Date The pottery, on first examination, would indicate that this site is of Romano-British date

Interpretation It would appear that this site represents part of a Romano-British settlement Although the layout of the site seems somewhat haphazard and further analysis is required, it would appear from initial observations that two potential domestic enclosures or hut circles are in association with a number of linear ditches which may represent internal divisions within the settlement In addition there was a major ditch at the southern extremity of the site which may represent its boundary on that side Two deeply cut circular pits were also present Environmental analysis of the fills of one these features showed limited evidence for aquatic deposition These two features may therefore have functioned as shallow wells or water holes

2 23 2 Data

Introduction This was the one location where it was decided that the archaeology warranted special attention, and it was therefore covered and fenced to allow controlled excavation after the pipe had passed through the area It was, therefore, excavated in two phases firstly, a rapid salvage excavation of a narrow strip through which the pipe was to pass, and secondly, a more thorough excavation of the remaining width of the easement

For the first phase, an initial overall survey of the main features was undertaken using an Electronic Distance Measurer (EDM) Thereafter a number of sample sections were taken through individual cut features in order to record their general profile and to obtain material for dating and environmental purposes

For the second phase, an overall survey using an EDM was again undertaken Thereafter all cut features were fully excavated in order to retrieve the maximum number of datable artefacts, and again to provide material for environmental analysis and carbon 14 dating

Contextual Data A total of 165 contexts were identified and recorded These comprised cuts and fills of the ditches, post holes and pits

Environmental Data 10 environmental samples were taken from these deposits 8 were for general biological analysis (GBA), one was a carbon 14 sample, and 1 was a 'spot' sample taken for identification purposes Of these, six GBA samples have already been submitted for an assessment of their bioarchaeological potential (Carrott *et al* 1997, See appendix 1, below)

Most of the samples selected for assessment analysis proved to be relatively low in their bioarchaeological potential One sample, taken from the fill of a possible waterhole feature, did produce plant debris and invertebrates indicating aquatic deposition and possibly the artificial accumulation of decaying matter Also found in this sample were a number of wood fragments which may have been the product of woodworking Although the assemblage from this sample was fairly nondescript, processing of further

material might produce a useful quantity of remains For a fuller discussion regarding the environmental material from this site see below, 2 23 3, Statement of Potential

Pottery and Ceramic Building Material

Introduction

All fragments of pottery, brick, tile and daub recovered from the excavation were submitted for examination There is a small collection of later prehistoric pottery (i e late Bronze Age to early Roman), some Romano-British pottery and tile, some medieval pottery (and possibly tile) and a quantity of post-medieval and early modern pottery and building material The prehistoric pottery is potentially of some interest given current uncertainty about its mode of manufacture and source The later material is in itself of little interest but will eventually help to establish the economic hinterland of York and the relationship of the city to the surrounding countryside

Aims and Objectives

The aims of the assessment were

- to identify and record all the material
- to provide a date-range for the finds
- to use these to infer previous land use
- to recommend and justify any further necessary work on the finds
- to identify any aspects of the site's archaeology recogmsable from the ceramic finds which require further study or preservation

Description

All items were recorded to common name and form level and any significant details of manufacture, decoration or use were recorded as comments Quantification was by sherd/fragment count alone and the data was entered into a MS Access 2 database The following chart shows the sherd count from the whole of the whole of the pipeline Those from the site under discussion here are from field 46 (F46)

Period														
late prehist						2						59		
late prehist/roman												10		
roman	1					1	1	2				19		
med	2				2			11				2	1	
pmed	1			1	2	1		3	4		2	1	1	4
emod	3	1	3	2	2	10		5	24	2	2	5	4	13

