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**TEESSIDE TO SALTEND ETHYLENE PIPELINE
SITES 713 AND 715
MANOR COTTAGE, EAST ROUNTON
NORTH YORKSHIRE**

POST-EXCAVATION ASSESSMENT REPORT

prepared for

AC ARCHAEOLOGY

on behalf of

BP AMOCO CHEMICALS TSEP PROJECT

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TSEP SITES 713 AND 715: MANOR COTTAGE

EAST ROUNTON, NORTH YORKSHIRE

ARCHAEOLOGICAL POST-EXCAVATION ASSESSMENT

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ARCHAEOLOGICAL POST-EXCAVATION ASSESSMENT

Summary

An archaeological excavation took place in the summer of 1999 at Manor Cottage to the east of the village of East Rounton, North Yorkshire, in advance of the construction of an ethylene gas pipeline by BP Amoco Chemicals Ltd. Excavations identified an Iron Age settlement with related enclosures and boundary ditches. The site was discovered during a watching brief of topsoil stripping of the construction corridor for the pipeline. Additional excavation was also carried out of a discrete pit and ditch of unknown date located within the pipeline corridor 515m to the south of Site 713

The area of excavation covered the full 14m exposed width of the pipeline corridor and ran for a length of 110m. Two main phases of activity were identified during excavation. The first comprised settlement related activity with associated sherds of Iron Age pottery. Five circular structures were identified which represent possible roundhouses. A number of gullies, ditches, pits and postholes associated with the roundhouses were also investigated. To the north of the roundhouses was a small sub-rectangular enclosure and associated linear gullies containing Iron Age pottery. Overlying the first phase of activity were later boundary ditches and enclosures containing Romano-British artefactual evidence.

The site has produced the third largest collection of Iron Age pottery from excavations within the north-east of England. Manor Cottage is a significant prehistoric site with the potential to enhance our understanding of settlement patterns and the economic and social characteristics of communities within the late Iron Age Period in North Yorkshire. It will also add to our knowledge of trading and farming technologies. Comparative analysis of the site records and finds assemblages combined with laboratory results on environmental samples and radiocarbon dates will enable a comprehensive interpretation on these aspects of the site.

TEESSIDE TO SALTEND ETHYLENE PIPELINE

TSEP SITES 713 AND 715: MANOR COTTAGE

EAST ROUNTON, NORTH YORKSHIRE

ARCHAEOLOGICAL POST-EXCAVATION ASSESSMENT

1.0 INTRODUCTION

A programme of excavation, covering approximately 0.14ha, was carried out on the site of a previously unknown Iron Age and Romano-British settlement (Site 713) at Manor Cottage near East Rounton, North Yorkshire (NZ 436 043) on the route of the BP Amoco Chemicals Ltd Teesside to Saltend Ethylene Pipeline (TSEP) (Figure 1). Additional excavation was also carried out of a discrete pit and ditch of unknown date (Site 715) 515m to the south of Site 713 (NZ 436 038). The excavations were carried out during June and July 1999. This document has been prepared by Northern Archaeological Associates (NAA) at the request of AC Archaeology on behalf of BP Amoco Chemicals Ltd.

The presence of possible archaeological remains was identified during archaeological monitoring of topsoil stripping along the pipeline corridor by BP's archaeological consultants AC Archaeology. As a result a more extensive programme of excavation was proposed in order to mitigate the impact of the development (NAA 1999).

The archaeological features show clear evidence of truncation with no survival of contemporary surfaces. Artefact preservation of ceramics is of a high quality, though animal bone is greatly deteriorated. The features were distributed throughout the area of excavation and clearly extend both east and west beyond the limit of excavation. The full extent of the settlement is unknown. The remains were observed generally 0.3m below existing ground level and were visible cut into fluvio-glacial clays and silts.

2.0 ARCHAEOLOGICAL BACKGROUND

Site 713 is located at a height of 85m OD on a slightly raised area between Old Hill to the west and the A19 to the east with a gradual slope to the north and south. Site 715 is located 515m down slope to the south of Site 713. The area is a lowland undulating landscape a few kilometres from the North York Moors to the east. The local drift geology consists of yellowish brown boulder clay and sandy clay with inclusions of blue clay and a generally high iron content.

Very few Iron Age sites have been excavated in the North East. However, excavation of a cropmark at Thorpe Thewles, 19km to the north-west of Manor Cottage, revealed a complex sequence of occupation stretching from the mid Iron Age to the

1st century AD (Heslop 1987). The results of the excavation implied an unsuspected level of development in comparison to smaller highland sites. They suggest that during the late Iron Age this part of northern England at least was participating in social, economic and agricultural developments normally associated with southern England, including the early introduction of rotary querns and spelt and the adoption of complex, nucleated settlement types.

The sites are 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 fieldwalking programme identified at least 70 potential settlement sites in a 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. One Romano-British site identified, Potto, lies 4km east of Manor Cottage. Potto comprised an open settlement with a number of small semi-circular enclosures with industrial activity including a shallow bulb furnace containing a quantity of drop slag. The settlement was later enclosed before finally changing back to being open once more.

Excavation of a Romano-British settlement site near Mourie Farm, Low Worsall was also undertaken during June 1999 by Northern Archaeological Associates (TSEP Site 712). Mourie Farm is located 7km to the north of Manor Cottage. 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 mid 4th century AD a small amount of pottery in the Iron Age tradition was also recovered. However, there was no clear evidence for Iron Age occupation.

3.0 METHODOLOGY

A methods statement for the archaeological excavation of Manor Cottage (Site 713) was produced by NAA in June 1999 (NAA 1999a). The works were carried out by NAA at the request of AC Archaeology on behalf of BP Amoco Chemicals Ltd between the 14th June and 13th July 1999.

The area of investigation extended for a distance of 110m along the route of the pipeline corridor. The full extent of the area was stripped using a JCB excavator with a toothless ditching bucket, operated under continuous archaeological supervision. All features were hand excavated and then individually drawn, recorded and photographed using the NAA recording system (a derivation of the MOLAS system). The site code was MC99. The linear features were 10-25% sampled. Ring ditches were 50% excavated, and a 50% sample was excavated of all discrete features, extended to 100% where practical and desirable. The site grid and the extent of the excavation were accurately surveyed using an EDM total station and tied into the Ordnance Survey grid. All levels were tied into Ordnance Datum.

Pottery specialists made site visits during excavation to observe the nature of the archaeology and to give spot dates to aid the ongoing excavation. The English Heritage regional advisor for archaeological science for the North East also visited the excavation to aid in selection of suitable deposits for sampling. Bulk palaeoenvironmental samples were taken from all features which appeared suitable for sampling upon excavation. All artefactual remains have been cleaned, identified, marked and forwarded to the relevant specialists. The specialist assessments of the artefacts recovered, including spot dating of ceramics, and summaries of their potential for further study are included in this report.

The features at Site 715 were identified during monitoring of the pipe trench excavations. The features were excavated by hand then individually drawn, recorded and photographed using the NAA recording system. No artefacts were recovered and no samples were taken.

