YORKSHIRE WATER PIPELINE ELVINGTON TO HARTON

NYCC HER				
SNY	11200			
ENY	3448/344,0			
CNY	10758			
Parish				
Recd	1997			

DESK TOP STUDY & FIELD WALKING REPORT



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10 INTRODUCTION

11 Background

This report provides an assessment of the archaeological implications of the proposed water pipeline from Elvington to Harton in the Vale of York. The results are based on the combination of a desk top study and where applicable field-walking of the proposed route. A geophysical survey of the route was also commissioned and is published as a separate report.

Due to the short lead in time for this pipeline a brief initial assessment was made regarding the potential impact on the archaeology of the route along with a number of recommendations aimed at minimising any resultant archaeological damage. That initial report resulted in a number of aherations to the pipeline route and is included in Appendix 1 of this document.

This more detailed report was compiled by Guy Hopkinson on behalf of *On-Site Archaeology* for the developers during May and June of 1997 concurrent with the laying of the pipeline

1 2 Brief & Methodology

The Study Area composed a hnear block of land extending 100m to either side of the proposed pipeline route the total length being 13km. Because the route had not been finalised at the time of writing known sites which lie outside the study area but which may still have a bearing on any archaeological work arising from the pipeline works are also referred to. The southern end of the study area was located at NGR SE 7012 4829 and the northern end at NGR SE 7006 6202. Figure 1 shows the location of the study area.

The desk top study was based on enquiries made at archives collections and archaeological institutions hkely to hold information pertaining to the pipeline corridor the review of relevant maps aerial photographs and publications and discussions with people who had personal knowledge of the study area. Sources consulted are listed in Appendix 3

Where features or areas of archaeological interest have been identified whether extant recorded or inferred item numbers have been designated. These features are hited by number in section two of this report, and their positions relative to the pipeline corndor illustrated in Figure 2.

13 Geology

The sohd geology of the southern part of the study area is Bunter Sandstone and to the north Keuper Sandstone and Keuper Marl Obscuring the solid geology are a variety of drift deposits. In the southern part of the study area these drift deposits consist of warp and lacustrine clay with patches of sand and gravel which were deposited by shallow water occupying the Vale of York in the final stages of glaciation. North of Buttercrambe Moor Wood the drift deposits are of boulder clay and patches of glacially deposited sand and gravel. A zone of post glacial alluvial deposits rmns approximately north to south through these two areas in the flood plains of the River Derwent. An outcrop of the underlymg Keuper Sandstone at Stamford Bridge provides a natural ford across the River Derwent.

1.4 Topography and drainage

The study area is situated in the Vale of York in a relatively flat low lying area. The southern half of the route hes at between 10m and 20m Above Ordnance Datum (AOD) while the northern half of the route rises gently as it approaches the Howardian Hills reaching just over 50m AOD at Harton Water Tower. The most prominent topographical features within the study area are the terminal moraines created by successive limits of the Vale of York glacier. The River Derwent rnns approximately north south to the east of the study area. There are numerous ditches which drain the low lying farmland, and also serve as field and township boundaries.

15 Land use

The predominant land use in the study area is farming as arable land with a small proportion of pasture. A short section of the study area lies alongside Scoreby Lane. The route cuts across a rail embankment between Gate Helmsley and Stamford Bridge (SE 7021 5575) the A1079 (SE 6938 5102) and the A116 (SE 7025 5558)

2 0 KNOWN ARCHAEOLOGICAL/HERITAGE SITES

There follows an itemised inventory of the known and inferred archaeological sites which have a bearing on the proposed pipeline route. These sites are shown on Figure 2 and discussed further in section three of this report.

NORTH YORKSHIRE

Item 1 Parish Boundary SE 7048 6090

Current parish boundary probably of medieval or possibly pre-Norman conquest date

Item 2 Parish Boundary SE 7045 6014

Current parish boundary probably of medieval or possibly pre-Norman conquest date

Item 3 Parish Boundary SE 7045 5991

Current parish boundary probably of medieval or possibly pre Norman conquest date

Item 4 Sand Hutton Light Railway SE 702 594

Sir Robert James Milo Walker began construction of the Sand Hutton Light Railway in 1920 Although it was demohshed in 1932 there is a high probability of encountering remains of the track foundations or associated buildings

Item 5 Possible Romano British Settlement (Aldby Field) SE 7047 5905

The SMR records state that roman pottery laid cobbles and possibly human bones were recovered during drainage work in 1932. Little else is known about these finds

Item 6 Umdentified Earthworks (Aldby Field) SE 704 589

The SMR records show this to be the site of umdentified earthworks. No further information is currently available although this site may prove to be related to or indeed the same as. Item 5 above

