RG, RG1, RM, RO, RS, RV, RW. This large group is a convincing late assemblage, probably closing in the first half of the 4th century, though the greywares include a small amount of 2nd century material in addition to a majority of HOSM-type greywares. The Crambeck greyware includes two straight-sided flanged bowls, a dish, and a jar. A mortarium cf. Gillam Type 278 (*c.*AD 210-320) and three Knapton jars also occur. The database may be consulted for fuller details.

Ditch 479, fills 482 (primary) and 480 (tertiary). The primary fill contained eleven sherds, ASW 28.0g. Most were body and base sherds from greyware jars, in fabrics of a general 2nd century appearance. Two sherds were of Black Burnished-type ware, one of them from a bowl cf. York form DG1, dated *c.*AD 140-80. The tertiary fill contained fifty-seven sherds, ASW 14.9g. A large greyware component once again seems to be at least partly of 2nd century date. The latest material, however, is Crambeck greyware dishes and bowls. The database may be consulted for further details.

Ditch 606, fills 563 (primary) and 583 and 607. The sixth fill contained thirteen sherds, ASW 15.6g. Five greyware bodies were undiagnostic, but the remaining sherds were all part of a Black Burnished dish, cf. Gillam Type 311 (AD 150-210). The same vessel has joins in contexts 551and 571 (the fill of pit 587). The remaining fills had an aggregate assemblage of twenty-one sherds, ASW 18.4g. Fabrics RG, RG1, RS, RV. Apart from a flake of residual samian, this is a consistently late group, with Crambeck and HOSM greywares and a 'proto-Huntcliff' jar, cf. early to mid 4th century types from the lower and intermediate well deposits at Rudston Villa, *e.g.* Rigby 1980, illus. no. 247.

The majority of the above ditches would appear to have closed in the later 3rd to mid 4th century, like the previous ditch groups discussed above. Unlike the previous group, however, most of them contain clear 2nd century components, sometimes convincingly in primary fills. It may be that this series was dug earlier, or, perhaps more probably, the apparent difference may reflect the better quality of the evidence.

The above ditches 'terminated within' a large east to west oriented ditch, 506/464/559, already discussed.

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Deep oval pit 420, within one of the enclosures, was surrounded by stone surface (530/542/570). Assemblages from these features are discussed below.

The primary fill (582) of the pit contained three sherds, ASW 10.0g. Two of the sherds were undiagnostic greyware bodies, the third samian.

The fourth fill (445) contained seven large sherds, ASW 67.9g. Fabrics RA, RG, RO. The latest material is a later 3rd or 4th century pedestal base from a HOSM vessel, perhaps in the range Type 3-5. The dates of the oxidised ware and amphora are uncertain.

The fifth fill (441) contained eighteen sherds, ASW 45.6g. Fabrics DT, RA, RG, RG1, RO, RS, RV. Once again, this is a convincingly late group, containing HOSM-type greywares, a sherd from a probable Dales-type jar, and ending above the Crambeck horizon.

The material from the primary fill yields only a TPQ in the samian importation period. The upper fills suggest depositional activity in the late 3rd to mid 4th century,

The pond was surrounded by compacted stone surface (530/542/529). The only ceramic material recovered was a single mortarium body sherd (20g) from clay lens (530), within (542). This was in a harsh red fabric with clear stone grits. It is not dated in advance of specialist examination.

4.2.5 *Inhumations and a cremation*

Inhumations are referred to by their cut numbers below.

Inhumation 394. Pottery was recorded under the fill number (393) and the skeleton number (403 AA). The fill contained fifteen sherds of RG and RV, ASW 2.5g. The most that can be said of this scrap assemblage is that the fabrics are suggestive of a 2nd century date. With the skeleton were associated four sherds (191g) of a lid or base in oxidised ware. This has not been dated, though a 2nd or earlier 3rd century date seems likely on fabric grounds.

Inhumation 455. Pottery was recorded under both cut and fill (456) numbers. There were twelve sherds, ASW 4.4g. Fabrics BB?, CBM, RCC, RG, RS. The presence of probable Nene Valley wares suggests a likely late second-century TPQ for this scrap assemblage.

Inhumation 497. Pottery was recorded under both cut and fill (498) numbers. There were fifteen sherds, ASW 9.0g. Fabrics RG, RSV, RO. There is little diagnostic. The greywares may include a sherd from a 2nd century carinated jar and a 3rd century Dales-type jar.

Inhumation 500. Pottery was recorded under the fill number (501). There were six sherds, ASW 3.2g. Fabrics FC (daub?), RG, RM, RV. The only relatively diagnostic sherd is a mortarium body in a light fabric with black grits. This may or may not be a Crambeck product, but the trituration is in any case suggestive of a later 3rd or 4th century date.

Inhumation 553. Pottery was recorded under the fill number (554). It consisted of a single one-gram fragment of red colour-coated ware, probably Nene Valley, with a dark brown colour coat. A TPQ in the late 2nd century is suggested.

The dating evidence from the inhumations is severely limited.

Cremation urn 307 AA was a near complete vessel consisting of five sherds, weighing 957g. Unfortunately, the rim was entirely missing. The vessel is a greyware jar of almost biconical shape, having a groove at the neck and two girth grooves below, the lower at the point of maximum girth. The lower of the two zones thus demarcated has decoration of lightly burnished four-line chevrons. The vessel has a turned base, without evidence of removal from the wheel. The fabric is a pale greyware containing common chalk.

A close parallel for this vessel has not been found in initial literature search in any of the major, or several of the minor, published pottery assemblages from the region. The biconical shape with grooved zones is reminiscent of a vessel from Brough found in a late 3rd century context (Wacher 1969, illus. no.320), though the zonal arrangement of the decoration is also employed on 2nd century Dragonby-type barrel jars. Multiple-line chevrons are a decorative device, which is quite chronologically widespread. It occurs for example, with incised lines, on a possible 2nd century vessel from Brough (Wacher 1969, illus. no. 531). In terms of decoration, the nearest parallel, so far located is perhaps a flagon from the Little London kilns (Oswald 1937, vessel 9A), which employs a very similar scheme. The Little London production period is now thought to be the first half of the 3rd century (Samuels, n.d.). It may also be noted that multiple-line burnishing is a decorative fashion that appears in broad terms to mark the beginning of the third century in the region, *e.g.* at Winterton villa.

A 3rd century (perhaps early 3rd century) date is therefore proposed for this vessel, in advance of further research.

4.2.6 *Deposit (301)*

This pottery-rich deposit contained 394 sherds, weighing 8290g and having an ASW of 21.0g. This is equivalent to 9.8 – 12.2% of the whole site assemblage, according to measure of quantification adopted. As might be expected, the pottery has a wide chronological range. The earliest material is an applied jar handle in vesicular ware, which could be as early as the closing stages of the Iron Age. In advance of specialist identifications of samian and mortaria, the earliest Romano-British material would appear to be a mortarium of probable Hadrianic to mid Antonine date (*c.* AD 120-60). 3rd century input into the deposit seems particularly strong, with examples of colour-coated indented and indented 'scale' beakers (York forms KF1 and KF2, *c.* AD 225-80), and a number of greyware dishes and bowls of a Severan complexion. The latest Roman material, post-dating *c.* AD 355, is a Huntcliff bowl, the only vessel in this ware from the entire site. Finally, there are one or two sherds of post-medieval material, the latest being of 19th century date. Full details of the assemblage may be consulted in the database.

4.3 Area G

Pottery was submitted from context 1111 and from pottery spread 1118, deposit 1140 and deposit 1145.

Context 1111 contained eleven small fragments (ASW 2.7g) of a single vessel, an early to mid 18th century tankard in Staffordshire mottled slipware.

Pottery spread 1118 contained fourty-four sherds (ASW 5.5g), all of them Roman greyware. All but one sherd were in a coarse black sandy fabric, and appear to come from a single vessel, a simple rim dish or bowl. The form was produced throughout the Roman period, and a date cannot yet be suggested on fabric grounds.

Deposit 1140 contained two thick-walled sherds of coarsely tempered pottery from a hand-made vessel (ASW 30g). A Late Bronze Age date has already been suggested for this

material. This attribution seems reasonable to the present author, but it is suggested that confirmation be obtained from a qualified specialist (see Appendix C).

Deposit 1145, part of burnt mound 1119 contained a single low-weight flake of samian (1.0g).

The evidential value of the Area G material is limited.

5.0 VESSELS OF INTRINSIC INTEREST

A number of vessels of intrinsic interest, from assemblages not dealt with above, may be briefly referenced here.

A small ceramic lamp, (310 AD), came from 310, a deposit described as similar to 301, see above. The vessel, in a brownish sandy fabric, is complete except for the handle, and has an undecorated discus. Small lamps such as this were often used in ritual/funerary contexts. A number of generally slightly larger lamps are published from the cemetery at Trentholme Drive, York, and it is to some of these that the example under discussion may perhaps be compared (Wenham 1968, fig. 33, nos 14, 16, 17). A broad 2nd century date is proposed in advance of specialist opinion.

Fill 306 of pit 305 contained the “complete" base and lower body of what may be a butt-beaker derivative in a fine, yellowish, sandy fabric. The lower edge of a zone of rouletting is extant. Derivatives of this originally Gallo-Belgic form certainly occur in the late 1st century, and perhaps into the earlier 2nd. The pit group would appear to close in the late 2nd or early 3rd century.

Sherds (438 AB), from the primary fill of ditch 430, comprised 156 sherds, 1218g, of vesicular ware, all apparently from a single jar. Numerous rim, body and base sherds suggest that most of the vessel is probably present and that there is potential for rebuilding. The vessel is located in the formal spectrum leading from Knapton to proto-Huntcliff types, but the rim, which may be wheel-finished, is nearer the former. A vessel from the lower well deposit at Rudston villa (Rigby 1980, illus. no. 253) is comparable, slightly less so is Monaghan 1997, no. 3812, though cited as Knapton. A 3rd or early 4th century date is proposed.

Topsoil (1003) in Area G contained a sherd from a samian form 37 bowl stamped (DIVIX.F). Stansfield and Simpson's dates for DIVIXTUS are *c.* AD160 to early AD 190s.

Unstratified material contained a bowl rim in a presumably Roman oxidised fabric with a grey core. The rim is bevelled on both sides and an incised chevron design occupies the upper faces so produced. Further research is necessary.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Individual dating summaries for the main groups of features appear italicised, in the main body of the text. The whole site assemblage suggests occupation from at least the earlier second century to the mid fourth. Only a single vessel, from deposit 301, can legitimately be dated to the second half of the 4th century. The available evidence suggests that Area D as excavated might have been laid out in the Hadrianic to early Antonine period (*c.* AD 120-60). The curvilinear ditches appear to have closed in the second half of the 2nd or earlier 3rd century, and may thus be distinguished from the two main groups of linear ditches, which probably closed in the first half of the 4th. There is a fairly clear suggestion that the linear ditches east of pit (390) were open from the 2nd to mid 4th century. The opening date for the

other group of linear ditches discussed above is less obvious. The reader is referred to the body of the text for dating of other groups of features.

The potential for publication is constrained by the poor quality of many of these ditch assemblages. There are, however, individual groups which deserve publication and which should be published along with a general discursive essay on the whole site assemblage in any future site report. There is some potential for investigation of pottery supply to the town of Stamford Bridge and for comparison with pottery supply to York, as well as for recognition of local fabrics within the greywares. Ian Lawton kindly provided samples of his Stamford Bridge fabrics 1-3, and these were noted in small amounts within the assemblage, though no detailed attention could be given to their recognition. Examples are cited in the database.

It is therefore recommended that publication of selected assemblages be included in the final site report. Time and illustration requirements cannot be suggested at this stage, before further work on the assemblages and information from specialists. Such a report would require prior specialist examination of the following:

Amphorae	217 sherds	
Samian	97 sherds	(of which 22 decorated, and 2 stamps)
Mortaria	31 sherds	(no stamps)
Ceramic lamp	1 sherd	
Bronze Age material	2 sherds	

All material should be retained in an appropriate museum in the interests of future research in the region.

Appendix: fabric and other codes employed in the database

1. Principal fabric categories ('Fabric' column)

BA	Bronze Age
BB, BBT	Black Burnished (BB1) and BB-*type* wares
BUB	Butt beaker
CBM	Ceramic building material
DW, DT	Dalesware and Dales-*type* wares
ERPW	Ebor Red-Painted ware
FC	Fired clay
MED	Medieval
MOD	Modern
NONCER	Non-ceramic
PMED	Post-medieval
RA	Amphorae
RCC	Colour-coated wares
RFG	Fine greyware
RG	Greyware
RG(RUS)	Rusticated ware
RG1	Crambeck greyware
RM	Mortaria
RO	Roman oxidised wares
RS	Samian
RV	Roman vesicular wares (includes a small amount with extant calcareous temper)
RW	Roman whitewares
UNAT	Unattributed to type and/or period

2. Post-Roman fabric codes ('Remarks' column)

Common names are in accepted regional or national use, or are self-explanatory.

BRAN	Brandsby ware
CIST	Cistercian ware.
COLG	Colour-glazed wares (19th century)
CREAM	Creamware
FPWW	Factory-produced white earthenwares
GRE	Glazed red earthenwares (post-medieval)
HAMB	Hambleton ware
HUM	Humberware
LBLAK	Late Blackware (19th century)
MODSW	Modern stoneware
PIMP	Pimply Ware
SPB	Staxton/Potter Brompton ware
SPONG	Sponged ware (19th century)
STAFSL	Staffordshire slipwares
STAFSMOT	Iron-mottled Staffordshire slipwares
TIN	Tin-glazed earthenwares
TPWW	Transfer-printed white earthenwares
UMED	Unattributed medieval
YELG	Yellow-glazed earthenwares
YORGL	York Glazed ware

3. Feature-type codes ('Type' column)

D	Ditch
DEP	Deposit
DR	Drain
FD	Field drain
FUR	Furnace
GC	Grave cut
GF	Grave fill
MC	Machine clearance
NK	Not known
P	Pit
PS	Ploughsoil
SKE	Skeleton
SS	Subsoil
TB	Tree bowl
TS	Topsoil
US	Unstratified

4. Form and other codes ('Remarks' column)

EYG	East Yorkshire greywares
HFB	Hemispherical flanged bowl
HOSM	Holme-On-Spalding-Moor (fabrics)
NVCC	Nene Valley colour-coated
SRD	Simple rim dish
SRD/B	Simple rim dish/bowl
SSFB	Straight-sided flanged bowl
WMB	Wide-mouthed bowl

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Table D2: Pottery results

ID	CTXT	TR	TYPE	FABRIC	NO	WT	REMARKS
48	001AA	A	PS	MED	4	24	HUM, PIMP, UMED
50	001AA	A	PS	RV	1	21	Hand-made, simple rim bowl?
47	01AA	A	PS	PMED	1	10	CIST cup sherd. 16th century.
45	01AA	A	PS	RG	4	52	Includes rim of later 3rd or 4th century wide-mouthed bowl.
49	01AA	A	PS	RO?	3	10	Scrap. May include medieval.
46	01AA	A	PS	RS?	1	2	Worn flake.
35	100	B	PS	MOD	5	38	CREAM, FPWW, MODSW, UNAT, YELG.
34	100	B	PS	RG	1	11	Body, dark-faced redware.
33	100	B	PS	RO?	1	1	Scrap.
40	100	B	PS	RO?	1	11	Thick-walled curved body sherd.
32	100	B	PS	RS	1	1	Scrap.
37	101	B	SS	MED	1	8	PIMP basal angle fragment.
36	101	B	SS	MOD	1	54	MODSW footring base.
56	200	C	TS	MED	5	80	HUM?, HAMB?, UMED.
55	200	C	TS	PMED	1	49	GRE (c. 19th century handled storage jar rim).
54	200	C	TS	RG	8	92	Includes triangular rim dish/bowl, curved jar rim(s), pedestal base etc.
52	200	C	TS	RO	1	7	Curved jar (?) rim fragment.
53	200	C	TS	RO?	1	3	
51	200	C	TS	RS	2	7	Basal fragment and ovolo fragment.
43	220	C	DEP	RA	1	14	Overlies 219. Body, probably Dr 20.
41	220	C	DEP	RG	10	85	Overlies 219. Includes bowl with triangular rim. Late 2nd or early 3rd century (cf. Winterton 121). Also possible carinated jar fragments.
42	220	C	DEP	RO	7	38	Overlies 219. Bodies and scrap. Includes flagon neck.
44	220	C	DEP	RV	1	1	Overlies 219. Scrap.
38	225	C	D(221.6)	MED	2	48	HUM, probably 14th or 15th century.
39	225	C	D(221.6)	RV	1	4	Base sherds, some extant calcareous material.
57	300	D	TS	MOD	1	8	SPONG.
63	300	D	TS	PMED	2	16	GRE. Joining sherds of lateral handle.
59	300	D	TS	RA	1	107	
60	300	D	TS	RA?	1	57	
64	300	D	TS	RG	24	325	Includes SSFB; rouletted sherd; sherd of possible Stamford Bridge manufacture; jar rims.
62	300	D	TS	RO	5	13	
58	300	D	TS	RS	2	2	Flakes.
61	300	D	TS	RV	2	6	
203	301	D	SS	BBT	2	146	Jar base/lower body, turned base with groove; flatware base.
199	301	D	SS	CBM	1	68	
200	301	D	SS	CBM	1	4	Or possibly FC.
208	301	D	SS	DT	2	36	Jar rims, two vessels, different gritty greywares.
204	301	D	SS	MED	4	99	North Yorkshire white-firing fabrics.
201	301	D	SS	MOD	1	6	TPWW flatware, later 19th or earlier 20th.
202	301	D	SS	PMED	1	1	GRE.
198	301	D	SS	RA	25	2154	
196	301	D	SS	RCC	10	71	All beaker and includes York forms KF1 and KF2 (AD 225-280), and two small pedestal bases (varied dates).
209	301	D	SS	RG	211	3427	Rims of c. 28 vessels. Lid cf. York form LB, 2nd. Dish/bowls seem largely Antonine to Severan. Jars and other bowls need further work, but include some clearly 3rd/4th East Yorkshire fabrics.
197	301	D	SS	RG1	3	32	

ID	CTXT	TR	TYPE	FABRIC	NO	WT	REMARKS
207	301	D	SS	RG1?	1	38	SSFB. Discoloured. Packed with greyware.
195	301	D	SS	RM	5	342	Includes two bead and flange types, one white-slipped and similar in shape, fabric and treatment to Gillam 246 (AD 120-60). Also a thick-walled base in tile-like fabric.
205	301	D	SS	RO	78	987	White-slipped flagon cf. Catterick form 6.5/6.6, mid 2nd to mid 3rd; open form flange, perhaps large form 38 (or mortarium?); imitation forms 36 (late 2nd onwards?) and 37; necked jar; rouletted sherd; dish/bowl with undercut bead rim, as in greyware.
194	301	D	SS	RS	8	63	One decorated. And includes forms 27, 33, 37 and 79/80(?).
206	301	D	SS	RV	41	816	Applied jar handle (2 joining sherds), basically Late Iron Age, so late 1st? Huntcliff bowl, not grooved, York form BK, second half of 4th; fragments of three other jar rims, not yet researched.
66	303	D	DR(302)	RA	2	472	Bodies, one a DR 20.
68	303	D	DR(302)	RCC	1	3	Clay pellet roughcast. (Later?) 2nd century.
72	303	D	DR(302)	RG	33	276	Includes two carinated jars of Flavian-Antonine type. Also four jar rims.
67	303	D	DR(302)	RG(RUS)	2	27	Bodies, different vessels.
69	303	D	DR(302)	RO	14	57	May include medieval.
65	303	D	DR(302)	RS	4	33	Of which two are decorated. Form 30 rim and a dec. body which may be East Gaulish. Two plain bodies.
70	303	D	DR(302)	RV	1	3	Body.
71	303	D	DR(302)	RW	1	5	Off-white fragment, yellowish fragment.
86	304	D	DEP	CBM?	2	88	Tabular fragment and crumb.
89	304	D	DEP	MED?	1	2	Jar shoulder in light-firing gritty fabric. 12th century?
80	304	D	DEP	RA	21	2288	Dr 20, mainly? Some thinner walled flakes and sherds may not be RA.
85	304	D	DEP	RG	49	521	Includes carinated jar fragment; small jar/beakers with short stubby rims; turned base of small jar/beaker; simple rim open form; necked jar/bowl rim.
82	304	D	DEP	RM	1	338	Bead and flange, 2nd century.
84	304	D	DEP	RO	1	388	Large, thick-walled straight-sided open form with thick outbent rim.
83	304	D	DEP	RO	17	147	Includes small biconical form
81	304	D	DEP	RS	3	15	Footring. Two bead rim forms (one a form 79, post AD 160).
87	304	D	DEP	RV	6	80	Includes large part of profile of jar with wheel-thrown rim and hand-made body (?). Cf. some 2nd century types at Rudston Villa, and Knapton types. 2nd (or later).
88	304	D	DEP	UNAT	1	22	Black sandy lump.
101	306	D	P(305)	BUB?	1	108	"Complete" base and lower body of what may be a butt-beaker derivative (late first?). Fine yellowish sandy fabric. Lower edge of zone of rouletting extant.
98	306	D	P(305)	RG	9	652	Large part of a dog-bowl (complete profile and several large joining sherds) with undercut thickened rim (cf. Winterton 117) and marked basal chamfer. Plain. Late 2nd or early 3rd.
102	306	D	P(305)	RG	11	132	Includes: rim of the same lid-seated jar that occurs in 310 (physical join). It seems likely that body sherds with an intersecting running scroll between grooves (as on the shoulders of some Dragonby-type barrel jars) belong to the same vessel.
99	306	D	P(305)	RO	1	5	Body
100	306	D	P(305)	RV	2	41	Bodies.
484	307AA	D	CREMURN	RG	5	957	Jar, complete except for rim. Almost biconical shape with groove at neck and two girth grooves below, the lower at the point of maximum maximum girth. The lower of the two zones thus demarcated has four-line lightly burnished chevrons. Pale greyware colour
97	310	D	DEP	MED	1	20	Body with glaze splashes, fine sandy orange fabric.
91	310	D	DEP	RA	2	459	Bodies.
96	310	D	DEP	RCC	9	6	Large sherd and flakes, same vessel. White with dark grey coat. Rouletted. Perhaps cf. Nene Valley 34. Late 2nd to earlier 3rd.

ID	CTXT	TR	TYPE	FABRIC	NO	WT	REMARKS
93	310	D	DEP	RG	7	124	Includes neat lid-seated jar not unlike Gillam 152, with scroll on shoulder. (Also in 306). Wide possible date-range. Also simple rim open form with grooved exterior, perhaps a form 37 copy.
90	310	D	DEP	RM	3	445	Bases and a body, same vessel. Creamy with dense grey trituration.
94	310	D	DEP	RO	22	233	May include medieval? Includes small pedestal base of beaker or small jar, wire-cyt on underside. Also flagon rim cf. Catterick Form F3, c. mid 2nd to mid 3rd.
92	310	D	DEP	RS	6	99	Form 30, and other decorated sherd; form 79/80; vessel in 18-31 range; Curle 23 (Late Flavian onwards).
95	310	D	DEP	RV	1	10	Jar shoulder.
485	310AD	D	DEP	RG	1	37	Small lamp, complete except for handle. Undecorated. Cf. Trentholme Drive fig. 33, nos 14, 16, 17. The latter are very slightly larger. 2nd century?
73	312	D	SS	MOD	1	2	FPWW
76	312	D	SS	PMED?	1	2	TIN flake, 18th.
77	312	D	SS	RCC	1	1	Rouletted fragment.
79	312	D	SS	RG	8	236	Jar base and lower body sherds, possibly 2nd. Non-diagnostic jar/bowl rim. Lid-seated jar in gritty fabric cf Gillam 153 (?) - AD 290-370.
78	312	D	SS	RO	1	2	Scrap
74	312	D	SS	RS	1	6	Ovolo fragment.
75	312	D	SS	RV	1	4	Scrap.
312	314	D	D(313)	RG	7	139	Handmade jar, possibly with wheel-turned rim. Close to Knapton types, so probably 3rd.
311	314	D	D(313)	RG	5	175	Large sherds and considerable part of indented beaker in coarse black-faced redware. No rim present. York forms KF or KI in greyware, probably former. Third-century, so thefabric will be a useful ceramic marker.
310	314	D	D(313)	RO	12	72	Bodies, scrap.
309	314	D	D(313)	RS	1	25	31 or 31R, post AD 150/160.
308	314	D	D(313)	RV	1	10	Body.
322	318	D	FUR(309)	RA	1	48	Secondary fill of furnace cut 315. Body.
321	318	D	FUR(309)	RG	1	11	Secondary fill of furnace cut 315. Jar shoulder , thin-walled, with girth groove and two intersecting wavy lines. Cf. Dragonby barrel jars and other vessels (e.g. nos 832, 833, 868, 1000 etc).
305	322	D	D(321)	RA	2	61	Bodies, two vessels.
307	322	D	D(321)	RG	13	457	Large sherds from two shallow dishes/platters, one with triangular bead and small basal chamfer, other similar with short outbent rim. Two triangular bead rim dish/bowls.
306	322	D	D(321)	RO	1	24	Footring base, white-slipped.
304	322	D	D(321)	RS	1	2	Bead rim fragment.
328	324	D	D(323)	RG	3	9	Bodies.
331	324	D	D(323)	RG1?	1	5	Flake from SRD with external groove. Worn and encrusted but almost certainly Crambeck.
329	324	D	D(323)	RO	1	2	Body.
330	324	D	D(323)	RV	6	42	Bodies.
332	324	D	D(323)	RW	3	22	Pinkish yellow fabric. Flange and lower body sherd, plus two flakes, from probable HFB. Wide date-range. Possibly a misfired Crambeck product, or an earlier variety?
290	326	D	FUR(311)	RG	1	18	Body.
289	326	D	FUR(311)	RO	1	1	Body.
294	328	D	P(327)	RO	1	1	Body.
295	328	D	P(327)	RW	1	4	Body.
327	333	D	FUR(392)	RG	1	18	Secondary fill of 392, WH is furnace cut below 309. Body.

ID	CTXT	TR	TYPE	FABRIC	NO	WT	REMARKS
326	333	D	FUR(392)	RO	17	182	Secondary fill of 392, WH. is furnace cut below 309. Bodies. 15 are probably same vessel, one definitely a second vessel, and one possibly a third. The latter has combed wavy line decoration. Very similar decoration on form J.3.1 in a reduced fabric
288	339	D	P(340)	RG	2	16	Bodies.
287	339	D	P(340)	RS	1	30	Rim in 18 to 31 range.
291	341	D	DEP	RG	3	9	Below 301. Bodies.
292	341	D	DEP	RO	1	1	Below 301. < 1g.
293	341	D	DEP	RV	1	1	Below 301. Scrap.
338	349	D	D(350)	RG	2	69	Small body, and rim of large WMB in HOSM type fabric, perhaps cf. form B2b, made at Throlam and elsewhere. Later 3rd or 4th.
337	349	D	D(350)	RV	2	12	Bodies.
300	352	D	D(353)	RA?	1	16	Body?
303	352	D	D(353)	RCC	1	1	< 1g. Beaker. Probably NVCC.
298	352	D	D(353)	RG	12	85	Includes body with stabbed decoration.
301	352	D	D(353)	RO	3	5	Scrap.
299	352	D	D(353)	RS	1	1	Flake.
302	352	D	D(353)	RV	2	15	Bodies.
336	356	D	D(354.2)	RG	3	22	Same as 313. Bodies plus small jar with short everted rim and partially oxidised surfaces.
335	356	D	D(354.2)	RO	5	54	Same as 313. White-slipped footring base and scrap, possibly including a bead rim fragment.
325	357	D	D(354.3)	RA	1	15	Flake.
324	357	D	D(354.3)	RG	2	14	Body; worn base with thin footring in dark sandy fabric.
323	357	D	D(354.3)	RO	2	8	Worn base (?) and body fragments.
296	359	D	D(358)	CBM	2	3	Flakes.
297	359	D	D(358)	RG	1	6	Outbent dish/bowl rim?
285	360	D	D(358)	RM	2	9	One vessel. White body fragments with mixed black and white grits.
286	360	D	D(358)	RO	1	23	Body.
283	361	D	D(358)	BB	1	10	Jar body, acute angled lattice.
281	361	D	D(358)	RA	3	96	Bodies.
284	361	D	D(358)	RG	10	94	Bodies and scrap. One lattice.
282	361	D	D(358)	RO	7	137	Grooved base, flagon neck, bodies, scrap.
333	369	D	D(370)	RG	3	128	Two small jar bases, one wire-cut, the other turned, and a body from a third vessel with acute-angled lattice.
334	369	D	D(370)	RO	1	4	Body.
279	371	D	D(370)	RA	3	145	Bodies.
280	371	D	D(370)	RG	2	11	Bodies.
278	371	D	D(370)	RO	4	177	One vessel. One large sherd (c. one third rim circuit, two thirds profile) of a campanulate bowl cf. Gillam 212 (AD 160-200).
342	381	D	P(380)	BB	4	29	Bodies.
339	381	D	P(380)	RG	2	20	Body and jar cf. Catterick J12.11 (late 3rd or 4th, see 435).
340	381	D	P(380)	RO	1	3	Body.
341	381	D	P(380)	RV	4	15	Bodies.
313	383	D	D(382)	CBM	2	12	
315	383	D	D(382)	NONCER	0	0	One stone discarded.
320	383	D	D(382)	RG	60	795	Dark-faced redwares suggest some 3rd century material present, but high degree of brokenness. Largest and most diagnostic seem to be EYGs, including dish with heavy bead rim (cf. HOSM form B6, but still with basal chamfer); and WMB cf. HOSM B2 forms.
319	383	D	D(382)	RG1	3	90	Simple rim dish rim, small beaker/jar base (not easy to relate to a published Crambeck form), and body.
318	383	D	D(382)	RO	4	12	Scrap.
314	383	D	D(382)	RS	2	3	Flake and bead rim fragment.
316	383	D	D(382)	RV	31	112	Mainly small scrap. One jar rim, slightly curved.