4.0 EXCAVATION RESULTS

Site 713: Manor Cottage

4.1 Introduction

The excavations at Manor Cottage have identified a multi-phase predominantly Iron Age settlement. The site comprised negative features, ditches and pits, with no survival of contemporary surfaces (Figure 2). This is due to the truncation of the site by medieval and modern agricultural practices.

Two principal groups of features have been identified, which broadly correlate with the two fields within which the site is located. The greater concentration of settlement activity was within the southern half of the site. This area contained five possible roundhouses visible as ring gullies overlain by a number of linear gullies and ditches. The roundhouses varied in diameter from approximately 8m to 15m. The largest roundhouse was at the eastern edge of the excavation and contained possible post-settings. Where visible, the roundhouses had entrances that faced south-east.

The northern field comprised a number of intercutting enclosure ditches and gullies representing more than one phase of activity, with evidence for agricultural processing undertaken within the enclosures.

The features within both fields were obscured by medieval ridge and furrow cultivation aligned east to west across the site. Parts of the roundhouse ring-ditches were completely truncated by the furrows.

4.2 Southern field

Two main phases of pre-medieval activity were identified within the southern field. The principal features within the earlier phase were five ring-ditches, some of which contained a number of sherds of Iron Age pottery. The ring ditches represent possible

roundhouses. These were overlain by a series of linear ditches and enclosures which represented the later phase of activity. A few sherds of early Romano-British pottery were recovered from these linear features.

4.2.1 *Phase 1 (Late Iron Age)*

The largest roundhouse (250) measured approximately 14.7m in diameter, the ditch itself was 1.8m wide and 0.5m deep. On the northern side of the roundhouse the ring ditch had been re-cut on the inside by a ditch of similar size. The roundhouse contained a number of internal postholes and small pit type features, however, no clear spatial pattern was recognisable. A total of 111 sherds of pottery was recovered from within the circular ditch of the roundhouse. Half of the roundhouse extended beyond the eastern limit of excavation.

Three double-ditched roundhouses were located to the south of roundhouse 250. Roundhouse 251 was 8.8m in diameter. The inner ditch was 0.17m deep and 0.30m wide, while the outer ditch was 0.29m deep and 0.56m wide with a posthole cut into its outer edge. Medieval plough furrows have completely truncated part of the ring ditches, including the possible relationship with roundhouse 250. However, roundhouse 252 to the south cut roundhouse 251 indicating more than one phase of settlement activity. Roundhouse 252 was approximately 10.6m in diameter. The inner ditch was 0.15m deep and 0.32m wide, while the outer ditch was 0.23m deep and 0.25m wide, from which 13 sherds of pottery were recovered. This roundhouse cut a small linear slot (82), the only feature demonstrably earlier than any of the roundhouses.

Roundhouse 253 was approximately 12.4m in diameter. Only the north and eastern sides of the roundhouse were visible. The inner ditch was 0.19m deep and 0.10m wide, while the outer ditch was 0.20m deep and 0.48m wide. The outer ditch terminated towards the south-east, indicating an entrance to the structure. There were two possible postholes within this roundhouse, however they only survived to a depth of 0.04m due to severe truncation of this part of the site.

Roundhouse 254 was the only ring ditch completely within the limits of the excavation. The roundhouse comprised a single circular ditch 8.2m in diameter with terminals representing an entrance towards the south-east. The ditch was 0.10m deep and 0.34m wide. Approximately a third of the roundhouse had been truncated by later ditches.

A very large boundary ditch (23), which measured 0.9m deep and 2.35m wide, was orientated east to west just to the north of the most northerly roundhouse. Two contemporary parallel ditches ran south into ditch 23 at the western limit of excavation. These ditches may be contemporary with the Iron Age phase of occupation, forming a boundary to the settlement, however there is no direct stratigraphic evidence to indicate which phase they belong to.

4.2.2 Phase 2 (Early Romano-British)

A number of linear and curvilinear ditches and slots cut the ring ditches of the roundhouses. To the south of ditch 23 were three parallel ditches (13, 206 and 208) orientated east to west. Ditch 208 cut both ditches 206 and 13. All of these ditches cut roundhouse 254 and indicate a significant boundary. These ditches contained a total of 26 sherds of pottery. Between them was a small slot (42) on the same orientation with a bend at its western limit. This slot may define an enclosure though how it relates to the above mentioned ditches was not visible within the limits of excavation.

Enclosure slot 09 was located to the south of ditch 13 and cut through both roundhouses 250 and 253. The slot was 0.8m wide and 0.25m deep. The enclosure defined an area greater than 20m by 20m in size. Ditch 18 respects the enclosure and may represent a further division of land. At the southern limit of the site was ditch 68 which measured 0.27m deep and 0.91 m wide. This ditch cut roundhouse 252 and was the most southern boundary ditch of the site.

4.2.3 Phase 3 (Medieval)

Medieval plough furrows covered the full extent of the excavation within the southern field. The furrows were orientated east to west and spaced approximately 5.4m apart. The furrows varied in depth upto 0.3m, in places severely truncating the earlier phases of archaeology.

4.3 Northern field

Two phases of pre-medieval activity can be clearly recognised within the Northern field. The phases are differentiated stratigraphically, and by respective inclusions of late Iron-Age pottery and Romano-British pottery. The features comprise enclosure ditches and slots, dominated by a large sub-rectangular enclosure overlying an earlier enclosure system.

4.3.1 Phase 1 (Late Iron Age)

A small linear slot (125) orientated east to west was cut by a small sub-rectangular enclosure (291) which measured approximately 11.8m north to south by 8.8m. The enclosure ditch itself was 0.3m deep and 0.5m wide. Of particular significance were the 250 sherds of pottery recovered from the southern side of the enclosure, almost a third of the entire site assemblage.

To the south of enclosure 291 were two ditches (190 and 192) which terminated with a 1.75m gap between the terminals. This may represent an entrance to an enclosure.

Orientated approximately south-west to north-east were a series of overlying ditches (112, 114, 121 and 114) indicating maintenance of a boundary feature. These features may relate to ditches 5 and 7 within the Southern field, being part of the earlier field system.

4.3.2 Phase 2 (Early Romano-British)

Overlying all the above mentioned features was a large enclosure ditch (290) which measured approximately 23.5m north to south. The enclosure went beyond the western limit of excavation. The ditch of the enclosure varied in dimension. The greatest size was at the north-eastern corner where it was 0.75m deep and 1.9m wide, though generally the ditch was 0.5m deep and 0.9m wide. Of particular interest was the south-eastern corner where there was evidence for a construction slot and possible post settings within the base of the enclosure ditch. A total of 32 sherds of pottery were recovered from the enclosure ditch.

An irregular shaped feature (148) approximately 2m wide terminated 5m into the excavation area cutting enclosure 291. Within the terminus was a concentration of medium to large rounded stones including one quern stone and a pivot stone. The stones were packed closely together almost like cobbling, possibly making up a surface.

4.3.3 Phase 3 (Medieval)

Medieval plough furrows covered the full extent of the excavation within the northern field. The furrows were orientated east to west and spaced approximately 5.4m apart. The furrows varied in depth upto 0.3m, in places severely truncating the earlier phases of archaeology.