Item 7 Parish Boundary SE 7035 5741

Current parish boundary probably of medieval or possibly pre-Norman conquest date

Item 8 Roman Road SE 7036 5741 - SE 7080 5642

A roman road runs in a north-north-westerly direction away from Stamford Bridge parallel with the proposed route along the west side of Buttercrambe Moor Wood

Item 9 Lithic tool SE 7045 5710

During field walking a flint blade was recovered probably of a Bronze Age date

Item 10 Parish Boundary SE 7040 5595

Current parish boundary probably of medieval or possibly pre-Norman conquest date

Item 11 Roman Road SE 7025 5558

The proposed route crosses the A166 which follows the alignment of a roman road at this point

YORK DISTRICT

Item 12 Cropmarks Centered on SE 7010 5514

Three areas of cropmarks have been identified in this field (O S Parcel 0029) The crop marks show a rectangular enclosure (SE 7033 5503) a ring ditch of approximately 13 70 metres in diameter (SE 7012 5515) and rectilinear field system on a near east—west alignment—Although the field system is centered on a Grid Reference some 270 metres from the pipeline route—its full extent is not yet known and may impinge on the pipeline route

Item 13 Cropmarks SE 697 547

Aerial photography has shown the existence of somewhat indistinct cropmarks at this location. Although nothing is known of their origins, and they are outside the immediate study area, they may be related to other cropmarks in the vicimity.

Item 14 Roman Civilian Settlement SE 7020 5440

The site of a Roman civihan settlement has been discovered through aerial photography located approximately 200 metres to the east of North Farm/Hendwick Hall Farm. The known hmits of this site he outside the study area but the full extent of the features has not yet been determined.

Such settlements often became established adjacent to the roads leading from roman forts in this case the road from the fort at Stamford Bridge (Item 15) and would have provided a variety of services to the soldiers garrisoned there

There may also be a prehistoric element to this settlement as indicated by finds of Iron Age material recovered from the area and by the complexity of features visible on the aerial photographs. These features are illustrated in Figure 3.

Item 15 Roman Road SE 6957 5422

A roman road mns west-south-west from the west bank of the River Derwent towards York probably continuing towards Stamford Bridge from the east bank It is adjacent to this road that the settlement (Item 14) has been located and

assuming the road continues on the known alignment the pipeline should cross it at the given Grid Reference

Although outside the study area it is worth noting that a circular feature seen as a crop mark on aerial photographs is located at approximately SE 6912 5404. Assuming the road mins in a straight line this feature is directly on the road alignment. The possibility of further features peripheral to the civilian settlement (Item 14) cannot be ignored.

Item 16 Crop Marks SE 695 537

The field immediately to the south of Wilson's Plantation shows a crop mark complex consisting of two linear features (one aligned west-south-west to east north-east the other almost east to west) a ring ditch and a rectangular enclosure. The eastern terminal of the east-west linear feature is defined by Scoreby Lane and it is quite possible that this will continue to the east of the lane across the pipehne route.

Many Gates field (SE 6942 5355) contains further cropmarks but these are outside the study area These features are illustrated in Figure 3

Item 17 Cropmarks (Seavy Closes) Centered on SE 6978 5350

Two linear cropmarks have been photographed at this location both minning almost north to south. The field immediately to the south of Seavy Closes also contains linear cropmarks but these are outside the limits of the study area. Both sets of cropmarks however may be associated with Item 18. These features are illustrated in Figure 3.

Item 18 Deserted Medieval Settlement SE 698 529

At Scoreby Manor House there exists the site of a deserted medieval settlement (DMV) mentioned in Domesday and therefore pre dating the Norman conquest The SMR gives no additional data regarding the size or precise location of the settlement. Aerial photography however has recorded the existence of cropmarks showing hollow ways and tofts or homesteads around the given grid reference. Although this item is outside the limits of the study area, the frequency of cropmarks in this area which may be associated with the DMV suggest that it may have covered a fairly large area and might cross the pipeline route.

Item 19 Lithic tool SE 6940 5184

During walking of the field to the east of South Farm (O S Parcel No 5183) a flint blade was recovered probably of a Late Neolithic/Early Bronze Age date

- Item 20 Possible Township boundary SE 6935 5165

 Marked on the Ordnance Survey six inch map as an administrative boundary but not shown on current maps Probably of medieval or possibly pre-Norman conquest date
- Item 21 Roman Road SE 7025 5558

 The proposed route crosses the A1079 which follows the alignment of a roman road at this point
- Item 22 Ditch Elvmgton Kexby SE

 Extant township boundary ditch Probably of medieval/pre-Norman conquest date

30 POTENTIAL IMPACT ON ARCHAEOLOGY

3 1 Analysis by period

3 1 1 Mesohthic Neolithic & Bronze Age (c 10 000 - 700 BC)

