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TEESSIDE TO SALTEND ETHYLENE PIPELINE

SITE 714

WEST MOOR FARM, CRATHORNE

NORTH YORKSHIRE

EXCAVATION REPORT

prepared for

AC ARCHAEOLOGY

on behalf of

BP TSEP PROJECT

NAA 01/13

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TEESSIDE TO SALTEND ETHYLENE PIPELINE

TSEP SITE 714 WEST MOOR FARM
CRATHORNE, NORTH YORKSHIRE

ARCHAEOLOGICAL EXCAVATION REPORT

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Summary

Archaeological recording was undertaken by Northern Archaeological Associates (NAA) on a Romano British settlement site at West Moor Farm, Crathorne, North Yorkshire in July 1999 during the construction phase of the BP Teesside to Saltend ethylene pipeline (TSEP) The site was identified during the routine monitoring of the pipe trench excavation by BP s archaeological inspector and a rapid excavation mounted by NAA in order to investigate and record the site in advance of the imminent pipe laying operations

The earliest phase of activity identified consisted of a pair of probable boundary ditches that were overlaid by the partial remains of a stone structure, which clearly represented a later phase of activity A series of structural type linear features were also identified to the south and east of the stone structure on a similar alignment, and have been grouped together A further linear feature cut the stone structure and represented a third phase of activity on the site The pottery assemblage recovered from the site indicates that the site was occupied in the early 2nd to the early 3rd centuries AD Preservation of environmental remains was poor, though some charred remains were recovered and provided evidence of cereal processing on site Animal bone preservation was similarly poor, though the presence of cattle, pig and sheep/goat could be demonstrated

It is clear that later agricultural activity on the site has resulted in a very severe degree of horizontal truncation, accounting for the partial survival of the structural remains Nevertheless the form of the surviving features, together with the evidence for the associated material culture, would indicate that the site at West Moor Farm was of a substantially higher status than the site of the Romano British settlement at Mourie Farm (TSEP Site 712) to the north, with closer parallels to the site at Sike Spa, Crayke (TSEP Site 718), although this latter site produced more substantial structural evidence

1 0 INTRODUCTION

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A programme of investigation and recording, covering approximately 300m², was carried out on the site of a previously unknown Romano British settlement at West Moor Farm, Crathorne, North Yorkshire (NZ 424 067) on the route of the BP Teesside to Saltend Ethylene Pipeline (TSEP) (Figure 1) The excavation was carried out during July 1999 This document has been prepared by Northern Archaeological Associates (NAA) at the request of AC Archaeology on behalf of BP

The presence of archaeological remains was identified during the routine archaeological monitoring of the excavation of the pipe trench by BP s archaeological inspector A rapid excavation was carried out by NAA, on behalf of AC Archaeology, in order to record the threatened archaeological remains prior to disturbance resulting from the imminent laying of the pipeline through the site

The site comprised both stone walls and negative features cut into the subsoil and displayed clear evidence of having been truncated by later agricultural activity The presence of an area of stone surface would indicate the survival of the contemporary ground surface in a localized area of the site This was, however, a very localized phenomenon with substantial horizontal truncation apparent over the remainder of the site Preservation of ceramic artefacts was good, though animal bone was greatly deteriorated The features clearly extended beyond the limit of the pipeline corridor to the east and beneath the haul road to the west Examination within the corridor to the north and south of the site revealed the presence of further boundary features, but no further structural features, though this may be a reflection of factors affecting preservation rather than indicative of the original extent of the site

2 0 LOCATION

The site is located to the north of West Moor Farm and some 1 5km south west of the village of Crathorne in North Yorkshire (NZ 424 066)

The area of investigation lay on level ground within arable fields, 500m to the north of West Moor Farm, and immediately to the west of a disused railway line (Figure 1) The subsoil consisted of fluvio glacial silts and clays (Jarvis *et al* 1984)

3 0 ARCHAEOLOGICAL BACKGROUND

An assessment of archaeology and cultural heritage along the pipeline route undertaken in advance of construction works only identified areas of ridge and furrow earthworks withm the vicinity of West Moor Farm (AC Archaeology 1998)

The site is located to the east of a Romano British settlement study area within which 607ha of fieldwalking has been undertaken (Inman 1988) The study area was bordered by the River Tees to the north, the North York Moors to the south, and the A19 and coastline west and east respectively The results of the fieldwalkmg programme identified at least 70 potential sites in the landscape, which had been mostly changed from deciduous woodland to fields of pasture and cereal crops before

the Romano British period Quern stones were recovered from at least 14 sites and judging by the quantity of pottery it is probable farms produced a crop surplus which they traded for luxury items Subject to topography, Inman believes farms were likely to be 22 26ha in size

Excavation of a Romano British settlement site near Mourie Farm, Low Worsall (TSEP Site 712) was undertaken during June 1999 by Northern Archaeological Associates (NAA 2000a) Mourie Farm is located 4km to the north west of West Moor Farm Excavation revealed evidence of structures, ditches, trackways and iron working Although the majority of the pottery recovered indicated a date range from the 2nd to the mid 4th century AD a small amount of pottery in the Iron Age tradition was recovered, though there was no clear evidence for Iron Age occupation

Excavation of an Iron Age settlement and Romano British enclosure site near Manor Cottage, East Rounton (TSEP Site 713) was also undertaken during June 1999 by Northern Archaeological Associates (NAA 2000b) Manor Cottage is located 3km to the south of West Moor Farm Excavation revealed evidence of Iron Age circular structures, ditches and enclosures overlain by early Romano British boundary ditches and enclosures

The site at Sike Spa, Crayke, (TSEP Site 718) although some 42km to the south of West Moor Farm is perhaps the best parallel to the site The site was excavated during June 2000 by Northern Archaeological Associates (NAA 2000c) At Sike Spa the third phase of the site consisted of a cobble founded building some 8m wide by 13m long, dated to the late 2nd century AD and associated enclosure ditches There was also evidence for earlier Iron Age occupation

Excavation at TSEP Site 169 at West Lilling, Sheriff Hutton (SE 640 644), which lies 10km further to the south east of Sike Spa, revealed the remains of a stone wall, cobble surfaces, pieces of plaster and *opus sigmnum* flooring, all associated with pottery of 4th century date suggesting a potential villa site There was no evidence of Iron Age occupation within the excavated area (OSA 1999)

4 0 METHODOLOGY

The excavation was carried out by NAA at the request of AC Archaeology on behalf of BP during July 1999 The site was identified during the routine monitoring of the excavation of the pipe trench by BP's archaeological inspector (Plate 1) The site consisted of a series of boundary type ditch features located to both the north and south of an area of structural features indicative of a settlement The time available for the excavation was severely limited as the pipe laying followed on closely behind the pipe trench excavation The strategy employed during the work was to record the boundary features to the north and south of the main site m the section of the excavated pipe trench and concentrate the detailed recording and sample excavation in the area of the settlement site that would be affected by the pipe laying activity This was deemed to be represented by a 5m wide strip along the eastern side of the temporary haul road

The area of investigation extended for approximately 170m along the route of the pipeline corridor (Figure 2) The full extent of the area of structural activity was cleaned by hand and a plan drawn at a scale of 1 20 A series of sections were then excavated through the discrete features in order to recover environmental samples and artefacts for dating The excavated features were recorded by photography, drawing and a written record made using the NAA recording system (a derivative of the MoLAS system) Sections were drawn at 1 10 The features located in the eastern part of the area were not under threat and were not therefore excavated The plans of the features were however recorded by survey using an EDM total station and tied into the Ordnance Survey grid Levels were tied into Ordnance datum The site code was WMC99

5 0 EXCAVATION RESULTS

The investigation revealed the presence of three stratigraphic phases Phase 1 consisted of a sequence of two ditches (57 and 59), which were cut by the partially surviving Phase 2 stone wall 53, with which three further linear features (43, 62 and 66) have been associated together with a possible hearth (50), which was cut by linear 43 The third phase of activity comprised a single linear feature (55), which cut the south end of wall 53

A number of further features were recorded both in plan and in the section of the pipe trench Most of these features remain undated however, a series of substantial ditches at the northern and southern limits of the site have been tentatively identified as defining the extent of the site

Figure 2 depicts the extent of the site and the location of the detailed plan and pipe trench section drawings Figures 3 and 4 illustrate the detailed plan and sections of the recorded features

5 1 Phase 1 Boundary ditches (mid to late 2nd century AD)