4.4 Site 715

Two archaeological features, a ditch and a pit, were identified 515m south of Site 713 within the limits of the pipeline corridor. The ditch was orientated east to west and measured 0.77m wide by 0.3m deep. The pit measured 0.74m across by 0.28m deep. Both features were filled with firm dark grey clay-silt. No artefacts were recovered from either feature.

5.0 ASSESSMENT OF SITE ARCHIVE

5.1 Initial analysis

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

1. A provisional matrix was drawn up showing the stratigraphic relationship of all 288 contexts.
2. Plans and sections were checked against context record sheets to ensure full cross-referencing. Catalogues of context and illustration records have been input onto a computerised database.
3. Catalogues of slide and print photographs have been input onto a computerised database.

The quantification of the site record is as follows:

Table 1: Primary archive inventory

Context descriptions	292
Plans	114
Sections	124
Colour slides (films)	8
Colour photographs and negatives (films)	8
Artefact record sheets	137

Table 2: Summary of contexts

Feature type	Site 713	Site 713	Site 715
	Southern field	Northern field	
Pit	1	2	1
Gully	2	2	
Furrow	1		
Stakehole	1		
Posthole	29	5	
Ring-ditch	20		
Ditch	30	23	1
Slot	9	2	
Natural layers	2	2	

5.2 Recommendations for further analysis

Further work needs to be carried out on the site matrix for Site 713, especially in consultation with the pottery specialist so that more reliably phased information on the site chronology can be attained. No further work need be carried out on the archive for Site 715.

Once phased the context record can be listed and described phase by phase to produce a detailed site narrative report for Site 713. Detailed phase plans should also be drawn up which illustrate the structural features and later enclosure ditches and gullies.

Further analysis of the archaeological record should be carried out which is directed towards establishing an interpretation of the site record and giving explanations behind the conclusions reached here.

The results of the detailed analysis of the site archive should be integrated with specialist analysis of the finds recovered and synthesised into an illustrated report prepared for publication (see Section 9).

5.3 Storage and curation

The written, drawn and photographic records are currently held by NAA, as are most of the soil samples. A representative proportion of the soil samples has been sent to

the University of Durham and been processed for this assessment. The flots and residues will be discarded. The artefacts are with the relevant specialists.

The retention and disposal policy for the assemblage from Manor Cottage will be in effect to retain all artefacts. This is because a high proportion of the material is derived from secure contexts (99%) and the assemblage is important in both regional and national terms. The stones that are not querns may be discarded after analysis with the exception of the pivot stone. The present landowner has requested this stone be returned to him after analysis. The archive will be placed in the Yorkshire Museum in York or Thirsk Museum after completion of specialists' studies.

6.0 SPECIALISTS FINDS ASSESSMENTS

6.1 Processing and quantification

Washing of the bulk finds, including animal bone, was completed after the excavation had ended. 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 Manor Cottage (Site 712) is summarised below. No finds were recovered from Site 715.

Table 3: Finds assemblage

Artefact type	Quantity
Pottery sherds	789
Bone fragments	388
Daub	60
Slag	8
Copper alloy	1
Hewn stone	2
Quern	2

Once prepared the material was sent to the specialists for assessment.

6.2 Pottery assessment

Blaise Vyner (Appendix A)

6.2.1 Summary

Forty-five contexts produced a total of 783 sherds of pottery from secure contexts. An additional 6 sherds were unstratified. The material ranged in date from the latter part of the pre-Roman Iron Age, roughly 300 BC, to around AD 100. An assessment of

the pottery assemblage has been undertaken by Blaise Vyner, the results of which are discussed below.

The assemblage is dominated by medium and large open mouthed jars, mostly probably used for storage, although the presence of carbonised accretions shows that a few were probably used for cooking. The presence of handles on several jars is an unusual feature in the region, while the absence of small jars and crucibles in an assemblage of this size may also be significant. The full range of vessels noted as present comprises:

Shallow bowl	Large jar
Round bowl	Strainer
Medium jar	

The Romano-British potsherds recovered comprised mortaria, grey ware, and orange ware. Small jars, 'thumb-pots', and crucibles - all found on local Iron Age sites - were notable by their absence.

Several of the vessel fabrics have similarities with those found in the lower Tees valley, a little to the north of the site. These are distinguished by dolerite grits which could have been derived from the whinsill outcrop or, and perhaps more likely, were obtained from boulders in the glacial till. Other tempering material includes quartz, also seen in the lower Tees valley, and mica, which is less usual in this area but which has been noted in assemblages from the northern end of the Vale of York and the Vale of Mowbray. Grit size varies, but this is more likely to reflect the form and function of individual vessels rather than the origin of the pottery, which was probably all made fairly locally.

6.2.2 Recommendations

Integration of pottery data with site information should be useful in interpreting differences in working areas and structure functions across the site, and may enable an assessment of their cultural ethnic identity.

The pottery assemblage is of importance both for the interpretation of the site and the understanding of the pottery sequence in this part of North Yorkshire. Preliminary examination suggests that 37 sherds are worthy of illustration, all are rim sherds and in the majority of cases only the upper part of the rim survives. Illustration should show details of grits and surface finish, and the few instances of accretions should also be shown

6.2.3 Pottery residue analysis

Carbonised accretions have been noted on four vessels, all on exterior surfaces near or at the rim and upper side. These appear to represent burnt food rather than evidence for industrial processes. Detailed analysis of these residues is probably not worthwhile in the context of the individual site analysis. The published report should note their potential for inclusion in future research projects.

6.3 Animal bone

L. J. Gidney (Appendix B)

6.3.1 Summary

Twenty-five contexts produced a small collection of stratified animal bone, 388 fragments in total. The species list is restricted to domestic animals with only cattle, sheep/goat, pig and horse noted during the assessment scan. There is a noted absence of wild fauna and bird bones. Preservation of the animal bones is extremely poor, bones and teeth from juvenile animals or small mammals and birds are unlikely to have survived within the archaeological record.

6.3.2 Recommendations

6.3.3 Assemblages of pre-Roman Iron Age animal bones are scarce in this region. Comparable sites, such as the earlier phases at Thorpe Thewles, also have problems with preservation. Manor Cottage is of particular interest in that the faunal assemblage is dominated by cattle and horse, and lacks any non-domestic animals.

6.4 Slag

6.4.1 Summary

Eight pieces of slag were recovered from four secure contexts. Four of the pieces were from ditch (13), an east-west boundary ditch towards the eastern limit of excavation. The slag has not been assessed.

6.4.2 Recommendations

The slag artefacts are of limited potential but may reveal insights into the metallurgical technology of the settlement and require selective analysis.

6.5 Daub and fired clay

Blaise Vyner (Appendix A)

6.5.1 Summary

Sixty pieces of daub were recovered from six secure contexts. All of the pieces seem appear to have been fired to fairly low temperatures and thus represent fire bases or the remains of fire-damaged buildings, although no impressions of wattle were noted. None of the fragments had been fired sufficiently hard to represent furnace or metal smelting hearth debris, and this is in accord with the absence of crucibles, although a few pieces of slag were noted.

6.5.2 Recommendations

The pieces of daub and fired clay are of limited potential but may add to the interpretation of past activities undertaken within the settlement.