ID	CTXT	TR	TYPE	FABRIC	NO	WT	REMARKS
317	383	D	D(382)	RW	1	3	Body.
347	384	D	DEP	BB	4	46	Jar cf. Gillam 122 (AD 120-60) - probably three sherds. And flatware base sherd.
346	384	D	DEP	DT	2	51	Two different jar rims, in gritty greyware. Body sherds undoubtedly occur among the greywares.
353	384	D	DEP	MED	1	4	North Yorks white fabric, jug rim fragment, c. 13th century.
344	384	D	DEP	RA	7	224	Bodies.
350	384	D	DEP	RCC	8	112	Four sherds probably same vessel, a late non-beaker form, white with red colour-coat. Also NVCC bodies, and a large sherd from an indented scale beaker, York form KF1, CP 225-80.
354	384	D	DEP	RG	350	6300	Wide range, not fully analysed. Some Had-Antonine material, majority probably third, and a fair amount of late third to fourth. 2 SSFBs, both incipient; 4 HOSM WMBs; SRD/B; bead rim D/Bs (3); outbent and small triangular bead rim dishes; countersunk ja
345	384	D	DEP	RG(RUS)	1	6	Body.
348	384	D	DEP	RG1	1	40	Lower body/base fragment.
352	384	D	DEP	RO	37	236	Footring base. Several sherds of imitation 3, probably Ebor, York form BH1, CP2a-2b (AD 120-200). Flange; Small jar with wedge-shaped rim. Simple rim open form with the rim thinned above an external ledge.
349	384	D	DEP	RS	11	77	Four bodies and flakes; four decorated, including rim of a f. 30; rim f. 27, and rim from a possible second f. 27; rim Curle 23/O&P LIV, 13.
351	384	D	DEP	RV	115	1630	Includes 11 rim sherds, majority acceptable as Knapton-types.
343	384	D	DEP	RW	5	26	Bodies, probably all flagons.
364	385	D	D(382.1)	RV	6	60	Rim of Knapton type jar and bodies from a different vessel.
362	386	D	DEP	RG	5	84	Similar to 251. Bodies, mixed fabrics, some gritty.
210	387	D	P(390)	RM	3	1442	One vessel, c. three quarters of rim circuit and complete profile. Two joining rim sherds and a body. Bead and flange type close to Gillam 246 (AD 120-60), though fabric not the same. Sandy orange-red with multi-coloured grits, including grey and white
359	389	D	P(388)	MED	1	75	HUM. 14th or 15th-century jug base.
356	389	D	P(388)	RG	4	42	Bodies.
357	389	D	P(388)	RS	2	8	Bodies.
358	389	D	P(388)	RW	1	12	Basal angle.
355	390	D	P	RG	1	1	Thin-walled body fragment.
363	391	D	P(390)	RO	3	53	Two bodies same flagon, and scrap.
365	393	D	GC(394)	RG	13	31	Scrap, fabrics suggestive of third (mainly dark-faced redwares). Rim fragment of small jar in grey, short and everted with slight groove on interior. 2nd?
366	393	D	GC(394)	RV	2	6	Scrap.
367	397	D	P(390)	RA	1	268	Body.
369	397	D	P(390)	RG	1	12	Jar rim. Black-faced buff fabric. Probably Antonine carinated jar.
368	397	D	P(390)	RO	1	6	Body.
360	398	D	FUR(392)	RA	1	9	Body.
361	398	D	FUR(392)	RO	14	71	Thin-walled bodies and flakes, two with combed wavy line. Possibly same vessel as in 333, q.v.
1	400	D	D(399)	RA	114	4472	Mainly at least one vessel in probable Dr. 20 fabric. At least one other vessel represented in different fabric.
3	400	D	D(399)	RCC	9	33	White decorated beaker with black coat, underslip barbotine. Single vessel. Uncertain whether floral or hunt. Cf York KB1, KB3. Circa 160-200/225.
6	400	D	D(399)	RCC	1	3	Small beaker base, clay pellet roughcast. Fine light red with dark brown coat. Circa 70-180, but probably later 2nd.
2	400	D	D(399)	RG	10	134	Outbent rim of WMB/WMJ. Body from lattice dish/bowl with basal chamfer. Latice jar sherds.
4	400	D	D(399)	RO	3	20	Simple rim bowl (?) in coarse fabric. Body. Small jar/beaker, perhaps bag-shaped, with outbent rim as York JB2, made in both Ebor wares..Date for this form is c. 160-225+
7	400	D	D(399)	RS	1	12	Stamped cup base. Not f. 33.

ID	CTXT	TR	TYPE	FABRIC	NO	WT	REMARKS
5	400	D	D(399)	RV	3	36	Coarse dark-faced vesicular fabrics. Base, body and shoulder of three (?) jars.
30	402	D	D(401)	RA	1	31	Body.
26	402	D	D(401)	RG	22	200	Mainly bodies, but includes: probable sherd of Ian Lawton's Stamford Bridge fabric 3; jar rim approximating to Gillam 133 (160-220); another jar rim fragment; bowl in hard dense dark greyware cf York BT1 (Throlam-type bowl, at York post 225 to 360)
25	402	D	D(401)	RG1?	1	38	Type 1. Or could be an earlier fabric? Wall may curve slightly.
27	402	D	D(401)	RO	7	111	Includes flagon rim/neck (two joining sherds) with short squar-cut outbent rim, and handle stump. Profile is that of the unhandled flask York FF 3751, dated as possibly 200-360. No good parallels in York or Catterick form-series among handled forms.
28	402	D	D(401)	RS	1	2	Flake. Rheinzabern?
29	402	D	D(401)	RV	15	310	Jar bases and lower bodies, mainly one vessel. This kind of vesicular ware not dated within site assemblage at time of examination.
31	403AA	D	SKE(GC394)	RO	4	191	Large sherd plus three fragments same vessel. Oxidised sandy fabric. Lid or base.
16	405	D	D(404)	RG	5	23	Bodies.
18	405	D	D(404)	RG(RUS)	1	4	Body.
17	405	D	D(404)	RO	2	8	Bodies, one apparently self-slipped.
19	405	D	D(404)	RS	1	1	Flake.
20	405	D	D(404)	RV	4	71	Bodies
14	407	D	D(406)	RCC	4	9	Three may be from same or similar decorated beaker in 400. One other beaker sherd, dark brown coat.
10	407	D	D(406)	RG	22	267	Includes: dish with chamfered base cf. Gillam 313 but with chamfer of 310, mid 2nd to mid 3rd overall; rouletted sherd (probably early component); 3 jar/bowl rims (dense fabrics on 2 of them).
12	407	D	D(406)	RG(RUS)	1	36	Jar body.
13	407	D	D(406)	RG1	1	62	Rim of Type 1.
9	407	D	D(406)	RM	1	40	Off-white body, pinkish yellow core. Black trituration.
11	407	D	D(406)	RO	12	175	Includes: two footring bases from open forms, probably post-samian importation; two simple rims from open forms, one with exterior groove. Fine dish with 'hammerhead' rim, similar to Crambeck 10 (cf. York form BP, 3970).
8	407	D	D(406)	RS	1	2	Flake. Probably decorated vessel (grooves).
15	407	D	D(406)	RV	6	48	Bodies/scrap.
24	411	D	D(430.6)	RFG	7	78	Fine dark grey with pale core margins, tendency to laminate, soapy polished surfaces. (London-type ware?). 6 sherds from lower body and base of small jar with overall rouletting. Rim, not necessarily same vessel, from a high-shouldered jar.
23	411	D	D(430.6)	RG	35	471	Includes: sherds from large vessel with flaring rim, cf. Winterton 182 (possibly late 3rd or 4th); bowl cf. Old Winteringham 79 (probably Antonine); jar cf. Winterton 23 (Antonine); bowl cf. Winteron 14, but undecorated (Antonine); other jar rim fragments
22	411	D	D(430.6)	RO	1	1	Rounded rim flake.
21	411	D	D(430.6)	RV	38	190	Bodies and scrap.
246	412	D	D(430.7)	DT	1	13	Sandy jar rim.
243	412	D	D(430.7)	RG	55	670	Mainly late fabrics, much probably HOSM. SSFB, SRD with external groove, flagon cf. HOSM F3 (produced at Throlam), WMBs cf HOSM B1 range including B1h. May be a little earlier material. Jar with a hooked everted rim has a joining sherd in 435.
242	412	D	D(430.7)	RG1	3	109	Type 1 SSFB and simple rim, either dish/bowl or HFB.
245	412	D	D(430.7)	RO	10	44	Scrap, plus rim/upper body of open form in light yellowish red fabric with grey core. Profile is that of a cup or undecorated tazza, cf. York nos 4109, 4110.
244	412	D	D(430.7)	RV	17	328	Bodies, a jar base, and a thick-walled everted flat-topped jar rim fragment, probably from a Knapton-type jar.
264	414	D	D	RA	2	17	Body and fragment.

ID	CTXT	TR	TYPE	FABRIC	NO	WT	REMARKS
261	414	D	D	RG	11	303	Includes: lattice jar sherd; pedestal based form of uncertain date; slightly curved upright jar rim; bifid rim fragment.
265	414	D	D	RG1?	1	1	Tiny fragment.
263	414	D	D	RS	1	2	Decorated body.
262	414	D	D	RV	3	12	Bodies and rim fragment.
269	414	D	D(413)	RCC	1	5	Beaker body, orobably York form KB1,late 2nd to early 3rd.
270	414	D	D(413)	RG	3	64	Bodies could be HOSM-type fabrics, post c. mid 3rd. Curved rim jar in rather gritty fabric.
225	417	D	413	RCC	2	8	Bodies, NVCC white (?) scroll-decorated beaker, late 2nd to earlier 3rd.
222	417	D	413	RG	35	1066	Major part of a SSFB in black-faced light grey ware; pedestalbase of a HOSM 3-5; rim of HOSM-style WMB.
226	417	D	413	RO	4	42	Flagon handle fragments, rim of simple rim dish, scrap.
223	417	D	413	RV	2	42	Body and jar base.
224	417	D	413	RW	1	4	Flake.
273	419	D	D(418)	RG	2	63	Body and distinctive rim of large (?) jar, upright with two grooves immediately below rim. No parallel at York
271	419	D	D(418)	RO	1	2	Scrap.
272	419	D	D(418)	RV	2	9	Scrap plus stubby square cut jar rim, short but possibly within Knapton range.
220	420	D	P(420)	RG	4	19	Scrap.
221	420	D	P(420)	RO	4	9	Scrap.
236	421	D	DEP	RG	54	99	Many very gritty fabric. Few jar/bowl rim fragments have late appearance, as does a dish/bowl with triangular rim. Needs further literature search.
237	421	D	DEP	RM	1	81	Reeded flange type, pink with creamy surface. Black trituration. Cf. Gillam 278 (AD 210-320).
234	421	D	DEP	RS	5	37	Part of base in 18-31 series; two ovolo flakes, same vessel; two decorated, possibly same vessel, larger showing scarf dancer in roundel, with star to right.
235	421	D	DEP	RV	26	351	Includes Knapton-type jar rim, York form JK1, at York CP late 2b-3b (late 2nd to late 3rd), most typical of mid 3rd.
238	421	D	DEP	RW	1	3	Fine thin-walled body.
251	427	D	D(426)	RA	4	112	Bodies, Dr. 20, same vessel.
250	427	D	D(426)	RG	6	42	Bodies, nothing diagnostic.
253	427	D	D(426)	RO	1	6	Body.
254	427	D	D(426)	RS	1	1	Bead rim fragment.
252	427	D	D(426)	RV	2	46	Body and base.
486	429	D	D(428)	RG	4	19	Scrap.
487	429	D	D(428)	RO	4	9	Scrap.
274	431	D	D(430)	RG	12	434	Bodies include a physical join to jar with girth groove in 432. Large jar (?) with long upright simple rim.
275	431	D	D(430)	RV	2	39	Bodies.
277	432	D	D(430)	RA	1	110	Body.
276	432	D	D(430)	RG	2	46	Two jar rims, one sandy with curved rim and groove on high shoulder, cf. Dragonby barrel jars (and fabric not unlike Roxby). This vessel has physical join in 431. Other short everted in black-faced redware. Perhaps late 2nd to 3rd?
266	433	D	D(430)	RG	22	388	Mainly bodies. Large jar with neck cordon, probably same as in 411 (also ditch 430). Lattice jar sherd. Body with combed wavy lines. Very similar decoration on form J.3.1 in a reduced fabric at Catterick,
267	433	D	D(430)	RO	1	2	Body.
268	433	D	D(430)	RV	10	47	Bodies and scrap.
249	435	D	FD(434)	RG	4	51	Includes jar rim cf. Catterick form J12.11. At Catterick (Bainesse site) this appears only in Phase 8, dated c. 275 to some time in the 4th century. There is a joining sherd to this vessel in 412, a similarly late group.
247	435	D	FD(434)	RO	2	10	Scrap.
248	435	D	FD(434)	RV	2	7	Scrap

ID	CTXT	TR	TYPE	FABRIC	NO	WT	REMARKS
258	437	D	D(436)	MED	1	1	PIMP. 12th-century gritty ware.
260	437	D	D(436)	RG	4	32	Small body, and rims of two different jars. One is comparable in shape to Gillam 143/144, AD 160-280. Other is a curved fragment.
259	437	D	D(436)	RO	1	9	Body, perhaps originally white-slipped.
212	438	D	D(430)	RG	3	13	Scrap.
211	438	D	D(430)	RV	3	6	Scrap.
488	438AB	D	D(430.1)	RV	156	1218	Numerous rim, body and base sherds, all probably the same jar. Most of vessel probably present. Rebuilding potential. Stands in the spectrum leading from Knapton to proto-Huntcliff, but the rim is nearer the former. Rudston 253.
233	440	D	D(439)	RG	2	20	Bodies. Nothing diagnostic at this stage.
232	440	D	D(439)	RO	1	7	Rim of imitation form 37, probably Ebor. York form BH1, CP2a-2b (AD 120-200).
215	441	D	P(420)	DT	1	22	Greyware body in one of the fabrics used for DT jars.
218	441	D	P(420)	RA	1	37	Body.
216	441	D	P(420)	RG	7	609	SSFB, WMB with double girth groove, burnished EYG jar with lattice, complete jar/bowl base.
219	441	D	P(420)	RG1	2	31	Simple rim open form, perhaps the HFB rather than the dish.
217	441	D	P(420)	RO	1	6	Body.
213	441	D	P(420)	RS	3	41	Cup 33, base 18/31R (first half of second), and flake.
214	441	D	P(420)	RV	3	74	Bodies.
231	443	D	D(442)	RG	9	42	Scrap.
150	443	D	D(442)	RV	1	7	Scrap
257	444	D	P(390)	RG	4	98	Bodies, three from same vessel, rather gritty jar with girth groove.
256	444	D	P(390)	RO	1	8	Rim of open form with bevelled inner edge, and external groove some way below rim. Fine fabric, light orange-red with grey core.
255	444	D	P(390)	RV	1	8	Body.
241	445	D	P(420)	RA	1	197	Body.
239	445	D	P(420)	RG	3	143	Pedestal base in a hard EYG fabric, possibly HOSM forms 3-5, and two bodies in the burnished black-faced light greyware. Cf. material in 417.
240	445	D	P(420)	RO	3	135	Three vessels. Imitation form 38 in coarse orange fabric with grey core, prominent flange. Footring base and body in finer fabrics. Wide range of dates for form (BF at York, where many are c. AD160-225, but the type is certainly common regionally.
230	450	D	D(449)	RG	6	90	Bodies, plus dish/bowl with outbent rim and basal chamfer. Like Gillam 308 (AD 130-80) in greyware, but no lattice.
229	450	D	D(449)	RG1	1	15	Body. Presumably Crambeck, though latest in context if so.
227	450	D	D(449)	RM	2	628	Joining sherds, c. half of one vessel, once again cf. Gillam 246 (AD 120-60). Orange-red, white slipped, multi-coloured grits.
228	450	D	D(449)	RS	7	30	Rouletted form, presumably cup 30R or bowl 37R, though problems with both. Both 2nd century.
421	452	D	CUT(451)	BBT?	1	6	Incomplete jar rim fragment.
424	452	D	CUT(451)	RG	12	134	Rim, possibly imitating f. 37, but apparently with burnished vertical lines below grooves.
423	452	D	CUT(451)	RO	2	6	Body and (?) flange fragment.
422	452	D	CUT(451)	RV	4	19	Scrap.
420	452	D	CUT(451)	RW	1	12	Body.
418	454	D	D(453.2)	RA	2	161	Bodies.
413	454	D	D(453.2)	RCC	2	5	Beaker scrap, two vessels, possibly NVCC.
419	454	D	D(453.2)	RG	47	541	Little diagnostic. SRD could be 3rd or 4th. Rouletted sherd.
416	454	D	D(453.2)	RO	4	6	Scrap.
415	454	D	D(453.2)	RS	2	17	Bodies.
417	454	D	D(453.2)	RV	3	39	Bodies.
414	454	D	D(453.2)	RW	2	8	Bodies.
404	456	D	GC(455)	CBM	1	1	Flake.
403	456	D	GC(455)	RCC	1	1	Beaker fragment. NVCC?

ID	CTXT	TR	TYPE	FABRIC	NO	WT	REMARKS
401	456	D	GC(455)	RG	5	43	Bodies.
402	456	D	GC(455)	RO	2	2	Scrap.
396	456	D	GC(455)	BB?	1	4	Body.
394	456	D	GC(455)	RCC	1	1	Beaker fragment, possibly NVCC.
395	456	D	GC(455)	RS	1	1	Flake.
428	457AA	D	SKE	RG	1	65	Within GC 455. Turned base of small jar.
430	463	D	D(430.2)	RCC	1	1	Beaker fragment, possibly rouletted, probably NVCC.
432	463	D	D(430.2)	RG	3	85	Two bodies and large sherd from a severan style bowl in sandy blue-grey ware.
431	463	D	D(430.2)	RO	2	17	Open form with inturned rim and external groove, probably a HFB (f. 38).
429	463	D	D(430.2)	RV	89	610	Bodies and unquantified crumbs.
397	465	D	D(464)	RG	47	592	Bodies, little diagnostic. Carinated jar rim, possibly 3rd-century biconical type. Triangular rim dish, perhaps Severan. Jar sherd with grouped=line burnishing. Two indeterminate jar rims.
398	465	D	D(464)	RG1	3	24	Bodies.
399	465	D	D(464)	RO	2	51	Body. Rim of imitation 37 in Ebor type fabric cf. York BH1 (AD 120-200).
400	465	D	D(464)	RV	9	109	Bodies. Rim of Knapton jar.
407	466	D	D(453.1)	CBM	1	3	Lump.
408	466	D	D(453.1)	RA	1	4	Flake.
410	466	D	D(453.1)	RG	14	107	Mainly bodies/scrap, but includes sherd with stab decoration on applied encircling strip cf. Messingham, and WMB rim in HOSM fabric cf. HOSM B1.
405	466	D	D(453.1)	RG1	1	58	Base.
406	466	D	D(453.1)	RO	3	4	Scrap.
409	466	D	D(453.1)	RV	12	69	Bodies/scrap.
393	467	D	D(430.3)	DT	1	16	Rim in sandy greyware.
391	467	D	D(430.3)	RG	5	148	Bodies, plus lattice bowl with short outbent and downbent rim, probably second half of 2nd, and WMB in same fabric.
392	467	D	D(430.3)	RO	1	15	Rim of dish as in 477.
390	467	D	D(430.3)	RV	8	41	Scrap.
426	468	D	D(430.1)	RCC	1	18	Lower body of (?) 3rd-century (?) NVCC white fabric beaker.
427	468	D	D(430.1)	RO	1	16	Body of (?) York form BD. If so, then 2nd.
425	468	D	D(430.1)	RV	11	78	Bodies (most have extant calcareous material, but classed as RV for consistency).
412	475	D	D(474)	RG	1	29	WMB outbent rim.
411	475	D	D(474)	RV	2	117	Rim of Knapton jar, body same vessel.
385	477	D	D(476)	DT	2	29	Rims, gritty greyware.
386	477	D	D(476)	DW?	1	10	Rim. Vesicular, possibly DW proper.
389	477	D	D(476)	RG	107	2042	Two small probably 2nd-century jars, one cf. York form JP1; mainly 3rd and fourth fabrics, some black-faced red, and HOSM-types. SRD, SRD as York form DG2 (4th), 2 x dishes with triangular bead rims, Jar as HOSM J1, c. 12 WMBs inc. forms cf. HOSM B1a/g/I
381	477	D	D(476)	RG1	9	389	SRD, SSFB x 2, Type 3 jar, bodies.
387	477	D	D(476)	RM	7	523	Reeded flange type, pink with creamy surface. Black trituration. Cf. Gillam 278 (AD 210-320).
383	477	D	D(476)	RO	5	48	Complete profile of dish with slightly thickened rim, flat-topped. Ebor style fabric.
382	477	D	D(476)	RS	3	15	F.33 cup rim, possibly EG, and two bodies.
388	477	D	D(476)	RV	178	2923	Includes 3 Knapton-type rim sherds, and one more curved fragment.
384	477	D	D(476)	RW	1	6	Body.
437	478	D	DEP	RA	4	122	Bodies.
434	478	D	DEP	RG	103	1073	Several jar rim fragments (jar dominated) which need further work. Rouletted Dr. 30 imitation as York 4004 (Blossom Street, context c. 200-80), Antonine type carinated jar, fragment of indented beaker.
438	478	D	DEP	RO	12	45	Bodies, small white-slipped grooved handle fragment, and crumbs.
435	478	D	DEP	RS	3	11	Bodies, two of which decorated.

ID	CTXT	TR	TYPE	FABRIC	NO	WT	REMARKS
436	478	D	DEP	RV	15	73	Bodies.
433	478	D	DEP	RW	1	3	Body. Flagon?
445	480	D	D(479.3)	RG	28	381	Bowl with extravagantly undercut downbent triangular rim; jar resembling honeypot cf Winterton 26, perhaps within York form JB, which is Hadrianic/Antonine to Severan plus; small jars with sharply everted rims, of late 1st or 2nd century fabric
442	480	D	D(479.3)	RG1	2	36	SSFB, SRD.
444	480	D	D(479.3)	RM	3	123	Base and bodies, two vessels. One Crambeck, other pinker and with finer black grits.
440	480	D	D(479.3)	RO	7	39	Bodies.
441	480	D	D(479.3)	RS	2	6	Footring fragment, and flake.
443	480	D	D(479.3)	RV	15	262	Includes three Knapton-style jars.
447	482	D	D(479.1)	BBT	2	13	Body, and bowl probably as York form DG1, c. 140-80.
448	482	D	D(479.1)	RG	9	295	Jar bodies and bases, fabrics and general treatment of 2nd-century appearance.
440	498	D	GC[497]	RG	2	3	Fragments.
451	498	D	GC(497)	RG	9	110	Carinated jar rim fragment? Fine greyware body, burnished black surface. Dish with outbent rim. Two other rim fragments, one in a gritty greyware similar to that used for DT jars.
449	498	D	GC(497)	RO	3	8	Scrap.
450	498	D	GC(497)	RV	1	14	Jar basal fragment.
446	499AA	D	SKE	RG	1	53	WITHIN GC 497. WMB (? Orientation uncertain) with heavy external bead in HOSM type fabric?
115	501	D	GF(GC500)	FC	1	2	Possibly daub.
112	501	D	GF(GC500)	RG	3	7	Scrap inc. rim frag.
113	501	D	GF(GC500)	RM	1	4	Body, pale with black grits. Crambeck? Presumably later 3rd or 4th in any case.
114	501	D	GF(GC500)	RV	1	6	Body.
103	539	D	D	RG	2	25	Bodies.
185	509	D	DEP	RG	19	332	Coarse gritty. Base and body sherds all from same jar. Wire-cut base.
184	509	D	DEP	RG	12	198	Includes: countersunk jar handle; dish/bowl as York DP5/DP6 (c. 160-280); "bowl" probably within formal range of York form BA, the "African-style bowl". Very close to BA5 3933, with the external grooving found on BA1.
182	509	D	DEP	RO	1	3	Body.
183	509	D	DEP	RV	8	322	Large sherds from base and lower body of one jar. Nothing diagnostic, but possibly DT?
174	512	D	D(511)	RA	1	14	Body.
176	512	D	D(511)	RG	18	286	Includes SSFB, a 3rd or 4th century WMB rim, and bodies in late-looking fabrics. Some black sandy ware may be verging on BB types, and include an incomplete rim fragment.
173	512	D	D(511)	RO	4	19	Body.
172	512	D	D(511)	RS	2	2	Flakes.
175	512	D	D(511)	RV	3	19	Body.
133	513	D	DEP	DT	2	24	Rim and body, gritty greyware.
127	513	D	DEP	MED?	1	2	Sandy body. Otherwise RO.
131	513	D	DEP	NONCER	0	0	One stone discarded.
126	513	D	DEP	RA	1	39	Body.
134	513	D	DEP	RCC	3	14	Rim of funnel-necked beaker, c. mid 3rd to mid 4th.
132	513	D	DEP	RG	8	134	Cf. Gillam 309, AD 160-200.
128	513	D	DEP	RO	4	37	Pedestal base of small beaker, wire-cut, and simple rim open form fragment, and bodies.
129	513	D	DEP	RS	2	21	Footring and flake.
130	513	D	DEP	RV	1	36	
124	515	D	D(514)	DT	3	53	Three joining jar rim fragments. Vesicular with quartz. Red core. At York JD is held to be mainly 3rd, with very few "truly fourth" (whatever that means).
123	515	D	D(514)	RG	5	163	Includes one large jar sherd.

ID	CTXT	TR	TYPE	FABRIC	NO	WT	REMARKS
125	515	D	D(514)	RV	1	13	Base.
107	519	D	TB(518)	RG	2	12	Body and simple rim fragment, two vessels.
191	525	D	CUT(524)	MED?	1	15	Body. Just possibly RO.
189	525	D	CUT(524)	MOD	1	5	Bristol-glazed jar/bottle body, later 19th or earlier 20th.
190	525	D	CUT(524)	RA	1	129	Body.
193	525	D	CUT(524)	RG	6	154	All from one vessel, upper half of a small globular jar with curved everted rim. Gillam's "beaker of cooking pot form" at Trentholme Drive (cf. fig. 30, no. 14), which perhaps suggests a later 2nd- or 3rd century date.
192	525	D	CUT(524)	RV	1	8	Body.
106	527	D	D(526)	RO	1	6	Body.
104	530	D	CLAY	RM	1	20	Harsh red with clear stone grits.
167	539	D	D(506)	FC	1	2	Crumb.
170	539	D	D(506)	RA	1	99	Body, Dr. 20.
169	539	D	D(506)	RCC	3	5	Fragments from two beakers, white fabric, one with dark grey coat and rouletting, other red coat.
171	539	D	D(506)	RG	17	190	Highly burnished black-faced jar rim. A base might just be Crambeck.
166	539	D	D(506)	RO	3	13	Nothing diagnostic.
168	539	D	D(506)	RV	11	100	Includes rounded rim fragment.
165	539	D	D(506)	RW	3	18	Shouldered bowl with join to vessel in 571.
119	541	D	P(540)	RA?	1	2	Scrap.
118	541	D	P(540)	RG	2	7	Scrap.
116	541	D	P(540)	RO	1	4	Scrap.
117	541	D	P(540)	RV	1	3	Scrap.
160	546	D	FILL(520)	ERPW	1	15	Bowl rim. AD 120-80.
158	546	D	FILL(520)	NONCER	0	0	Stone discarded
155	546	D	FILL(520)	RG	6	48	Bodies.
157	546	D	FILL(520)	RG	3	53	Silvery burnished ware, Light grey jar or small open form rim; white simple rim open form. Uncertain if latter Crambeck.
156	546	D	FILL(520)	RO	1	4	Sandy curved rim fragment.
159	546	D	FILL(520)	RV	4	130	Bodies.
122	547	D	D(511)	FC	1	1	Crumb.
120	547	D	D(511)	RA	1	58	Body.
121	547	D	D(511)	RG	10	76	Bodies. One might be Crambeck (but its grey core would be unusual).
161	548	D	D(506)	RA	2	143	Bodies, two different fabrics.
164	548	D	D(506)	RG	14	142	Includes SRD rim which is possibly Crambeck, though fabric is brownish.
163	548	D	D(506)	RO	4	33	Bodies. Medieval present?
162	548	D	D(506)	RV	3	34	Bodies and jar shoulder.
144	549	D	D(506)	RA	1	92	Rim of Dr. 20.
146	549	D	D(506)	RG	8	192	Nothing diagnostic.
145	549	D	D(506)	RO	1	6	Body.
147	549	D	D(506)	RV	6	68	Nothing diagnostic, though these are mainly vesicular with solid grits so they may be a DT fabric.
153	550	D	D(506)	RA	1	117	Body, thin-walled.
154	550	D	D(506)	RG	8	87	Simple rim bowl in dark-faced sandy light-firing fabric with distinctive brown core, probably not Crambeck. Rim of dish, thickened internally and externally, essentially 2nd century.
152	550	D	D(506)	RO?	1	2	Body.
151	550	D	D(506)	RS	1	2	Footring flake.
137	551	D	VOID	BB	4	61	Sherds of vessel which appears in 563 and 571.
138	551	D	VOID	RG	19	366	Several sherds of a dog-dish with neat triangular rim and basal chamfer. Probably contemporary with the BB. Jar rim. Other sherds.
105	554	D	GF(GC553)	RCC	1	1	Fragment red-bodied NVCC (?) with dark brown colour coat.
177	555	D	DEP	RA	2	47	Bodies.
181	555	D	DEP	RG	13	170	Includes rims of three vessels, one a jar/bowl with outbent square-cut rim, another a curved rim jar in coarse sandy fabric.