Ditch 57 was traced on a north, north west to south, south east alignment for 15m, and extended beneath the haul road to the south (Plate 2) The ditch became increasingly difficult to trace further to the north, its full extent could not therefore be identified The ditch was sectioned in two places and m both instances revealed a V shaped profile, approximately 2 1m wide by 1 1m deep (Figure 4, Section 1) Two fills were apparent, a silty clay primary fill (38) almost certainly derived from the erosion of the sides of the feature, and a darker homogeneous clay silt (39) likely to be the result of a slow silting process The lower jaw of a pig was recovered from fill 39 immediately beneath Phase 2 wall 53, the foundation cut for which was not seen It is conceivable that this represented a deliberate foundation offering associated with the wall or structural slot, though its interpretation as a find from the ditch fill is perhaps more likely

Ditch 59, which was up to 2m wide, extended to the north east for 12m from the western edge of ditch 57 No differentiation between the fills of the two features could be discerned and ditch 59 was not traced to the west of ditch 57 The ditches have therefore been interpreted as contemporary boundary features

Examination of the eastern section of the pipe trench, to the north of the intersection of ditches 57 and 59, revealed ditch 57 in longitudinal section for some 12m (Figure 4, Section 4) The ditch was seen to truncate a pit or posthole (73), which in turn cut the fill of a second similar feature (23) Ditch 57 was further recorded to the north of this feature as ditch 17 where it cut a further ditch feature, which consisted of a primary cut and a re cut (13 and 15)

A single sherd of Nene Valley colour coated ware dated to the mid to late 2nd century, together with five sherds of a whiteware beaded mortarium, and half a greyware sample jar base were recovered form the fill of ditch 57 The plate from a two-piece bone handle for a knife was also recovered from the ditch fill The pottery evidence broadly dated the ditch to the mid to late 2nd century AD

5 2 Phase 2 Wall 53 (mid 2nd to mid 3rd centuries AD)

Stone wall 53 was set into the surface of the backfill of ditch 57 and consisted of two parallel rows of squared and moderately well finished stones, which formed two wall faces 0 4m apart (Plate 3) The feature was traced for some 2m and would appear to represent either the foundation for a stone wall or the stone foundation for a substantial timber structure (Figure 3)

A series of three further narrow linear features (43, 62 and 66) were traced on a north west to south east alignment to the south and east of wall 53 The features were narrow, between 0 2m and 0 8m wide and were traced for several metres Feature 43 was sectioned and found to be 0 2m deep with a flat base and steep sides (Figure 4, Section 2) A sherd from a Cologne hunt cup beaker, dated *c* AD80 200, was recovered from the primary fill (44) The form of the features suggested that they represented structural slots rather than gully type features This together with their similar alignment to wall 53 has led to their being grouped with this structure Feature 41 was of a similar structural nature, 0 2m wide and 0 1m deep sides (Figure 4 Section 3), orientated almost perpendicular to slots 43, 62 and 66 A sherd of handmade pottery of perhaps 1st to 2nd century AD in date was recovered from the fill of linear 41 A scatter of surface finds recovered from the area of these structural slots, dated to the mid 2nd to mid 3rd centuries AD may give a further indication of their date

Linear 43 cut a shallow U shaped pit (50) which measured 1m north south by at least 1m east to west The feature contained two fills (49 and 51) Fill 49 displayed discolouration likely to be indicative of burning and fill 51 was near black in colour due to a high charcoal content The feature has been interpreted as a fire pit or hearth and contained the only charred plant remains recovered from the site The environmental assessment concluded that this represented evidence of cereal processing on site rather than the direct use of the hearth for cooking cereals

5 3 Phase 3 Structural linear feature (mid 2nd to mid 3rd centuries AD)

A structural type linear feature (55), which both contained and was lined by roughly worked stones, was traced for 6m (Figure 3) The feature appeared to cut wall 53 at its northern end, which indicated that linear 55 was the later of the two features The

feature was difficult to define and the most likely interpretation that can be offered is that the feature represented a construction trench for a sill beam or post in trench wall structure As with stone feature 53 the very partial survival of the feature makes interpretation problematic

A cobble stone surface (40) lay immediately to the west of linear 55 The surface was traced for 4m north south and 1m east west and appeared to represent a partial survival The surface could be contemporary with either Phase 2 or 3 structures

5 4 Unphased features

A pit or linear feature (21), 1m wide and up to 0 64m deep, cut ditch 57 in the section of the pipeline 9m to the north of the junction with ditch 59 (Figure 4, Section 4) Its flat bottom and steep sides may indicate a structural function Although the feature was not seen in plan and is therefore difficult to interpret, it could represent a further structural element of Phase 2 or 3

A series of six pits or ditches (3, 5, 7, 10, 68 and 70) were recorded in the 63m section of the pipeline trench to the north of the Phase 1 ditch 59 (Figure 4, Section 4) The majority of these features, which were undated, were seen only in section and varied in width between 2 7m to 1 5m and in depth between 1m and 0 4m The only apparent stratigraphic relationships concerned feature 10, which was cut by ditch or pit 70

To the north of walls 53 and 55 a large area of a possible archaeological deposit (93) was identified within which some discrete features (linears 88 and 90) could be distinguished Deposit 93 was a silty clay notably darker and richer in appearance than the surrounding natural fluvio glacial silts and clays A ditch (88) was recorded beneath the haul road to the west of ditch 57 (Figure 2) The ditch, which was 1m wide, was traced for 5m on an east to west alignment The feature was not dated but could represent a continuation of the Phase 1 ditch group A further linear feature (90) was traced intermittently against the section edge for 20m to the north of ditch 88 The feature could have represented a further ditch or structural linear Three quern fragments were recovered as surface finds from just to the east of this feature These consisted of a beehive quern fragment and two fragments from a single lava quern with zonal tooling (Appendix C) A further curving feature (92) was identified to the south of ditch 88 It was up to 0 77m wide and curved towards the west, passing beyond the limit of excavation The nature of the feature was uncertain

A further sequence of 4 ditches (82, 83, 84 and 86) were recorded at the northern end of the site, between 66m and 90m to the north of ditch 59 and to the north of the group of features identified in section57 (Figure 2) These features were quite substantial and varied in width between 1 2m and 2m Three of the ditches lay on a similar east west alignment and are likely to be related, potentially demarking the northern boundary to the site, an interpretation supported by the general absence of further features to the north The fourth ditch lay on a west, south west to east, north east alignment and did not appear to be related to the others

A series of three ditches or pits (76, 78 and 80) were recorded in the section of the pipeline to the south of the crossing point (Figure 4, Section 5), between 30m and 70m to the south of the structural elements of the site Feature 78, was relatively

narrow and could have represented either a pit or a ditch Feature 76 lay 13m to the south of features 78 and represented a quite a substantial ditch, measuring some 5 2m wide and 1 5m deep (Plate 4) A further substantial ditch (80) lay 28m to the south of ditch 76 and was also quite substantial, measuring 4 9m wide and 0 7m deep No further features were identified to the south of ditch 80, which, like the ditch group to the north, could be seen to demarking a boundary to the site

6 0 FINDS SUMMARY

6 1 Pottery

Jerry Evans (Appendix B)

Some 39 sherds of pottery were recovered from the site, approximately half of which were from unstratified deposits They give a general date range for the occupation of the site from the mid 2nd century AD to early 3rd century AD

Although the assemblage is too small for firm conclusions to be reached, certain trends have been highlighted as of potential significance The presence of two samian and three colour coated ware sherds, from at least four vessels, suggests a comparatively high level of finewares Amphora and mortaria sherds were also present The whiteware mortaria was stamped and can be attributed to the die of a potter who worked at Aldborough in North Yorkshire (Figure 5) The presence a high proportion of finewares together with the amphora and mortaria sherds would indicate a site of relatively high status

Iron Age tradition gritted wares made up some one third of the group, a similar proportion to that found at the site at Sike Spa, Crayke These wares are likely to have continued to be used in the 2nd century AD and their presence should not be taken as indicative of an Iron Age component to the site

6 2 Querns

Dave Heslop (Appendix C)

Two joining fragments of a lava quern and a fragment of a quern base stone were recovered from ditch wall 55 and an unstratified context respectively (Figure 6) The lava quern would have been particularly large, measuring approximately 0 46m in diameter and 0 07mm thick The size of the quern would suggest the site is of some significance, either an urban or military centre, or associated with a villa or estate centre

6 3 Worked bone

Lindsay Allison Jones (Appendix D)

The plate from a two piece bone handle was recovered from the fill of ditch 57m (Figure 7) The object was waisted with bands of incised decoration in the centre and

at both ends Two rivet holes were located towards the end of the feature would have fastened it to the tang of a knife

The object is a common type of Roman knife handle, although at the lower end of the normal size range