6.6 Stone

6.6.1 Summary

Five secure contexts produced eight stone artefacts which included two fragments of quern stone, one pivot stone, one roughly hewn sandstone block and four rounded stones. The stone has not been assessed.

6.6.2 Recommendations

The fragments of quern and worked stone have limited potential. The function and source of raw material of these pieces may reveal aspects of trading and technology. The rest of the stone has no further potential for analysis.

6.7 Environmental record

Jacqui Huntley (Appendix C)

6.7.1 Summary

Twenty-six contexts were environmentally sampled of which twenty-five samples were assessed for this report; the remainder being held in storage by NAA. Bulk samples were taken from a variety of fills of negative features. The material was manually floated in the laboratory with both flots and residue retained upon 500 μ mesh. After drying the residues were scanned for any artefactual material and the flots for the nature of their matrices, and the quality and quantity of any plant remains present.

Overall rather few cereal grains were recovered. Wheat and hulled 6-row barley are present however. More chaff fragments and associated weed seeds were present with spelt glume bases identifying a specific wheat. Barley chaff was not present. The weed assemblage was dominated by caryopses of *Seiglingia decumbens*, the heath grass, a species of acidic and sandy soils perhaps suggesting that this material was being brought from further afield – the soils in the immediate vicinity being rather heavy clays. Other weeds, such as the *Polygonum* species, suggest a damper soil with higher nutrient status. The generally small size of these remains could well indicate the remains of perhaps the winnowing or fine sieving stages in crop processing. Such debris is not unexpected on a native farmstead site.

Due to the great concentration of pottery within the southern ditch of enclosure (291) all of the deposit surrounding the pottery has been retained for environmental processing. This deposit was not included in the environmental assessment.

6.7.2 Recommendations

Of the twenty-five samples assessed only five produced significant material. The remaining bags of these five deposits, and the samples from enclosure (291) retained for sampling, should be fully processed to add to the limited dataset of environmental evidence obtained through the assessment.

7.0 SIGNIFICANCE OF RESULTS

The results of the archaeological excavation at Manor Cottage are of regional significance with respect to the structural evidence and the associated artefactual assemblage recovered. The significance can be summarised on the basis of both the structural and artefactual record.

The excavations at Manor Cottage were an unexpected opportunity to further our understanding of the late pre-Roman Iron Age within North Yorkshire.

7.1 Stratigraphic analysis

Several structures including one large roundhouse and another four smaller probable roundhouses have been identified. Artefact analysis may enable the nature and function of these structures to be understood, whether domestic, industrial or agricultural. It is also hoped that comparative artefacts may lead to cross-contextual joins between features identifying some of those which are contemporary with each other, particularly in grouping the linear east to west features and enclosure ditches. A literature search for parallel features on other sites and a further Sites and Monument Record search will produce additional information and assist in placing the site at Manor Cottage in a wider regional perspective.

A total of six potential samples were taken for radiocarbon dating from the following features:

Roundhouse 250	Enclosure 290
Posthole 117 (within roundhouse 250)	Enclosure 291
Boundary ditch 206	Boundary ditch 114

However, it is recommended that radiocarbon dates are sought for only three of the six features. These are enclosures 290 and 291 and roundhouse 250, all of which produced a reasonable quantity of pottery. Pottery of the late Iron Age is not very accurately dated within the region (Blaize Vyner pers. comm.) Radiocarbon dating of contexts from which Iron Age pottery has been recovered would date the ceramics and aid in interpreting the site.

7.2 Artefactual record

The considerable quantity of ceramic material recovered from the site greatly enhances the significance of the excavation. In recent years a number of assemblages

of Iron Age pottery have been recovered from sites excavated in the lower Tees valley and the Vale of York, including Catterick and Scorton to the west, Middlesborough to the north-east, and Easingwold to the south. The amount of pottery from Manor Cottage, East Rounton is considerably greater than has been recovered from any of these sites, and its extent, around 780 sherds representing perhaps 40 or 50 vessels, offers a rare opportunity to make comparisons with the large assemblage excavated from the settlement site at Thorpe Thewles (Heslop 1977), which produced over 1500 sherds derived from perhaps 100 individual vessels.

Further study and publication of the assemblage will serve to provide a major key sequence of pottery types for the later Iron Age in this part of lowland North Yorkshire. In particular, it will redress the imbalance in regional pottery studies between funerary/domestic and upland/lowland assemblages, therefore making a valuable contribution to our knowledge of these pottery traditions in the whole of North Yorkshire, a region in which the Iron Age in general is of national significance.

The most interesting aspect of the animal bone assemblage is the relatively high proportion of horse remains in such a small collection. This appears to be a characteristic Eastern Yorkshire phenomenon on Iron Age to Romano-British sites and has also been noted in assemblages from other excavations at Creyke Beck, Crambeck, Swaythorpe and the Market Weighton pipeline. While the horse bones are worthy of remark as part of a regional trend, the poor preservation and small size of the total assemblage do not justify any further detailed study.

The iron, slag, daub, fired clay and stone artefacts are of limited potential but may reveal insights into the technology, activities and subsistence nature of the site.

For the majority of the environmental samples assessed very little data has been recovered. There are four contexts (143, 165, 139 and especially 25) which have both further material and a reasonable number of seeds. Full processing and analysis of would add a further, albeit small, dataset to the whole.

8.0 POTENTIAL FOR FURTHER ANALYSIS

English Heritage's research priorities for the period c.200 BC to AD 200 focus on the likely continuity in settlement and land use and, by implication, in social and economic organisation, between the late Iron Age and Romano-British period, and the various regional variations. In particular it is stated that closer examination should be paid to the possible pre-conquest origins of what has often been seen as the development of the Romano-British period (English Heritage 1997). Occupation of Manor Cottage was during the late Iron Age through to the early 1st century AD, and is thus able to address the regional variation of north-east Yorkshire within this area of research.

The excavations at Manor Cottage have revealed a complex multi-phase settlement representing late Iron Age activity in the North East of England. The examination of

domestic sites of this period is rare in North Yorkshire and Teesside, and most previous works are either antiquarian excavations not carried out to modern standards or excavations of limited size.

Sufficient securely stratified artefacts have been recovered to provide relative chronologies based on pottery typology sequence. Radiocarbon dates will confirm absolute dates of features. Stratigraphic phasing has not been achieved for the majority of features due to their spatial separation which precludes observation of stratigraphic relationships.

The quality of preservation and range of stratified Iron Age pottery from this site is rare in the North East. Further detailed analysis of the pottery artefacts will enhance artefact studies in the region, and shed light on the cultural ethnic identity of the user community. Analysis of bone, slag, and burnt clay, when integrated with the results of environmental evidence, will reveal the basis of economy and agricultural/pastoral subsistence strategies.