The evidence for early prehistoric activity in the immediate environs of York is extremely poor and is concentrated around areas of higher ground. The York and Escrick moraines for example appear to have been used as route ways through the vale which during this period would have been a wetland environment. Such an environment would have provided a vast array of resources and it is probable that activity did occur m the lower lymg areas but any evidence of this has been sealed by later alluvial deposition Parallels with similar environments such as the Vale of Pickering or the Somerset Levels would suggest that concentrations of activity are likely to occur along the margins of rivers lakes and marshes That pre Iron Age activity occurred m the area of the pipeline is verified by the two flint blades recovered during field walking but as yet little can be said concerning the precise scale nature or whereabouts of this activity The possibility of encountering remains from these periods should not be overlooked as the potential for the survival of well preserved orgamc material in waterlogged conditions is high Such evidence however is likely to be buried beneath later alluvial deposits and therefore not visible during an mitial topsoil strip

3 1 2 Iron Age & Romano-British (c. 700 BC - AD 400)

a) Landscape

Evidence of farming and occupation in the York hinterland during these periods has been highlighted to some extent by aerial photography (ahhough this has largely been confined to the better drained soils to the south-west of the city) Such activity has also been corroborated through limited excavations in those less well dramed areas where aerial photography has proved less availing. It is probable that a large proportion of the available land was farmed particularly during the Romano British period in order to supply produce for the population of York

b) Settlement

There is a general consensus of opimon that substantial settlements do not occur in close proximity to larger Roman civic centers such as York Evidence from the York environs suggests that 10km is the minmum distance from the fortress and

coloma at which villas and other rural settlements are found examples being the possible villa complexes identified at New Earswick and Beningborough The pipehne route is situated within this zone of potential rural settlement

In addition to diffuse rural occupation settlements often evolved along the edges of roads and especially in the vicinity of forts as previously mentioned. An example of one such settlement known as a *vicus* is Item 14. The existence of a Roman Fort at Stamford Bridge is indicated through cropmarks photographed by the Ordnance Survey and by a short section of extant ditch at the base of the river terrace. It is with this fort that Item 14 was associated. Documentary evidence suggests that the fort was established between AD71 and AD74 and abandoned around AD86 to AD88. It is therefore probable that the settlement was founded around this time although there may be an Iron Age element to the settlement as mentioned previously. The cropmarks resulting from this settlement are illustrated in Figure 3, which clearly shows the alignment of the roman road as indicated by the two parallel cropmarks running west south west from the River Derwent Perpendicular to the road are a series of linear ditches denoting enclosures and plot boundaries.

The possibility of encountering other roadside settlements m the vicimty of the A166 and A1079 cannot be overlooked

c) Roads

Several Roman roads are thought to cross the pipeline route (Items 8 11 15 and 21 detailed above) In addition to establishing the form and date of these roads there is a distinct possibility that roadside settlements (and possibly burials) might be encountered

3 1 3 'Anglo-Saxon to Medieval (AD 400 - 1540)

a) Landscape

Parish and township boundaries are often of great antiquity being established during the process of settlement evolution. Although such boundaries do exhibit some fluidity, the majority within the study area have a possible pre-Conquest date while in parts of England they adopt prehistoric boundaries and alignments. Occasionally, parish/township, boundaries are not physically delineated in the current landscape, usually because the ditches have been backfilled when land divisions became redundant.

Succeeding or possibly concurrent with the establishment of the parish/township boundaries came the development of field systems. The majority of extant field ditch systems were probably established in the medieval period (AD1066 - 1540). Smaller ditches were often excavated to provide drainage or to act as field subdivisions.

b) Settlement

The pattern of settlement prior to the Norman conquest is uncertain although it is thought to have consisted mainly of dispersed farmsteads some of which evolved into villages and became the foci for later townships and parishes while others may have been abandoned. Many of the village names in the vicinity of the pipeline route have Anglo-Saxon origins

Most of the present pattern of townships is thought to have been established at around the time of the Norman conquest although there is evidence of a deserted settlement at Scoreby Manor House. This settlement is mentioned in Domesday and therefore has a probable pre-conquest element. While the route of the pipeline avoids this known deserted settlement it is quite possible that some of the dispersed farmsteads may be encountered.

3 1 4 Post Medieval (AD 1540 onwards)

The only Post Medieval feature of note along the pipeline route is the Sand Hutton Light Railway (Item 4) This served a portion of the Sand Hutton estate with lines constructed from Warthill station to the village of Scraymgham Branch lines also connected Claxton and Barnby House The Ime was primarily used for freight transportation, although passengers were also carried until its demolition in 1932 Part of the line extended south west from Kissthom Farm on almost exactly the same alignment as the proposed pipeline route and although the track was lifted when the line became redundant it is quite probable that footings may be encountered

3 2 Other archaeological factors

3 2 1 Preservation of organic remains

Preservation of organic material within the upper deposits is likely to be low due to desiccation and later soil reworking. Macroscopic organic material (e.g. wood cloth and leather) of pre Roman date is unlikely to survive in all but the deepest features unless sealed bellow deposits of alluvium.