6 4 Animal bone

L Gidney (Appendix **E**)

Animal bone was recovered in small quantities from the ditch fills (contexts **46** and 47) and to a lesser extent from the exposed archaeological surface The bone was seen to be in a poor state of preservation, almost certainly due to adverse soil conditions Analysis of the animal bone recovered from the site indicated the presence of cattle and sheep/goat as well as the presence of the complete left and right mandibles of a pig The canine of which indicated that the animal was female and the small size that it was a domestic specimen The intact dentition indicating that this could have been a breeding sow and in excess of two years old at death

6 5 Environmental record

J Cotton (Appendix F)

Palaeoenvironmental analysis of soil samples from contexts 42 and 44, the fills of linear slots 41 and 43 respectively, and of context 51, the fill of pit 50, was undertaken The assessment of the material from the two linear slots revealed an absence of both charred and waterlogged plant macrofossils

The fill of pit 50 contained charred cereal chaff, which consisted of glume bases from spelt wheat, which is indicative of crop production and processing on site The quality of the macrofossil preservation was also poor, again almost certainly due to adverse soil conditions

Small quantities of clinker were recovered from all three samples, which would indicate the presence of nearby industrial activity

7 0 DISCUSSION

It was clear that the site had been substantially disturbed and truncated, probably by later agricultural practice, such that the features recorded represented only a small part of what had originally been a much more extensive site The small area of stone surface (40) appears to indicate the presence, although limited in extent, of part of the contemporary ground surface The absence of further elements of the clearly well constructed stone structure conversely points to a very severe level of truncation in most other parts of the area investigated This evidence, taken as a whole, appears to indicate that the localized topography contemporary to the occupation of the site had been truncated by the later agricultural activity This later disturbance has severely limited the interpretation of the site

Stone feature 53 almost certainly represented a small part of a larger stone structure post dating the phase of activity represented by the boundary ditches This feature was clearly part of a more extensive high status structure, probably a building, making West Moor Farm one of a small number of Romano British sites in the region, such as Sike Spa, Crayke (NAA 2000c) and West Lilling (OSA 1999), which have produced excavated evidence of buildings with stone foundations

The interpretation of the narrow linear features to the south of wall 55 as construction cuts must remain speculative given the limited evidence, but would be consistent with settlement occupation indicated by the presence of spelt wheat chaff and the background scatter of surface find pottery

The two substantial boundary ditches located to the south of the main site could conceivably demarcate the limit of the site They certainly were substantial enough to represent more than simple field boundaries

The sequence of features identified to the north of the mam site are likely, at least in part, to represent a series of boundary features, possibly field boundaries

Unlike the sites at Mourie Farm and Manor Cottage, the site produced no evidence for pre Roman activity Whether the site represented a new settlement or the re location of a previously existing focus was not clear from the present evidence

8 0 CONCLUSIONS

The pottery assemblage taken together with the presence of the partially surviving stone structure would appear to indicate a site of higher status than the basic rural sites excavated elsewhere along the pipeline such as at Mourie Farm (TSEP Site 712) The site at Sike Spa, Crayke (TSEP Site 718) is perhaps the closest parallel as a stone building of significance was also identified at this site, though the archaeological record at Sike Spa appeared to represent an even higher status settlement The high degree of truncation of the present site, unfortunately, means that we cannot now identify the extent of the stone building and makes comparison of the relative status of the two sites impossible

Although the preservation of the site is very poor, it is clearly a site of some significance due to its relatively high status Any future archaeological work m the vicinity of the site could prove of significance with regard to furthering the interpretation of the site

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Appendix A

CONTEXT AND FINDS CATALOGUE

Context	Description	Animal bone	Worked bone	CBM	Glass	Pottery	Sample	Stone
1	layer (subsoil)							
2	layer (subsoil)							
3	cut for ditch							
4	fill of ditch 3							
5	cut for possible pit							
6	fill of pit 5							
7	cut for ditch or pit							
8	fill of ditch or pit							
9	layer (natural)							
10	cut for pit or ditch							
11	fill of pit or ditch 10							
12	fill of shallow pit 72							
13	cut for ditch							
14	fill of ditch 13							
15	cut for ditch							
16	fill of ditch 15							
17	cut for ditch							
18	fill of ditch 17					3		
19	cut for ditch							
20	fill of ditch 19							
21	cut for ditch or pit							
22	fill of ditch or pit 21							
23	cut for pit or posthole							
24	fill of pit or posthole 23							
25	fill of pit or posthole 23							
26	fill of pit or posthole 74							
27	same as ditch 57							
28	same as deposit 39							
29	same as deposit 39							
30	same as deposit 39		1					
31	same as ditch 57							
32	same as deposit 39							
33	same as ditch 57							
34	same as deposit 39					6		
35	not used							
36	same as deposit 39					1		
37	not used							
38	primary fill of ditch 57							
39	secondary fill of ditch 57					4		
40	stone spread (possible surface)							
41	cut for linear slot/gully							
42	fill of slot/gully 41					1	1	
43	cut for U shaped slot							
44	fill of slot 43					1	1	
45	layer (silty clay)							
46	secondary fill of ditch 48	9		1		1		
47	primary fill of ditch 48	20						

Context	Description	Animal bone	Worked bone	CBM	Glass	Pottery	Sample	Stone
48	cut for ditch (same as 57)							
49	fill of pit or hearth 50							
50	cut (shallow pit or hearth)							
51	fill of pit or hearth 50						2	
52	fill of slot 43							
53	linear feature (high stone content)							
54	not used							
55	stone wall							2
56	not used						1	
57	cut for ditch							
58	fill of ditch 59							
59	cut for ditch							
60	unstratified finds	18		1	3	21		1
61	finds reference					1		
62	cut for possible structural linear							
63	fill of linear cut 64							
64	cut for possible structural linear							
65	fill of linear cut 66							
66	cut for possible structural linear							
67	fill of linear cut 62							
68	cut for ditch or pit							
69	fill of pit or ditch 68							
70	cut for ditch (contained 71)							
71	fill of ditch 70							
72	cut for pit (contained 12)							
73	fill of pit or posthole 74							
74	cut for pit or posthole							
75	fill of ditch 76							
76	cut for ditch							
77	fill of pit or posthole							
78	cut for posthole							
79	fill of ditch 80							
80	cut for ditch							
81	fill of ditch 82							
82	cut for ditch contained 81							
83	fill of ditch 84							
84	cut for ditch contained 83							
85	fill of ditch 86							
86	cut for ditch contained 85							
87	fill of ditch 88							
88	cut for ditch contained 87							
89	fill of ditch? 90							
90	cut for ditch contained 89							
91	fill of curving feature 92							
92	cut for curving feature							
93	archaeological deposit							

Appendix B

POTTERY AND CERAMIC BUILDING MATERIAL

Jerry Evans

1 0 INTRODUCTION

Some 39 sherds of pottery and five fragments of ceramic building material were recovered from the site Approximately half of the pottery came from unstratified deposits seven stratified contexts contained pottery

There were two mortaria of 2nd century date and a third dated *c* AD 150 250 The colour coated ware with Cologne and Nene Valley pieces also suggests a Hadrianic Antonine range There were also two samian sherds a Central Gaulish mid late Antonine Dr 31R and an East Gaulish Dr 31

All told the pottery suggests occupation (or at least pottery deposition) in a 2nd or early 3rd century date bracket There is no clear evidence of 1st century occupation and the Iron Age tradition fabrics (class G) seem quite likely to have been contemporary in the 2nd century a situation that may also have been the case at Sike Spa Crayke

2 0 CATALOGUE

Two coarseware rimsherds were present on the site both mortaria of 2nd century date one with a faint stamp (MS01)

Context 18

Three joining sherds which form a fragment from a Rhenish whiteware mortarium collar (recently broken into 4) fabric M01 c AD 150 250

Context 34

Five sherds from a whiteware beaded and flanged mortarium with curving deeply grooved flange folded back on itself at the distal end to create a bead Burnt after break There is a circular rivet hole in the wall The trituration grits are worn or more probably dissolved out leaving only their angular impressions Fabric M03 Diameter c 30cms RE 4% Wt 130g (Figure 5)

A Cologne colour coated ware beaker bodysherd rouletted fabric F01 Wt 5g

Context 36

About half of a greyware simple jar base with string marks on the base fabric R01 Diam 10cms BE 40% Wt 73g

Context 39

A greyware jar base with beaded base fabric R02 Wt 105g

Two joining fragments of pottery which form a Dr 31 EG rimsherd probably Rheinzabern c AD 160 220 Diam 19 cms RE 12% Wt 25g