8.1 Stratigraphic record

Further analysis of the site archive, and in particular refined stratigraphic phasing, will enable several objects of research to be realised. These areas of research would principally relate to the following:

1. The five possible roundhouses recorded within the site area present an opportunity to research local and regional variations in form and dimension of these early structures. Comparisons with other Iron Age sites such as Thorpe Thewles and Potto may increase our understanding of the settlement at Manor Cottage and the overall picture of settlement within North Yorkshire during the Late Iron Age.
2. Integrated synthesis of the stratigraphic evidence with the artefactual data will enable the overall development of the site to be assessed in relation to the use or function of the buildings and enclosures (whether domestic, agricultural or industrial).
3. Further examination of the pottery assemblage chronology and dates obtainable through absolute dating techniques may address the possible continuity of land-use from the Late Iron Age into the Roman period at Manor Cottage. This would accord with English Heritage PC4 research agenda, Briton into Rome (c.300 BC to AD 200), relating to continuity and change (English Heritage 1997, 44).

8.2 Artefactual record

The potential for further analysis of the artefactual record is primarily related to the pottery assemblage, in particular a detailed chronology of pottery types and styles. Once established this can be integrated into the stratigraphic evidence to establish a more complete site matrix from which further avenues of research can be taken.

No further research need be undertaken of the animal bone assemblage. However, integration with the stratigraphic record may aid understanding of use and function for different phases of occupation and areas of activity across the site.

An assessment of iron, slag and stone has yet to be undertaken.

The value of each category of material within the site archive for further analysis will also be enhanced by association within an integrated study combining the artefacts and environmental material with the stratigraphic record and literary evidence.

9.0 PROPOSED POST- EXCAVATION PROGRAMME

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 Yorkshire Museum in York or Thirsk Museum.

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

9.1 Stratigraphic record

Stage 1: The need to finalise a secure dating framework for the sequence of events at Manor Cottage is of primary importance. This will involve integrating the dating and phasing evidence reached through pottery analysis and absolute dating techniques with the stratigraphic record obtained during excavation. 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 Manor Cottage within its local, regional and national contexts. Any parallels with other late Iron Age sites need to be examined, particularly the pottery assemblage and types of structures represented.

Stage 4: The stratigraphic and structural evidence will be integrated with the artefactual and environmental analysis. The chronology and distribution of artefacts will be analysed to establish the use of probable roundhouses and function of different site areas. There will be an analysis of characteristics of roundhouses and a comparison with similar buildings from elsewhere in North Yorkshire.

Stage 5: Upon receipt of the relevant specialist material a synthesised summary text will be prepared for publication. It is proposed that the excavations at Manor Cottage be published in *Yorkshire Archaeological Journal*, a regional archaeological journal, or in a separate publication of all archaeology encountered along the entire BP Amoco TSEP pipeline.

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 Yorkshire Museum in York or in Thirsk Museum. ?

9.2 Artefactual record

The further analysis of the principal finds and environmental assemblages can be summarised as follows:

Pottery

The Iron Age pottery assemblage should be analysed in view of the archaeological record to produce a fully integrated report on the pottery at Manor Cottage. A fully quantified, illustrated and discursive publication report should be produced to accepted current standards of best practice. This should integrate pottery data fully with site and analytical data. Illustration of appropriate material for inclusion in the site archive and publication report should be drawn.

Animal bone

No further analysis of animal bone is necessary.

Slag and metal

Full analysis of all slag and metal objects is required.

Daub and fired clay

No further analysis of daub and fired clay is necessary.

Stone

Full analysis of the fragments of quern stone and the pivot stone should be undertaken. A search should be undertaken for any similar examples of pivot stone from other Iron Age/Romano-British excavations within Yorkshire

Environmental samples

Of the twenty-five samples assessed only five produced significant material. The remaining bags of these five deposits, and the samples from enclosure (291) retained for sampling, should be fully processed to add to the limited dataset of environmental evidence obtained through the assessment.

Radiocarbon samples

A total of three samples of carbonised remains should be assessed for radiocarbon dating. If suitable these samples should be processed to provide radiocarbon dates for the phases of activity and particular assemblages of pottery within the site.

10.0 CONCLUSION

1. The post-excavation assessment of the results of the excavation at Manor Cottage has established that the stratigraphic evidence recorded and artefactual assemblage recovered during the excavation represent one of the more extensive excavations of an Iron Age settlement within North Yorkshire.
2. The results of the stratigraphic evidence identify of two main early phases of activity. Firstly, five possible Iron Age roundhouses with associated boundary ditches and gullies; and secondly, an early Romano-British enclosure system truncating the earlier settlement. These features were overlain by a later phase of medieval plough furrows substantially truncating the earlier phases of activity.
3. The considerable quantity of ceramic artefacts recovered from the site greatly enhances the significance of the results of the excavations. The dateable assemblage of pottery will greatly enhance current knowledge of pottery types of this period within North Yorkshire.
4. The post-excavation assessment has established that there is notable potential for further analysis of most parts of the stratigraphic evidence and artefactual

assemblage. Further analysis of the site record and artefactual assemblage and preparation of a publication report will be required both in terms of the planning conditions for the TSEP scheme and national planning guidance.

5. The further analysis of the site record and artefactual assemblages, and preparation of the publication report, would be undertaken to guidelines prepared by English Heritage. The post-excavation assessment has established an outline programme for the further analysis and report preparation.

Report No: NAA 10/00
Date: February 2000
Revised: September 2000
Project No: 154
Text: Philip Neal
Edited by: Peter Cardwell
Illustrations: Damien Ronan

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Appendix A

POTTERY

Blaise Vyner

Summary

Manor Cottage is a welcome addition to the regional corpus of Iron Age sites because it is located in an area where few are known, probably because the local soils fail to encourage the generation of cropmarks which have revealed sites elsewhere. The pottery from Manor Cottage appears to belong to the pre-Roman Iron Age, roughly 300 BC to around 100 AD. This is a relatively large quantity of Iron Age pottery and its further analysis has considerable potential to contribute to the understanding of the site and its use and development within the context of the Iron Age in northern England. A wide range of vessel types is present and this appears to be a domestic assemblage, with little evidence of industrial activity.

1.0 Introduction

The pottery was examined at the premises of Northern Archaeology Associates in September 1999. The assessment was undertaken in order to obtain preliminary information on the chronology, extent and nature of the assemblage, and the range of pottery fabrics present.

2.0 Chronology

The assemblage appears to belong to the latter part of the pre-Roman Iron Age, and dates perhaps from the 3rd century BC onwards. Further analysis of the site and the internal relationships of features may enable this to be refined. Chronological uncertainty arises because within the region as a whole there is considerable difficulty in establishing the precise chronology of Iron Age pottery. The range of vessel forms and manufacturing traits remained largely unchanged from at least the 5th century BC into the Romano-British period in the latter part of the 1st century AD. The absence of decoration on the pottery in this assemblage suggests a relatively late start date, but this is only a tentative suggestion since there is a general absence from this site of the smaller and lighter vessels which are more likely to have carried decoration. The end date of this assemblage is easier to establish, since there are a few sherds of Romano-British pottery of the later 1st century AD.

3.0 Extent of the pottery assemblage

In recent years a number of assemblages of Iron Age pottery have been recovered from sites excavated in the lower Tees valley and the Vale of York, including Catterick and Scorton to the west, Middlesbrough to the north-east, and Easingwold to the south. The amount of pottery from Manor Cottage is considerably greater than has been recovered from any of these sites, and its extent, around 780 sherds representing perhaps 40 or 50 vessels, offers a rare opportunity to make comparisons with the assemblage excavated from the settlement site at Thorpe Thewles (Heslop 1977), which produced over 1500 sherds derived from perhaps 100 individual vessels.