Prehistoric

Sixty-one sherds of later prehistoric pottery were recorded All but two (which were found in fieldwalking in Field 24) were from Field 46 All the vessels were tempered with moderate fragments of angular rock and were thick-walled and hand-built The vessels were of several classes storage jars, jars, bowls and dishes (Figure 22 No 4) The storage jars were represented by thick body sherds from vessels with diameters in excess of 300mm No rims or bases of this class were present The smaller jars varied in rim form (Figure 22 Nos 2, 3 & 5) but all had flat bases (Fig 23 No 6) The bowl may actually be a globular jar, since its original orientation is uncertain (Figure 22 No 1) Study of Iron Age pottery from Easingwold has shown that similar wares were present there, alongside finer, sand-tempered types A variety of materials were used to temper the coarser fabrics includmg quartzite, dolerite, granite, sandstone and slag Similar temper has been identified by Ian Freestone and Peter Wardle on later prehistoric sites on the Yorkshire Wolds and the Vale of Pickering Their work suggests that the raw materials used to temper these vessels do not occur locally m the sort of quantities found in the pottery but can be found as isolated boulders and pebbles in local boulder clays and glacial sands They suggest that for unknown reasons prehistoric potters selected rock fragments by hand and reduced them to a suitable size by crushing As evidence in favour of this hypothesis they give the fact that individual vessels often contain mainly fragments of the same rock type, but that there is a wide variety of rock types present *in toto* Study of samples of the natural gravel found on the Easingwold site by the author failed to find any erratic fragments and it seems clear that the vessels could not have been made at Easingwold itself Similarly, the Kexby site lies on fine sand, totally unlike the temper found m the later prehistoric pottery It is likely, therefore, that manufacture of this later prehistoric "erratic-tempered" ware took place on supra-site basis and that there was trade, or exchange, of complete vessels

It is not thought that this tradition survived into the Romano-British period and there is apparently a great deal of conservatism in the potting tradition, so that it is not possible to date vessels closely

A second fabric, tempered with large fragments of calcite (now leached) also occurs on other later prehistoric sites in Yorkshire Petrological analysis has shown that the calcite is derived from veins formed within the chalk and typically occurs with other minerals of Cretaceous origm (flint, chalk, glaucomte) Several fabric groups are known but it is not known whether they vary in date, source or simply m a random manner The sherds are all from flat-bottomed jars (Figure 22 Nos 7 and 8) To further the study of these wares it is recommended that a sample is submitted for fabric analysis using thin-sectioning and Inductively-Coupled Plasma Spectroscopy

Much of this pottery was stratified in the fills of linear features revealed in the salvage excavation and area strip Ten features produced sherds of either the erratic-tempered fabric (PERR) or the calcite-tempered one (PCALC) and thus might be of pre-Roman date

Context	Feature	KAOL	MICR
1006	1016		2
1075	1076		3
1074	1077		3
1082	1083	1	
1089	1083		2
1097	1098		1
1092	1101	3	7
1100	1101	2	
1096	1102		2
1099	1102		1
1113	1118		1
1123	1130		4
1114	1141		2

Further knowledge of the manufacture and source of this pottery will only come from more scientific analysis which can be used to confirm the range of temper types used in the Kexby vessels and perhaps establish whether or not the Easingwold, Wolds and Vale of Pickering vessels could have been made utilising the same resources or whether there are differences between the fabrics from site to site It is recommended that a sample of the Kexby pottery, including all those sherds with typological features, is submitted for fabric analysis using thin-sectioning and Inductively-Coupled Plasma Spectroscopy