A reduced handmade closed form bodysherd fabric G02 Wt 25g

Context 42

A reduced handmade closed form bodysherd fabric G01 Wt 23g

Context 44

A Cologne hunt cup beaker bodysherd with a fragment of an animal (perhaps a dog s body) *en barbotine* under a black slip fabric F01 *c* AD 80 200 Wt 5g

Context 46

a) A Nene Valley colour coated ware beaker bodysherd brown slipped fabric F02 *c* AD 160/70+
b) An imbrex fragment 15 21mm thick in a clean fabric with some clay pellets Wt 385g

Context 61

A Dressel 20 amphora handle stub A01 Wt 240g

Unstratified artefacts

Context 60, U/S

a) A footring from a CG Dr 31R c AD 160 200 with a cleat rivet hole in the base Footring heavily worn Diam 11cms BE 16% Wt 22g
b) A much burnt BB1 jar bodysherd Hadrianic mid 4th century Wt 3g
c) A handmade granitically tempered bodysherd exterior oxidised interior reduced Fabric G11 Wt 12g
d) A white slipped oxidised mortarium rim fragment beaded and flanged with bead rising shghtly above a near horizontal flange with thickened distal end The stamp on the mortarium rim fragment is broken and worn It can be attributed to the die of a potter who worked at Aldborough in north Yorkshire (Jones 1971 fig 18 no 6 and 64 7) c AD 100 40 RE <2% Wt 20g (Figure 5)
Stamp MSI K F Hartley (see discussion)
e) An oxidised closed form bodysherd fabric O01 Wt 15g
f) An oxidised base sherd with a low footring base probably from a flagon Diam 6cms BE 19% Wt 7g
g) A water worn fragment of tile(?) clean type indeterminable perhaps Roman Wt 18g
h) Four bodysherds from a reduced handmade closed form in a granitically tempered fabric G11 Wt 15g
i) Eleven fragments of pottery which were probably originally four sherds of a handmade reduced vessel (probably pottery rather than daub) fabric G03 Wt 18g
j) Three fragments of sandy tile Type indeterminable not clearly Roman

3 0 DISCUSSION

Two represented vessels are particularly noteworthy (see Figure 5) They are stamped mortarium rim fragment from context 60 (find d) and the whiteware beaded and flanged mortarium from context 34

The stamp on the mortarium rim fragment is broken and worn it was probably never well impressed It can be attributed to the die of a potter who worked at Aldborough in north Yorkshire (Jones 1971 fig 18 no 6 and 64 7) The stamp preserves the letter O with parts of

letters before and after When complete the stamp probably reads NATOR or VATOR though the T could be read as a nearly straight C Mortaria stamped with the same die are now known from Aldborough (11) Carlisle (2) Castleford West Moor Farm and ?York (2 from unknown provenances in the Yorkshire Museum)

It is likely that stamps (Jones (1971) fig 18 nos 1 5 and p66) are from another die of the same potter these appear to read NATOR and they were found in the same deposit at Aldborough Only the one example from the same context is known for Jones (1971) no 7 which again is the work of the same potter The context included kiln debris and large quantities of pottery much of it distorted The Aldborough workshop appears to have produced mortaria in both orange brown and cream fabrics All but one of NATOR s mortaria are in a cream fabric while those stamped with the same die as the Crathorne mortarium are in orange brown with the exception of one in cream fabric The rim profiles associated with these three dies are not as similar as one might expect however so there is perhaps some reason for caution

The rim profiles associated with all three dies could fit a date in the period AD 100 40 NATOR/VATOR s mortaria (fig 18 nos 1 5) are recorded from Aldborough (7) Bainbridge Bowness on Solway (Potter (1979) fig 142 no 3 and fig 139 no 32) Catcote Hartlepool Malton Vindolanda and the Yorkshire Museum (no provenance) The Bainbridge and Bowness stamps should date from this period and the one from Vindolanda may do

There is a possibility that all three dies are semi legible attempts at the name VIATOR There is reasonable evidence to suggest that Viator worked at Castleford (Rush *et al* 2000 187 nos 30 31) The stamps from one of the Castleford die types are clearly readable as Viator retrograde (Rush *et al* 2000 fig 97 nos 30 and 31) while at least two of three other dies probably used by him have jumbled letters which are clearly meant to read VIATOR There was certainly a pottery workshop at Aldborough and it is virtually certain that there was one at Casdeford It is tempting to see VIATOR as having workshops at both towns (Viator was a common name and there is no evidence to link this man with a potter of the same name who worked at Colchester and possibly m the lower Nene Valley There are stamps from at least three other dies attributable to a northern source none of which are represented at either Aldborough or Castleford)

4 0 CONCLUSION

The assemblage is too small for any firm conclusions to be drawn from it however certain trends perhaps ought to be highlighted The two samian and three colour coated ware sherds from at least four vessels suggest a comparatively very high level of finewares (18% by Nosh) Similarly amphora sherds are rare on basic level rural sites but a Dressel 20 handle sherd is present here (4%) Another rather odd feature are seven sherds of mortaria from at least three vessels (27% by Nosh 17% by minimum numbers of vessels) This suggests an unusually high level of mortaria a feature found on some highland zone rural sites (Evans forthcoming) Iron Age tradition gritted wares make up 31% of the group a similar picture to that found at Sike Spa Crayke That these continued to be used in the 2nd century seems quite probable Iron Age tradition calcite gritted wares dominate assemblages in the Vale of Pickering until the end of the 2nd century

References

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Jones M U (1971) Aldborough West Riding 1964 Excavation at the south gate and bastion and at extra mural sites in *Yorkshire Archaeological Journal* 43 39 78

Potter T W (1979) *Romans in north west England excavations at the Roman forts at Ravenglass Watercrook and Bowness on Solway* Cumberland and Westmorland Antiquarian and Archaeological Society Research Series no 1 Kendal

Rush P Dickinson Hartley B and Hartley K F (2000) Roman Castleford Excavations 1974 85 Vol in The pottery m *Yorkshire Archaeology* 6 Wakefield

Appendix

Fabric descriptions

A01 Dressel 20 amphora Baetica 1st 3rd century

B01 BB1 Poole Harbour Dorset Hadrianic mid 4th century

F01 Cologne colour coated ware

F02 Nene Valley colour coated ware

G01 A reduced handmade fabric with a black core and brown black margins and surfaces with abundant angular translucent quartz *c* 0 5 1mm

G02 A reduced handmade fabric with black core margins and surfaces with abundant fine sand *c* 0 05 0 1mm and some angular translucent quartz *c* 0 5 2 5mm

G03 A handmade reduced fabric with black core margins and surfaces clean friable with occasional fine sand <0 2mm

G11 A handmade reduced fabric with black core margins and surfaces with some fine sand *c* 0 1mm and common large angular pink granitic inclusions *c* 2 7mm

M01 A fairly hard white mortarium fabric abundant orange ironstone? inclusions and some white quartzite *c* 1 2mm Trituration grits orange ironstone? white quartzite and perhaps brown sandstone Source Lower Germany

M02 A white slipped oxidised fabric with blue grey core and orange margins with some fineish sand *c* 0 15 0 25mm

M03 A whiteware mortarium with white core margins and surfaces laminar clean with occasional sand c 0 1mm and some rounded white clay pellets c1 4mm Trituration grits common angular trituration grit voids *c* 2 6mm the grit seems to have dissolved out although there are traces of a black material in some of the voids

O01 An oxidised wheelmade(?) fabric with orange core margins and surfaces with abundant fine sand temper *c* 0 1 0 2mm

O02 An oxidised fabric with orange core margins and surfaces with common very fine sand c 0 05 0 1mm

R01 A greyware with mid grey core margins and surfaces with common translucent angular quartz c 0 5 1mm and common rounded grey clay pellets c1 1 5mm
R02 a greyware with mid grey core margins and surfaces clean with occasional sand *c* 0 1mm

Appendix C
QUERNS
D H Heslop

1 0 INTRODUCTION

Excavations undertaken by Northern Archaeological Associates at West Moor Farm Crathorne North Yorkshire revealed the presence of Romano British features including gullies U shaped slots and a pit or hearth Three fragments of quern were recovered during the excavation (Figure 6)

2 0 CATALOGUE

Context 55AA Two joining fragments of lava quern

Approximately 25% of a lava quern base stone with pronounced face and edge banding The breakage pattern is characteristic of lava querns with sheer planes at right angles to the circumference and between the central piercings of which no trace is evident on these fragments Diameter approximately 0 46m thickness 0 07m