4.0 Nature of the pottery

The Manor Cottage assemblage is dominated by medium and large open mouthed jars, mostly probably used for storage, although the presence of carbonised accretions shows that a few

were probably used for cooking. The presence of handles on several jars is an unusual feature in the region, while the absence of small jars and crucibles in an assemblage of this size may also be significant. The full range of vessels noted as present comprises:

Shallow bowl	Large jar	Medium jar
Round bowl	Strainer	

The few Romano-British potsherds represent mortaria, grey ware, and orange ware. Small jars, 'thumb-pots', and crucibles - all found on local Iron Age sites - were noticeable by their absence.

Daub was noted as being present in at least six contexts, all of the pieces seen appear to have been fired to fairly low temperatures and thus represent fire bases or the remains of fire-damaged buildings, although no impressions of wattle were noted. None of the fragments had been fired sufficiently hard to represent furnace or metal smelting hearth debris, and this is in accord with the absence of crucibles, although a few pieces of slag were noted.

5.0 Range of vessel fabrics

Several of the vessel fabrics have similarities with those found in the lower Tees valley, a little to the north of the site. These are distinguished by dolerite grits which could have been derived from the Whin Sill outcrop or, and perhaps more likely, were obtained from boulders in the glacial till. Other tempering material includes quartz, also seen in the lower Tees valley, and mica, which is less usual in this area but which has been noted in assemblages from the northern end of the Vale of York and the Vale of Mowbray. Grit size varies, but this is more likely to reflect the form and function of individual vessels rather than the origin of the pottery, which was probably all made fairly locally.

6.0 Accretions

Carbonised accretions have been noted on four vessels, all on exterior surfaces near or at the rim and upper side. These appear to represent burnt food rather than evidence for industrial processes. Detailed analysis of these residues is probably not worthwhile in the context of the individual site analysis. The published report should note their potential for inclusion in future research projects.

7.0 Illustration

Preliminary examination suggests that 37 sherds are worthy of illustration, all are rim sherds and in the majority of cases only the upper part of the rim survives. Detailed analysis may identify more complete profiles and accompanying bases, so a final total might be 40 sherds (or occasional multi-sherd) illustrations. Illustration should show details of grits and surface finish, and the few instances of accretions should also be shown. Pottery illustrations in the report on Thorpe Thewles (Heslop 1987) are a useful style guide.

8.0 Conservation

All the pottery has been fired to a reasonably high original temperature and the fabric has remained generally in good condition. A few thick-walled sherds have spalled, but there is no requirement for further cleaning or conservation.

References

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Appendix B

ANIMAL BONE

L. J. Gidney (University of Durham)

1.0 Introduction

A small collection of animal bones was recovered from the excavation of an Iron Age and Romano-British settlement discovered at Manor Cottage near East Rounton on the route of the TSEP pipeline. Twenty-five contexts, predominantly ditch fills, produced fragments of animal bone. Preservation of the animal bones is extremely poor. Even teeth, which survive longest, have been reduced to flakes of enamel which cannot be identified with confidence.

2.0 Results

The species identified are all domestic. Cattle bones and teeth were positively identified in eleven contexts with a further three contexts producing fragments probably of cattle teeth. All the recognisable pieces were of fused adult bones or permanent teeth. Bones and teeth from juvenile animals are unlikely to have survived in the inhospitable burial environment.

The smaller and more delicate bones and teeth of sheep and pigs have not survived as well as the cattle size fragments and therefore cannot be used to postulate the original husbandry practices of the inhabitants. Sheep elements were positively identified in four contexts with fragments probably of sheep teeth in a further two contexts. Context 25 produced one fragment of distal sheep tibia in rather better condition than the rest of the finds from this site; even some tooth marks where it has been mouthed by a dog are visible. Pig is represented in one context by a single tooth.

Particularly noteworthy is the presence of horse remains in four contexts, far out numbering pig and on a par with the finds of sheep. The roughly contemporary settlement at Thorpe Thewles, some 19km to the north, also had a high proportion of horse bones.

3.0 Discussion

The most interesting aspect of this assemblage is the relatively high proportion of horse remains in such a small collection. This appears to be a characteristic Eastern Yorkshire phenomenon on Iron Age to Romano-British sites and has also been noted in assemblages from other NAA excavations at Creyke Beck, Crambeck, Swaythorpe and Market Weighton pipeline.

While the horse bones are worthy of remark as part of a regional trend, the poor preservation and small size of the total assemblage do not justify any further detailed study.

Appendix C

ASSESSMENT OF PALAEOENVIRONMENTAL SAMPLES

John Daniell and Jacqui Huntley

(Department of Archaeology, University of Durham)

1.0 Introduction

Archaeological monitoring of topsoil stripping at Manor Cottage, East Rounton, North Yorkshire (NZ 437 043) revealed sequences of ditches and gullies plus roundhouses and an associated assemblage of Iron Age pottery. Excavation was undertaken by staff of Northern Archaeological Associates in collaboration with BP Chemical's archaeological inspector.

The site lay on a small, low knoll rising above the heavy clay soils of the valley bottom. Soils were sticky to baked clays with some local gravels. Bulk samples were taken from stratified deposits in order to assess their potential to address palaeoenvironmental and palaeo-economic questions.

Two principle groups of features have been identified, which broadly correlate with the two fields within which the site is located. The greater concentration of settlement activity was within the southern field. This area contained a number of possible roundhouses with some re-building, overlain by a number of linear gullies and ditches. The northern field comprised intercutting enclosure ditches and gullies covering more than one phase of activity.

2.0 Methodology

The site was not waterlogged and therefore the only plant material considered to be contemporary with deposition was expected to be charred or mineralised. The samples were therefore manually floated in the laboratory with both flot and residue retained at 500 . The first two samples demonstrated an extremely recalcitrant nature to the clays taking some hours to completely process and therefore it was decided to process only 5 litre sub samples of the remainder. Flots were scanned at magnifications of up to x50 and notes made of the quality and quantity of seeds. In many cases the flots, being small, were completely sorted.

Residues were scanned for artefactual and ecofactual material. This was felt particularly important for these soils which are iron rich which leads to mineral concretions forming around much of the charcoal and preventing it from floating.

3.0 Results and discussion

Details of the individual samples are presented in Table 1 below and the botanical data, adjusted to represent the whole flot, in Table 2.

Twenty five samples were processed and assessed. Most contained a few charred plant remains although concentrations were low (Table 1). This is not unusual but means that primary deposits of, for example, crop processing debris are not available to study.