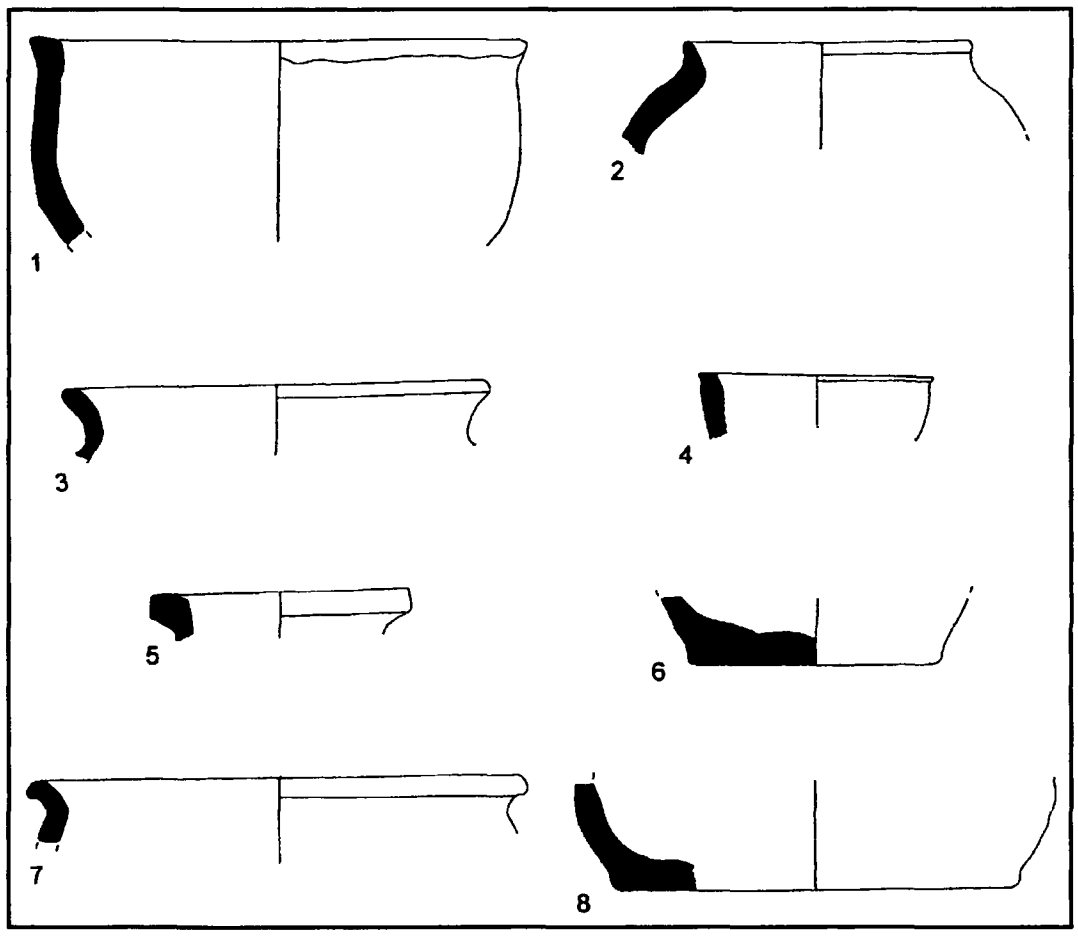

Figure 22 Pottery from Mill House Farm, Kexby YORYM 1997 61

Roman

Two fragments of Romano-British tile were identified by S Garside-Neville (Field 23 fieldwalking and F46 context 1146) A small collection of pottery was present in fieldwalking Fields 24, 34 and 38 and from the excavated area in Field 46 Examination of this pottery by B Precious suggests that is of 2nd to 3rd century date It includes a sherd of Samian ware and a colour-coated beaker and this, together with the tile, suggests a Romanised settlement

Code	Full Name	Sherds
CC	Colour coated	1
CR	Cream bodied	1
GREY	Greyware	7
OX	Oxidized	15
SAMCG	Central Gaulish samian	1

Medieval

A small collection of medieval pottery was found, probably all of 13th to 14th-century date The finds were mainly from fieldwalking in Fields 19 (2), 38 (7) and 48 (1) A single fragment was found in the excavation (context 1140) The wares present are all common on medieval sites in York and the surrounding countryside (York whitewares, produced at Brandsby and elsewhere, Beverley Orange ware and Humber-type wares, produced at sites in the Humber estuary and Red Sandy ware, of unknown origin, but found in York) The sites probably looked to York for the supply of pottery

Code	Sherds
BEVO	1
HUMB TYPE	3
RED SANDY	1
YORK GRITTY	2
YORK WHITE	11

Post-medieval

A quantity of post-medieval pottery was recovered, almost all of 19th-century or 20th-century date The wares were probably brought onto the fields with manure The date-range of the wares present is probably mid 19th-century and later (there are very few sherds of Pearlware or Creamware or other distinctive late 18th/early 19th-century types, furthermore, the quantity of red earthenware 'country pottery' is very low, normally a sign of a late date) The earliest datable piece, however, is a mid-18th-century Saltglazed Stoneware plate with embossed border Three sherds of this vessel were found, all in different fields (Fields 2, 45 and 56) In all likelihood, this was an heirloom when broken and discarded

Cname	Full name	Sherds
CONP	Continental Porcelam	3
CREA	Creamware	3
DERBS	Derby Stoneware	3
ENGS	Unspecified English Stoneware	7
NCBW	19th century Buffware	1
PEAR	Pearl ware	3
TPW	Transfer printed ware	28
WHITE	Modern whiteware	28
BL	Black glazed wares	8
CHPO	Chinese Export Porcelain	3
NOTS	Nottingham stoneware	2
PMED	Post medieval Red Earthenwares	2
SWSG	Staffordshire White Salglazed stoneware	4