ID	CTXT	TR	TYPE	FABRIC	NO	WT	REMARKS
179	555	D	DEP	RO	3	10	Bodies.
180	555	D	DEP	RS	1	4	Rim of f.27 cup, pre AD 150-60.
178	555	D	DEP	RV	2	19	Bodies.
143	558	D	D(557)	RG	1	55	Strainer base. Brownish fine greyware. Cf. York YP 4120 (not dated) or Gillam 348 (AD 140-200).
142	558	D	D(557)	RG	10	93	Includes small round-bodied jar with neat stubby triangular beas rim. 2nd?
141	558	D	D(557)	RO	1	14	White-slipped flagon body. Presumably 2nd century.
140	558	D	D(557)	RS	2	114	Footrings, same vessel in 18-31 range. Seems unworn, perhaps broken soon after acquisition.
139	558	D	D(557)	RV	1	8	Body.
186	560	D	D(559)	RG	5	47	Mainly fine smooth greywares, including a narrow mouthed small jar with short outbent lip. Everted rim jar with a bevelled leading edge in a black-faced sandy fabric with a reddish-brown core.
187	560	D	D(559)	RO	1	23	White-slipped base, presumably flagon.
188	560	D	D(559)	RV	24	186	Jar, one vessel, once again base and lower body sherds only. DT?
135	563	D	D(606.1)	BB	8	155	Large part of dish as Gillam 311 (AD 150-210). Same vessel (physical joins) in 551 and 571.
136	563	D	D(606.1)	RG	5	48	Bodies.
148	571	D	P(587)	BB	13	194	Basal sherds of same vessel (physical join) as in 551 and 563. AD 150-210.
149	571	D	P(587)	RW	1	59	Shouldered bowl, two thirds profile. The form is that of Dragonby 1270, which came from a 3rd century roadside ditch, though it may contain 2nd century material. Same or similar in 539.
110	574	D	D(506)	RG	3	9	Scrap.
111	574	D	D(506)	RG1	1	28	Type 1 SSFB. External sooting under flange.
108	574	D	D(506)	RO	1	5	Body.
109	574	D	D(506)	RV	2	89	Scrap.
479	578	D	D(559)	DT	2	58	Rim and body, jar, gritty greyware.
477	578	D	D(559)	RG	4	137	Bodies, plus large rim/body sherd from WMB in HOSM fabric, probably cf. Type B2.
478	578	D	D(559)	RV	3	254	Base and body sherds, different vessels.
373	582	D	P(420)	RG	2	23	Bodies.
374	582	D	P(420)	RS	1	7	Body.
472	583	D	D(606)	RG	0	0	
476	583	D	D(606)	RG	6	133	Includes large rim of necked jar/bowl in HOSM-type fabric, perhaps within J1 range.
473	583	D	D(606)	RG1	4	48	Two bodies. Rim of SSFB. Rim of Type 4 WMB.
474	583	D	D(606)	RS	1	3	Ovolo fragment.
475	583	D	D(606)	RV	1	44	Proto-Huntcliff jar, cf. types from lower and perhaps intermediate Rudston well deposits.e.g. Rudston 247 etc. Early to mid 4th century. This example has extant calcite but has been coded RV for consistency.
379	607	D	D(606)	RG	4	119	Two large sherds could be HOSM fabrics.
376	607	D	D(606)	RG1	1	13	Body.
377	607	D	D(606)	RS	1	1	Flake, < 1 gram.
378	607	D	D(606)	RV	3	25	Bodies.
470	1000	G	US	CBM?	1	6	Amorphous lump.
469	1000	G	US	MED	3	22	PIMP (2 bodies), SPB-type (jar rim, c. late 12th to early 15th).
467	1000	G	US	PMED	1	1	STAFSL.
464	1000	G	US	RG	3	38	Bodies, base.
468	1000	G	US	RO	4	46	Body and SSFB. Two joining sherds of white-slipped rim cf. those on pulley-necked flagons of c. 170-1240 (Catterick Type 6) but considerably larger (diam. C. 160mm).
466	1000	G	US	RS	1	1	Flake.
465	1000	G	US	RV	1	7	Body.
471	1000	G	US	UNAT	1	19	Bowl rim in oxidised fabric with grey core. Incised chevron design on upper faces of rim. Needs further research.

ID	CTXT	TR	TYPE	FABRIC	NO	WT	REMARKS
452	1001	G	MC	MED	1	22	YORGL. Jug neck.
455	1001	G	MC	MOD	1	4	FPWW? Flatware fragment, burned post fracture.
454	1001	G	MC	PMED	5	21	Three fragments form a thin-walled Nottingham-type stoneware vessel, 18th century. Two sherds Glazed red earthenware, not closely datable.
453	1001	G	MC	UNAT	2	36	Unglazed oxidised bodies.
483	1002	G	MC	MED	36	565	YORGL/BRAN, HUM, SPB-type, UMED.
481	1002	G	MC	RG1	1	41	Rim of SSFB.
482	1002	G	MC	RM	1	35	Body. Probably Crambeck.
458	1003	G	TS	MED	21	346	Mainly YORGL-type, including spout from spouted jug, later 12th to earlier 13th. Also HUM jug rim, 14th or 15th; and UMED scrap, probably 13th-14th.
461	1003	G	TS	PMED	4	174	GRE. Internally glazed bases and body, not closely datable. UGRE.
462	1003	G	TS	RA	1	141	Body.
459	1003	G	TS	RCC	2	2	Beaker scrap, two vessels, probably NVCC.
460	1003	G	TS	RG	6	112	Bodies, base, nothing diagnostic.
457	1003	G	TS	RO?	5	16	Scrap.
456	1003	G	TS	RS	5	34	Three flakes (of which two decorated) and two bodies (of which one decorated). The latter is from an f. 37 stamped [DIVIX.F]. Stansfield and Simpson's dates for this potter are *c.* 160 to early 190s.
463	1003	G	TS	UNAT	1	10	Sandy oxidised, perhaps from basal angle.
480	1118	G	SPREAD	RG	44	28	Body in hard greyware with thick cream exterior margin. Remainder in sandy blackware with brown surfaces. Includes four joining rim sherds of a simple rim dish/bowl.
380	1140	G	DEP	BA	2	60	Thick hand-made bodies, already identified as Bronze Age.
370	1145	G	DEP	RS	1	1	Flake.
375	1111	NL	NK	MOD	11	30	Fragments of an early to mid 18th century tankard.
372	2000	NL	US	MED	4	14	UMED. Scrap.
371	2000	NL	US	MOD	83	89	LBLAK, FPWW (or just possibly CREAM), TPWW (actually litho.) and COLG. Late 19th to 20th.

Appendix E

CERAMIC BUILDING MATERIAL

John Tibbles and S.E. Tibbles

Summary

The majority of the ceramic building material assemblage is of a Romano-British date and represents the residual elements of Romano-British activity. The presence of ceramic building material among the finds assemblage could reflect a high status building within the vicinity. Although a range of ceramic building material normally associated with various aspects of Romano-British building construction was noted, the paucity suggests that the assemblage is likely to represent re-deposition.

The remainder of the assemblage is of medieval, post-medieval and modern date including roof tiles and land drains and most likely represents casual deposition and modern agricultural activity.

1.0 INTRODUCTION AND METHODOLOGY

An assemblage of 178 fragments of ceramic building material with a total weight of 8249g grams from thirty-six contexts was submitted for assessment. The assemblage was examined using a x15 magnification lens where applicable to aid dating, though fabric analysis was not undertaken as was considered beyond the scope of this assessment. Information regarding the dimensions, shape and fabric (were applicable) was recorded and catalogued accordingly and a Munsell colour code has been incorporated where appropriate. The presence of the original surfaces was also taken into consideration to aid identification

It should be noted that the diversity of size and colour within the brick and tile caused during the manufacturing process must be taken into consideration when comparing examples within collected assemblages and typologies. The varying sizes and colours can be attributed to that variation in the clays used, shrinkage during drying, firing within the kiln or clamp and the location of the brick/tile within the kiln.

The dating of brick and tile can be highly contentious due to its re-usable nature and therefore the date range given is that of known dates where material has been recorded.

3.0 THE ASSEMBLAGE

Of the assemblage, 96% of the fragments were of Romano-British forms and/or fabrics. The remainder included ceramic building materials of medieval and post-medieval date.

Table E1: The Assemblage

Period	**Quantity** (fragments)	**Weight** (g)
Romano-British	170	8094g
Medieval	2	25g
Post-medieval	6	130g
Total	**178**	**8249g**

The majority of the Romano-British assemblage (52%) comprised roof tiles, bricks, box-flue tiles and a possible pipe. The remainder was unidentifiable by form.

Table E2: The Romano-British Assemblage

Form	**Quantity** (fragments)	**Weight** (grams)
Bessales	2	500g
Bessales?	3	380g
Pedales?	2	210g
Tegulae Bipedales?	1	250g
Bricks (Form Unidentifiable)	11	400g
Tegulae/Tegulae?	32	2715g
Imbrices/Imbrices?	33	2100g
Tubili lingulati?	1	25g
Box-Flue Tiles	3	44g
Form Unidentifiable	82	1470g
Total	**170**	**8094g**

3.1 Bricks

Bessales were the smallest of the Roman bricks, with an average dimension of 198mm square, equivalent to 8 Roman inches or *unicae* (Brodribb 1987, 34). They were mainly used to construct hypocaust pillars (*pilae*), but they were used in other aspects of building construction such as archways and flooring. *Pedales* – used mostly used for the base or capping of the *pilae* – were around 297mm square, conforming to one square Roman foot (*ibid.,* 36). Largest were *Tegulae Bipedales* – 2 foot square (5914mm) – used primarily as part of the hypocaust system to bridge the gap between the pillars, but other uses included wall revetments, archways and floors (ibid., 42).

Of the nineteen fragments of brick within the assemblage, none displayed diagnostic features. Two fragments were identified as *bessales* with a thickness range of 41m to 43mm, three fragments were possible *bessales?* (28mm to 37mm), one fragment of *pedalis?* (54mm) and one fragment with a thickness >55mm was provisionally identified as a *tegula bipedalis.* Eleven fragments of brick, though unidentifiable by type, were tentatively identified as Romano-British bricks. Heat discolouration was noted and the fabric colour range of Yellowish Red (5YR/5/6) to Brown (7.5YR/5/4) was recorded.

3.2 Roof tiles

Tegulae are the fundamental building material in the construction of the roof. They have particular features in the form of flanges on one face and upper and lower cutaways which were required to allow the tile to slot into each other (ibid 16). *Tegulae* were set with the flanged surface uppermost and *imbrices* were used to overlap the two adjoining flanges to produce a solid roof.

Thirty-two fragments of *tegulae* were identified, of which twelve bore diagnostic features in the form of finger smoothed flanges and/or knife-trimmed lower cut-aways. Two flange types; Type 2 and 4, and one sub-variant Type 2a, were evident as seen elsewhere within the region (Tibbles and Tibbles 2003; Tibbles (a) *forthcoming*, Tibbles (b) *forthcoming*). One form of lower cut-away was recorded, Type 5 (Brodribb 1985, 16). What was of interest was the presence of a lower cut-away sub-variant, a form that was 'flush' with the side of the flanged surface unlike the 'stepped' Type 5 (*ibid* fig. 7, 16). The thickness of the *tegulae* ranged from 13mm to 25mm with a fabric colour range of red (2.5YR/5/6) to light brown (7.5YR/6/4).

Thirty-three diagnostic fragments of *imbrices* were identified with a thickness range of 8mm to 25mm. The majority displayed finger striations from the method of manufacture. The fabric colour ranged from reddish yellow (5YR/6/6) to greenish gray (GLEY1/5/1).

3.3 Box flue-tiles *(Tubuli)*

Tubuli were square pipes set within the walls as part of the hypocaust heating system of Roman buildings. They have characteristic combing or scoring of two surfaces as a keying element for plaster or mortar. They also often have a lateral vents at opposing sides to allow the warm air to circulate (*ibid* 75).

Of the three box-flue tiles, one fragment was diagnostic. Though the characteristic combs tines were not evident, two vertical and two horizontal finger stokes were noted. Their uniform appearance suggests that they possibly served the adhesive function as with combing. The three fragments had a thickness of >10mm to 12mm and a fabric colour of light red (2.5YR/6/8).

3.4 Pipe *(Tubili lingulati)*

Earthenware pipes were used of convey water and served a variety of functions within bathhouses, including downfall pipes and for roadways to act as drainage (*ibid*, 84).

One fragment of ceramic building material was tentatively identified as a possible pipe, *Tubili lingulati*. The fragment had a smooth internal surface, with some degree of curvature and a thickness of 10mm.

3.5 Unidentifiable by form

Eighty-two fragments within the assemblage could not be identified by form at this level of assessment. However, the thickness, where applicable, ranged from 11mm to 18mm suggesting fragments of tiles. Thirteen fragments were of Romano-British fabrics, the remainder requires further fabric analysis to confirm dating. The assemblage had a fabric colour range of light red (2.5YR/6/8) to reddish brown (5YR/5/4).

4.0 DISCUSSION

4.1 Area A Contexts 1 - 7.

Total No of fragments: 21 Weight: 484g

Of the total assemblage, 12% (twenty-one fragments) was recovered from Area A from three contexts; (1) ploughsoil, (2) subsoil and (3) ploughtrends. The ceramic building material was identified as Romano-British and comprised of bricks; *pedales?* and unidentifiable forms, *imbrex?* and box-flue tiles. Of the remainder of the assemblage, fourteen fragments were tentatively identified as Romano-British. The stratigraphic location presents little evidence to its deposition and refined dating. It is likely that the material was re-deposited from Romano-British activity within the area.

4.2 Area B Contexts 100 - 106

Total No of fragments: 11 Weight: 233g

Seven fragments of Romano-British ceramic building material was recovered from three contexts within this area: (100) ploughsoil, (101) subsoil and (105) fill of ditch (106). This material made up 4% of the overall assemblage. Of the seven fragments, three were tentatively identified as Romano-British. Despite the paucity, two forms were recorded; brick (form indeterminable) and a fragment of *imbrex?* The stratigraphic location of the Romano-British material presents little information regarding its deposition. With the exception of the material recovered from the ditch fill (105), it is likely that the majority was re-deposited.

Post-medieval building material was also recovered from (100) ploughsoil; one fragment of pantile and three fragments of land drain. This material represents casual deposition and evidence of agricultural activity within the area.

4.3 Area C Contexts 200 - 228
Total No of fragments: 13 Weight: 277g
A paucity of Romano-British ceramic building material, thirteen fragments (7% of the overall assemblage) was recovered from two contexts within this area; (200) topsoil and ditch fill (225).

The assemblage included two forms of roof tile, *tegulae* and a fragment of *imbrex?* Ten fragments were unidentifiable by form and of possible Romano-British fabric.

The presence of the remains of a degraded road (228) suggests that the material may have been used as part of metalling and/or repair work of this surface, disturbed by later ploughing activity on the site. This use of the ceramic building material may also be attributed to the assemblage within the topsoil (200) that is likely to have been re-deposited through later agricultural activity.

4.4 Area D Contexts 300 - 594
Total No of fragments: 119 Weight: 6630g
The majority of the assemblage was recovered from this area and comprised one hundred and sixteen fragment of Romano-British building material, two fragments of medieval flat roof tile and one fragment of post-medieval land drain (65%, 1% and 0.5% of the overall assemblage respectively).

Of the Romano-British material seven forms were recorded; *tegulae* (28) *imbrices* (28) *imbrices?* (2) *bessalis* (1) *bessales?* (3) *tegulae bipedalis?* (1) bricks (form indeterminable) (6) *tubili lingulati?* (1) and box-flue tile (1). The remaining forty-five fragments were not identifiable by form and possibly of Romano-British fabric.

Ceramic building material was recovered from twenty-four contexts, the majority of which, fifty-one fragments (29%) was recovered from subsoil (301). The remainder was recovered from ditch fills 314, 322, 324, 352, 414, 454, 477, 547 and 571, pit fills 328, 389, 546 and 582, deposits 304, 331, and 384, fill of drain 303, topsoil (300) and deposits associated with furnaces (310) (312) (317) and (318).

The quantity of the material recovered does not substantiate the presence of a building within the immediate locale, although it may represent residual material from a structure within the vicinity. The interpretation of an agricultural settlement with the presence of three possible corn drying kilns, therefore suggests that the ceramic building material may have been used within the construction of the kilns. Evidence of heat discolouration and post-breakage burning was noted within the ceramic building material recovered from contexts associated with the corn drying kilns.

The medieval material was recovered from the topsoil (300) and represents casual deposition. The post-medieval land drain was noted within 582, the primary fill of pit/pond 420.

4.5 Area G Contexts 1000 - 1154
Total No of fragments: 6 Weight: 525g
The ceramic building material recovered from this area comprised five Romano-British fragments; *bessalis* (1), *tegulae* (2), two fragments unidentifiable by form and one fragment of post-medieval brick all recovered from three contexts: Unstratified (1000), machine clearance (1002) and topsoil (1003).

The presence of the Romano-British ceramic building material can be attributed to the former road surface (1109). As with Area C, the material was possibly used for metalling and/or repairs.

The post-medieval material recovered from 1002 represents casual deposition.

4.6 Area H Context 2000
Total No of fragments: 8 Weight: 100g
Eight fragments of ceramic building material, tentatively identified as Romano-British, were recovered from context 2000. Although they cannot be discussed in relation to the archaeology, this material made up 5% of the overall assemblage.

5.0 DISCUSSION

Overall, the assemblage did not appear to represent lower quality materials with little evidence of abraded surfaces suggesting minimal disturbance by later activity. A significant quantity displayed post-breakage burning and heat discolouration that implies possible high temperature activity either from demolition, during re-use or at original source. Joining fragments, though no inter-contextual joins were noted at this level of assessment, were also recorded that suggests that the material comprised possibly larger fragments upon deposition.

Ceramic building material was considered to be of high status and a valued re-usable commodity. The presence of ceramic building material among the finds assemblage could reflect a high status building within the vicinity. However, there is insufficient evidence for large Romano-British structures within the immediate area of investigation. The paucity of the range of building materials required within the various aspects of construction would suggest that this assemblage represents re-deposited material from Romano-British buildings within the vicinity. Despite the paucity of mortar adhesions, the assemblage does imply evidence for the re-use of ceramic building materials within smaller components of an agricultural settlement, for example within construction of the corn drying kilns and for use as repairs or metalling of the road surfaces.

Although the potential is limited at this level of analysis, the information gleaned is significant as it can add to the corpus of evidence of activity during this period for the area.

6.0 RECOMMENDATIONS

Fabric analysis should be completed, provisionally by visual examination to refine identification of the queried forms and dating. This should also be undertaken for comparative purposes with other Romano-British ceramic building assemblages within the region to try to ascertain source. Further scientific analysis should be undertaken if deemed worthy after further study.

It is recommended upon completion of work on this assemblage, samples of fabrics should be retained and a selective discard policy implemented prior to deposition of the finds assemblage as whole within the appropriate museum.

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Appendix F

CLAY PIPE

Sarah Wilkinson

Summary

A total of six clay pipe stems weighing 17g were recovered from the topsoil and subsoil. All the stem fragments were plain with a borehole size of 5 (Table F1). There were no distinguishing makers' marks or stamps to closely date the stems but they probably date from the late 17th century to the early 19th century

1.0 Table F1: Quantification of results

Context 101 **Total 2**

Form	*Qty*	*Bowl*	*Stamp*	*Bore*	*Description*
Stem	2			5	plain

Context 200 **Total 1**

Form	*Qty*	*Bowl*	*Stamp*	*Bore*	*Description*
Stem	1		5		plain

Context 300 **Total 1**

Form	*Qty*	*Bowl*	*Stamp*	*Bore*	*Description*
Stem	1		5		plain

Context 301 **Total 1**

Form	*Qty*	*Bowl*	*Stamp*	*Bore*	*Description*
Stem	1		5		plain

Context 2000 **Total 1**

Form	*Qty*	*Bowl*	*Stamp*	*Bore*	*Description*
Stem	1		5		plain

2.0 RECOMMENDATIONS

No further analysis is recommended and the clay pipes can be discarded.

Appendix G
GLASS
H.E.M. Cool

1.0 INTRODUCTION

A total of some 350g of ancient glass sherds and a single glass bead were recovered during excavations at Stamford Bridge.

2.0 DISCUSSION

2.1 Glass from cremation burial 308

The cremation burial 308 contained two glass vessels. The larger (no. 1) was clearly a globular vessel with open pushed-in base ring. The upper body and rim was entirely missing, and the vessel had obviously been truncated when it had been displaced. Lower bodies and bases of vessels tend to be less distinctive than the rims and upper bodies, as the same shapes may be used on vessels of quite different forms. As a quantity of cremated bone was found above the fragments, it seems reasonable to conclude that the vessel was being used as an urn. This automatically rules out such forms as amphorisks of Isings Form 15 and globular jugs of Isings Form 52 (Price and Cottam 1998, 147-8, 150-2), both of which use this base form. There are three types of jar which are possible candidates; the collared jars of Isings Form 67c and are large jars with pairs of either M-shaped or angular handles (Isings Forms 63 or 65). The collared jar is by far the commonest of these; but most are ribbed and this vessel is undecorated. Undecorated collared jars are known from contexts dating to the mid to late 1st century (Cool and Price 1995, 107), but appear to be rare. The jars with handles are also very rare in Britain; but when they are found, both here and elsewhere within the empire, they are most often recovered from cremation burials. In Kent, for example, one with M-shaped handles was used as an urn in a burial at Southfleet (Harden *et al* 1987, 96 no. 38); and one with L-shaped handles containing the bones and enclosed itself in an amphora, came from Lower Walmer (Woodruff 1902, 8 no. 2). Both of these forms developed in the later 2nd century and were in use throughout the 2nd century. It is distinctly possible that they were specialist vessels, deliberately made for use as urns, as fragments from them are very uncommon in domestic assemblages.

Making a decision as to which form is represented has to be done on a balance of probabilities. The size of the base, and the lack of decoration would argue against the collared jar, and for the handled jars. There is one other fragment that might also suggest this identity was most likely. This is the chip no. 2. It is very substantial, but retains no surfaces or bubble patterns internally that help identify what it is. One possibility is that it comes from a substantial handle like the ones that are found on the jars. It is certainly too large to have come from the wall of even a very large bottle. Alternatively, if glass vessels were put on the pyre, it might have come from a melted lump; but it shows no evidence of this in the form of charcoal or bone inclusions, as is sometimes the case with large fragments of melted glass from pyres.

Most of the fragments from the second vessel (no. 3) are missing, but sufficient remain to show it was a small globular jar with a folded and flattened rim. The rim aperture is only 18mm, and so it seems likely that the contents would have been liquid. The form is not one that has often been identified, probably because a large amount of the profile needs to survive to recognise it; and this is only likely to occur in special deposits because the vessel is thin-

walled. A very similar little jar was found in the dedicatory deposit dated to AD 160-70 at the temple at Wanborough (O'Connell and Bird 1994, 129 no. 3), but the precise date range of the form is unknown.

The balance of probabilities would be that this group came together sometime in the 2nd century. Philpott (1993, 27) has shown that the use of glass cinerary urns is predominantly a rural phenomenon, and is not associated with major urban centres. The presence of a glass vessel used as an urn at this site follows this pattern, but there are unusual features about the choice of vessels. Normally the vessel used was a large blue/green bottle (Philpott 1993, 259 Table A7). Jars are occasionally noted, but are much less common and, within them, the types with handles are in a distinct minority. Equally, though it is common to include an unguent bottle in the burial, this is normally one of the common long-necked forms (see for example Price and Cottam 1998, 172 for the typical 2nd century form). It might be that the contents of the small globular jar were different to those found in the normal unguent bottles. One could speculate that not only was the individual buried in a specialist vessel, rather than a spare one available in the kitchen; but that their body, or the calcined bones, was anointed with an unusual perfume or oil. This, though, is speculation: what is certain is that this individual was buried with unusual vessels, and this is a most unexpected find.

1 Globular or ovoid jar; lower body and base shattered into many fragments. Blue/green; many bubbles. Convex-curved lower body; open pushed-in base ring; shallow concave base. Base diameter 105mm, present height of joined fragments 45mm. 308 AD.

2 Chip; blue/green. all edges broken. Dimensions 21 x 21 x 15mm; weight 6g 308 AD.

3 Globular jar; 7 rim, body and base fragments. Blue/green; small bubbles Rim bent out, up, in and flattened; convex-curved side; side of flattened base. Rim diameter 27mm, wall thickness 1mm, present height of joined fragments 24mm. 308 AD.

2.2 Glass from other contexts

The only other vessels represented from the pipeline excavations are typical household containers. No. 4 is the rim of a jar (Cool and Price 1995, 109), and No. 5 comes from the wall of a square bottle (Price and Cottam 1998, 194-8). In neither case can they be more closely dated than to within the 1st to 3rd centuries; though in the case of the bottle the commonest period of use was during the late 1st to late 2nd centuries.

A cylindrical green bead was also found (no. 11). These are commonest in the late Roman period when the wearing of glass bead necklaces was most fashionable, but the type is occasionally found earlier. Very similar ones were found in a late 1st to early 2nd century context at Castleford (Cool and Price in Cool and Philo 1998, 187 No. 114), and in mid 2nd century contexts at the same site *(ibid* 187 Nos. 128, 176-8).

4 Jar, rim fragment. Blue/green. Outbent rim with rolled-in edge. Dimensions 24 x 18mm, wall thickness 2.5mm. 301 BG

5 Square bottle; body fragment. Blue/green. 301 BH

6-10 Five blue/green body fragments. 304 AM; 400 AB; 454 AB; 550 AB.

11 Bead. Translucent dark green; long cylindrical. Length 11.5mm, diameter 4mm, perforation diameter 4mm. 607 AA

3.0 RECOMMENDATIONS

It is recommended that the jar within context 308 be partially reconstructed and illustrated. Upon completion of work on this assemblage, the Roman glass should be retained and a discard policy implemented for modern glass fragments prior to deposition of the finds assemblage as whole within the appropriate museum.

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Appendix H

CONSERVATION ASSESSMENT REPORT

Julie Jones
(York Archaeological Trust)

1.0 AIMS AND OBJECTIVES

This report aims to meet the requirements of MAP2 (English Heritage, 1991) to produce a stable site archive (Phase2: Fieldwork). This has involved X-radiography and an assessment of the condition, stability and packaging of the finds.

The potential of the assemblage for further analysis and research is also discussed (MAP2 Phase 3: Assessment). The condition of the various classes of material is summarised and indicators of unusual preservation are noted. There are recommendations for investigative conservation and additional specialist study.

2.0 PROCEDURES

The iron, 'iron pan?' and copper-alloy finds were X-rayed using standard Y.A.T. procedures and equipment. One sheet of film was used in each cassette, and the plate was given a reference number in the YAT conservation laboratory series. The X-ray number was written on the packaging for each recorded find. Each image on the radiograph was labelled with its recorded find number. The plate was packaged in an archival paper pocket.

All finds were examined under a binocular microscope at ×20 magnification. The material identifications were checked and observations made about the condition and stability of the finds, and recorded in section 4 below.

3.0 QUANTIFICATION

A total of 132 finds were assessed and 12 X-ray plates produced.