The surviving outer surface has coarse vertical tooling m the form of regular parallel grooves 4mm wide and spaced between 12mm and 6mm apart The grinding face has similar grooves in oblique panels The face has been worn to the point where the intervals between the grooves have become polished

The lithology is medium grey Mayen lava with vesicles of rounded form less than 2mm max size and not particularly dense through the fabric No inclusions noted

Context 60 Fragment of quern

Approximately 85% of a quern base stone The base is double holed and very flat Grinding surface worn very smooth then crudely redressed Two visible tool marks approximately 5mm across Diameter approximately 0 36m thickness 0 11m

The lithology is a light greyish brown medium grained sand stone Well sorted and rounded No inclusions or fossil pits noted

3 0 DISCUSSION

The quern base (context 60) has many parallels within querns recovered from Romano British contexts in the North of England the example from Crathorne is of average dimension with no particular distinguishing marks However the fragment of lava quern is of more interest Lava querns are thought to be restricted to larger Romano British sites in North east England either military urban or from the large estate centres that had access to markets trading in imported querns This example is typical of the type but at 46cm in diameter is on the outer edge of the size distribution the average being around 40 Of the half a dozen disks of this size known to the author the closest parallel is a surface find from the vicinity of the Roman fort at Newton Kyme recorded by H Ramm (Yorkshire Quern Survey No 795) This has similar grooving but at a wider interval The surface treatment would be added on the consumption site the pair of disks being exported with little surface finishing For example a similar shape from Binchester fort has no edge or face tooling but is embellished by a single groove on the upper surface (Bowes Museum 79 2 BIN A1746)

Appendix D

WORKED BONE

Lindsay Allason Jones

(Museum of Antiquities, University of Newcastle upon Tyne)

1 0 INTRODUCTION

Excavations undertaken by Northern Archaeological Associates at West Moor Farm Crathorne North Yorkshire as part of the Teesside to Saltend Ethylene Pipeline excavations have revealed the presence of Romano British features including gullies U shaped slots and a pit or hearth One piece of worked bone was recovered from the excavation

2 0 DISCUSSION

Plate from a two piece bone handle very eroded at one end (Figure 7) Originally it would have been waisted with bands of incised decoration in the centre and at both ends but the horizontal and oblique lines can only be seen in one half The plate is flat on the reverse with a convex surface It has been pierced by two holes to take the rivets which would have held the rivets holding the two plates and the implement s tang

The plate measured 49mm long with a maximum width of 16mm and maximum thickness of 7mm

3 0 CONCLUSION

This is a common type of Roman knife handle although its size it at the lower end of the normal size range See MacGregor 1985 169 for a general discussion and Bishop and Dore 1988 fig 96 no 16 for a close parallel from Corbridge Roman fort

References

Bishop M C and Dore J N (1988) *Corbridge Excavations of the Roman Fort and Town 1947 80* HBMC Archaeological report No 8 London

MacGregor A (1985) *Bone Antler Ivory and Horn* London

Appendix E

FAUNAL ASSESSMENT

L Gidney

(Archaeological Services University of Durham)

1 0 SUMMARY

Excavations undertaken by Northern Archaeological Associates at West Moor Farm Crathorne North Yorkshire as part of the Teesside to Saltend Ethylene Pipeline excavations have revealed the presence of Romano British features including gullies U shaped slots and a pit or hearth Previous excavations on Romano British settlements have revealed significant increases in agricultural activity and landscape disturbance during this period in north east England (Long 1988 Cotton 2000)

Animal bone was recovered from four contexts Elements from two contexts were identifiable No further faunal analysis of these bones is recommended although the excavator may wish to conduct more research on the bone handle present within the assemblage

2 0 METHODS STATEMENT

A basic suite of information on the presence of identifiable fragments of the three common domesticates together with the potential for information on the age structure of the cull population from tooth wear and epiphysial fusion was recorded The presence of other species was noted and comments made on any aspect of interest

3 0 RESULTS

Four contexts produced finds of animal bone Preservation of the bones is poor The fragments are brittle and most have broken since excavation Only two contexts produced elements that could be positively identified

Context 46 produced fragments of a fused large animal long bone which might possibly be a cattle distal tibia Context 47 produced a sheep astragalus centroquartal and proximal metatarsal which were probably deposited as an articulated joint Context 60 produced the remains of the complete left and right mandibles of a pig The canine indicates the animal was female and the small size of the teeth indicate a domestic specimen The entire adult dentition is present and m wear indicating that this could have been a breeding sow and in excess of two years old at death

Small Find 1 is one side of a decorated bone handle The size of the piece suggests it is made of either cattle or horse bone

4 0 CONCLUSIONS

No further works on the undecorated animal bones are recommended

Table E2 Faunal data

Context	Comments
Small Find 1	Bone handle cattle/horse size long bone
11	Indet fragment broken in two pieces poor condition
46	Very poor condition Possible fused distal cattle tibia Highly fragmented
47	Sheep/goat astragalus centroquartal and proximinal metatarsal latter in many pieces condition poor
60	Pig L&R articulating mandibles female canine P3 P4 M1 M2 M3 all in wear

References

Cotton J A (2000) *Newton Bewley Hartlepool HNB98 Plant Macrofossil Full Analysis* ASUD Report

Long C D (1988) The Iron Age and Romano British setdement at Catcote Hartlepool Cleveland *Durham Archaeological Journal* **4** 13 35

Appendix F

PLANT MACROFOSSIL ASSESSMENT

J Cotton

(Archaeological Services University of Durham)

1 0 SUMMARY

Excavations undertaken by Northern Archaeological Associates at West Moor Farm Crathorne North Yorkshire as part of the Teesside to Saltend Ethylene Pipeline excavations have revealed the presence of Romano British features including gullies U shaped slots and a pit or hearth Previous excavations on Romano British setdements have revealed significant increases in agricultural activity and landscape disturbance during this period m north east England (Long 1988 Cotton 2000)

Three contexts at the site have been sampled for environmental assessment to ascertain the quality of plant macrofossil preservation while identification of macrofossils wdl determine the potential environmental and socio economic data that each context can produce Material from the three contexts was floated and sieved with the residue and flot retained and described The flots were dried and scanned for waterlogged and charred botanical remains The remains were identified via comparison with modem reference material The abundance of waterlogged species and total counts of charred species were logged

The contexts produced small volumes of flot with low proportions of charcoal indicating that each was not subject to large magnitude burning or burnt waste disposal No charred or waterlogged plant macrofossds were present in contexts 42 or 44 possibly due to poor preservation conditions over time or the position of the features with respect to former activity at the site Data available from the contexts therefore is limited and neither have the potential to produce agricultural or environmental data Further evaluation or full analysis is not recommended for contexts 42 and 44

Context 51 contained a small quantity of charred spelt wheat chaff fragments representative of Romano British agriculture in north east England and the on site production and/or processing of crops The glume bases were found to be degraded due to transportation processes prior to burial or post depositional processes Furthermore no other remains were present Full analysis is not recommended for the context due to the insignificant numbers and degraded state of the botanical remains

2 0 METHODS STATEMENT

Material from the three contexts was manually floated and sieved through a 500μ mesh The residue was retained and the contents described The flots were dried slowly then scanned at x40 magnification for waterlogged and charred botanical remains Plant macrofossils were identified via comparison with modern reference material held by Archaeological Services University of Durham The abundance of each waterlogged species was noted and total counts of charred species were logged

3 0 RESULTS

All of the contexts produced relatively small volumes of flot with low proportions of charcoal None of the contexts contained charred cereal gram although context 51 contained

charred cereal chaff The results of the assessment are detaded in Table 1

Table **F1** Results

Context	42	44	51
Volume processed (ml)	9 000	8 000	8 500
Volume of flot (ml)	30	35	15
Volume of flot assessed	30	35	15
Flot matrix(relative abundance)			
Charcoal	2	3	2
Cmder/Chnker	1	1	1
Coarse sand	4	4	4
Modern roots		1	1
Charred Remains (total counts)			
Spelt wheat glume base			10
Waterlogged remains (relative abundance)			
(a) Orache			1

[a arable weed] Relative abundance is based on a scale from 1 (lowest) to 5 (highest)

4 0 DISCUSSION

The low proportions of charcoal in all flots indicate that the contexts were not subject to large magnitude burning or burnt waste disposal The presence of cinder/chnker however suggests nearby industrial activity Contexts 42 and 44 the former extracted from a **U** shaped slot/gully and the latter from a **U** shaped slot did not contain charred or waterlogged plant macrofossils The absence of waterlogged remains is a product of the aerobic preservation conditions which prevent the preservation of fragile organic material The absence of charred remains may be the result of unfavourable preservation conditions over time but may also link to the position of the features with respect to former activity at the site as neither context appears to have accumulated significant volumes of domestic or agricultural waste