Recommendations

A sample of the prehistoric pottery should be examined m thin-section and using ICPS and compared with material from other later prehistoric sites in Yorkshire (see Costings, below Section 4 2) The remaining material, including the early modern pottery and tile should be retained in an archaeological repository since it forms a usefiil sample of local ceramics collected in a controlled manner

Artefacts

Apart from the pottery there were other finds from stratified contexts
The quantification of material is -

Flint	4
Slag	4
Charcoal	3
Anthracite	1
Animal Bone (fragmented)	c 180 pieces
Animal Teeth (fragmented)	c 34 pieces
Wood Sample	2

The slag may be subject to further type identification

The flint objects include a flake and a blade and may be subject to fiirther type identification (Seven flints were recovered from the fieldwalking phase of this project which may also require further analysis These comprised three flakes, one core, two blades and one scraper)

All of the surviving bone and teeth consists of very small fragments and is burnt It includes an element which had an unidentified surface deposit which requires fiirther analysis

Two fragments of wood are undergoing carbon 14 and species analysis

All finds have been packaged appropriately for long term storage The materials used were archive stable and acid free

2 23 3 Statement of Potential

This site represents a hitherto unknown part of the Romano-British landscape Because of the complex nature of the geological drift deposits in the Vale of York, there is a paucity of evidence for sites such as this The site therefore has considerable potential significance

Proposals It is proposed that analysis is carried out in several specific areas

1) The raw survey data collected during the fieldwork phase needs to be plotted in order that the precise layout of the site as it was seen within the pipeline corridor can be properly shown This will enable consideration to be made as to the nature and extent of the whole system and its relationship with the surrounding landscape It may be that this will also enable comparisons to be drawn between this and similar sites from the same period elsewhere in the region

2) The data in the site archive in written, drawn and photographic form needs to be collated and analysed in order to more fully understand the nature of settlement at the site A full correlation of contextual data with the evidence from the pottery, artefacts and environmental samples will be required

3) As stated above, an assessment of selected environmental samples has already taken place, and it is clear that little more can be done with this material However, the assessment did indicate that the waterhole feature might be worth further analysis Such work may give an insight into the natural environment of the area, and possibly offer some evidence as to the nature of the agricultural and/or domestic activities that were undertaken at the site

4) An examination of the pottery is necessary for two reasons Firstly to elucidate as firmly as possible the dates of imtial settlement and subsequent abandonment of the site Secondly, a comparative examination of the pottery from this site with that from the City of York would hopefully shed light on the nature of the relationship between the city and its rural hinterland during this period Specifically, as stated above, it is recommended that a sample of the Kexby pottery, including all those sherds with typological features, is submitted for fabric analysis using thin-sectioning and Inductively-Coupled Plasma Spectroscopy

5) One of the keys to our understanding of this site is its date both in terms of its initial occupancy, its length of usage and the date of its final decline Currently our assessment of the date of the site is based upon the pottery assemblage, which indicates that the site straddles the overlap between the Iron Age and the Roman period This perhaps suggests that the site is of Romano British date and that the pottery still reflects the local Iron age tradition Corroborative evidence of this supposition would be extremely important to our understanding of the site

It is therefore extremely important that all avenues are pursued in order to undertake a full examination of the date of this site so that it can be securely dated and its regional sigmficance more fully understood

For these reasons it is therefore proposed that further work is undertaken in order to date the site Specifically the two Carbon 14 samples will be sent for determination as will samples for thermo-luminescence dating

Carbon 14 Dating Although two radio carbon dates are inadequate in themselves the opportumty should be taken to use this form of analysis to provide further evidence of the date of the site

Thermo-Luminescence Dating

In addition to the Carbon 14 dating the pottery from this site may be suitable for thermo-luminescence dating

This techmque relies on the principle that any material placed in an ionising radiation field receives a radiation dose A luminescent material stores the energy received and can be used to measure the radiation dose Radiation causes iomsation of atoms or molecules in the material, creating ions and electrons These charged particles diffuse through the material until they become trapped in defects in the crystal lattice Electrons can be released from these traps either by heating the material or by the action of hght and the recombination of electrons and ions in the lattice results in the emission of a photon The intensity of the hght emitted, luminescence is proportional to the radiation dose received and therefore to the time since heating or bleaching