Table 1: Results of samples

Context	Description
10 AA	Secondary fill of enclosure ditch 9. 20 litres orange-brown clay (10YR 5/4) processed. 20ml flot of mineral material, coal, crazed charcoal and a few modern roots. A few weed seeds were present. 100% sorted. No further action (nfa).
15 AA	Secondary fill of east-west ditch 13. 16.5 litres processed, grey brown clay loam (10YR 5/3). 40ml flot of mineral and clinkery coal plus iron coated charcoal. Latter includes wood, heather and grass/sedge bases. Occasional fragment of burnt bone present. A few badly preserved cereal grains, including barley, were present as were spelt glume and a few weed seeds. 100% sorted. Nfa.
22 AA	Primary fill of east-west ditch 20. 20.5 litres dark grey/brown clay processed (10YR 4/2). Small flot of cindery coal and poorly preserved tarry charcoal with some sedge/grass root bases. Spelt remains present in very low numbers, a few weed seeds. Nfa.
25 AA	Primary fill of large east-west ditch 23. 19 litres orange brown clay (10YR 5/6) processed. Although only a small flot produced a wide variety of seeds were present. Most related to arable crops and cereal chaff was moderately abundant. Grains were rare. Preservation was not bad compared with other samples and the remaining 5 bags (ca. 80 litres) should be processed and fully analysed. The sample probably reflects crop-processing debris.
46 AA	Fill of ring ditch 45. 5 litres brown silty clay (10YR 5/4) processed. 20ml flot of mineral material, comminuted bone fragments and clean charcoal. A few weed seeds only. 100% sorted. Nfa.
50 AB	Primary fill of east-west ditch 47. 4.4 litres dark grey clay rich silt (10YR 4/2) processed. 30ml flot of remarkably non-encrusted charcoal for this site but still crazed and somewhat abraded. Wood charcoal includes oak and ring diffuse species but moderate amounts of sedge/grass type rootstock present too plus a few small "twiggy" bits. Weed seeds quite common in fine fraction – crop processing debris again probably, few grains. No more material according to records. 100% sorted therefore completed.
53 AA	Fill of ring ditch 45. 5 litres brown silty clay (10YR 5/4) processed. 15ml flot of coal and clinkery charcoal with a few small pieces of wood. 1 fragment hazelnut shell. 100% sorted. Nfa.
96 AA	Fill of ring ditch 45. 5 litres brown clay-silt (10YR 5/4) processed. No flot. Nfa.
102 AA	Fill of enclosure ditch 101. 5 litres processed. Brown clay (10YR 4/3). Moderate flot of mineral and modern roots. A little charcoal and some coal and clinker. Very occasional fragment calcined bone. Quite a few fragments of charred grass stem/culm base. A few weed seeds only. 100% sorted. Nfa.
111 AA	Fill of enclosure ditch 110. 4.8 litres processed. Dark brown clayey silt (10YR 5/2). 30ml flot of mineral, clinkery charcoal and very occasional fragment industrial spatter. Some charcoal is rootstock material again. Small selection of weed seeds. 100% sorted. Nfa.
118 AA	Fill of post pit 117. 5 litres processed. Dark brown to grey silty clay (10YR 4/3). 250ml of more or less pure coal with the very occasional pieces of clinker and charcoal. Clean, no concretions, no seeds, no silt, no further action.

Context	Description
122 AA	Fill of enclosure ditch 121. 5 litres processed. Dark brown to grey silty loam. (10YR 3/3). No flot.
124 AA	Fill of enclosure ditch 123. 5 litres processed. Brown clay silt (10YR 6/3). 30ml flot of silty charcoal and some mineral material. A few weed seeds and wheat chaff. 100% sorted. Nfa.
139 AA	Secondary fill of east-west ditch 138. 5 litres processed. Dark brown to grey silty loam (10YR 4/2). 60ml flot of iron stained mineral and a little charcoal. Moderate numbers of <i>Sieglingia</i> seeds and a few fragments of wheat chaff. 100% sorted. Worth processing the remainder and full analysis since concentration of seeds moderate.
142 AA	Secondary fill of ring ditch 194. 5 litres processed. Dark grey brown silty loam (10YR 3/3). 60ml flot of burnt soil and mineral lumps with some charcoal. This all rounded and very poor preservation. May have been moved around prior to burial. Heavy staining and mineral concretions. A few weed seeds. 100% sorted. Nfa.
143	Primary fill of ring ditch 138. 5 litres processed. Dark brown clay silt (10YR 5/3). 25ml flot of clinkery iron encrusted charcoal and mineral. Quite a few fragments of grass/sedge culm bases. A moderate selection of weed seeds. Would be worth processing and analysing remaining 10 litres.
149 AA	Fill of 148, possible ditch. 5 litres processed. Mid brown clay (10YR 5/4). 20ml flot of modern roots and tarry charcoal, coal and mineral. Occasional grass stem type material. No seeds. Nfa.
151 AA	Fill of posthole 150. 5 litres processed. Light brown silty clay (10YR 5/6). Less than 20ml flot. Mineral and iron stained crazed charcoal, coal and clinker. Very occasional fragment of comminuted bone and industrial waste. No seeds. Nfa.
165 AA	Secondary fill of pit 164. 5 litres processed. Brown silty (10YR 5/3). 20ml flot of mineral and crazed charcoal. Some hulled barley and a couple of weed seeds. 100% sorted. The barley may have been stored/discarded in this pit since it is pure grain (4 only), no chaff was present. 15 litres remain and these would be worth full processing and analysis.
174 AA	Fill of NW-SE ditch 176. 5 litres processed. Dark brown silty loam (10YR 5/3). 40ml flot of mineral and silty clinkery charcoal. A few weed seeds again. 100% sorted. Nfa.
186 AA	Primary fill of pit 164. 5 litres processed. Dark orange brown silty clay (10YR 5/4). 15ml flot of mineral, coal and concreted charcoal. Occasional modern root. No seeds. Nfa.
191 AA	Fill of curvilinear ditch 190. 5 litres processed. Brown silty loam (10YR 5/3). Moderate sized flot of mineral, coal and clinker. Very small amount of tarry charcoal, iron encrusted. Nonetheless a few hulled barley grains, spelt glumes and weed seeds – all heavily encrusted and badly preserved though. 100% >2mm, 50% <2mm sorted. Nfa.
226 AA	Fill of NE-SW gully 225. 6.5 litres processed. Brown orange silty clay (10YR 5/4). 20ml flot of mineral and heavily encrusted charcoal – wood and rootstock type material. Small selection of weed seeds. 100% sorted. Nfa.

Preservation was not good with much material being heavily encrusted with iron concretions. Although no identifiable such grains were noted in the residues these were not fully sorted. It is probably safe to say that little material has remained in the residues although samples recommended for full analysis should include full sorting of this material. Much of the charcoal was heavily crazed and some almost certainly has broken up during processing – this may well have biased against cereal grains and other larger items. However, individual and freshly broken pieces were not that apparent in the flots.

Overall rather few cereal grains were recovered. Wheat and hulled 6-row barley are present however. More chaff fragments and associated weed seeds were present with spelt glume bases identifying a specific wheat. Barley chaff was not present. The weed assemblage was dominated by caryopses of *Seiglingia decumbens*, the heath grass, a species of acidic and sandy soils perhaps suggesting that this material was being brought from further afield – the soils in the immediate vicinity being rather heavy clays. Other weeds, such as the *Polygonum* species, suggest a damper soil with higher nutrient status. The generally small size of these remains could well indicate the remains of perhaps the winnowing or fine sieving stages in crop processing. Such debris is not unexpected on a native farmstead site.