Context 51 which formed the fill of a pit or hearth contained a small number of charred cereal chaff fragments although no charred grain was preserved The presence of spelt wheat chaff is representative of Romano British agriculture in north east England and signifies the on site production and/or processing of crops (Huntley and Stallibrass 1995) However the glume bases were degraded which suggests degradation prior to burial through transportation processes or post depositional processes The absence of charred grain and the low volume of charcoal may either be linked to this degradation of remains or may suggest that the feature was a pit containing low quantities of waste products as opposed to a hearth where cereals were dried and cooked

5 0 CONCLUSIONS

Assessment of material from contexts 42 and 44 revealed an absence of both charred and waterlogged plant macrofossils which has been linked to the degradation of remains or the location of the contexts with respect to human activity and waste disposal The data available from the contexts is limited hence neither have the potential to produce agricultural or environmental data Therefore further evaluation or full analysis is not recommended for contexts 42 and 44

Context 51 contained charred cereal chaff indicative of crop production and processing The quality of macrofossil preservation however was poor Furthermore no other remains were present limiting the interpretation of the feature and site Full analysis is not recommended for the context due to the low numbers and degraded state of botanical remains

References

Cotton J A (2000) *Newton Bewley Hartlepool HNB98 Plant Macrofossd Full Analysis* ASUD Report

Huntley J P and S M Stallibrass (1995) *Plant and vertebrate remains from archaeological sites in northern England data reviews and future directions* Durham Architectural and Archaeological Society of Durham and Northumberland

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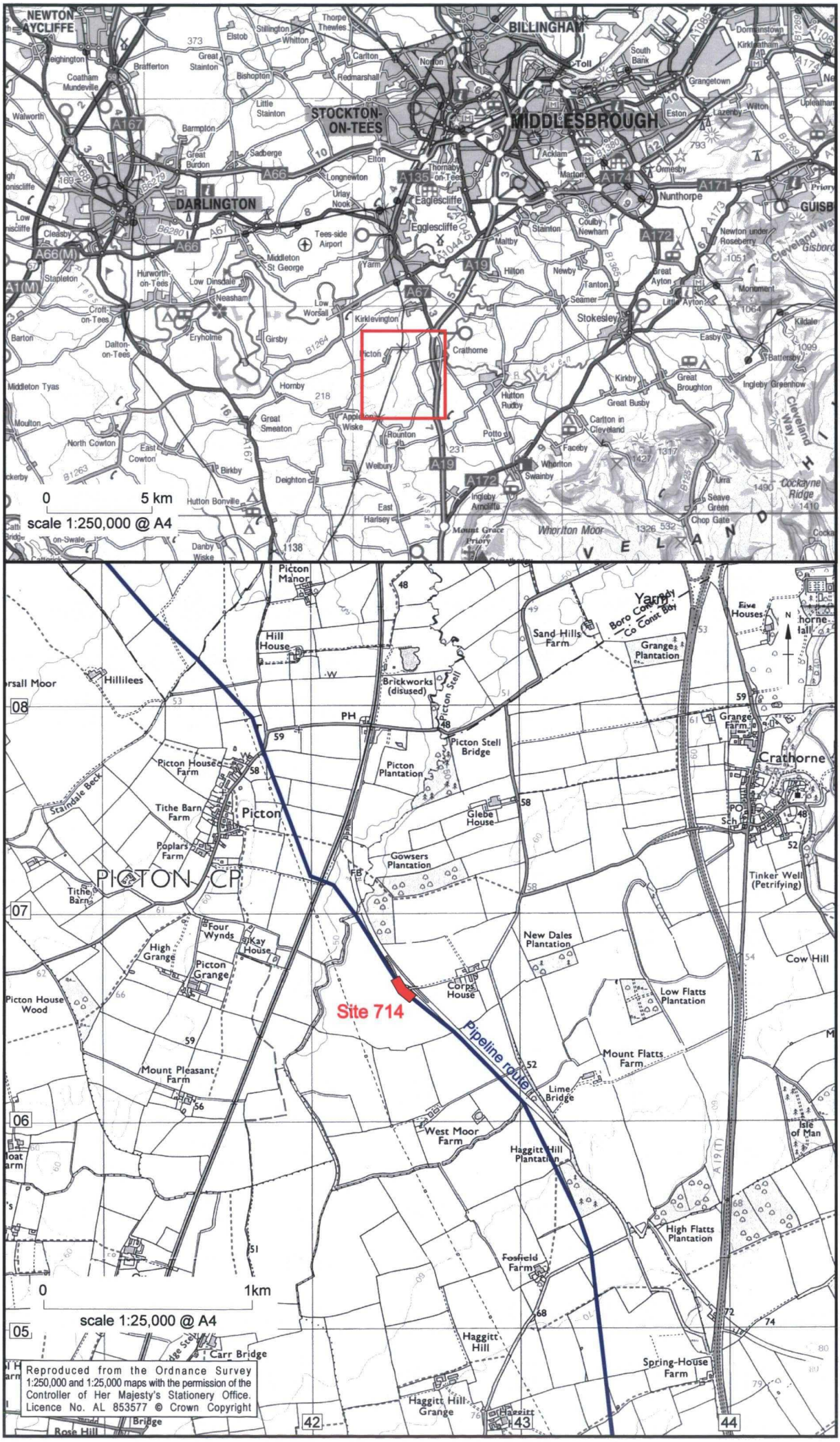