The number of objects in each material category is listed below:

Iron	98
Copper alloy	13
Lead alloy	10
Iron pan?	10 bags
Jet	01

4.0 ASSESSMENT

The assessments are listed in tables below by material type and in find number order. **Recommendations for further investigation and new observations are highlighted in bold type**. Unless further treatment and stabilisation has been recommended, the finds should remain stable and require no further work at this stage. Additional work may be required if objects are selected for drawing, photography or display, this is not routinely included below:

4.1 Iron

X-ray No.	Find No.	Assessment
6030	300 AD	Label: "Fe obj" sent in perforated mini-grip bag. Condition: Two pieces which join to form a corroded **Fe strip** (draw from X-ray, re-orientating the small fragment to correct position). Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. Very little metal core remains; the break reveals orange powdery corrosion and central void. Cross-section is rectangular, *c.*3mm thick. Unless required for research, no further treatment is required.
6030	301 AL	Label: "Fe (MD)" sent in perforated mini-grip bag. Condition: A large flat lump covered in sand and silt over bulky orange-brown iron corrosion with pebble and root inclusions. No sign of active corrosion. X-ray: reveals a bent strip forming a **loop.** Some metal core remains; blisters visible. Unless required for research, no further treatment is required, draw from X-ray.
6030	301 AM	Label: "Fe (M.D.)" sent in perforated mini-grip bag. Condition: A flat lump covered in sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: reveals a solid metal core. **Possibly bar or ingot**? Unless required for research, no further treatment is required.
6030 6032	301 AN	Label: "Fe (MD)" sent in perforated mini-grip bag. Condition: A large lump covered in sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion, although a weeping chloride crust was noted within the broken blister. X-rays: reveals a **large barrel padlock bolt.** The leaves of the longer spring have been riveted to the spine at the base. There are springs in two planes, perpendicular to each other. It looks as if there is an attachment loop (3 strands?) at the top and that the circular margin of the closing plate has been coated in non-ferrous (brazing?) metal probably originally all over. **Recommend: Partial investigative corrosion removal to expose any non-ferrous plating on the cap, the layout of the leaves, and the shape of the attachment loop**.
6030	301 AO	Label: "Fe (MD)" sent in perforated mini-grip bag. Condition: A large lump covered in sand and silt over bulky orange-brown iron corrosion. A recess on one face reveals the broken diamond-shaped cross-section of an Fe strip. The cross-section is black with hollow regions in the core, some velvety powdery remains. Slight signs of bright orange corrosion (potentially active). X-ray: The x-ray has very dense areas, but the form is not recognisable. **Is this ironworking waste?** Unless required for research, no further treatment is required.
6030	301 AP	Label: "Fe (MD)" sent in perforated mini-grip bag. Condition: A large lump covered in sand and silt over bulky orange-brown iron corrosion. Signs of weeping corrosion in the cracked centre (potentially active). X-ray: The x-ray has a very dense core, but the form is not recognisable. **Is this ironworking waste?** Unless required for research, no further treatment is required.
6030	301 AQ	Label: "Fe (MD)" sent in perforated mini-grip bag. Condition: A large lump covered in sand, silt and roots over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: The x-ray looks like a strip or bar folded into a U-shape. **Is this ironworking waste?** Unless required for research, no further treatment is required.

6031	301 AR	Label: "Fe knife? (M.D.)" sent in perforated mini-grip bag. Condition: One piece. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion, although the crust is cracking. X-ray: reveals a **bar or strip fragment** with possible curving projection at one end. There is reasonable metal core and no sign of perforation. The density does not reduce across the image, so it is unlikely to be a blade. Unless required for research, no further treatment is required.
6031	301 AS	Label: "Fe nail?" sent in perforated mini-grip bag. Condition: One piece, bent. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: This is a bent bar or strip, **possibly a nail shank**. Very little metal core remains; the find is totally corroded. Unless required for research, no further treatment is required.
6031	301 AT	Label: "Fe obj" sent in perforated mini-grip bag. Condition: One piece. Sand and silt over very bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: reveals a tapering strip, **probably a nail shank**. Very little metal core remains; the head is missing. Unless required for research, no further treatment is required.
6031	301 AU	Label: "Fe (MD.)" sent in perforated mini-grip bag. Condition: An **iron bar or strip fragment** covered in sand and silt over bulky orange-brown corrosion. X-ray: The x-ray reveals some solid metal core on one half; the other end has little metal core remaining. Unless required for research, no further treatment is required.
6030	301 AV	Label: "Fe (MD)" sent in perforated mini-grip bag. Condition: An iron lump (possibly nut and bolt fragment) covered in sand and silt over bulky orange-brown corrosion. The cracking indicates potentially active corrosion of the metal core. X-ray: The x-ray reveals a dense metal core, but the form is not recognisable. **Is this ironworking waste or corroded nut and bolt?** Unless required for research, no further treatment is required.
6030	301 AW	Label: "Fe obj?" sent in perforated mini-grip bag. Condition: A large iron lump covered in sand and silt over bulky orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals a dense metal core, nearly square (trapezoidal). **Is this ironworking waste?** Unless required for research, no further treatment is required.
6031	301 AX	Label: "Fe obj" sent in perforated mini-grip bag. Condition: A flat rectangular iron lump covered in sand and silt over bulky orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals a **rectangular sheet with central rectangular perforation.** Unless required for research, no further treatment is required.
6031	301 AY	Label: "Fe nail" sent in perforated mini-grip bag. Condition: A long bent spike covered in sand and silt over bulky orange-brown corrosion. No sign of active corrosion. Possible mineralised organic remains at wide end? X-ray: The x-ray reveals a **spike,** with corrosion blisters, the wide end has very little metal remaining. **Recommend: If required for research, partial investigative corrosion removal to expose any mineralised remains and shape of cross-section at both ends**.
6031	301 AZ	Label: "Fe ?nail" sent in perforated mini-grip bag. Condition: A small strip fragment covered in sand and silt over bulky brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals a **strip fragment,** possibly a nail shank but no sign of a head or tapered tip; one end has very little metal remaining. Unless required for research, no further treatment is required.

6031	301 BA	Label: "Fe nail" sent in perforated mini-grip bag. Condition: Fe nail, incomplete, tip broken and missing, square cross-section at break, covered in sand and silt over bulky orange-brown corrosion with pebble attached. Spots of white furry mould on head. No sign of active corrosion. X-ray: The x-ray reveals a **nail fragment,** lower part has very little metal remaining. Unless required for research, no further treatment is required.
6031	301 BB	Label: "Fe obj MD find" sent in perforated mini-grip bag. Condition: A flat sub-rectangular iron lump covered in sand and silt over bulky orange-brown corrosion (modern textile fluff attached). Cracking and lamination is a sign of active corrosion of the metal core. X-ray: The x-ray reveals a **sub-rectangular bar, thinner at one end.** Solid metal core. Unless required for research, no further treatment is required
6032	301 BC	Label: "Fe obj MD find" sent in perforated mini-grip bag. Condition: One large piece, complete, but with small fragment detached. The lump is covered in sand and silt over bulky orange-brown corrosion. X-ray: The x-ray confirms this is a **fitting with central circular perforation,** with substantial metal core. **Probably an industrial fitting.** Unless required for research, no further treatment is required.
6031	301 BD	Label: "Fe nail" sent in perforated mini-grip bag. Condition: Fe nail, complete; sand and silt over bulky orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals a **complete nail** with very little metal remaining. Unless required for research, no further treatment is required.
6031	303 AA	Label: "Fe nail" sent in perforated mini-grip bag. Condition: A small bent strip fragment covered in sand and silt over bulky orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals a **tapering strip,** probably a nail shank with very little metal remaining. Unless required for research, no further treatment is required.
6031	304 AB	Label: "Fe nail" sent in perforated mini-grip bag. Condition: Fe nail, possibly complete, covered in sand and silt over bulky orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals a **nail fragment,** lower part has very little metal remaining. Unless required for research, no further treatment is required.
6031	304 AC	Label: "Fe" sent in perforated mini-grip bag. Condition: One piece, incomplete, an **iron bar or strip fragment** with one end broken off to expose a hollow sub-rectangular cross-section, the rest is missing **(Joins 304AI, possible nail shank)**. Sand and silt over bulky orange-brown iron corrosion. Very little metal core remains; the break reveals orange powdery corrosion and central void. No sign of active corrosion. X-ray: The end opposite the recent break is uneven (small stub-like projection) and appears to have broken off in antiquity. Unless required for research, no further treatment is required.
6031	304 AD	Label: "**Fe nail**" sent in perforated mini-grip bag. Condition: Fe nail, complete, covered in sand and silt over bulky orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals a complete nail, very little metal remaining. Unless required for research, no further treatment is required.
6032	304 AE	Label: "Fe" sent in perforated mini-grip bag. Condition: One piece, complete, covered in sand and silt over bulky orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals a **complete nail,** very little metal remaining. Unless required for research, no further treatment is required.

6032	304 AF	Label: "Fe" sent in perforated mini-grip bag. Condition: One piece, incomplete, shank is broken, revealing a square cross-section. Nail is covered in sand and silt over bulky orange-brown corrosion. Pale orange powdery core (potentially active). X-ray: The x-ray confirms this is a **nail,** very little metal remaining on shank. Unless required for research, no further treatment is required.
6032	304 AG	Label: "Fe" sent in perforated mini-grip bag. Condition: One piece, incomplete, both ends broken and missing. The break reveals a square cross-section, now hollow. Object is covered in sand and silt over bulky orange-brown corrosion; possible mineralised wood in corrosion. No sign of active corrosion. X-ray: The x-ray reveals a **corroded strip, possibly a nail shank,** very little metal remaining. **Recommend: Only if required for research, partial investigative corrosion removal to expose any mineralised remains and shape of cross-section**.
6032	304 AH	Label: "**Fe nail**" sent in perforated mini-grip bag. Condition: One piece, complete, covered in sand and silt over bulky orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals a complete nail**,** very little metal remaining. Unless required for research, no further treatment is required.
6032	304 A I	Label: "Fe" sent in perforated mini-grip bag. Condition: A bent strip or bar fragment; incomplete, one end broken and missing; hollow sub-rectangular cross-section at break (**Joins 304AC)**. Fragment is covered in sand and silt over bulky orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals a **tapering strip, probably a nail shank** with very little metal remaining. Unless required for research, no further treatment is required
6032	304 AJ	Label: "**Fe nail**" sent in perforated mini-grip bag. Condition: One piece, possibly complete, covered in sand and silt over bulky orange-brown corrosion with many air-holes or channels. No sign of active corrosion. X-ray: The x-ray confirms this is a nail, very little metal remaining on shank. Unless required for research, no further treatment is required.
6032	304 AK	Label: "Fe obj" sent in perforated mini-grip bag. Condition: One piece, incomplete, one end broken and missing. The break reveals a square cross-section, now hollow. Object is covered in sand and silt over bulky orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals a **corroded strip,** very little metal core remaining. Unless required for research, no further treatment is required.
6032	304 AL	Label: "**Fe nail head**" sent in perforated mini-grip bag. Condition: One piece, incomplete, shank is broken, cross-section not clear. Nail is covered in sand and silt over bulky orange-brown corrosion with white deposit at break. X-ray: The x-ray confirms this is a nail head**,** very little metal remaining on shank. Unless required for research, no further treatment is required.
6033	310 AA	Label: "Fe obj./shank" sent in perforated mini-grip bag. Condition: A tapering strip fragment; incomplete, one end broken and missing; cross-section at break is not clear. Fragment is covered in sand and silt over bulky orange-brown corrosion with charcoal and plant inclusions. No sign of active corrosion. X-ray: The x-ray reveals a **tapering strip, probably a nail shank** with very little metal remaining. Unless required for research, no further treatment is required

6033	310 AB	Label: "Fe obj/nail?" sent in perforated mini-grip bag. Condition: A strip or bar possibly complete? It is covered in sand and silt over bulky orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals an **object with an expanded squared off end** with very little metal core remaining. **Recommend: If required for research, partial investigative corrosion removal to expose shape of expanded end.**
6033	310 AC	Label: "Fe" sent in perforated mini-grip bag. Condition: One piece, possibly complete, covered in sand and silt over bulky orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray confirms this is a **nail,** very little metal remaining on the bent shank. Unless required for research, no further treatment is required.
6033	312 AA	Label: "Fe nail?" sent in perforated mini-grip bag. Condition: One piece. Object is covered in sand and silt over bulky orange-brown corrosion with inclusions. No sign of active corrosion. X-ray: The x-ray reveals a **tapering strip, probably a nail shank** with fair amount of metal remaining. Unless required for research, no further treatment is required
6033	314 AB	Label: "Fe obj" sent in perforated mini-grip bag. Condition: Two pieces which join to form a corroded **Fe nail** (draw from X-ray). Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. Very little metal core remains; the break reveals orange powdery corrosion and central void. Cross-section is square. Unless required for research, no further treatment is required.
6033	316	Label: "**Fe nail**" sent in perforated mini-grip bag. Condition: One piece. Object is covered in sand and silt over bulky orange-brown corrosion with inclusions. No sign of active corrosion. X-ray: The x-ray reveals a **complete nail in situ through a metal strip or plate** with fair amount of metal remaining. **Recommend: If required for research, partial investigative corrosion removal to expose shape of perforated plate and any MPOs. And/or re-x-ray to show the shape of the plate.**
6033	326 AA	Label: "Fe (2 joining frags)" sent in perforated mini-grip bag. Condition: Two pieces which join to form a corroded **Fe nail** (draw from X-ray). Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. Very little metal core remains; the break reveals orange powdery corrosion and central void. Cross-section is square. Unless required for research, no further treatment is required.
6033 6034	333 AB	Label: "Fe obj. (3 joining frags)" sent in perforated mini-grip bag. Condition: Three pieces which join to form a **corner bracket with nail in situ** (draw from X-ray); incomplete, the strap beyond the nail has broken off and is missing. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. The breaks reveal orange powdery corrosion and central void. Cross-sections are not so clear; probably D-shaped (interior is flat); now hollow. X-ray (two views): L-shaped strap with nail in situ at one end; the second view also shows a **rectangular perforation and possible nail head in situ through the centre of the lower arm**. The detached end fragment also hints at a rectangular perforation but the fragment is too corroded and very little metal core remains here. **Recommend: Draw from X-ray. Only if required for research, partial investigative corrosion removal to expose shape of cross-section, perforations and nail heads.**
6033	339 AB	Label: "Fe nail" sent in perforated mini-grip bag. Condition: One piece; a bent strip? Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. Some magnetic response. X-ray: Very little metal core remains. Unless required for research, no further treatment is required.

6033	341 AA	Label: "Fe" sent in perforated mini-grip bag. Condition: One piece, incomplete, both ends broken and missing. Breaks reveal a square cross-section, probably a **nail shank fragment**. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Very little metal core remains Unless required for research, no further treatment is required.
6033	341 AB	Label: "Fe" sent in perforated mini-grip bag. Condition: One piece, incomplete, one end broken in antiquity; **joins 341AC.** Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Very little metal core remains; this is **a nail shank**. Unless required for research, no further treatment is required
6033	341 AC	Label: "Fe" sent in perforated mini-grip bag. Condition: One piece, a nail head and shank fragment which **joins 341AB** to form a complete **Fe nail** (draw from X-ray). Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Very little metal core remains; this is **nail head and shank fragment**. Unless required for research, no further treatment is required.
6034	349 AA	Label: "Fe" sent in perforated mini-grip bag. Condition: One piece a bent Fe strip. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: **Probably a nail shank**. Very little metal core remains Unless required for research, no further treatment is required.
6034	355 AA	Label: "Fe obj" sent in perforated mini-grip bag. Condition: One piece a bent Fe strip. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: **Probably a nail head and part of shank**. Very little metal core remains. Unless required for research, no further treatment is required.
6034	355 AB	Label: "**Fe nail**" sent in perforated mini-grip bag. Condition: One piece a bent Fe nail. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Confirms this is a complete nail. Very little metal core remains. Unless required for research, no further treatment is required.
6034	357 AA	Label: "**Fe nail**" sent in perforated mini-grip bag. Condition: One piece, incomplete, tip is broken and missing. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. Cross-section at break is square. Orange porous corrosion is probably mineralised wood, but survival is poor and no detail of structure is visible. X-ray: Confirms this is a nail. Very little metal core remains. Unless required for research, no further treatment is required.
6034	357 AB	Label: "Fe" sent in perforated mini-grip bag. Condition: One piece. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Tapering strip, **possibly a nail shank**. Very little metal core remains Unless required for research, no further treatment is required.
6034	357 AC	Label: "Fe" sent in perforated mini-grip bag. Condition: One piece an Fe strip, both ends broken, square cross-section (now hollow), **Joins 357AE**. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: **nail shank**. Very little metal core remains Unless required for research, no further treatment is required.
6034	357 AD	Label: "Fe nail" sent in perforated mini-grip bag. Condition: One piece, a tapering strip fragment, incomplete, both ends broken and missing, square cross-section (now hollow). Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Suggests this is a **nail shank fragment**. Very little metal core remains. Unless required for research, no further treatment is required.

6034	357 AE	Label: "Fe nail" sent in perforated mini-grip bag. Condition: One piece, an Fe nail head and shank fragment; the shank **joins 357AC,** square cross-section (now hollow). Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Confirms this is a complete **nail head and shank fragment**. Very little metal core remains. Unless required for research, no further treatment is required.
6034	361 AA	Label: "Fe" sent in perforated mini-grip bag. Condition: One piece. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: This **could be** a **nail head and shank fragment**. Very little metal core remains in the shank, the head has a pale image. Unless required for research, no further treatment is required.
6034	383 AC	Label: "Fe nail" sent in perforated mini-grip bag. Condition: One piece. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Very little metal core remains; **cannot confirm this is a nail**. Unless required for research, no further treatment is required.
6034	384 AE	Label: "**Fe large stud/nail**" sent in perforated mini-grip bag. Condition: One piece. Sand and silt over bulky orange-brown iron corrosion with pebble inclusions. No sign of active corrosion. X-ray: Very little metal core remains in the head, but some metal core survives in the shank. Unless required for research, no further treatment is required.
6034	384 AF	Label: "Fe ?nail" sent in perforated mini-grip bag. Condition: One piece. Sand and silt over bulky orange-brown iron corrosion with pebble inclusions. No sign of active corrosion. X-ray: This **is probably a bent nail shank fragment**. Very little metal core remains at the tip. Unless required for research, no further treatment is required.
6035	384 AG	Label: "Fe" sent in perforated mini-grip bag. Condition: An iron lump covered in sand and silt over bulky orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals a dense metal core, but the form is not recognisable. **Is this ironworking waste?** Unless required for research, no further treatment is required.
6035	384 AH	Label: "Fe obj?" sent in perforated mini-grip bag. Condition: A knobbly iron-like lump covered in sand and silt over bulky brown corrosion. No sign of active corrosion. No magnetic response. No vitrified surface visible. Small area of green corrosion attached to one end indicates a Cu alloy object adjacent to this in burial. X-ray: The x-ray reveals a sponge-like irregular lump, possibly a by-product of iron production, but not familiar or immediately recognisable to me. **Is this ironworking waste? Refer to archaeometallurgist.** Unless required for research, no further treatment is required.
6034	384 AI	Label: "**Fe nail**" sent in perforated mini-grip bag. Condition: One piece, incomplete, the tip is broken and missing; square cross-section. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Confirms this is a nail. Good metal core. Unless required for research, no further treatment is required.
6034	384 AJ	Label: "**Fe nail**" sent in perforated mini-grip bag. Condition: Two pieces which join. Sand and silt over orange-brown iron corrosion with **mineralised wood remains** under head (too scant to ID). No sign of active corrosion. X-ray: Confirms this as a nail. Very little metal core remains in the shank. Unless required for research, no further treatment is required.

6035	384 AK	Label: "**Fe nail**" sent in perforated mini-grip bag. Condition: One piece, complete. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Confirms this is a nail. Some metal core at head. Unless required for research, no further treatment is required
6034	384 AM	Label: "Fe nail" sent in perforated mini-grip bag. Condition: One piece; no magnetic response. Sand and silt over orange-brown conical tube-like shape. No sign of active corrosion. X-ray: This **is not an iron object; but natural concretion**. No further treatment is required.
6035	384 AN	Label: "Fe nail" sent in perforated mini-grip bag. Condition: One piece, complete; no magnetic response. Sand and silt over bulky orange-brown surface. No sign of active corrosion. X-ray: This **is not an iron object; but natural concretion.** No further treatment is required.
6034	384 AO	Label: "Fe nail" sent in perforated mini-grip bag. Condition: One piece. Sand and silt over bulky brown iron corrosion. No sign of active corrosion. X-ray: Confirms this is a **nail head and shank fragment**. Good metal core. Unless required for research, no further treatment is required.
6035	400 AA	Label: "Fe nail" sent in perforated mini-grip bag. Condition: One piece. Sand and silt over bulky orange-brown iron corrosion with inclusions. No sign of active corrosion. X-ray: This **is probably a nail shank**. No metal core remains. Unless required for research, no further treatment is required.
6035	411 AB	Label: "Fe obj?" sent in perforated mini-grip bag. Condition: A small knobbly iron-like lump covered in sand and silt over bulky brown corrosion. No sign of active corrosion. No magnetic response. No vitrified surface visible. X-ray: The x-ray reveals a sponge-like irregular lump, possibly a by-product of iron production, but not familiar or immediately recognisable to me. **Is this ironworking waste? Refer to archaeometallurgist.** Unless required for research, no further treatment is required.
6035	416 AB	Label: "**Fe nail**" sent in perforated mini-grip bag. Condition: One piece, complete. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Confirms this is a nail. Some metal core at head. Unless required for research, no further treatment is required
6035	421 AB	Label: "Fe obj" sent in perforated mini-grip bag. Condition: One piece, complete; a bent strip. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Confirms this is a **perforated strip**, **bent upwards at narrow end**. Some metal core at that end. Unless required for research, no further treatment is required
6035	433 AA	Label: "Fe" sent in perforated mini-grip bag. Condition: A large irregularly-shaped lump of iron. Sand and silt over bulky pale orange-brown iron corrosion. No sign of active corrosion. X-ray: Confirms this is a **chain**, with **5 figure of eight-shaped links** (formed from an oval pinched in the centre) and **2 oval connecting links**. **Recommend: Draw from X-ray**. Unless required for research or display, no further treatment is required
6035	444 AB	Label: "Fe" sent in perforated mini-grip bag. Condition: A lightweight iron-like lump covered in sand and silt over bulky orange-brown corrosion(?) with charcoal inclusion. No sign of active corrosion. No magnetic response. No vitrified surface visible. X-ray: The x-ray is not diagnostic; small pale flecks in a uniform ground with a pale edge to one side which might have some iron content. **Possibly a concretion?** Unless required for research, no further treatment is required.

6035	444 AC	Label: "Fe" sent in perforated mini-grip bag. Condition: Two fragments of a lightweight tube covered in sand and silt over bulky orange-brown surface with charcoal inclusion. No magnetic response. No metal core visible at break. X-ray: The x-ray confirms this as **a concretion.** Unless required for research, no further treatment is required.
6035	444 AD	Label: "Fe" sent in perforated mini-grip bag. Condition: An iron-like conical lump covered in sand and silt over bulky orange-brown surface with charcoal and pebble inclusion. No magnetic response. X-ray: The x-ray reveals small pale flecks in a uniform ground. **Probably a natural concretion.** Unless required for research, no further treatment is required.
6035	444 AE	Label: "Fe" sent in perforated mini-grip bag. Condition: An iron-like conical lump covered in sand and silt over bulky orange-brown surface with charcoal and pebble inclusion. No magnetic response. X-ray: The x-ray reveals small pale flecks in a uniform ground. **Probably a natural concretion.** Unless required for research, no further treatment is required.
6037	444 AF	Label: "Fe" sent in perforated mini-grip bag. Condition: An iron-like cylindrical lump covered in sand and silt over bulky orange-brown surface with charcoal and pebble inclusion. No magnetic response. X-ray: The x-ray reveals small pale flecks in a uniform ground. **Probably a natural concretion.** Unless required for research, no further treatment is required.
6037	444 AG	Label: "Fe" sent in perforated mini-grip bag. Condition: An iron-like conical lump covered in sand and silt over bulky orange-brown surface with charcoal and pebble inclusion. No magnetic response. X-ray: The x-ray reveals small stones and pebbles in a uniform ground, hollow at one end. **Probably a natural concretion.** Unless required for research, no further treatment is required.
6035	452 AA	Label: "**Fe nail**" sent in perforated mini-grip bag. Condition: One piece, complete. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Confirms this is a nail. Some metal core at head. Unless required for research, no further treatment is required
6037	454 AA	Label: "Fe obj?/nail (2 frags)" sent in perforated mini-grip bag. Condition: Two pieces, one has recent break at one end (square cross-section, probably a nail shank). Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Confirms **this is a nail**. Very little metal core. Unless required for research, no further treatment is required
6037	478 AC	Label: "Fe nail" sent in perforated mini-grip bag. Condition: An iron-like lump covered in sand and silt over bulky orange-brown surface. No magnetic response. X-ray: The x-ray confirms this is a **concretion.** Unless required for research, no further treatment is required.
6037	478 AD	Label: "Fe nail" sent in perforated mini-grip bag. Condition: An iron-like lump covered in sand and silt over bulky orange-brown surface. No magnetic response. X-ray: The x-ray confirms this is a **concretion.** Unless required for research, no further treatment is required

6037	478 AE	Label: "Fe nail" sent in perforated mini-grip bag. Condition: Two fragments of a hollow iron-like lump covered in sand and silt over bulky orange-brown surface. No magnetic response. X-ray: The x-ray confirms this is a **concretion.** Unless required for research, no further treatment is required
6037	478 AF	Label: "**Fe obj**" sent in perforated mini-grip bag. Condition: A triangular iron lump covered in sand and silt over bulky orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals a dense metal core. **Is this ironworking waste or scrap?** Unless required for research, no further treatment is required
6037	478 AG	Label: "**Fe nail**" sent in perforated mini-grip bag. Condition: One piece. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Confirms this is a nail. Some metal core at head. Unless required for research, no further treatment is required
6037	482 AB	Label: "Fe nail + Pot" sent in perforated mini-grip bag. Condition: One piece, a fragment of pottery with iron-like fragment attached. No magnetic response. The fragment is hollow and looks like the other concretions. Sand and silt over bulky orange-brown surface. X-ray: Confirms this is a **concretion**. Unless required for research, no further treatment is required
6037	482 AC	Label: "Fe?" sent in perforated mini-grip bag. Condition: An iron-like tube covered in sand and silt over bulky orange-brown surface. No magnetic response. X-ray: The x-ray confirms this is a **concretion.** Unless required for research, no further treatment is required
6038	525 AA	Label: "Fe nails x21" sent in perforated mini-grip bag. Condition: Twenty-one pieces. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. The largest nails retain **mineralised wood** on the shank. X-ray: Confirms **3 are complete nails, 4 fragments are nails with heads surviving; 8 are fragments of tapering strips, probably nail shanks; 4 are concretions; and two are too corroded to be certain but possibly nail heads** (one of these is rectangular corrosion blister, hollow with part broken and missing). All are heavily corroded, with little or no metal core. Unless required for research, no further treatment is required.
6036 6037	542 AA	Label: "Fe bracket" sent in clear rigid plastic box in tissue. Condition: One piece, complete, heavy. Sand and silt over bulky pale orange-brown iron corrosion. No sign of active corrosion. X-ray (two views): L-shaped **hinge**; the two views show each arm separately. The horizontal arm has **3 circular perforations (nail in situ in centre)**. The vertical arm is more heavily corroded, but it appears to be narrower and contains only **2 circular perforations** for attachment. The hinge arrangement and pivoting bar are not clearly visible on x-ray. **Recommend: Draw from x-ray. Only if required for research: partial investigative corrosion removal to expose hinge.**

6036	542 AB	Label: "Fe obj (fragmented)" sent in clear plastic box in tissue within mini-grip bag. Condition: Three main pieces, two of which join to form a strip; the third fragment is probably part of the same object (a strip, hinge or bracket?) but no join is visible. Many small loose fragments in the box. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. The breaks reveal orange powdery corrosion and central void. x-ray: The two adjoining fragments form a perforated strip with **circular perforations;** the image of the central region of the large fragment is not distinct, it could be a hinge or an adjacent object attached by corrosion; the detached fragment also has circular perforations, one with nail in situ. The small fragments have little or no remaining metal. **Recommend: Draw from x-ray. Only if required for research: partial investigative corrosion removal to expose shape of the central region within the largest lump (is it a hinge, bracket or strip?).**
6038	549 AA	Label: "Fe Bolt?" sent in perforated mini-grip bag. Condition: An iron-like bolt-shaped object covered in sand and silt over bulky orange-brown surface with adherent pebble. No magnetic response. X-ray: The x-ray confirms this is a **concretion.** Unless required for research, no further treatment is required
6037	554 AB	Label: "Fe nail" sent in perforated mini-grip bag. Condition: One small piece. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: **Not a metal object**; **probably concreted sand only**. Unless required for research, no further treatment is required
6037	555 AB	Label: "Fe nail" sent in perforated mini-grip bag. Condition: One piece. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: reveals a tapering strip, **probably a nail shank**. Some metal core in centre. Unless required for research, no further treatment is required
6037	555 AC	Label: "Fe nail" sent in perforated mini-grip bag. Condition: One piece. Sand and silt over bulky orange-brown iron corrosion with mineralised wood. No sign of active corrosion. X-ray: reveals a bent tapering strip, **probably a nail shank**. Little metal core. Unless required for research, no further treatment is required
6038	555 AD	Label: "Fe" sent in perforated mini-grip bag. Condition: A lump covered in sand and silt over bulky orange-brown surface. No magnetic response. X-ray: The x-ray reveals a granular core dense to x-ray but not diagnostic. **Is this ironworking waste or scrap?** **Recommend: refer to archaeometallurgist.**
6038	555 AE	Label: "Fe" sent in perforated mini-grip bag. Condition: A lump covered in sand and silt over bulky orange-brown surface. No magnetic response. X-ray: The lump has areas which are dense to x-ray but not diagnostic. **Is this ironworking waste or scrap?** **Recommend: refer to archaeometallurgist.**
6037	555 AF	Label: "**Fe nail**" sent in perforated mini-grip bag. Condition: One piece. Sand and silt over bulky orange-brown iron corrosion. No sign of active corrosion. X-ray: Confirms this is a nail. No metal core remaining. Unless required for research, no further treatment is required
6038	555 AG	Label: "Fe" sent in perforated mini-grip bag. Condition: A lump covered in sand and silt over bulky orange-brown surface with pebble attached. No magnetic response. X-ray: The x-ray reveals a **trapezoidal core very dense to x-ray**. If this were iron metal it ought to have a stronger magnetic response. An oddity. **Recommend: refer to archaeometallurgist.**

6038	555 AH	Label: "**Fe**" sent in perforated mini-grip bag. Condition: A lump covered in sand and silt over bulky orange-brown surface. No magnetic response. X-ray: The x-ray reveals a porous and granular core with some areas dense to x-ray but not diagnostic. **Is this ironworking waste or slag?** **Recommend: refer to archaeometallurgist.**
6039	1003 AA	Label: "**Fe Horseshoe frag**" sent in perforated mini-grip bag. Condition: A fragment of horseshoe covered in sand and silt over pale orange-brown corrosion. Potentially active corrosion. X-ray: The x-ray reveals the tip of a horseshoe with 2 large rectangular perforations, one with nail in situ. Unless required for research, no further treatment is required
6038	1003 AB	Label: "**Fe Horseshoe**" sent in perforated mini-grip bag. Condition: A complete horseshoe covered in sand and silt over bulky pale orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals a complete horseshoe with 6 rectangular perforations (3 each side), one with nail in situ. The toe is very worn. The shoe is similar to **later medieval** horseshoes (Clark, 1986 see fig8a.) Unless required for research, no further treatment is required.
6039	1003 AC	Label: "**Fe Horseshoe**" sent in perforated mini-grip bag. Condition: A complete horseshoe covered in sand and silt over bulky pale orange-brown corrosion. No sign of active corrosion. X-ray: The x-ray reveals a complete horseshoe with 10 small rectangular perforations set into a fuller (a groove); there are 5 holes on each side, 3 with nails in situ. The toe is worn. None of the shoes mentioned by Clark, 1986 have 10 nails; suggesting that this shoe is **probably post-mediaeval**. Unless required for research, no further treatment is required

4.2 Copper alloy

X-ray No.	**Find No.**	**Assessment**
6029	300 AA	Label says: "Cu alloy coin" in clear plastic box with tissue. Condition: One piece. **A Roman silver (alloy) coin**. Sand and silt lie thinly over a coin in very good condition but worn lower edge, loss of legend. The raised relief exposes white metal and brownish to black compact corrosion/patina. Stable. Weight: 2.90g Obv.: laureate draped bust facing r. Legend: …DAC P M TR P COS V (PP or COSVI?) Rev: female deity standing L holding cornucopia in one arm and corn ears(?) in lowered hand, standing above altars? Legend: (S)PQROPTIMOPRINCI **Probably denarius of Trajan? COSV=AD 104-111**, **Recommend: Refer to numismatist.** If the numismatist requests it, corrosion can be removed.
6029	300 AB	Label says: "Cu alloy mount?" in clear plastic box with tissue. Condition: One piece, a domed stud head or mount with two concentric lines at edge; worn, slightly flattened and cracked. Sand and silt over compact dark brown patina, **traces of white metal plating** are visible. No sign of active corrosion. X-ray shows a square central void (corroded shank?) and thick casting seam. **Recommend: full corrosion removal to reveal any plating; and if located, XRF to ID plating**.
6029	301 AA	Label says: "Pin (Cu alloy)" in clear plastic box with tissue. Condition: One piece, incomplete, one end broken and missing. Sand and silt over heavily pitted pale grey-blue to olive green patina. This is cracking and flaking, green **potentially active** corrosion is exposed. X-ray: surface corrosion, pitted core. **Recommend: full corrosion removal, stabilisation, lacquer**.