Whilst some of the charcoal was from wood a moderate amount was from a rootstock type material – possibly grasses or sedges or even cereals although considered rather small for these. It would seem that turf like material was being burnt – perhaps during clearing up phases but further work could provide better interpretation of this material.

For the majority of these samples, even with processing the remaining 10-30 or so litres, totals of a few tens of charred items only are likely to be achieved. These may add one or two taxa to the total but are not likely to allow more detailed interpretation of any individual context. One reasonable context (50) has already been completed with no further material available. There are four other contexts (143, 165, 139 and definitely 25) which have both further material and a reasonable number of seeds. Concentrations are somewhat higher in these contexts too although, as stated above, are not considered to represent primary deposits of crop processing debris. Full processing and analysis of these is recommended. The immediate impression is that this assemblage does represent crop processing debris and is therefore in accord with many other sites of this period in lowland Durham and North Yorkshire (see for example Huntley and Stallibrass 1995 and van der Veen 1992). Analysis of these four contexts would add a further, albeit small, dataset to the whole. It is disappointing that none of the round house gullies have provided concentrations of material, likewise the enclosure ditches. It may therefore be suggested that crop processing activities were being carried out away from these specific features although almost certainly present on the site as a whole.

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Table 2: MC99 botanical data numbers adjusted for total of flot

feature where known	-	-	?	?	?	?	?	n?	?n	?n	n	n	n	n	n	s	s	s	s	s	s?	s?	
				do			do	do											do			com	
Context	297	224	226	143	186	149	165	139	118	151	174	191	124	111	102	53	142	46	25	22	10	15	50
vol proc.	6	5	5.5	5	5	5	5	5	5	4.5	5	5	5	4.8	?	5	5	5	19	20.5	20	16.5	4.4
Grain																							
Triticum sp. Grain											1	1							2	1			1
Triticum (hexaploid)														1									
Hulled barley							4				1												
Hordeum undiff																						1	
Indet. Cereal							1				1			2	1				1	2		3	
Cereal chaff																							
Spelt glume base			1	1				2			1	3	1						4	2		1	
Triticum glume				2				1											2	2		1	
wheat brittle rachis																			1				
Weed seeds																							
Aphanes arvensis		1																					
Sieglingia decumbens	2	3	7	8			2	11			3		2	3	1		2	1	6	4	2	4	9
Carex (trigonous)				1							1	6					1		1				2
Bromus			1	1															1				
<2 Gramneae				2												1							2
<4mm legume														1									
Hazelnut shell														1		1							
Polygonum persicaria																							2
Polygonum aviculare																							1
Trifolium sp																							1
Juncus																							1
Chenopodium album																		1					
Carex (lenticular)																			1				
Tripleurospermum maritimum																			1				
Polygonum concolvulus																						1	
TOTAL	2	4	9	15			2	14			5	9	3	5	2	1	3	2	17	8	3	8	16

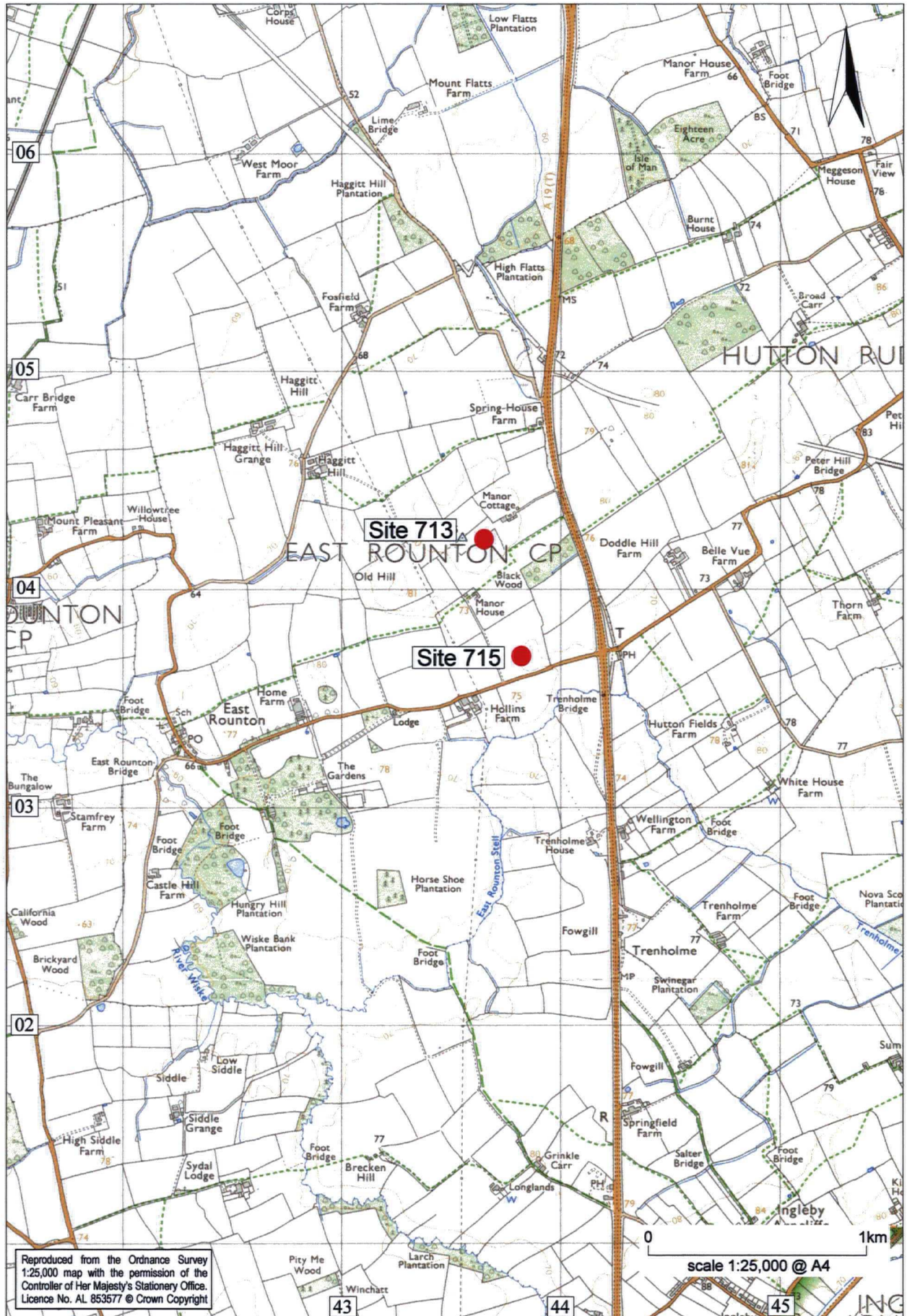


Figure 1 Site locations

Enclosure 291

Enclosure 290

Hedge

Roundhouse 254

Roundhouse 250

Roundhouse 251

Roundhouse 253

Roundhouse 252

TSEP Site 713 MC99 Feature plan

Manor Cottage
East Rounton
NZ 436 041

10m

KEY

250 Group number

Feature

Excavated section

Ridge and furrow

Corridor