Figure 1 TSEP Site 714 (WMC99): location plan

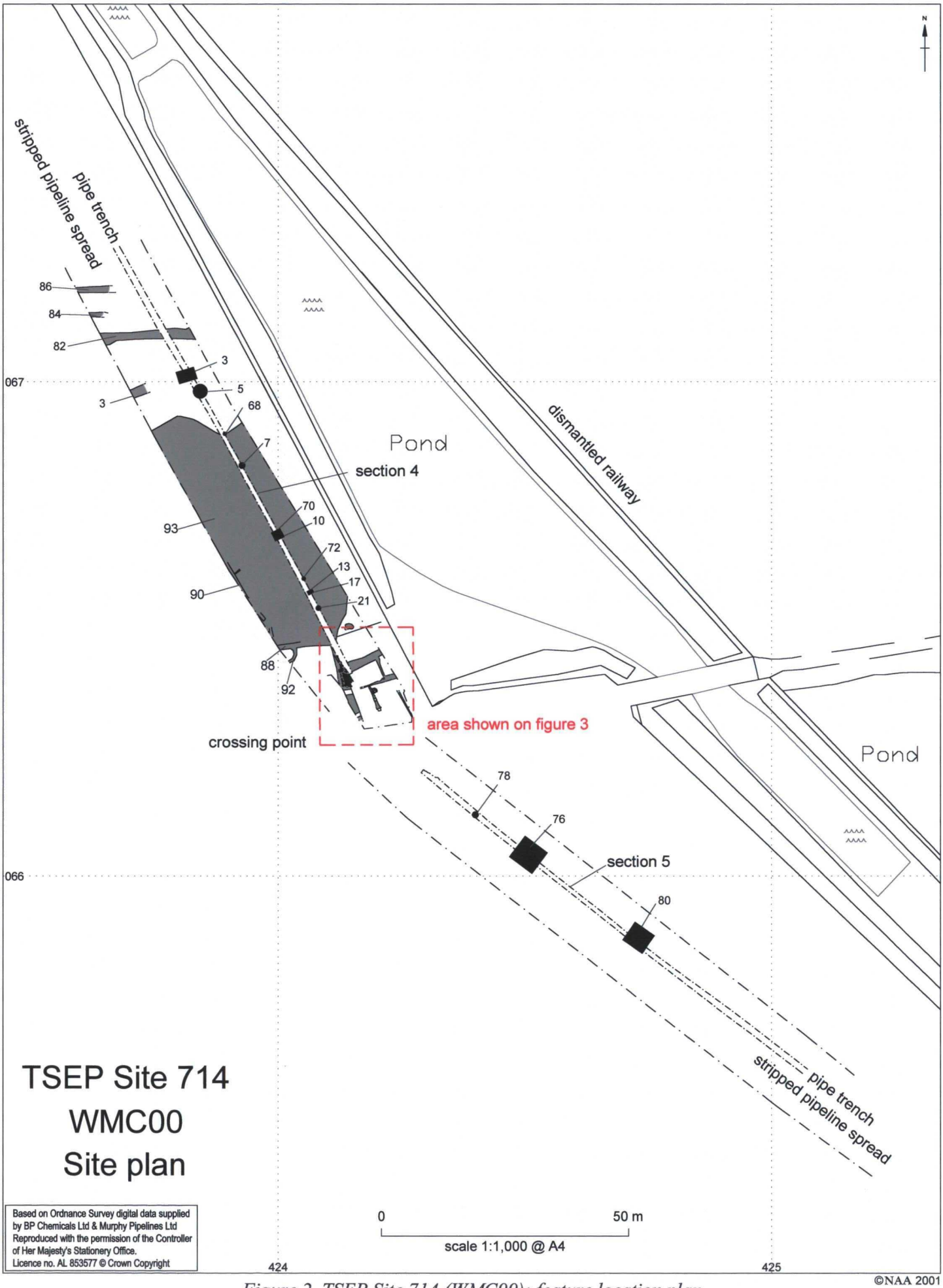


Figure 2 TSEP Site 714 (WMC99): feature location plan

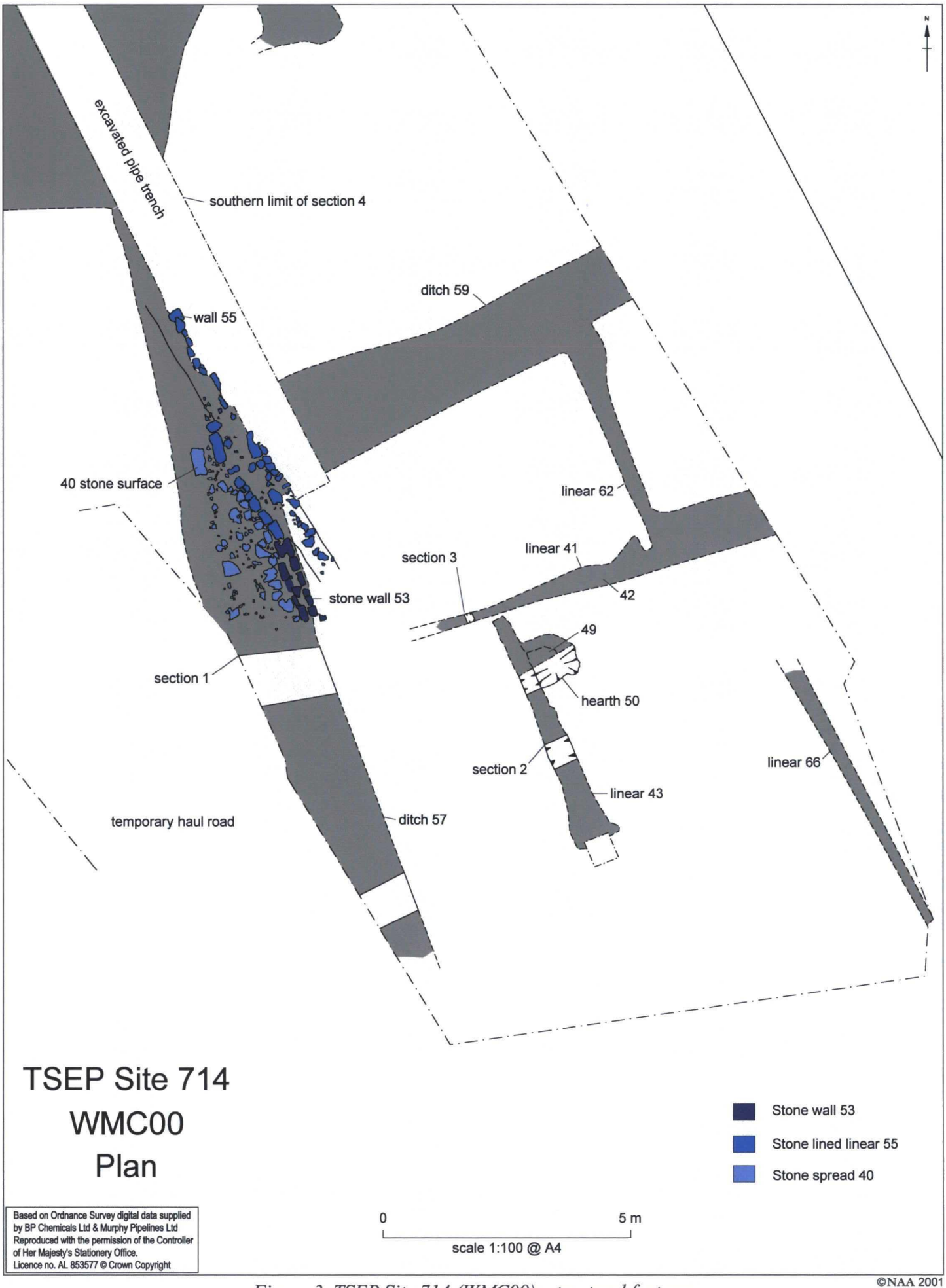
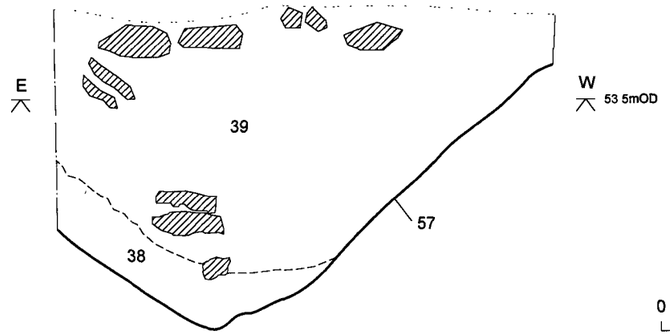


Figure 3 TSEP Site 714 (WMC99): structural features

TSEP Site 714
WMC99
Sections

section 1



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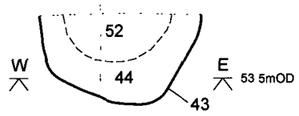
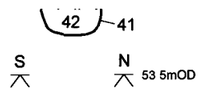
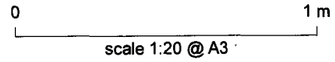


section 3





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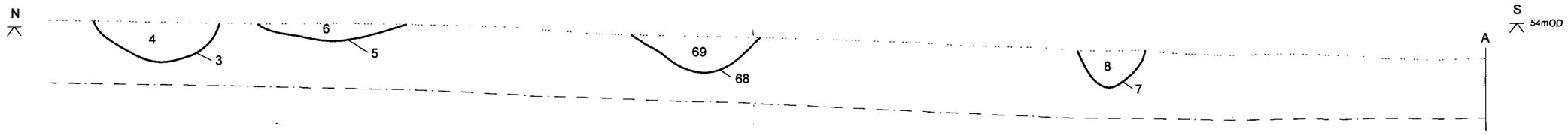
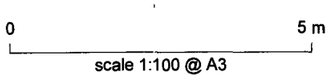
Section 4: north end





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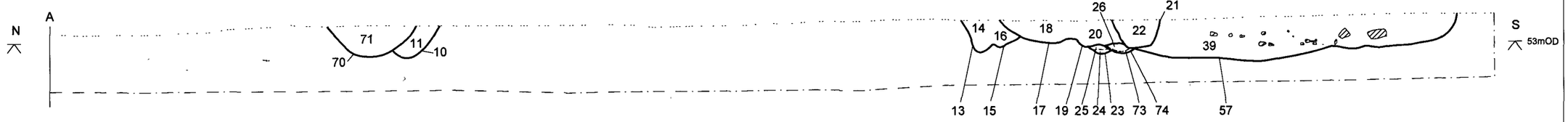
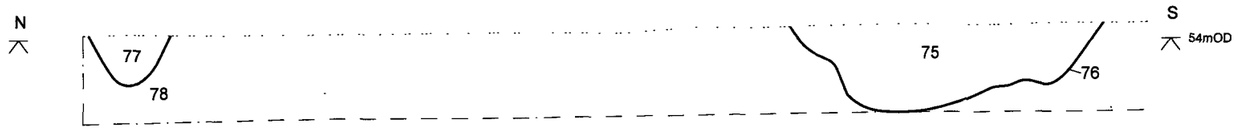
Section 4: south end



Section 5: north end



Section 5: south end

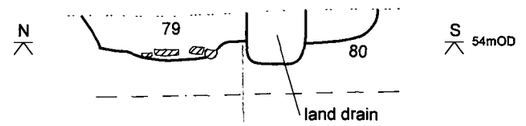
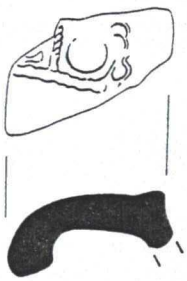


Figure 4: TSEP Site 714 (WMC99): sections



Context 60 (d)