Naturally occurring luminescent materials include quartz and feldspar which are present in soils and sediments The luminescent crystals will have accumulated stored energy from the radiation field since their formation

This is removed by either firing or by exposure to light, sediments can therefore be dated to their last exposure to light and ceramics can be dated to the last firing

Using this technique therefore it is proposed to obtain a series of dates for the firing of the pottery from this site, which will add a corroborative source of dating to that obtained from the Carbon 14 dating of the orgamc material As with the radio carbon analysis, the limited number of pottery sherds from the site will restrict to some extent the value of this analysis

2 23 4 Research Proposals

Once the specific areas of study mentioned above have been completed, it is proposed that the following questions should be addressed in the text for final publication

Site Specific

What was the nature of the settlement?

1) What was the overall size of the main enclosure?

2) Is their sufficient evidence to show that the two large curvilinear features at the heart of the site were domestic in function?

3) What was the function of the two deeply cut large sunken features?

- Is there sufficient evidence to imply that they were for the storage of water?

4) What was the function of the small irregularly positioned and shaped ditches that were found in association with the curvilinear features?

- Were these ditches simple cut features?
- Were they in association with any structures, such as a fence line delineating space?
- How did the resuhant enclosed spaces function?
- Were they domestic?
- Were they industrial?
- Were they for storage?
- Were they agricultural?

5) Was the large ditch at the northern limit of where archaeological features were present the boundary of the settlement?

- Was there a superstructure such as a fence or a bank associated with this ditch?

6) Is there sufficient evidence to determine the nature of the agricultural regime that was practised at the site?

- Was it for the containment or control of livestock?

The Date of Occupation

7) When was the initial date of settlement of the site?

8) When did the site go out of use?

The Regional Importance of the Site

9) How does the site compare on a regional basis with other sites of the same period?

10) What does the evidence at this site tell us about the relationship between this site and the Roman City of York?

11) Is it possible to infer on the basis of the evidence from this site how the Vale of York was exploited during the Iron Age and Roman periods?

12) Does this site offer evidence to either support or refute the hypothesis that there was a breakdown in social order and the economy at what is traditionally referred to as the end of the Roman Period?

2 23 5 Recommendations for future action

A number of future actions are required in order to ensure that the potential discussed above is realised

1 Preparation of the archive

See above Section 2 1 1 and below Tasks 58-66

2 Inclusion in the Sites and Monuments Register

See above Section 2 1 2 and below Task 66

3 Publication in the relevant journal

See above Section 2 1 3 and below Task 67

4 Publication with other sites

This site would merit inclusion in an overall publication of the recent activities sponsored by Yorkshire Water (see above 2 1 4 and below task 67)

5 Deposition of the archive

See below, Task 66

2 23 5 Programme of Works

In order to complete the above future actions, the following tasks require completion

Task 58 Analysis of the pottery

Task 59 Undertaking a programme of thermo-luminescence dating from selected pottery sherds

Task 60 Undertaking a programme of petrological analysis of selected pottery sherds

Task 61 Analysis of the Carbon 14 samples to provide a radiocarbon date

Task 62 Analysis of the relevant environmental sample, the other sample material should be discarded

Task 63 Analysis of the other artefacts

Task 64 Preparation of detailed site plans from the original survey data This is held in both its original digital format and as site drawings Both will require downloading/digitising into a CAD package in order for the drawings to be generated

Task 65 Preparation of an Archive Report This will include an interpretative structural and stratigraphic history of the site It will be illustrated with the drawings created in Task 64, and will make full use of the analysis of the material in Tasks 58 to 63

Task 66 Preparation of the Sites and Monuments Register entry This will be based on the contents of the Archive Report

Task 67 Preparation of the Publication Text This will again be based on the contents of the Archive Report

Task 68 Academic review The report will be submitted to the Archaeology Department at University of York for final review prior to publication

Task 69 The final draft of the publication report will be edited and submitted to the appropriate journal for publication

Task 70 Upon completion of the above tasks, the site archive will be sorted and prepared for deposition This will conform with the 'Guidelines for the preparation of excavation archives for long term storage' (Walker, K 1990 UKIC Archaeology Section)

Task 71 Project Management