6029	301 AB	Label says: "Cu alloy coin" in clear plastic box with tissue. Condition: One piece, incomplete, edges eroded. Sand and silt over dark compact patina which is cracking and flaking, exposing **bronze disease** below. X-ray: heavily pitted core, no detail. Surface relief indicates a **coin**. Weight: 4.60g **Recommend: Refer to numismatist**. **Full corrosion removal, stabilisation, lacquer**
6029	301 AD	Label says: "Cu alloy vessel frag". Condition: One piece, incomplete, a **vessel rim** fragment with all other edges broken and missing. Sand and silt (with charcoal on exterior face) over dark compact patina **bronze disease** visible on broken edges. **Recommend: full corrosion removal, stabilisation, lacquer.**
6029	318 AA	Label says: "Cu alloy mount" in clear plastic box with tissue. Condition: One piece, complete. A copper-alloy sheet with lattice openwork along one edge (**possible traces of plating** seen on the edges of this lattice on X-ray); there is a rivet at either end on reverse of the lattice; the opposing edge has a groove and is bent over to form a **ledge 8mm deep, with an elongated central perforation**. Sand and silt over dark greyish green surface; where this has come away, at the corners and edges, a pale green powdery core **(active?)** is revealed. Thicker soil deposit on interior, including mineralised plant remains. **Recommend: full corrosion removal, stabilisation, lacquer. If plating is revealed XRF might be recommended for ID.**
6029	320 AA	Label says: "Cu alloy" in clear plastic box with tissue. Condition: One piece, incomplete; **one corner of an object**. Sand and silt over pale greyish green surface; the underside is uneven (scratched?), the edges are smooth. Where the surface has come away, at the corners and edges, a pale green powdery core **(active?)** is revealed. Thick soil deposit on the uneven interior. **Recommend: full corrosion removal, stabilisation, lacquer**.
6029	369 AA	Label says: "Cu alloy brooch" in clear plastic box with tissue. Condition: One piece, X-ray shows that it is a nearly complete **trumpet brooch**, with **integral cast lug on reverse fitted with looped wire spring**, pin is missing. A large lump of sand and silt over pale olive compact patina which is cracking and flaking, exposing **active bronze disease** below. The exposed areas and foot of the brooch are flaking badly. **Recommend: URGENT** **full corrosion removal, stabilisation, lacquer**.
6029	383 AB	Label says: "Cu alloy". Condition: One piece, complete, a small length of wire with circular cross-section. Sand and silt over dark compact surface; at one end and where the find has been scratched, a pale green powdery **active bronze disease** is revealed. **Recommend: full corrosion removal, stabilisation, lacquer**.
6029	465 AA	Label says: "Cu alloy coin" in clear plastic box with tissue. Condition: One piece, a copper alloy **Roman coin** within a thick soil crust. The compact brown patina on the face has been exposed, in a few places the edge of the coin is flaking, exposing **active green core**. Weight: 1.63g X-ray: looks like a **barbarous radiate**. **Recommend: Refer to numismatist**. **Full corrosion removal, stabilisation, lacquer.**
6029	477 AA	Label says: "Cu? coin" in clear plastic box with tissue. Condition: One piece, a copper-alloy **Roman coin.** Sand and silt over pale off-white to greenish powdery corrosion, **bronze disease** at one edge. Weight: 2.73g X-ray: looks like a **barbarous radiate**. **Recommend: Refer to numismatist**. **Full corrosion removal, stabilisation, lacquer.**
6029	495 AA	Label says: "Cu alloy stud" in clear plastic box with tissue. Condition: One piece, incomplete, a pale green powdery fragment totally covered in **bronze disease**. The fragment looks like a segment of a sphere and the concave surface still retains soil. **Recommend: Full corrosion removal, stabilisation, lacquer.**

6029	530 AA	Label says: "Cu alloy ?coin" in clear plastic box with tissue. Condition: One piece, complete large coin (sestertius? 1st-2nd C. AD). The upper face of the coin is covered with curly fibrous copper-alloy corrosion and patches of pale green powdery **bronze disease** at the edge. The reverse is female figure standing facing left, holding cornucopia and a long palm or standard? Letter S visible in the field. Weight: 19.24g X-ray: pitted core, but coin is too thick and dense to x-ray. **Recommend: Refer to numismatist**. **Full corrosion removal, stabilisation, lacquer.**

4.3 Lead alloy

Find No.	**Assessment**
300 AC	Label: "Pb obj? (2 frags)" sent in clear plastic box in tissue. Condition: Two fragments which join to form a complete **cylinder** of rolled lead sheet. Sand and silt over bumpy irregular surface with pale buff-coloured to grey corrosion. The broken edges reveal no remaining metal. This fragment is in very poor condition. The paper packing was replaced by jiffy foam. Unless cleaning and photography is required for research, no further treatment required.
301 AC	Label: "Pb obj?" sent in perforated mini-grip. Condition: One piece, incomplete, a large disc, plano-convex, with an irregular edge. Sand and silt over bumpy irregular surface**.** Pale buff-coloured to grey corrosion. probably **casting waste or lead melting dross** (see Bayley Fig 30)? Unless cleaning and photography is required for research, no further treatment required.
301 AE	Label: "Pb weight, MD find" sent in perforated mini-grip. Condition: One piece, complete, a **perforated disc with raised edges** and dished on both faces. Sand and silt over a grey-brown dimpled surface in the dished areas, but pale white smooth powdery corrosion on the edges (**potentially unstable**). Unless cleaning and photography is required for research, no further treatment required.
301 AG	Label: "Pb musket, MD find" sent in perforated mini-grip. Condition: One piece, a complete **spherical lead shot 13-14mm in diameter**, with conical casting sprue and two flattened areas (impact?). Thin layer of silt over smooth pale buff-coloured surface. Very good condition. No further treatment required.
301 AH	Label: "Pb waste, MD find" sent in perforated mini-grip. Condition: One piece, possibly complete, an axe-shaped small piece of lead. Sand and silt over pale buff-coloured to grey flaking corrosion; the original surface is lost. No further treatment required.
301 AI	Label: "Pb ?repair/seal, MD find" sent in perforated mini-grip. Condition: One piece, complete, an **oval plug or repair**. Sand and silt in interstices, but pale white powdery corrosion elsewhere. Unless cleaning and photography is required for research, no further treatment required.
301 AJ	Label: "Pb (MD)" sent in perforated mini-grip. Condition: Two pieces, one is an irregular block-like lump of lead, the other a flat sheet-like runoff. Sand and silt over bumpy irregular surface exposing pale corrosion varying from white to orange. Both are probably **melt/runoff or casting waste**. No further treatment required.
301 AK	Label: "Pb obj. (MD)" sent in perforated mini-grip. Condition: One piece, complete, a bent folded perforated disc, **casting waste?** Sand and silt over pale buff-coloured to grey corrosion. No further treatment required.

478 AA	Label: "Pb ?seal" sent in clear plastic box in tissue. Condition: One piece, a tri-lobate fragment with one of the lobes having an additional disc folded over to form a clip or seal. Sand and silt between the two layers; elsewhere a pale greyish white powdery flaking surface (potentially unstable), the recent scratches reveal some grey metal core. The original surface has been lost. The paper was removed and replaced by jiffy foam and plastazote foam cut to shape. **Recommend: If required for research**, remove sand and silt to expose any remains between the two layers; consolidate if necessary.
555 AA	Label: "Pb ?seal" sent in clear plastic box in tissue. Condition: One piece, a complete disc c. 14mm diameter with raised detail within an inscribed circular border on each face. Sand and silt over a pale greyish white surface, the flaking edge reveals a powdery core; possibly two very thin layers (perhaps this could be a 17th century alnage seal similar to Egan, Fig 14a ?). No metal visible. The paper was removed and replaced by plastazote foam cut to shape and bubble wrap padding. **Recommend: Remove sand and silt to expose detail on both faces**; consolidate if necessary.

4.4 Iron Pan?

X-ray No.	Find No.	Assessment
6043	303	Two fragments. No magnetic response. See 5.1.
6043	381	38 fragments. No magnetic response. See 5.1.
6039	383	26 fragments. No magnetic response. See 5.1.
6043	384	Two fragments. No magnetic response. See 5.1.
6043	393	15 fragments, **6 of which are hobnails**, and only one of these contains enough iron to respond to a magnet. The remaining 9 fragments are concretions in group c), section 5.1 below. **Recommend: The hobnails should be small-finded, and if required for research they could be cleaned to confirm identification and look for mineralised leather remains.**
6043	402	31+ fragments, **1 of which is a tapering strip or nail shank** and contains enough iron to respond to a magnet. The remaining fragments are concretions in group d), section 5.1 below. **Recommend: The strip or nail shank should be small-finded.**
6043	454	One fragment. No magnetic response. See 5.1 c).
6043	455	14 fragments. No magnetic response. See 5.1 c).
6039	512	One fragment. No magnetic response. See 5.1 d).
6043	537	20 fragments, broken edges of some 15 fragments reveal a dark charcoal grey granular core and look much more industrial. No magnetic response. See 5.1 c and d).

4.5 Jet

Find No.	Assessment
538 AA	Label: "Jet obj." sent in two mini-grip bags inside a clear plastic box). Condition: A truncated domed sub-circular **jet bead**, one piece, complete. The convex face has a small dot in the centre and two inscribed concentric circles at the border. Opposing sides have been cut off to form an oval. Each of these edges has **two holes** 5cm apart and about 1.5mm in diameter, which presumably extend the full width of the object. I presume these were threaded to attach adjacent beads. The underside is fairly flat, with small natural dimpled pits and a fissure towards one end. **Tool marks** preserved on this face. All interstices retain sand and silt. No sign of cracking, excellent condition. Recommend: **If required for research or display**, cleaning and/or radiography could be undertaken to determine the shape of the holes. **Store at 45-60% RH, do not desiccate**.

5.0 CONDITION

5.1 Iron and iron pan(?)

The mixed orange-brown bulky iron corrosion noted on the iron finds is formed in well-aerated sandy soils. The X-radiographs show that many objects have little remaining metal core and have corroded completely; few of the finds exhibited signs of active corrosion. A few nails from 384 AJ and 525 AA had mineralised wood remains on their shanks. The burial environment is aggressive to iron.

There was no sign of hammerscale and very few charcoal inclusions in the corrosion, which might have indicated ironworking in the vicinity. However, there were many lumps which were dense to x-ray, and which I have suggested be referred to an archaeometallurgist. A box of fragments labelled 'iron pan?' was also x-rayed to determine whether any recognisable objects, slag or concretions were included within these bags. These finds could be grouped into the following types, increasing in metal content:

a) Natural concretions, including some hollow tube-like pieces, which resembled iron finds but were not dense to x-ray; these can be de-accessioned: 384 AM, 384 AN, 444 AC, 444 AG, 478 AC, 478 AD, 478 AE, 482 AB, 482 AC, 2 frags from 525 AA, 549 AA, and 554 AB.

b) Possible natural concretions whose x-ray reveals a granular core with tiny inclusions dense to x-ray: 444 AB, 444 AD, 444 AE, and 444 AF.

c) Either **naturally occurring concretion or by-products of an industrial process**, the x-radiographs show lumps of irregular shape with a porous and granular core with some areas dense to x-rays but not a familiar form (not the usual glassy slag with gas bubbles): 303, 381, 383 and 383 AC, 384 and 384 AH, 393, 411 AB, 454, 455, 555 AE and 555 AH.

d) Fragments whose x-ray reveals a more uniform core denser to x-rays and probably contain metal: 402, 512, 537, and 555 AD.

e) Lumps of metal dense to x-ray, possibly bar or ingot 301 AM, 301 AO, 301 AP, 301 AV, 301 AW, 301 BB; 384 AG, 478 AF and 555 AG.

f) Possible scrap metal with signs of working: 301 AQ and 301 AR.

5.2 Non-ferrous metals

The copper alloy was in poor condition, many of the finds had 'bronze disease' and chemical stabilisation has been recommended.

The lead was in poor condition (excepting the piece of shot).

Some fragments probably result from high temperature events, whether accidental or deliberate casting waste cannot be sure, although the shape of 301AC indicates possible casting.

5.3 Jet

The jet bead was in excellent condition, retaining sand/silt in interstices. It should remain stable for the long term.

6.0 STATEMENT OF POTENTIAL

a. Indicators of preservation:
The corrosion on these metal finds did not contain any evidence of anaerobic waterlogged deposits which would favour the preservation of organic materials *in situ*.

The metal finds were in poor condition, which has implications for any metal finds remaining in that aggressive environment.

b. Evidence of craft and industry:
Lead find 301 AC is possibly casting waste.

The Possible 17th century cloth seal 555 AA, might indicate trade in cloth.

There were few finds to indicate ironworking, but the assemblage of irregularly shaped lumps might be an industrial by-product, See Discussion in section 5.1 above.

c. Dating evidence:
Roman coins: coin 300 AA probably dates from AD 104-11; coins 465 AA and 477 AA are Roman, and coin 530 AA is a sestertius (1st – 2nd century AD). The trumpet brooch 369 AA is of similar date. Chain 433 AA is similar to a chain from Heslington East (YORYM2002.569 SF127) which was x-rayed here recently; Nicola Rogers said it was of Roman date and had been found in the same deposit as a 3rd century coin.

The horseshoes from context 1003 probably range in date from late medieval to modern.

7.0 RECOMMENDATIONS

7.1 Further investigative and remedial conservation

- Stabilisation of all copper alloys except 300 AB which requires further cleaning. Investigative work is been recommended for: the possible lead seal 555 AA and the barrel padlock 301 AN.
- **Additional finds only if they are required for research**: 300 AA silver coin; 301 AY iron spike with MPO?; 304 AG nail shank with MPO; 310 AB; 316; hinge and brackets 333 AB, 542 AA and 542 AB; the hobnails from 393; 478 AA lead plug or clip; and jet bead 538 AA.

- Fragment 304 AC joins 304 AI; 341 AB joins 341 AC; 357 AE joins 357 AC but reconstruction has not been recommended unless you request it.

Conservation records for each object treated will be supplied as MS Word files, and full-sized digital images supplied on CD-R discs. Further cosmetic work or physical support may be required if any of these finds are selected for photography, illustration or display.

7.2 Analysis and specialist Support

Suggestions for further analysis and specialist support have been made. This will have to be arranged after conservation has been completed, so costs are not included in section 8.

XRF: Plating on padlock 301 AN, and copper alloy mounts 300 AB, and 318 AA.

MPO: if any wood survives on 301 AY, 304 AG, 525 AA or leather on hobnails from 393.

Refer the unidentified material (see section 5.1, above) to an archaeometallurgist.

Refer all coins to numismatist for provisional dating and recommendations for further cleaning.

7.3 Storage

Most finds are packaged appropriately for long term storage, but a few additional recommendations are made here. All materials used are archive stable and acid-free. Plastic bags have been pierced to allow airflow, reducing the risk of condensation and mould growth. Any replacement of packaging materials should be carried out in consultation with a conservator. **Avoid paper or card in association with metals, especially lead and lead alloys. Acid vapours will cause active corrosion, (Cronyn 1990).** The original paper packing has been removed from the lead finds.

Metals are packed in polythene 'Stewart' boxes with silica gel. There was insufficient airflow to allow the silica gel to provide a dry micro-environment of less than 15% and 35% Relative Humidity which should prevent further corrosion of iron finds (Knight, 1990) and copper alloy respectively. The upper two squares of Indicator strip were pink, so the boxes were no longer desiccated sufficiently. New silica gel bags were added and the old gel will need to be regenerated for reuse. The boxes of iron finds are tightly packed so air circulation is restricted; there is no foam in the bags, so there is a danger of heavy objects crushing more fragile ones.

The jet has been removed from the desiccated metal finds to avoid splitting or cracking.

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Appendix I

COINS

R.J. Brickstock
(University of Durham)

1.0 INTRODUCTION

The following assessment is based on a visual examination. Reference is made to the YAT's Conservation Assessment (Appendix H) and to YAT x-ray 6029.

2.0 ASSESSMENT RESULTS

Context 300 AA
Coin is fully identifiable without further action, i.e. conservation not required other than for purposes of consolidation or display.

Provisional identification: Trajan, *denarius*, RIC 167, AD 103-11, W/W

Context 301 AB
X-ray un-informative. Some surface detail may remain, so cleaning would be worthwhile, particularly of the obverse, which is more likely to provide dating evidence.

Provisional identification:
Obverse: head right. Reverse: standing figure. Possibly 2nd century *as*.

Context 465 AA
The obverse (only) should be cleaned: I don't think there is going to be much reverse surface left, and it does little for the dating in any case.

Provisional identification: *antoninianus* of Victorinus or Tetricus, AD 268-73.

Context 477 AA
Surface obscured, but x-ray suggests Claudius II, AD 268-70. Worth cleaning both sides, but especially the obverse (which provides the clearest dating evidence).

Provisional identification: 3rd/4th century; probably *antoninianus* of Claudius II, AD 268-70.

2.5 **Context 301 AB**
Surface obscured; x-ray un-informative. Worth removing corrosion products from both sides, but especially the obverse. This should provide at least a partial identification.

Provisional identification: 2nd century *sestertius* (the shape indicating 2nd rather than 1st century).

3.0 SUMMARY AND RECOMMENDATIONS

Coin 1 is already fully identifiable, but coins 2-5 require cleaning before identification. Once cleaned, coins 3 and 4 should be fully identifiable; and coins 2 and 5 should become at least partially identifiable, no. 5 perhaps fully so.

Four of the coins require specialist cleaning before further identification can be done.

Appendix J

RECORDED FINDS

Jon Watt

1.0 INTRODUCTION

This report is based upon guidelines issued by the Finds Research Group 700-1700 and the institute of Field Archaeologists Finds Group in order to meet the requirements of MAP2, 'assessment of potential for analysis' (English Heritage 1991).

A total of 114 recorded finds (RFs) were recovered. The finds were first examined by the York Archaeological Trust for assessment of their conservation needs and X-radiography of the metalwork (see Assessment report by Julie Jones).

During the assessment all finds were examined, with reference to the X-rays and comments provided by the conservator, in order to refine identifications made during excavation, assign objects to functional groups and to make recommendations for any further investigative work.

All finds have been packaged appropriately for long term storage in accordance with conservation and museum guidelines.

2.0 QUANTIFICATION OF FINDS

By material

Iron	98
Copper alloy	13
Lead	10
Jet	1

By function

The functional groups (used to describe the objects original use) referred to in this report are based on those adopted by Crummy (1983).

Dress accessories

RF	Material	Description	Illustrate
369 AA	Cu alloy	Trumpet brooch. Highly decorated, head has raised ring and dot motifs flanking a double headed arrow, integral cast lug on reverse with a looped wire spring, head loop and pin missing, acanthus button on shoulder, stem with raised entwined borders, catch plate damaged.	Yes
393 AC-AL	Iron	Hobnails. Eleven, with oval heads worn almost flat.	No
538 AA	Jet	Bead. Plano-convex spacer bead, pierced twice.	Yes

Trumpet brooches, of which RF 369 AA is a particularly ornate example, are a uniquely Romano-British form and date from the late 1st to early 2nd century (Crummy 1983).

A group of eleven iron hobnails probably came from the soles of shoes (*calceus*) or sandals (*solea*) (see Charlesworth and Thornton 1973) worn by the occupant of grave 394. These were clearly day to day footwear, the heads have been heavily worn through use.

Jet spacer plate necklaces are known from the Bronze Age and Roman periods and feature several rows of beads, spacer beads were designed to prevent the strands of the necklace from tangling. Roman examples, like RF 538 AA, date from the 4th century (Crummy 1983). The most likely source of the jet are the Jurassic deposits at Whitby.

Household utensils and furniture

RF	Material	Description	Illustrate
300 AB	Cu alloy	Stud. Domed head with two concentric lines around edge, traces of white metal plating, shank missing.	Yes
301 AD	Cu alloy	Vessel. Rim, perhaps from a small bowl, diameter *c.*140mm, undecorated.	Yes
301 AI	Lead	Rivet. Roughly oval plug, possibly for the repair of a vessel.	No
318 AA	Cu alloy	Latch plate. Rectangular sheet with lattice open work along top edge, one rivet on reverse at each end of the lattice work, bottom edge bent at 90° pierced by an elongated slot to take the lock bolt, possibly plated.	Yes

Decorative studs, like RF 300 AB, were used in upholstery work. RF 318 AA is interpreted as a lock plate and was probably mounted horizontally perhaps on the door(s) of a small cupboard. The decoration suggests it is Romano-British. During the Roman period lead rivets, similar to RF 301 AI, were the only way to repair breaks in decorative pottery such as Samian ware.

Textile working

RF	Material	Description	Illustrate
301 AE	Lead	Spindle whorl. Perforated disc with raised edges and dished surfaces, moment of inertia 0.000389Kgm^2.	Yes
555 AA	Lead	Seal or token. Disc with raised decoration and inscribed borders.	Yes

Lead spindle whorls, similar to RF 301 AE, are known from both the Roman (see Mould 1998) and Medieval (see Foreman 1991) periods. By comparison with Medieval whorls from Beverley RF 301 AE is of a 'medium' spinning power suitable for spinning a single yarn in the range of 80 - 300 tex (Robinson 1992).

RF 555 AA is provisionally interpreted as a cloth seal (Endrei and Egan 1982) used to indicate the payment of tax or 'alnage' on woven fabric, however, the surface detail is obscured and it may be a lead token. In either case it is likely to date from the late or post-medieval period.

Transport

RF	Material	Description	Illustrate
1003 AA	Iron	Horseshoe. Fragment, right heal and quarter with upsett calkin and two rectangular nail holes punched along very margin of shoe, one nail in situ, for right hoof. Late medieval.	No

1003 AB	Iron	Horseshoe. Arched inner profile, quarters pierced by three rectangular tapering nail holes, one nail *in situ*, outer heal with upsett calkin, inner heal feathered, toe heavily worn, for a rear left hoof. Late medieval.	No
1003 AC	Iron	Horseshoe. Ten rectangular nail holes set into a fuller around margins of quarters and toe, three nails *in situ*, outer heal with an ?upsett calkin, inner heal feathered, toe worn, for a left hoof. Post-medieval.	No

The presence of nails within all three shoes suggests that these represent casual losses, over a considerable period of time, probably from animals using the trackway.

Fittings and fastenings

RF	Material	Description	Illustrate
301 AN	Iron	T-shaped bolt from a barrel padlock with shackle. The three spines have leaf springs riveted to their bases and protrude through the circular closing plate to form a looped handle. The closing plate has been brazed with a non-ferrous metal. Medieval.	Yes
301 AT	Iron	Nail. Head missing.	No
301 AV	Iron	Nut and bolt. Square nut threaded on bolt, head missing. Modern	No
301 AX	Iron	Rove. Rectangular plate with a central square perforation.	No
301 BA	Iron	Nail. Oval head with offset square sectioned shank, incomplete.	No
301 BD	Iron	Nail. Oval head, complete.	No
304 AB	Iron	Nail. Oval head, shank broken.	No
304 AD	Iron	Nail. Oval head, complete.	No
304 AE	Iron	Nail. Oval head, rectangular sectioned shank, incomplete.	No
304 AF	Iron	Nail. Sub-rectangular head, rectangular sectioned shank, incomplete.	No
304 AH	Iron	Nail. Oval head, complete.	No
304 AI	Iron	Nail. Oval head, rectangular sectioned shank, complete.	No
304 AJ	Iron	Nail. Oval head, rectangular sectioned shank, incomplete.	No
304 AK	Iron	Nail. Head missing, rectangular sectioned shank, incomplete.	No
304 AL	Iron	Nail. Oval head, sub-rectangular sectioned shank, broken.	No
310 AC	Iron	Nail. Square head with offset twisted shank, incomplete.	No
312 AA	Iron	Nail. Head and tip of shank missing.	No
316 AA	Iron	Nailed strip. Perforated strip pierced by a nail, tip clenched.	No
326 AA	Iron	Nail. Sub-rectangular head, rectangular sectioned shank in two pieces, tip missing.	No
333 AB	Iron	Bracket. Plano-convex sectioned strip bent at 90° each arm pierced by a rectangular hole, one retaining a globular headed nail, in three pieces, incomplete.	No
341 AB-AC	Iron	Nail. Oval head, rectangular sectioned shank in two pieces.	No
355 AA	Iron	Nail. Oval head, incomplete.	No
355 AB	Iron	Nail. Circular head, tip of shank missing.	No
357 AA	Iron	Nail. Oval head, rectangular sectioned shank, tip missing.	No

357 AC+AE	Iron	Nail. Rectangular head, rectangular sectioned shank, in two pieces, incomplete.	No
361 AA	Iron	Nail. Oval head, incomplete.	No
384 AE	Iron	Nail. Large sub-rectangular head, square sectioned shank, incomplete.	No
384 AF	Iron	Nail. Oval head, complete.	No
384 AI	Iron	Nail. Oval head, off centre rectangular sectioned shank, tip missing.	No
384 AJ	Iron	Nail. Oval head, square sectioned shank, tip missing.	No
384 AK	Iron	Nail. Oval head, sub-rectangular sectioned shank, complete.	No
384 AO	Iron	Nail. Oval domed head, rectangular sectioned shank, incomplete.	No
416 AB	Iron	Nail. Oval head, complete.	No
421 AB	Iron	Binding strip. Rectangular sectioned strip bent at 90°, broken at both ends, across perforation at longest arm.	No
433 AA	Iron	Chain. Short length made up of five figure-of-eight links with oval links at either end.	Yes
452 AA	Iron	Nail. Oval head, rectangular sectioned shank, broken.	No
454 AA	Iron	Nail. Head missing, square sectioned shank.	No
478 AG	Iron	Nail. Oval head, square sectioned shank, broken.	No
525 AA	Iron	Nails. Seventeen fragments from at least nine nails with oval or sub-rectangular heads, three complete, six with broken or missing shanks and eight shank fragments.	No
542 AA	Iron	Strap hinge. Two rectangular-sectioned arms with rounded terminals, one with three circular perforations, one circular headed nail *in situ*, other with two perforations, one nail *in situ*, hinge secured by pivot bar.	Yes
542 AB	Iron	Strap hinge. Two rectangular sectioned arms with rounded terminals, one with a large oval perforation, other with ?two perforations, one with circular headed nail in situ, in several pieces.	Yes
555 AC	Iron	Nail. Head missing, mineralised wood on shank.	No
555 AF	Iron	Tack. Oval head and short rectangular sectioned shank, tip missing.	No

This category includes objects, such as the nails, which could have been used for a range of purposes. There were at least forty-two handmade iron nails, with oval or rectangular heads and rectangular sectioned shanks, which could be classified as general purpose carpentry nails. Nails of this form were in use from the Roman period up to the early 20th century. RF 555 AF, a broad-headed nail with a relatively short shank, Manning's (1985) type 7, is probably a tack used in upholstery work. Whilst RF 301 AX is a rove from a clench bolt perhaps used to strengthen a door or chest.