Context 34

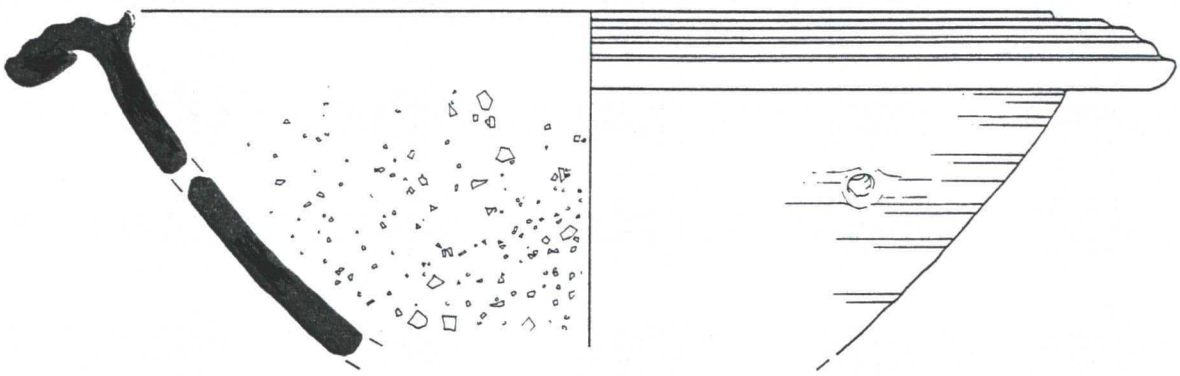


Figure 5 TSEP Site 714 (WMC99): selected pottery illustrations (scale 1:2)

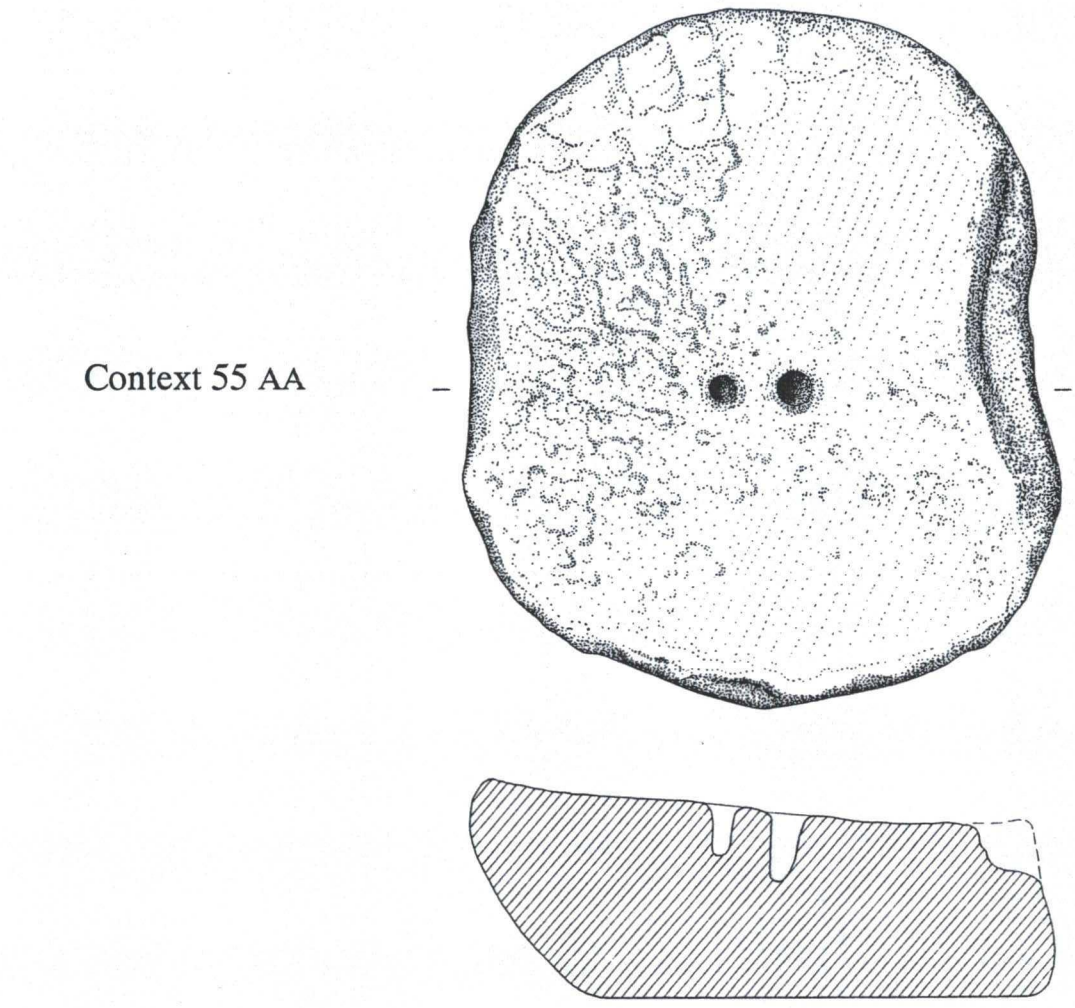


Figure 6 TSEP Site 714 (WMC99): querns (scale 1:4)

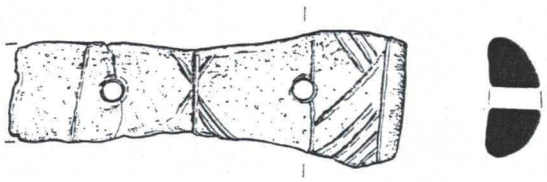


Figure 7 TSEP Site 714 (WMC99): bone handle (scale 1:2)

Plate 1 Monitoring of pipe trench

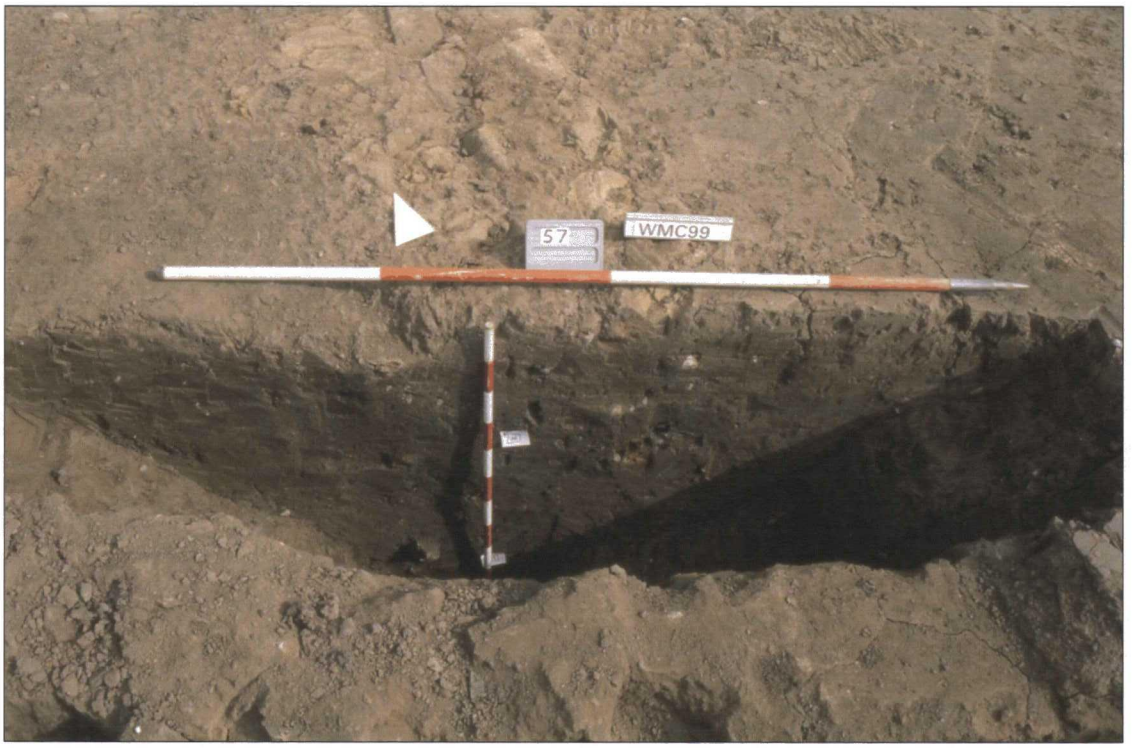


Plate 2 Section across ditch 57, facing north

Plate 3 Wall 53, facing north

Plate 4 View along pipe trench showing feature 76, facing south-east