The two iron strap hinges, RFs 542 AA and 542 AB, are probably too light for mounting horizontally, to support a door or window, and more suitable for mounting vertically, perhaps on a wooden box or chest. Similarly a globular headed nail, Manning's (1985) type 9, within an iron angle bracket, RF 333 AB, suggests that this may have been used to strengthen an item of furniture, such as a chest.

Barrel padlocks have been in use from the Roman period, but locks with shackles, like RF 301 AN, are a medieval form, Goodall (1981) notes that such padlocks were used to shackle

animals. There is a very similar bolt from a late 13th – 14th century context at Lurk Lane, Beverley (Goodall 1991).

Fishing

RF	Material	Description	Illustrate
300 AC	Lead	Net weight. Cylinder of rolled lead sheet.	No

RF 300 AC is a fishing net weight of a form in use from the Roman into the medieval period (Steane and Foreman 1988).

Military equipment

RF	Material	Description	Illustrate
301 AG	Lead	Shot. Conical casting sprue, two flattened areas. Post-medieval.	No

The size of RF 301 AG, diameter: 14mm, weight: 13g, suggests that it is pistol shot (Credland 1983). The flattened areas may have been caused by contact with other pieces of shot, perhaps within a bag, rather than the result of impact.

Objects associated with metal working

RF	Material	Description	Illustrate
301 AC	Lead	Ingot. Roughly circular plano-convex lump.	No
301 AH	Lead	Melt. Weight: 4g.	No
301 AJ	Lead	Melt. Two pieces, weight: 29g.	No
301 AK	Lead	Waste. Perforated disc.	No
301 AO	Iron	Object. Largely hidden beneath dense corrosion, x-ray suggests it may contain more than one object and a broken diamond sectioned strip is visible on the surface.	No
301 AP	Iron	Object. Sub-rectangular in form, partially folded?	No
301 AQ	Iron	Object. Folded strip, incomplete.	No
301 AW	Iron	Object. Sub-rectangular in form.	No
384 AG	Iron	Object. Rectangular cross-section.	No
555 AG	Iron	Object. Roughly rectangular fragment.	No

Lead was a valuable material and where possible would be collected for recycling. Its low melting point also means it could be cast on site, but could just as easily be melted accidentally in a hearth or bonfire. RF 301 AC is a crude ingot formed from casting waste or recycled material poured into a small depression in the ground (Foreman 1991). RF 301 AK is a disc left beneath a nail head after flashing has been stripped perhaps from a roof (Watt 1995). There is a possible Roman example from Castleford (Quito 1998).

A number of iron objects may also be smithing waste or partially wrought objects suggesting iron working within the area.

Objects of uncertain use

RF	Material	Description	Illustrate
300 AD	Iron	Strip. Rectangular in section, incomplete.	No

301 AA	Cu alloy	Pin. Shank initially rectangular in section becoming circular, tip missing.	No
301 AL	Iron	Looped strip. Rectangular strip bent to form an oval eye, incomplete.	No
301 AM	Iron	Object.	No
301 AR	Iron	Strip. Broad strip broken at both ends.	No
301 AS	Iron	Strip. Bent and broken at one end.	No
301 AU	Iron	Strip.	No
301 AY	Iron	Spike. Rectangular sectioned strip with a broad double-spiked terminal, tapering to a point.	No
301 AZ	Iron	Strip. Broken at both ends.	No
301 BB	Iron	Bar. Rectangular in section, tapering slightly to squared end, incomplete.	No
301 BC	Iron	Object. Rounded plate pierced centrally by circular perforation parallel to a rectangular slot in angled base. Modern.	No
303 AA	Iron	Spike. Tapering strip, incomplete.	No
304 AG	Iron	Strip. Square in section, broken at both ends.	No
310 AA	Iron	Spike. Tapering strip broken at both ends.	No
310 AB	Iron	Object. Blunt ended circular sectioned strip other end expanding and ?flattening.	No
314 AB	Iron	Strip. Rectangular in section, in two pieces, broken.	No
320 AA	Cu alloy	Object. Fragment from a polygonal dished object.	Yes
339 AB	Iron	Strip.	No
341 AA	Iron	Strip. Rectangular in section, broken at both ends.	No
349 AA	Iron	Spike. Tapering with clenched tip, incomplete.	No
357 AB	Iron	Strip. Tapering, broken at both ends.	No
357 AD	Iron	Strip. Tapering strip broken at both ends.	No
383 AB	Cu alloy	Strip. Circular in section, broken at both ends.	No
383 AC	Iron	Object.	No
400 AB	Iron	Spike. Square in section tapering to a point, broken.	No
402 AB	Iron	Spike. Square in section tapering to a point, broken.	No
478 AA	Lead	Object. Trilobate piece, one lobe with an additional disc, folded to form a clip.	Yes
478 AF	Iron	Spike. Tip, rectangular in section tapering to a point, incomplete.	No
495 AA	Cu alloy	Object. Convex fragment, badly corroded.	No
555 AB	Iron	Tapering strip. Rectangular in section.	No

This category consists of small fragments and strips whose original form, and therefore function, are unknown. A number of the iron spikes, e.g. RFs 303 AA, 304 AI, 310 AA, 314 AB, 349 AA, 357 AB, 357 AD, 400 AB, 402 AB and 555 AB, may be nail shanks. The rectangular end of the copper-alloy pin, RF 301 AA, may be a tang allowing it to be set within another object. RF 320 AA might possibly be a fragment from the base of a seal box (see Crummy 1983), such objects were used to protect the wax seals on official documents and were in use from the 1st to the 3rd century. RF 478 AA, a lobate piece of lead, may be a repair patch for a vessel, the folded lobe perhaps clipped to a rim.

3.0 DISCUSSION

The majority of objects are difficult to assign to a specific period by form or decoration. However, the assemblage certainly contains a Romano-British element, with objects dating from the late 1st or early 2nd to the 4th century. There are also a number of medieval and post-medieval objects, particularly from the topsoil and subsoil.

The Romano-British material is characteristic of a domestic setting, whereas the later material is more characteristic of agricultural activity. Most of the metal working debris was recovered from the subsoil, context 301, in Area D, though two pieces were recovered from earlier (Roman?) features. The lead probably results from local building and/or demolition work, but the ironwork suggests smithing within the local area.

Of the Roman material the jet bead would have been part of a relatively expensive piece of jewellery. The lack of tools, particularly agricultural equipment, and the number of items from domestic furniture within the assemblage is more indicative of a relatively affluent urban, perhaps commercial or industrial, rather than a rural settlement.

4.0 RECOMMENDATIONS

Further research should be undertaken on the bulk of the recorded finds leading to full publication of the assemblage.

Prior to this investigative conservation should be undertaken on eight of the metal artefacts. A section across the spines of the barrel padlock bolt, RF 301AN, should be partially cleaned ('poodled') to determine the layout of the spring leaves. The closing plate should also be partially cleaned to expose the non-ferrous plating, which should then be identified by XRF analysis. Both terminals of RF 301AY should be partially cleaned and mineralised organic material investigated. RF 333AB should be partially cleaned across the lower arm to reveal its cross-section and possible nail head. The central region of RF 542AA should be partially cleaned to expose the hinge and pin.

The white metal plating on the copper-alloy stud RF 300AB should be identified through XRF. The lock plate, RF 318AA should be cleaned to reveal the central perforation and any plating identified by XRF. RF 495AA should be cleaned and the soil within the concave surface removed.

The lead seal or token, RF 555AA, should be cleaned to reveal the surface decoration.

It is recommended that thirteen objects be illustrated for publication.

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Appendix K

STONE

Elizibeth Wright

1.0 INTRODUCTION

A total of 12 fragments of worked stone (excluding the millstones, see Appendix L) were recovered from excavations at Stamford Bridge. Several fragments were those originating from quern stones, the others, mostly fragments of igneous or pyroclastic rock, appearing to have had some specialist function, notably smoothing or sanding a finished product.

2.0 ASSESSMENT RESULTS

301 3 pieces

A Weathered fragment of limestone with small fossils. No obvious shaping or use-wear. Natural

B Small rounded fragment of lava measuring 55 x 45 x 24mm, probably part of a quernstone of Mayen lava, though no evidence of the original form remains. Surfaces are now smoothed probably from secondary use as a small rubber, polisher or similar.

C Small fragment of an igneous or pyroclastic rock (pumice?), very light in weight, vesicular and of a pale grey colour. The fragment, which measures 22 x 17 x 6mm has two bevelled edges, is smoothed on all but obviously broken edges and has probably been employed for a specific fine smoothing task.

463 2 pieces

A Irregular polished piece of limestone measuring 85 x 67 x 20mm and much smoothed on all surfaces from use as a polisher or similar, perhaps in some industrial process - burnishing pottery?

B Irregular fragment of similar igneous or pyroclastic rock to 301 C. Measures 140 x 110 x 60mm. Broken, but all unbroken surfaces show evidence of smoothing from use as a smoother or polisher probably in some craft or trade. This would have been the ancient equivalent of fine sandpaper or a sanding block.

352 1 piece

A similar igneous or pyroclastic rock to previous examples above, though a small amount of an iron mineral adheres to one surface in this example. Fragment measures 57 x 37 x 12mm. Again many of the original surfaces are smoothed, but slightly undulating as if used for a smoothing operation but not on a flat surface.

454 1 piece

Broken, flattish fragment of igneous or pyroclastic rock, perhaps pumice, measuring 47 x 38 x 14mm. Both parallel faces are worn very smooth and the unbroken edge is also smoothed. The fragment narrows to a point with a marked bevel, again worn very smooth. This again appears to be a specialised tool for some craft or industrial process involving smoothing, perhaps a finishing process.

1127 AB

Quern fragment. A small fragment from a quern stone, perhaps representing less than a quarter of the original stone. The quern is made from a well-sorted, fine grained micaceous sandstone, perhaps taken from a glacial erratic. It is much broken, the rock being shattered as if subjected to thermal shock (heating then rapid cooling) though there are no tell-tale signs of heat reddening or blackening on the piece. The grinding surface is very evenly flat and there is a slight smooth polish on the dorsal surface which appears somewhat domed. Although this could be part of a saddle quern, the doming of the dorsal surface and extreme flatness of the grinding surface would be more commonly encountered in a rotary quern stone. It is not possible to identify whether this would be an upper or lower stone and what its original dimensions might have been. As a rotary stone, a date in the Romano-British period would be more likely. Overall measurements 150 x 10mm with a minimum thickness of 26mm and maximum 48mm.

2.6 **306 AE**

Quern fragment. Fragment of poorly-sorted fine to medium grained feldspathic sandstone of a buff to pinkish brown colour with some patchy iron-staining. The rock, which shows quite fresh pink feldspars is rather friable as a result of heat damage. This raw material appears similar to that of a range of querns probably manufactured from the Ashover grit of Derbyshire and apparently quite widely distributed in the East of England during the Roman period, with examples seen by the author from the Trent valley of Nottinghamshire, Derbyshire, North Lincolnshire and Northamptonshire. A unifying feature in the distribution in the northern part of this area would seem to be the River Trent and appearance of the material at Stamford Bridge could have been via the River Ouse to York and thence by road, or else via the Derwent. The fragment measures 130 x 87 x 58mm and shows a worn grinding surface. Part of the dorsal face remains but it is not possible to identify any further features or if it is the remains of an upper or lower stone.

3.0 RECOMMENDATIONS

It is recommended that a closer identification of the raw material of 301 C, 463 B, 352, 454 be sought from a geological specialist on the grounds that it is an unusual rock and probably imported. It is distinctly different from the Mayen lava usually seen in imported quernstones (cf 301 B) and seems unlikely to be from broken quernstones from another source eg Volvic as the material appears too light and brittle for a heavy grinding application. It would appear to form part of a toolkit for some specialist craft activity.

Appendix L

MILLSTONES

Paul Johnson

1.0 INTRODUCTION

Two large fragments of two different millstones were recovered from two separate pits (probable watering holes) during the course of the excavations at Stamford Bridge. Both fragments are examples of upper, driven, millstones and appear to have been reused as steps to facilitate access into the watering holes. The fills of these features contained pottery dating from 3rd to 4th centuries indicating the date of the millstones.

2.0 ASSESSMENT RESULTS

447 AA
This fragment composed of a micaceous gritstone the nearest source of which would have been in the Pennines, to the west of Harrogate. The upper surface of the stone is flat and bears tool marking, the lower surface is concave and is deeply striated by a series of concentric grooves entirely consistent with wear patterns occasioned by rotary motion. The rim of the stone is neatly worked and bears evenly spaced and carefully executed vertical tool marking. The maximum thickness of the stone at the rim is 85mm tapering to 42mm near the centre of the stone, and the diameter of the stone is estimated to have been approximately 850mm. The entire thickness of the stone is perforated by a double dovetail shaped socket cut to accept a two-winged rynd which would have driven the stone. There is no evidence for tool marking on the vertical inner faces of the socket, and the stone has failed, probably in use, at points equating with the outer angles of the dovetails. The fragment represents approximately 25% of the original stone.

306 AA
This fragment is composed of a fine grained sandstone which was probably sourced locally. The upper surface of the stone is flat and bears long tool scars arranged radially. Tool marks are also visible on the edge of the stone as are two vertical grooves, 50mm wide and 12mm wide and situated 200mm apart. The grooves were cut from the upper surface of the stone towards the lower surface but do not extend as far as the latter. The lower surface of the stone is worn towards the rim but not in the centre and there are no concentric striations present. The wear patterns exhibited by the stone are not consistent with rotary motion and comprise a series of shallow depressions and hollows. Iron concretions are present in several areas of the lower face, but not the upper. The maximum thickness of the stone is 90mm at the rim and 75mm at the centre and the maximum diameter of the stone is estimated to have been approximately 845mm. The whole thickness of the stone has been perforated by a double dovetail socket intended to accept a two-winged rynd. There are abundant tool marks present on the inner faces of the socket and the stone has failed at points equating with the angles of the socket. The wear patterns exhibited by this stone suggest that it failed almost immediately it was used, or during manufacture, and that it was subsequently reused as a sharpening stone. The fragment represents approximately 33% of the original stone.

3.0 DISCUSSION

Mills of the Roman period in Britain are relatively rare, their presence at any particular site often being inferred by the occurrence of millstones rather than by structural evidence. Evidence for watermills is rather more plentiful in the rest of the Roman Empire (Rahtz 1981, 3) and in other parts of the British Isles in slightly later periods (eg Lucas 1953, Graham-Campbell and Batey 1998, 192 and Rahtz and Meeson 1992). Three Roman period watermills are known or strongly suspected in Northern England in the area of Hadrian's Wall. These sites are located at Chesters Bridge, Haltwhistle Burn Head and Willowford Bridge and all three possess sufficient structural evidence to support the existence of former watermills. Two other sites, Nettleton in Wiltshire and Ickham in Kent have also yielded structural remains that strongly support the presence of watermills. There is rather poorer evidence at sites such as Ardleigh in Essex, Kimpton in Hampshire, Kentchester in Herefordshire, Dickets Mead in Hertfordshire, Ramsbury in Wiltshire, Abingdon in Oxfordshire and Leeds village in Kent (Spain 1984). The presence of watermills at all of these sites is inferred, usually by the occurrence of millstones, supported by the assumption that millstones do not usually move far from the site of their use when worn out or broken. Their interpretation as watermills is derived from the type of millstone recovered from the site. The upper stones in watermills of this period were driven from below with the driving spindle passing through a fixed lower stone and connected to the upper stone by a rynd, the socket for which was cut into the grinding face of the stone. The upper stone could be raised or lowered using a system of levers and pivots enabling the running clearance of the mill stones to be regulated in order to achieve the desired coarseness of grind or compensate for wear in either or both of the stones. The rynd socket would require re-cutting periodically in order to let the rynd deeper into the stone when the upper stone had worn to such a degree that the rynd was in contact with the lower stone.

The fact that the sockets in both stones from Stamford Bridge are cut all the way through their thickness' is significant as it indicates that there could not have any mechanism for regulating the running clearance between the upper and lower stones in the mill where these stones were used. In the case of 447 AA this might be explained by suggesting that the stone was virtually worn out prior to its failure and the socket had been recut so many times that it had eventually perforated the entire thickness of the stone. However this could not be the case for 306 AA which was barely worn, if at all, prior to it's failure. In addition there is no real indication that the driven surfaces of the rynd socket in 306 AA were subject to any attrition as might be expected if the stone had seen extensive use. Both stones are therefore more likely to represent over-driven millstones of a type used in mills exploiting animal or human power (Spain 1984, 116). Mills of this type are especially rare in Britain but it is thought that human power was probably used to drive the mill at Orton Hall Farm, near Peterborough and a similar establishment is known at Silchester (*ibid*).

4.0 CONCLUSION AND RECOMMENDATIONS

Both of the millstones recovered from Stamford Bridge appear to be associated with a mill that did not exploit water as a power source. The rynd sockets of both items are cut through the entire thickness of the stones, indicating an over-driven mill and there are no known examples of over-driven stones being recovered in association with a watermill of this period in Britain. Millstones from mills powered by animal or human power in the Roman period are extremely rare in Britain. The significance of such finds is that they strongly suggest the presence of such a mill within the near vicinity of the excavated site since it is assumed that these items do not usually move very far from their place of use. However, the importance of the finds from Stamford Bridge is rather lessened by the fact that both stones were found out of their original context and were reused as steps facilitating access to watering holes.

No further work is required on the millstones at this stage but both items should be retained to facilitate future research. Both millstones should be fully illustrated and publication should be considered as part of the overall report for the project.

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Appendix M

SLAG

J Cowgill

1.0 RECORDING METHODOLOGY

A total of 1509g (fourty-six pieces) of slag and associated materials were submitted for recording. The slag and other finds was washed, dried and then identified solely on morphological grounds by visual examination, sometimes with the aid of a ×10 binocular microscope. It was recorded on *pro forma* recording sheets and this information was entered into a Microsoft Access database using the following encoded fields: Site; Area; Context; Type; Count; Weight; Craft; Fuel; Condition; Comments. A note of probable fuel type has been recorded when fragments or imprints were incorporated within the slag. The soil in the bags containing the slag was checked with a magnet for hammerscale. The catalogue forms Appendix 1.

2.0 DISCUSSION

Although fourty-six finds (1509g) have been catalogued here only seven pieces (359g) are probably by-products of iron smithing (Area D contexts 301, 352, 383, 384 and 386) and one (1033g) of iron smelting (Area G context 1109). The iron smithing slags are all in a fresh condition and show no sign of abrasion from weathering or redeposition or surface alteration by a post-depositional process such as a fluctuating water table (with the possible sole exception of the piece from context 384). All may be the by-products of a single smithy that used coal as the sole fuel in the hearth, a characteristic of mainly urban and villa Romano-British sites because of the transport implications (Dearne and Branigan 1995). No hammerscale was, however, noted.

The two probable proto-hearth bottoms are small and dense examples and both contain evidence for copper-alloy working as well as iron smithing in the same hearth. Although it is not surprising that a smith would work both metals (many iron objects have copper-alloy fittings) evidence for it is surprisingly uncommon. It is therefore likely that all of this assemblage derived from the same smithy, but due to the lack of hammerscale, these pieces may have been discarded at some distance from it.

The block of pit-furnace slag from road surface 1109 is extremely abraded to the point were it appears almost water worn, however, the fact that it had a flat top is still identifiable. This type of slag is generally rare but has been found now at a surprising number of sites around Stamford Bridge but usually just one piece is found on each site (for example at Balk Field, Pocklington (Cowgill 2000). The piece is a part of a small slag block and is a by-product from the production of iron (smelting) in a slag-pit furnace. Examples of this slag have never been found *in situ* and several pieces have now been found reused in Romano-British contexts although it is thought that the pit-furnace technology is mainly of Iron Age date. This piece may have been used for road surfacing and another has been found to have been incorporated into a Romano-British stone building (Cowgill *et al* 2003).

Although analytical work has been undertaken on these slags (Godfrey and McDonnell 2003) the technology is still not understood and may not be until a smelting site producing these slags is found. From the number of finds of this type of slag that have been found, mainly in East Yorkshire, it appears that pit-furnace smelting may have been more widespread and persistent in Britain than previously recognised. This process differed from the classic later

Northern European (Germanic/Scandinavian) pit-furnace technology (Cowgill *et al* 2003). In Europe the slag was left in the pit when it was full and a new furnace was constructed over a newly dug pit and therefore the slag is usually found *in situ*. In contrast in Britain no pit slags have been found *in situ*, they are always recovered from secondary contexts, which suggests that they had been purposely removed from the tapping pits. It is possible, therefore, that the pits were alongside and not below the furnace, or that access was available to the below furnace pit. This technology probably also meant that a new furnace would not be needed at the commencement of each smelting episode.

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Table M1. Catalogue of the slag and associated finds from the Stamford Bridge Water Pipeline excavations and watching brief

Area	Context	Type	No	Weight	Craft	Fuel	Condition	Comments
C	200	clink	3	2				
D	301	charc	1	3				mineralised
D	301	hb	1	152	fesmith	coal	fresh	dense; classic shape; + hearth lining
D	301	iron pan	8	58				discard
D	301	ssl	2	36	fesmith	coal	fresh	hb fragment? dense but some glassy
D	304	charc	0	<1				includes 5 cereal grains + 1 seed
D	304	clink	1	1				
D	304	pot	2	5				
D	351	wood	2	15				identification D J Rackham
D	352	protohb	1	24	fesmith		fresh	dense; flint inclusions; copper alloy droplet
D	383	vithl	1	19		coal		tuyere fragment?
D	384	slag	1	116	fesmith?		encrusted	roughly hb shape
D	386	slag	1	12	fesmith	coal?	fresh	small protohb? dense; patches of copper alloy staining + droplets
D	405	pot	1	2				
D	411	charc	0	2				includes pot etc fragments
D	411	iron pan	7	14				discard
D	411	pot	8	4				probably 1 or 2 sherds
D	438	iron pan	2	5				discard
D	440	stone	2	1				quern; niedermendig lava stone
G	1003	glass	1	4				molten lump
G	1109	block	1	1033	fesmelt	charc	vvvvabraded	pit-furnace slag block; very dense; flat top

Codes used in the above catalogue

charc	charcoal
clink	clinker (burnt coal)
fesmelt	evidence of iron smelting
fesmith	evidence of iron smithing
hb	plano-convex slag accumulation (commonly known as hearth bottom)
ssl	smithing slag lump
vithl	Vitrified hearth lining

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Appendix N

HUMAN SKELETAL REMAINS

Joanna Higgins

1.0 ASSESSMENT OBJECTIVE

The objectives of this report are to assess the quantity, nature and condition of the assemblage of human remains, and to establish the potential of the material for further study. The nature and extent of additional study, if required, will be specified. These objectives are in accordance with English Heritage guidelines on the production of assessment documents for human bones from archaeological sites (Mays *et al*. 2002).

2.0 INTRODUCTION

Five inhumation burials and two cremation deposits, one within a greyware urn and one in a glass vessel, were recovered from this area.

The inhumation burials were distributed over a wide area, with only two burials occurring side by side. Four of the skeletons were extended and supine, and one was tightly crouched. The burials were of variable orientation. Two burials were each accompanied by a large fragment of greyware, possibly intentional grave inclusions.

The two cremation vessels were found within a medieval ploughsoil layer, probably displaced by ploughing activity from a cremation cemetery to the south-west of the site.

A small amount of disarticulated human bone was recovered from two additional contexts.

3.0 NATURE AND CONDITION OF ASSEMBLAGE

The inhumation burials were all of adults. The majority (4) were moderately well preserved, but all the skeletons were less than 50% complete and extensively fragmented.

The two cremation deposits each consisted of a small quantity of highly fragmented, moderately preserved, calcined human bone.

The disarticulated material comprised of human teeth only, recovered from the topsoil (300) and from the fill of a ditch (383).

4.0 POTENTIAL FOR FURTHER STUDY

The small number of inhumations is of limited value for bioarchaeological population studies. Small sample size will limit meaningful analyses of intra-population variation in bioarchaeological factors such as life expectancy and disease frequency. In addition, although comparisons with other archaeological populations could be made, results are unlikely to be conclusive. However, the dispersed character of rural Romano-British burials and the present day tendency towards partial excavation has led to difficulties in acquiring a sample of sufficient size for the study of burial custom and skeletal biology of rural populations. It is therefore important to fully record all burials from these contexts.

The potential for further study for both cremation deposits is limited by generally small fragment size and moderate preservation. The level of information each bone deposit will provide is expected to be low, and probable displacement from their original situation will also restrict interpretation of associated burial rites.

The disarticulated remains have very limited potential for bioarchaeological study, unless they exhibit unusual pathologies or other abnormal variation.

5.0 RECOMENDATIONS

The articulated inhumations should be subject to full basic analysis. Age, sex, pathologies, metric and non-metric data should be recorded where possible. Significant variation in skeletal biology or burial rites should be examined, and comparisons with contemporary inhumations may be drawn to demonstrate any unusual findings.

The maximum amount of skeletal information obtainable by macroscopic examination for each cremation deposit should be recorded. Any data retrieved could be compared with contemporary cremation deposits.

The disarticulated bone from additional contexts should be identified, and unusual pathologies or other abnormalities should be noted.

The skeletal remains should be retained in a suitable location subsequent to analysis, for future research purposes.

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Appendix O

BIOLOGICAL REMAINS

Allan Hall, Harry Kenward, Juliet Mant, Deborah Jaques, John Carrott and Kathryn Johnson

(Palaeoecology Research Services)

Summary

Sixty-three bulk sediment samples, two column tins, a very small amount of hand-collected shell, five boxes of hand-collected bone and five bags of spot samples of wood were submitted for an assessment of their bioarchaeological potential. Three areas of excavation (Areas C, D and G) encountered deposits of ?prehistoric (including ?Bronze Age) to Romano-British date with some preservation of organic remains.

The column samples (Area C) revealed that, in general, there was little potential for study of the represented deposit sequence via pollen and none for diatoms. Only that part of the sequence relating to context 217 gave any interpretatively useful microfossil remains, including well preserved pollen and a single trichurid parasite egg. Only two fragments of bone were recovered from this area.

Most of the recovered remains were from Romano-British deposits in Area D. Some of the deposits yielded rather rich assemblages of plant and invertebrate (mainly insect) remains mostly preserved by anoxic waterlogging, with a background of charred material including some probable evidence for ash from burnt peat and/or turves. One deposit associated with a firing pit, provided an assemblage of grain and chaff typical of the period, though in a very poor state of preservation. Area D also produced by far the largest quantity of vertebrate remains. The preservation of this material was poor resulting in there being few measurable fragments. The assemblage was dominated by the main domestic species, with most parts of the animals represented. Most of the remains were recovered from features associated with rear property boundaries and are highly likely to represent refuse both from carcass preparation and from consumption. One deposit (context 478) included many freshly broken cranium fragments from the skulls of one horse and one cow and may represent a ritual deposit. Context 582 gave a single *Helix pomatia* L. (the 'Roman' or 'edible snail') – the only hand-collected shell of interpretative value perhaps representing human food waste.

Ancient biological remains in the samples from the ?late Bronze Age burnt mound and associated deposits in Area G were limited to very small concentrations of charcoal. The small amount of hand-collected bone from this area included the skeleton of a young calf. Although immature, the animal represented was quite large and the preservation of the remains was such that a modern burial cannot be ruled out.

The nature of the local environment and some aspects of human activity could be explored through the use of larger subsamples from those deposits from Area D with good preservation of plant and invertebrate remains, and microfossils from context 217 (Area C) may supply additional supporting information. Very few rural Romano-British sites have been investigated in this area and those that have often produced very little animal bone. Although the vertebrate assemblage is not particularly well preserved, it could still contribute valuable information to any synthetic studies of the area.

1.0 INTRODUCTION

Sixty-three bulk sediment samples ('GBA'/'BS' *sensu* Dobney *et al* 1992, of between 10 and 350 litres), two column tins (column samples 1 and 2 forming one overlapping sequence), a very small amount of hand-collected shell, five boxes of hand-collected bone and five bags of spot samples of wood, were recovered from the encountered deposits. The material was submitted to Palaeoecology Research Services Limited (PRS), County Durham, for an assessment of its bioarchaeological potential.

2.0 Methods

2.1 *Sediment and 'spot' samples*

The sediment samples were inspected in the laboratory and their lithologies were recorded using a standard pro forma. Subsamples of the selected samples were processed, broadly following the procedures of Kenward *et al* (1980), for the recovery of plant and invertebrate macrofossils.

Plant remains in the single flot and wet residue and the washovers, together with the general nature of these various fractions were recorded briefly by 'scanning', identifiable taxa and other components being listed directly to a PC using *Paradox* software.

Insects in the flot were recorded using 'assessment recording' *sensu* Kenward (1992), creating a list of the taxa observed during rapid inspection of the flot, with a semi-quantitative estimate of abundance, and a subjective record of the main ecological (e.g. aquatics, grain pests) or indicator/activity (e.g. for stable manure, Kenward and Hall 1997) groups present. A record of the preservational condition of the remains was made using scales given by Kenward and Large (1998). This scheme provides scales for chemical erosion and fragmentation (0.5-5.5, the higher figure representing the greatest degree of damage), and colour change (0-4), in each case giving a range and a value for the position and strength of the mode (Kenward and Large 1998, tables 2, 3 and 5-7).

Snails recovered from the samples were examined and identified as closely as possible within the constraints of an assessment. Where the residues were primarily mineral in nature they were dried, weighed and their components recorded.

The wood (spot) samples were examined and species identifications made where possible.

2.2 *Column samples*

The column samples were examined via a series of subsamples using the 'squash' technique of Dainton (1992). This was originally developed to quickly assess deposits for their content of eggs of intestinal parasitic nematodes but routinely reveals other microfossils such as pollen and diatoms. In this instance, the primary purpose of the subsamples was to determine the presence/absence of these other microfossil remains and, if present, assess their state of preservation. Assessment slides were scanned at ×150 magnification with ×600 used where necessary.

2.3 *Hand-collected shell*

The very small amount of hand-collected shell was examined, identified as closely as possible and notes made on its state of preservation.

2.4 *Vertebrate remains*

For the vertebrate remains, data were entered directly into a series of tables using a purpose-built input system and *Paradox* software. Subjective records were made of the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity'). Additional information, such as fragment size, dog gnawing, burning, butchery and fresh breaks, was noted where applicable.

Fragments were identified to species or species group using the PRS modern comparative reference collection. The bones which could not be identified to species were described as the 'unidentified' fraction. Within this fraction fragments were grouped into a number of categories: large mammal (assumed to be cattle, horse or large cervid), medium-sized mammal (assumed to be caprovid, pig or small cervid), and totally unidentifiable.

3.0 RESULTS

3.1 *Sediment, 'spot' and column samples*

The results are presented in context number order by Area. Archaeological information, provided by the excavator, is given in square brackets. A brief summary of the processing method and an estimate of the remaining volume of unprocessed sediment follows (in round brackets) after the sample numbers. Sample numbers were derived from the context numbers for PRS internal recording keeping purposes.

Wood identifications for the 'spot' samples are presented in Table 1 (as are some additional details of the twigs recovered from the subsample from context 446).

Area C: prehistoric to Romano-British

3.2 *Column samples 1 and 2*

The two column tin samples formed one overlapping sequence through seven contexts (contexts 214, the uppermost, though 220, basal), each a distinct fill of cut 219. A 'squash' subsample was examined from each of these contexts. In all but one case the 'squash' subsamples were essentially inorganic and devoid of interpretatively useful remains (although all but the basal fill, context 220, contained some ?fungal hyphae). The exception was context 217 (the subsample being taken from around 47cm from the base of column sample tin 2). This subsample was again mostly inorganic but with a little organic detritus and some well preserved pollen grains/spores. In addition, a single very well preserved (retaining both polar plugs and measurable) *Trichuris* egg was seen, almost certainly of either *T. trichiura* (Linnaeus) or *T. suis* (Schrank), the whipworms of humans and pigs respectively.

Area D: Romano-British

3.3 **Context 306** (fill of firing pit 305)
Sample 30601/T (3kg sieved to 300 microns with washover; approximately 54 litres of unprocessed sediment remain)

Moist, light to mid grey-brown to mid grey, crumbly to unconsolidated (working soft), slightly clay silty sand, with some small lumps (to 12mm) of light orange-grey-brown clay silt. Stones (2 to 20mm) were present.

The washover of about 15 ml consisted of charred material, mainly very poorly preserved (distorted, eroded and with much iron deposition) charred cereal grains with some glume wheat (spelt, *Triticum spelta* L.) chaff and at least two two-grained ?spelt spikelets; barley and oats were also present and perhaps at least one ?spelt grain with evidence of sprouting. There were also some charred remains which may have originated in burnt turves or peat: traces of fragments (to 5mm) of ?mor humus, monocot rhizome, and ?heather (cf. *Calluna vulgaris* (L.) Hull) root/basal twig fragments.

The small residue (dry weight 0.35kg) was entirely of sand.

3.4 **Context 446** (secondary fill of large pit 420)
Sample 44601/T (3kg sieved to 300 microns with paraffin flotation; approximately 55 litres of unprocessed sediment remain)

Moist to wet, mid to dark grey-brown to dark grey, brittle (working soft), humic, slightly clay (more so in places) slightly sandy silt, with some small stones (2 to 6mm) present.

The residue was small, about 200 ml, of which about 50 ml was quartz sand, the rest woody debris (also see Table 1), including some rather well-preserved sloe/wild plum (*Prunus spinosa* L./*P. domestica* ssp. *insititia* (L.) C. K. Schneider) to about 15mm in length and with a very characteristic shape (having a rather attenuated point at either end). There was also a single holed specimen of cherry, *Prunus* Section *Cerasus*. The fruitstones were usually somewhat eroded, especially the fragments.

For the rest, the assemblage from both the residue and flot was dominated by well-preserved seeds and fruits of taxa likely to have been growing in scrub and tall and somewhat weedy herbaceous vegetation colonising a hedgebank, the edge of an area of woodland or perhaps disturbed land that had been neglected for a season or two. The more abundant taxa, most of which indicated this kind of vegetation, were hemlock (*Conium maculatum* L.), elder (*Sambucus nigra* L.), chickweed (*Stellaria media* (L.) Vill.) and stinging nettle (*Urtica dioica* L.), but there were also records for taxa such as bur chervil (*Anthriscus caucalis* Bieb.), cow parsley (*A. sylvestris* (L.) Hoffm.), burdock (*Arctium*), white bryony (*Bryonia cretica* ssp. *dioica* (Jacq.) Tutin and upright hedge-parsley (*Torilis japonica* (Houtt.) DC.).

Some fragments of charred root/rhizome, ?heather root/twig, and nutlets of sedge (*Carex*) may have originated in burnt peat or turves. There was no evidence from the plant remains for aquatic deposition, in contrast to the evidence from insects (below), perhaps suggesting the presence of water in the pit was intermittent.

The flot was quite large, and contained numerous invertebrate remains whose preservation was rather good (E 1.5-2.5, mode 2.0 weak; F 2.0-3.0, mode 2.5 weak). Aquatic deposition was attested by numerous water flea resting eggs (*Daphnia* ephippia), together with modest numbers of water beetles. There was a range of species able to live on vegetation at the water's edge, although most may have come from further afield on 'dry land' herbaceous plants. A rather open landscape with low plants, probably including grassland, was suggested by forms such as *Phyllopertha horticola* (Linnaeus) and *Oulema melanopa* (Linnaeus). There was little evidence for human occupation: *Acritus nigricornis* (Hoffmann) and *Trox scaber* (Linnaeus) are typical of occupation-site deposits but both may have exploited semi-natural habitats. A notable record was of remains of a large green chafer, probably *Cetonia aurata* Linnaeus. This material—preferably from a larger subsample—has substantial potential.

3.5 **Context 482** (primary fill of ditch 479)
Sample 48201/T (3kg sieved to 300 microns with washover; approximately 22 litres of unprocessed sediment remain)

Moist to wet, mid brown to mid grey-brown (some light orange-brown patches), soft and sticky (working very sticky), slightly sandy clay silt. Stones (20 to 60mm) were present.

The washover of about 20ml consisted largely of elder seeds, with some hemlock mericarps and woody debris (some of it floating and perhaps dried and not fully rewetted at some stage prior to processing); the woodier seeds were usually quite well preserved, others a little eroded, but preservation was generally at least moderately good. There was very little evidence from the plant remains for conditions in the ditch—the deposit certainly did not contain any obligately aquatic taxa, though a few might have lived in drying mud in a formerly wet feature. For the most part the taxa present indicated tall and somewhat weedy herbaceous vegetation along the ditch bank, perhaps under a hedge or an area of scrub. As in the sample from 446, elder, stinging nettle and hemlock were the more frequent remains, with traces of other taxa consistent with their ecological indications, including greater celandine (*Chelidonium majus* L.), henbane (*Hyoscyamus niger* L.), white horehound (*Marrubium vulgare* L.) and perhaps ground ivy (cf. *Glechoma hederacea* L.). Most of the other taxa are weeds of waste ground. Occupation material was limited to a trace of charred bread/club wheat (*Triticum 'aestivo-compactum'*).

Numerous well-preserved insect fragments were recovered from the washover during examination of plant remains; they included species from dung and (probably) an area of herbaceous vegetation. It seems likely that a large subsample of this deposit would give a useful insect fauna.

The small residue (dry weight 0.52kg) was mostly sand, with a few stones.

3.6 **Context 498** (grave fill in ditch 479)
Sample 49801/T (3kg sieved to 300 microns with washover; approximately 55 litres of unprocessed sediment remain)

Just moist, mid brown to mid grey-brown, unconsolidated, slightly silty sand, with no obvious inclusions.

There was a minute washover: a few scraps of charcoal and some charred weed seed, with one fragment (to 3mm) of rhizome from peat/turves.

The small residue (dry weight 0.58kg) was almost entirely of sand, with a few rather fragmented vertebrate remains which included a human tooth. Other bone fragments may also be human but were too small, and in some cases too eroded, to identify.

3.7 **Context 550** (fill of ditch 506)
Sample 55001/T (3kg sieved to 300 microns with washover; approximately 23 litres of unprocessed sediment remain)

Moist, mid to dark grey-brown to mid to dark grey, brittle to crumbly (working soft), humic, slightly sandy slightly clay silt. Twigs and stones (6 to 20mm) were present.

The small washover of about 60ml comprised twigs and woody debris, some of the material appearing to have become desiccated and not rewetted (cf. sample from 482). The elder seeds present were well preserved, the remaining taxa (of low diversity), with moderate to good preservation. Again, most taxa were consistent with vegetation forming in a neglected area close to scrub or a hedge. There were again traces of charred material likely to have arrived in burnt peat/turves. A few taxa perhaps indicated stronger disturbance and a higher nutrient status than the otherwise rather similar assemblages from 446 and 482.

Numerous insect fragments were recovered from the washover during examination of plant remains. They were in good condition, with dung beetles and plant-feeders predominant. Water flea resting eggs were present, too, indicating aquatic deposition. A large subsample would probably give a useful group of remains.
The small residue (dry weight 0.35kg) was mostly sand, with a few stones.

3.8 **Context 582** (primary fill of large pit 420)
Sample 58201/T (3kg sieved to 300 microns with washover; approximately 13 litres of unprocessed sediment remain)

Moist, light to mid grey to mid to dark grey-brown, stiff (working soft and sticky), slightly stony (stones 2 to 60+mm present), slightly sandy clay silt (to silty clay), with some small (to 6mm) patches of light brown sand. Land snails were present.

There was no washover fraction from this sample.

The small residue (dry weight 0.44kg) was of sand, with some stones and small numbers of snail shells and shell fragments. The last included *Vallonia* ?*costata* (Müller) (1 individual), a succineid (*Succinea oblonga* Draparnaud/*S. pfeifferi* (Rossmässler), perhaps most likely the former), a planorbid apex fragment (perhaps *Planorbis leucostoma* Millet) and a rather small *Bithynia* ?*tentaculata* (L.). This assemblage was rather too small for definitive interpretation but the presence of both aquatic and terrestrial taxa, together with an indicator of waterside vegetation, suggests that this feature held freshwater (rather than that the aquatics arrived via the dumping of waste water, for example) but perhaps not permanently. Although limited, the evidence from the snails accords well with that from the more substantial invertebrate assemblage recorded from the secondary fill of this feature (Context 446, see above).

Area G: late Bronze Age

3.9 **Context 1120** (burnt mound deposit)
Sample 112001/T (11kg sieved to 300 microns with washover; approximately 50 litres of unprocessed sediment remain)

Just moist, mid grey-brown to mid to dark grey, crumbly to unconsolidated, very stony (stones 2 to 60mm were common and of over 60mm present), slightly sandy ashy silt.

The washover consisted of a few ml at most of charcoal (to 5mm) and some uncharred (?modern) weed (*Atriplex*) seeds.

The large residue (dry weight 6.5kg) was of stones and sand, with some fine charcoal (15g).

3.10 **Context 1125** (fill of pit 1124)
Sample 112501/T (3kg sieved to 300 microns with washover; approximately 26 litres of unprocessed sediment remain)

Dry, very dark grey, indurated to crumbly, slightly stony, slightly sandy slightly silty ash. Stones (6 to 60mm) were present and fragments of ?charcoal and/or lumps of ash were abundant.

The washover here was about 15 ml charcoal (to 10mm), the fragments brittle, often vitreous but perhaps mostly oak (*Quercus*).

The small residue (dry weight 0.66kg) was mostly stones, with some sand and a little charcoal (3g).

3.11 **Context 1127** (fill of pit 1128)
Sample 112701/T (3kg sieved to 300 microns with washover; approximately 23 litres of unprocessed sediment remain)

Moist, mid grey to mid grey-brown, stiff (working plastic), very stony, slightly sandy clay. Stones (2 to 60mm) were common and larger stones, fragments of ?brick/tile and ?charcoal were present.

The washover of about 10 ml comprised charcoal (to 10mm) and some fine modern rootlets; the charcoal was very crumbly and contained what appeared to be oak with some unidentified diffuse-porous material.

The was a fairly large residue (dry weight 1.05kg) of stones, with some sand and a little charcoal (2g).

3.12 **Context 1150** (fill of pit 1151)
Sample 115001/T (3kg sieved to 300 microns with washover; approximately 25 litres of unprocessed sediment remain)

Moist, mid brown to mid grey-brown to mid to dark grey, crumbly and slightly sticky to unconsolidated (working plastic), slightly silty clay. Stones (20 to 60mm) and a trace of ?charcoal were present.

The washover contained a very few fragments of charcoal to 5mm with a little coal and concreted sand.

The small residue (dry weight 0.34kg) was mostly sand, with some stones and a very little charcoal (1g).

3.13 *Hand-collected shell*

Only trace amounts of poorly preserved shell were hand-collected from three contexts. Context 222 (Area C) gave a single highly fragmented *Cepaea*/*Arianta* sp. and a few other unidentified shell fragments. Context 310 (Area D) yielded a few hightly eroded and fragmented pieces of oyster (*Ostrea edulis* L.) shell. Context 582 (also Area D) gave another fragmented ?*Cepaea*/*Arianta* sp. and a single *Helix pomatia* L. (the 'Roman' or 'edible snail'). This last was the only shell of interpretative value perhaps representing human food waste.

3.14 *Vertebrate remains*

Vertebrate remains representing 86 deposits were recovered from three of the excavation areas (Areas C, D and G, Table 2). The deposits represented the fills of ditches, pits and some layers, with most dating to the Romano-British period. In total 1,879 fragments were recovered, of which 16 were measurable and eight were mandibles with teeth *in situ* of use for providing biometrical and age-at-death information.

Preservation was generally quite poor with only three contexts (465, 478 and 551, all from Area D) being classed as 'good'. Material from two of these was noted as being dark brown in colour suggesting that the deposits may have been waterlogged; this would account for the better bone preservation. For several of the deposits almost 50% of the fragments were smaller than 50mm in maximum dimension, indicating a high degree of fragmentation. Fresh breakage damage was common, although this was a reflection of the fragile and brittle condition of these remains, rather than the result of poor recovery techniques. Burnt material was recovered from ten deposits (Contexts 303, 352, 407, 417, 433, 452, 454, 466, 513 and

547, again all from Area D), whilst evidence of dog gnawing and butchery was somewhat scant.

3.15 *Area C: prehistoric to Romano-British*

Area C was represented by two deposits, which produced only two fragments of bone.

3.16 *Area D: Romano-British*

Excavated deposits in this area represented several phases of Romano-British activity which included a umber of large pits and a series of ditches defining rear property boundaries. Most of the bone-bearing deposits (81) from this site were located in this area, producing a total of 1,735 fragments of bone.

A limited suite of species was represented which included cattle, caprovid, pig, horse and dog. The complete absence of bird and fish bone is probably a result of the poor preservation; bones of these taxa being more fragile and more easily destroyed than those of mammals. The body part representation of cattle, horse and caprovid suggests that all parts of the skeleton were present, while pig and dog seem to have a less even distribution (this is probably because of the limited number of fragments representing these species, however). The most common skeletal elements identified were isolated teeth and this is again a result of differential preservation; the enamel of teeth being harder and more resistant to chemical erosion than bone and, therefore, having a better survival rate. One deposit (context 478) included many freshly broken cranium fragments from the skulls of one horse and one cow, together with some isolated caprovid teeth and shaft fragments. These skulls may form a ritual deposit but information regarding the context from which they were recovered would be necessary for detailed interpretation.

3.17 *Area G: late Bronze Age*

Material from this area was recovered from three deposits, two of which contained only tooth fragments. The third deposit, context 1100, described as a ‘grave’ contained the skeleton of a young calf. Many of he ends of its bones had been destroyed and the only certainly unfused bone was a distal metapodial, giving an age of less than two years. The mandibles were incomplete but also suggested an immature animal. Although immature, the animal represented was quite large and the preservation of the remains was such that a modern burial cannot be ruled out, despite the suggested Bronze Age date for some of the deposits from this area.

4.0 DISCUSSION AND STATEMENT OF POTENTIAL

The assessment of the column samples from Area C revealed that, in general, there was little potential for study of the represented deposit sequence via pollen and none for diatoms. Only that part of the sequence relating to context 217 gave any interpretatively useful microfossil remains. The ‘squash’ subsample from this context was clearly different to those from the under- and overlying deposits. Providing that dating can be obtained, some further study is warranted—to determine the extent and the nature of the faecal content indicated by the presence of the *Trichuris* egg and to investigate any variations in the pollen spectrum around this ‘point’ which may reflect changes in the local landscape.

Some of the deposits of Romano-British date from Area D yielded rather rich assemblages of plant and invertebrate (mainly insect) remains mostly preserved by anoxic waterlogging, with a background of charred material including some probable evidence for ash from burnt peat and/or turves (consistent with evidence for such material from many deposits of this date in

south east Yorkshire, cf. Hall 2003). The three deposits with good waterlogged preservation gave essentially rather similar assemblages of uncharred remains, with tall weedy herbaceous vegetation close to scrub the most likely vegetation indicated areas of nettles and elder with a rather diverse range of plants typical of later stages of succession on disturbed soils. One deposit associated with a firing pit, provided an assemblage of grain and chaff typical of the period, though in a very poor state of preservation.

Ancient biological remains in the samples from the late Bronze Age burnt mound and associated deposits in Area G were limited to very small concentrations of charcoal.

The very small quantity of hand-collected shell was of no interpretative value beyond that given in the text above.

Excavations at Stamford Bridge produced a moderate-sized assemblage of vertebrate remains. Only small amounts of bone were recovered from Areas C and G, with most of those from the latter possibly being of modern date. Material from Area G does not warrant further analysis unless dating information can be provided. Area D produced a much larger assemblage of vertebrate remains and was dated to the Romano-British period. The preservation of this material was poor, with much of it being brittle and susceptible to fragmentation, the result being few measurable fragments. The assemblage was dominated by domestic species, with most parts of the animals represented. Most of the remains were recovered from features associated with rear property boundaries and are highly likely to represent refuse from both carcass preparation and consumption.

The presence of isolated skulls, particularly of horses, has been recorded on other sites of Iron Age and Romano-British date and they are sometimes interpreted as deliberate depositions of a ritual nature (Grant 1984). The skulls from context 478 may represent just such a deposit.

Very few rural Romano-British sites have been investigated in this area and those that have often produced very little animal bone. Although this assemblage is not particularly well preserved, it could still contribute valuable information to any synthetic studies of the area.

5.0 RECOMMENDATIONS

The nature of the local environment and some aspects of human activity could be explored through the use of larger subsamples from those deposits from Area D with good preservation of plant and insect remains by anoxic waterlogging. They will add usefully to a growing body of evidence for plant and invertebrate remains from sites in the south-east of the Vale of York and adjacent Yorkshire Wolds area for the Iron Age and Romano-British periods, valuable for synthesis. Providing dating can be obtained, some further study of the microfossil content of the deposit sequence around the assessment subsample from context 217 may provide additional supporting information from Area C.

No further study of the hand-collected shell is warranted.

Vertebrate material from rural Romano-British sites is rare and, therefore, even though this assemblage is not well preserved, it could provide an important contribution to any synthetic studies of this area. In view of this, a basic archive, including biometrical and age-at-death data, should be produced for the current vertebrate remains from all well-dated deposits.

All of the current material should be retained for the present.

6.0 ARCHIVE

All material is currently stored by Palaeoecology Research Services (Unit 8, Dabble Duck Industrial Estate, Shildon, County Durham), along with paper and electronic records pertaining to the work described here.

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Table O1. Identifications of wood

Context/ Sample	Taxon	Notes
446		bag of about 200 ml twig fragments to 120mm: clean, appearing well-preserved superficially, but when cut, actually rather soft; some willow (Salix, though no other willow remains sample from this context, cf. 'Results' text); one willow fragment with an oblique cut at one end and another cut laterally (these seem to be ancient); one ?plum/cherry/blackthorn (?*Prunus*) fragment; one rather broad, flattish fragment with much mineral impregnation, seems to be elder (*Sambucus*); one vertebrate long-bone shaft to 70mm
539AA	alder (*Alnus*)	1 of 3 or 4 wood fragments: dark coloured, to 80mm, flattish with bark (also a small fragment, ?broken from it)
	cf. *Prunus*	small pale-coloured fragment to 30mm of ?knot and associated stem; very soft, identification very uncertain
546AA	*Prunus*	unusual-shaped piece with ?knot at one end and flattened limb forming rest of piece (to 140 max)
549AB	ash (*Fraxinus*)	a single twig to 60mm
551AA	elder (*Sambucus nigra*)	three pieces of stout twig with pith canal – largest fragment 110mm; some mineral impregnation
581AB	?herbaceous stem	soft herbaceous stem, originally about 15mm diameter, with node, e.g. hogweed, *Heracleum*, or hemlock, *Conium*, to about 60mm long
	Prunus	one of several twigs to 75mm, some showing a degree of mineral impregnation

Table O2. Vertebrate remains (including those recovered from the samples)

Species		Area C	Area D	Area G	Total
Canis f. domestic	dog	-	35	-	35
Equus f. domestic	horse	1	54	-	55
Sus f. domestic	pig	-	15	-	15
Bos f. domestic	cow	-	140	49	189
Caprovid	sheep/goat	1	89	-	90
Unidentified			1402	93	1495
Total		**2**	**1735**	**142**	**1879**

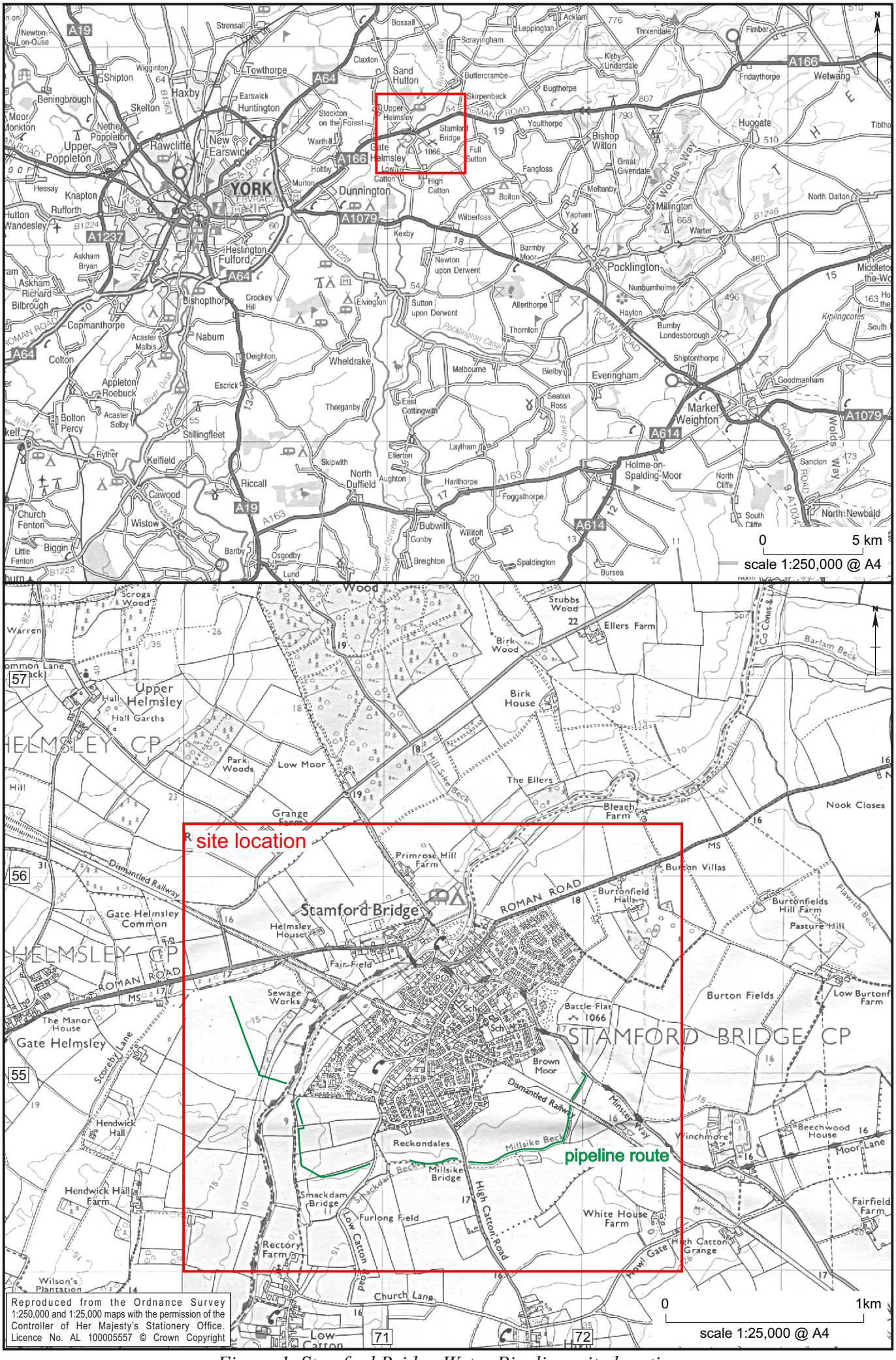

Figure 1 Stamford Bridge Water Pipeline: site location

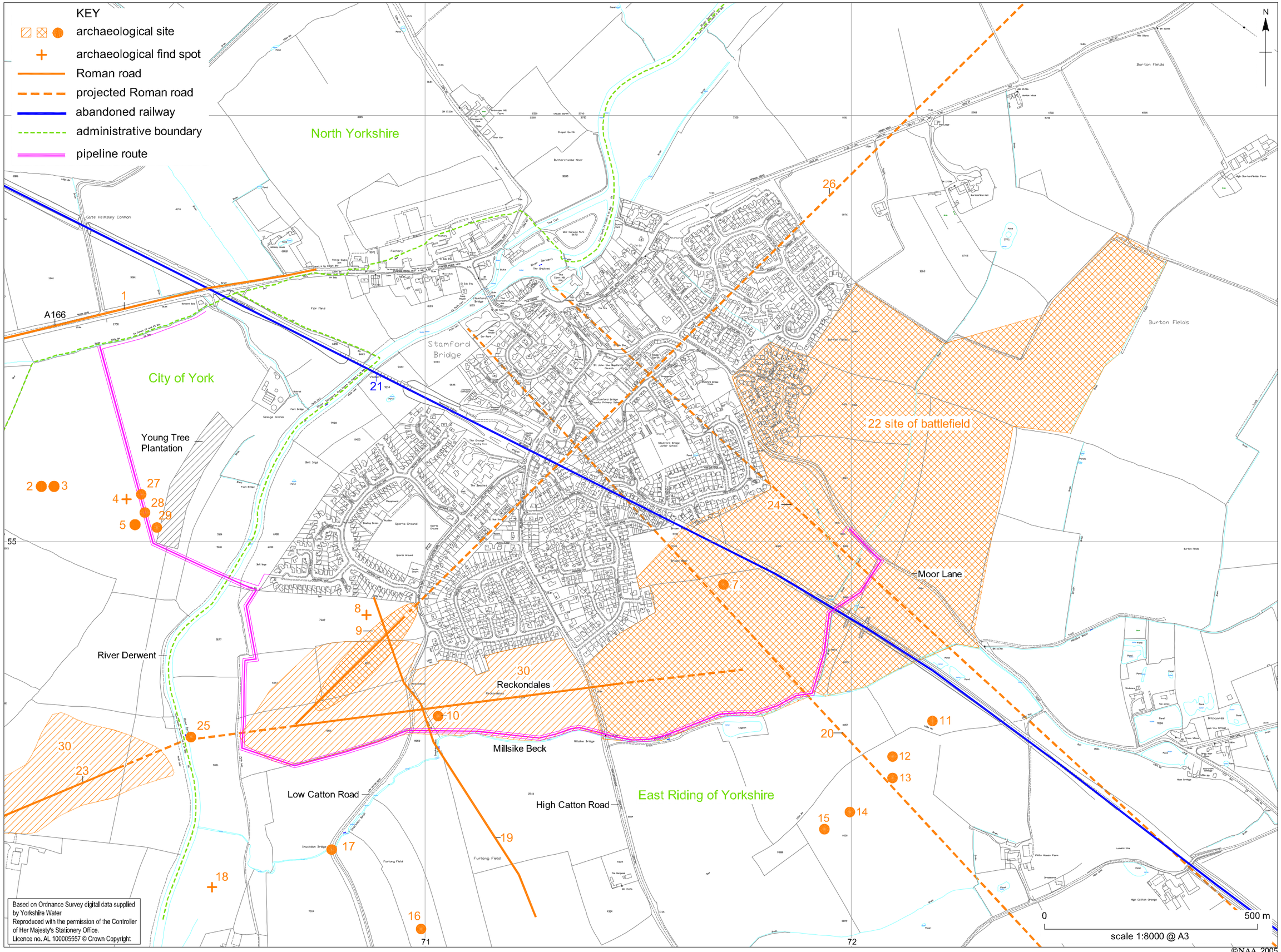

Figure 2 Stamford Bridge Water Pipeline: pipeline route and previously identified archaeological sites

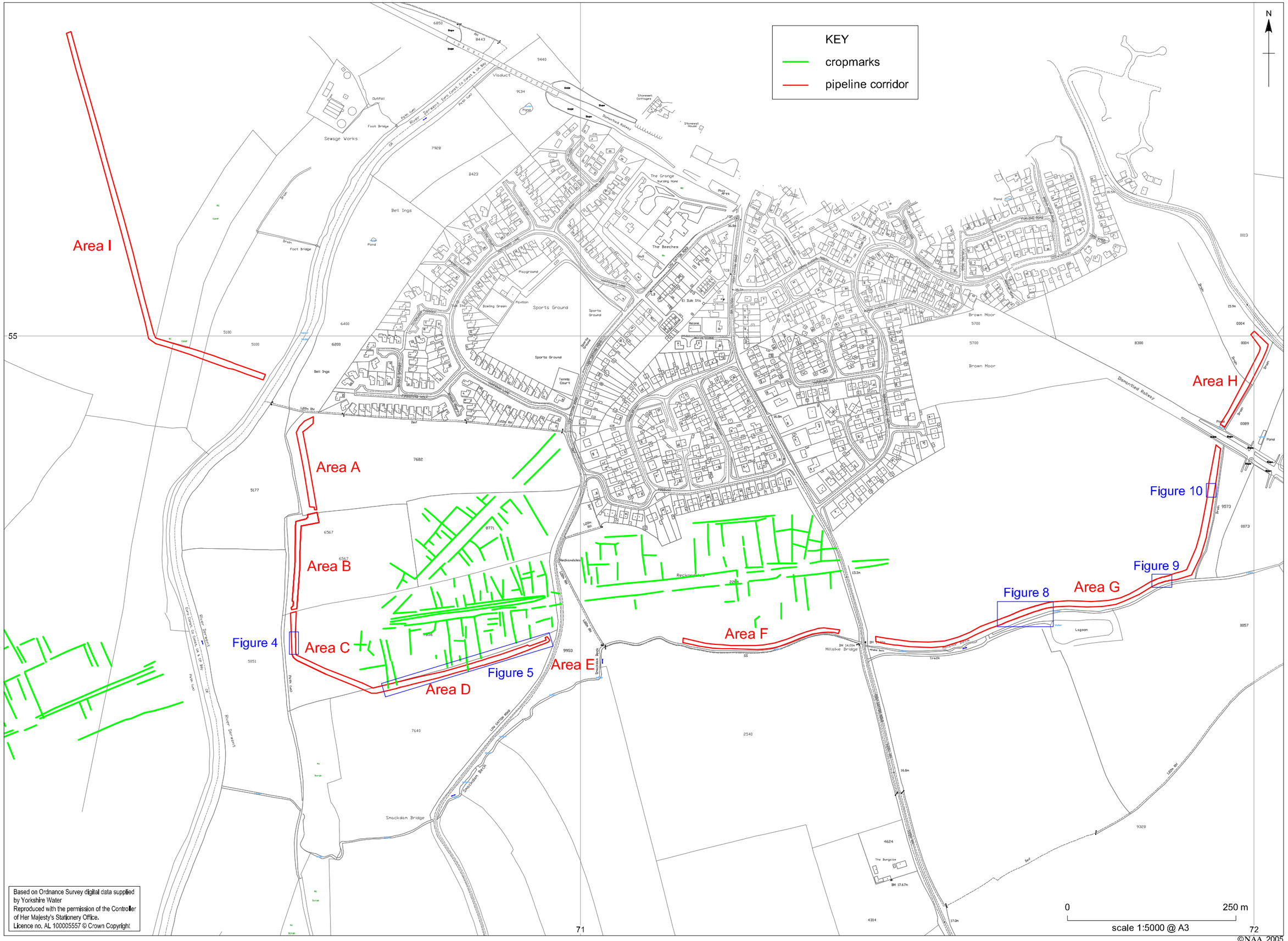

Figure 3 Stamford Bridge Water Pipeline: cropmarks and archaeological monitoring areas

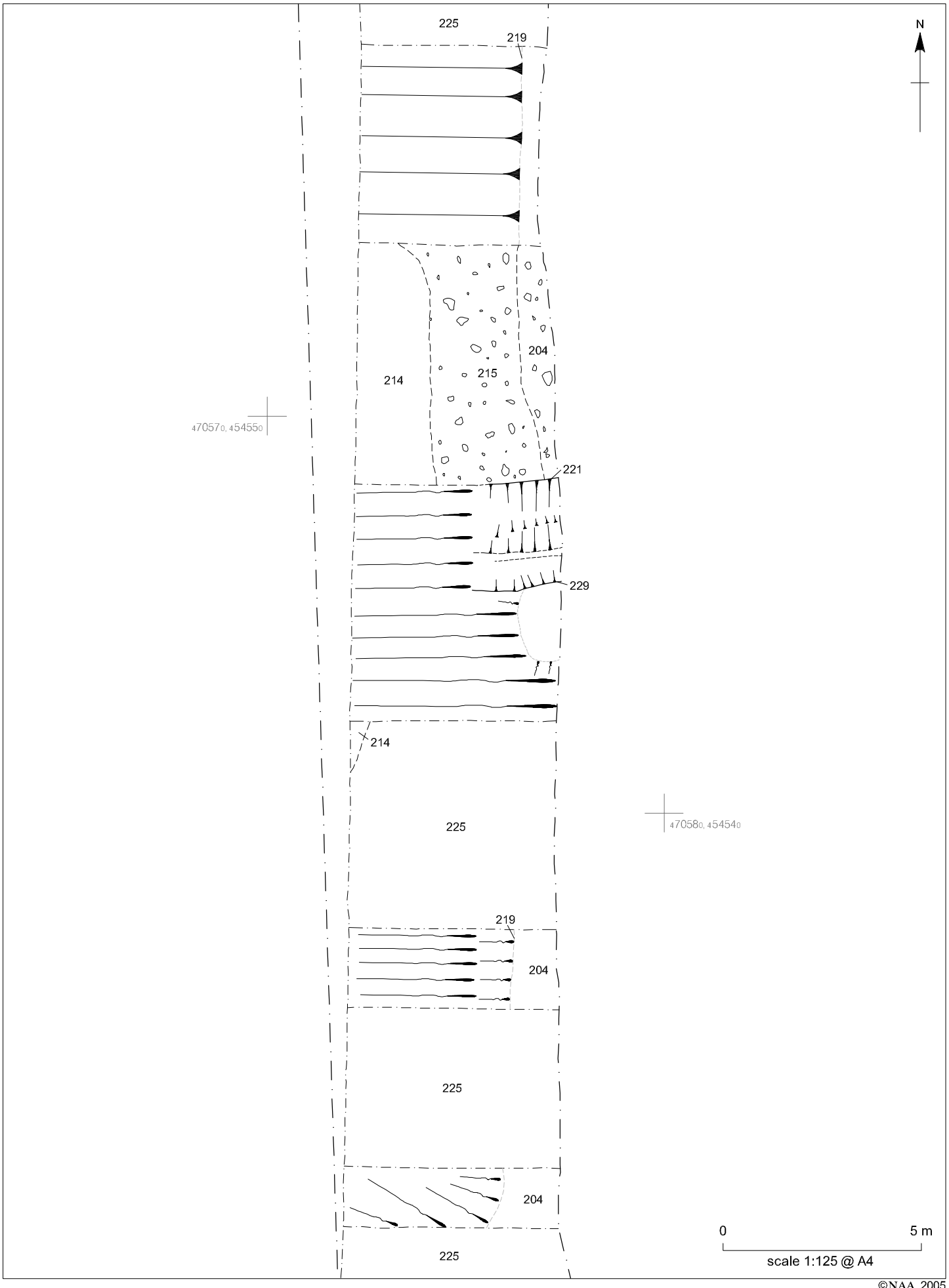

Figure 4 Stamford Bridge Water Pipeline: plan of Area C

Area D feature plan

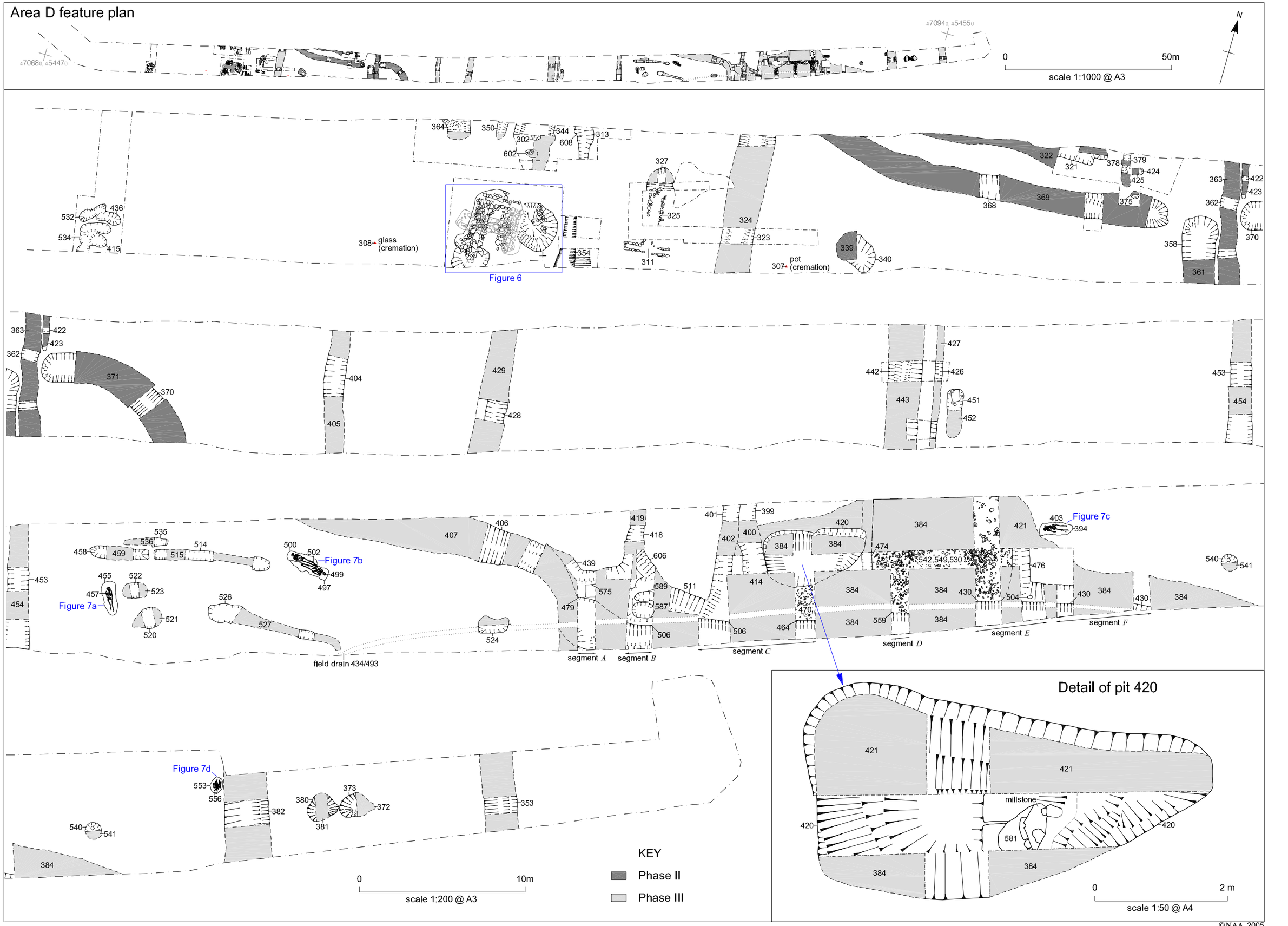

Figure 5 Stamford Bridge Water Pipeline: plan of Area D

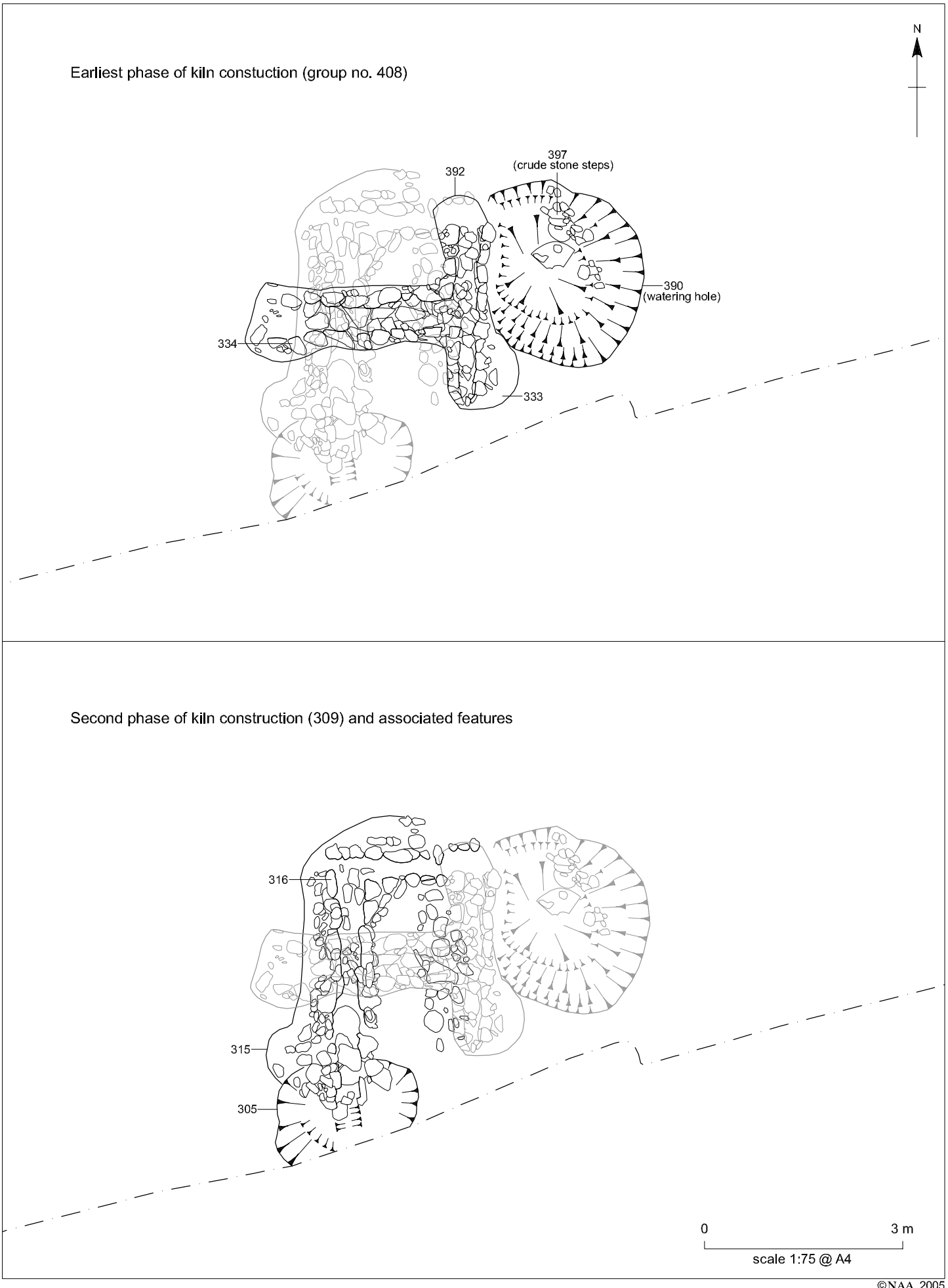

Figure 6 Stamford Bridge Water Pipeline: Area D kiln plans

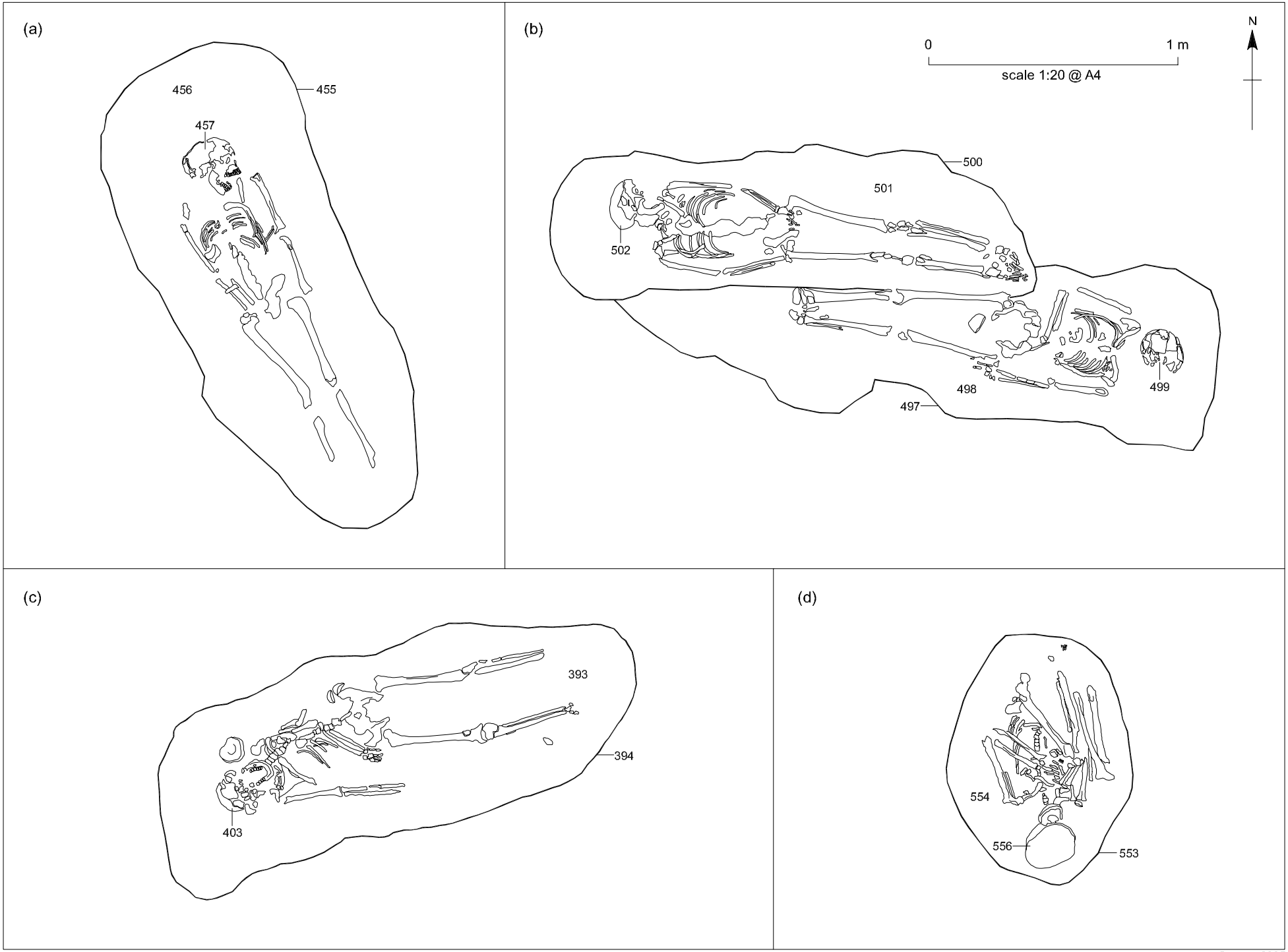

Figure 7 Stamford Bridge Water Pipeline: Area D burial/grave plans

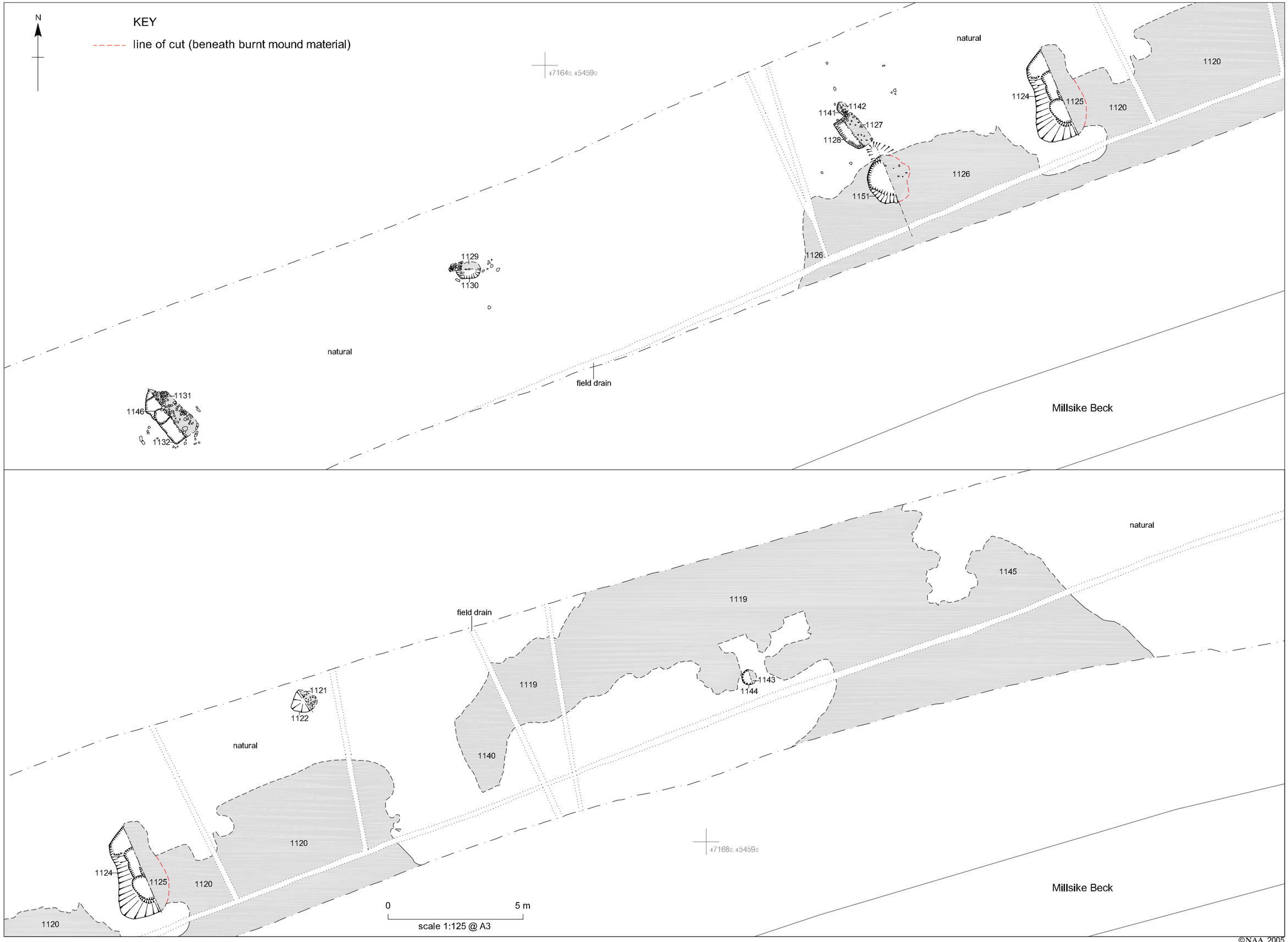

Figure 8 Stamford Bridge Water Pipeline: burnt mounds (Area G)

Figure 9 Stamford Bridge Water Pipeline: Area G Roman road surface 1109 showing cut features

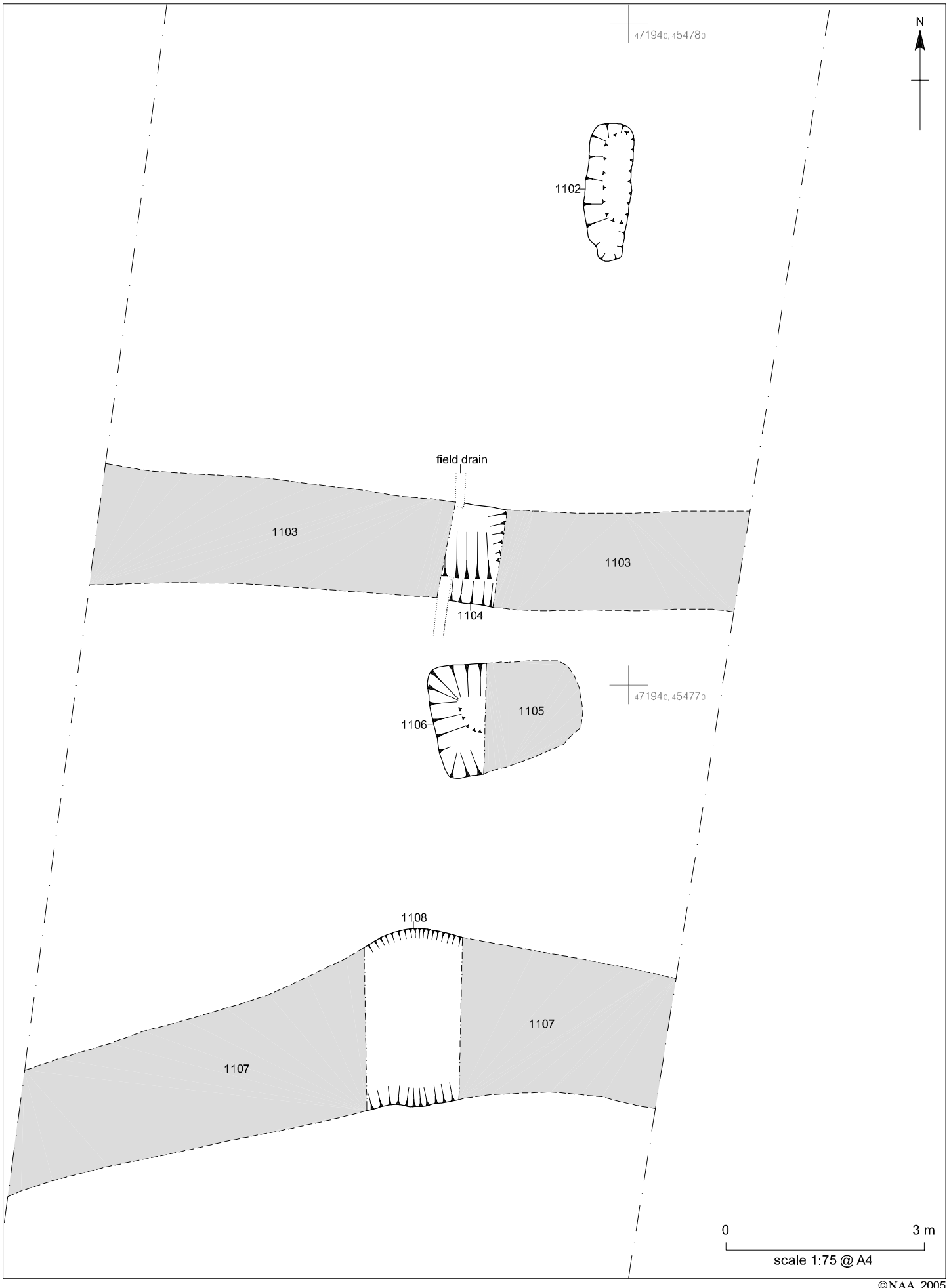

Figure 10 Stamford Bridge Water Pipeline: Area G (east)

Plate 1: Area C, view north-east across the roadside ditch (221) and the degraded road surface

Plate 2: Area D, view east across the the terminus of ditch 370

Plate 3: Area D, the compressed remains of glass cremationn vessel 308 AA as it survived in-situ

Plate 4: Area D, View east across the two phases of kiln 392 and 309

Plate 5: Area D, watering hole (?) 390 showing rough stone steps (397) against the northern face

Plate 6: Area D, the sparse remains of kiln 311

Plate 7: Area D, cremation urn 307 AA in-situ

Plate 8: Area D, segment f across enclosure ditch 430

Plate 9: Area D, section across watering hole (?) 593

Plate 10: Area D, View east across cobbled surface 542

Plate 11: Area D, crouched burial 556

Plate 12: Area G, excavating the burnt mound and pits

Plate 13: Area G, section across pit 1124

Plate 14: Area G, view west across sectioned road surface 1109