3 2 2 Environmental material

Evidence from excavations in similar environments would suggest that environmental preservation is likely to be poor again due to desiccation resulting from field drainage. However, as with the orgamic material mentioned above, there is a high probability of environmental evidence surviving within those contexts sealed by alluvium, and pollen may well survive even in shallow features close to the surface.

40 CONCLUSIONS

Both the quantitative and qualitative assessment of archaeological sites in the study area are hindered by the paucity of previous archaeological study. Remote sensing through techniques such as aerial reconnaissance and geophysical survey have met with limited success in this area, due mainly to the local geology. While aerial photography has highlighted sites in the sandy ground to the south-west of York, it is less instructive on the complex geology of the present study area. Another factor reducing the success of remote sensing is the probability that many of the earlier sites have been buried beneath alluvial deposits, which is a particular problem in this case given the proximity of the pipeline route to the River Derwent Despite the limitations of aerial photography in this region, a distinct area of cropmarks is evident along part of the pipeline route. This is located along Scoreby Lane and comprises Items 14, 16 and 17, as illustrated in Figure 3.

The results of both the field walking and geophysical surveys carried out along the route are also inconclusive due to the state of cultivation in the majority of the fields

In view of the above points an assessment of the archaeological impact of the proposed pipeline based purely on known sites cannot be taken as a true indication of the potential range of archaeological material likely to be encountered. The potential for archaeological discovery should not be under estimated and thorough mometoring of the topsoil strip will be essential

Appendix 1 INITIAL ASSESSMENT & RECOMENDATIONS

The following text amended in order to relate item numbers to the mam body of this report provides a synopsis of the initial assessment and recommendations issued to Yorkshire Water Services m April 1997

Preliminary myestigation of the Sites and Monuments Registers in York and Northallerton has indicated five areas of concern along the route which are indicated on Figure 2

It would be appropriate to carry out Geophysical survey work extensively at each of these five locations

Item 5 Aldby Field

The Sites and Monuments Register (SMR) records that Roman pottery laid cobbles and possibly human bones were found during drainage work in 1932. These are probably roadside settlements and burials following the roman road mentioned above. There is a local tradition of a road in this field. The precise location of the material is not recorded.

Item 5 Recommendations

As it is not known precisely where the archaeological material is located it is not possible to offer a sensible direction in which to move the pipe. Geophysical work should be earried out. followed by machine clearance at the earnest possible date in case there is extensive material which needs to be archaeologically recorded.

Item 8 West Side of Buttercrambe Moor Wood

Your chosen route neatly follows the alignment of the Roman road from Stamford Bridge towards Sand Hutton and Easingwold and all points north. Closely following the ahgnment of the road will increase the likelihood of hitting roadside settlement and burials.

Item 8 Recommendation

Relocate pipehne at least fifty metres to the west cutting through to the east at Grange Wood

Item 12 Field to the south of the A166

The SMR shows three areas of cropmarks in this field. One rectangular enclosure a ring ditch and an associated field system. Although undated this has the look of a Romano British settlement with possible earlier Iron age material.

Item 14 North Farm/Hendwick Hall Farm

This is the site of a roman civilian settlement. Some work has already been done there by Ian Lawton which demonstrated the potential importance of this site. You will note though that he has not identified the limits of the site and that aerial photographs indicate further crop marks in the field immediately to the north west of where Lawton has worked

Lawton s work has also revealed the presence of Iron Age material so there may be an additional earlier settlement at the site

Item 18 Scoreby Manor House

This is the site of a deserted medieval village mentioned in Domesday. It therefore has a possible pre-conquest element which could give it added significance. The SMR gives no additional information as to the size and the precise location of the site. Suffice it to say that there may be extensive areas of settlement with associated field systems.

• Items 12 14 & 18 Recommendations

The available evidence appears to indicate extensive settlement from the Iron age through the Roman Anglian and into the post conquest period following the west bank of the Derwent from Scoreby Manor House in the south to the A166 in the north. If the alignment of the pipe were moved significantly to the west this material might be avoided. The SMR does not record anything immediately to the west of North Farm and Wilson's Plantation.

Nick Pearson

On-Site Archaeology

April 23 1997

Appendix 2 FIELD WALKING

1 Introduction & Methodology

In addition to the archive research the design brief required that field-walking was carried out along the entire length of the route. A preliminary walkover of the route was undertaken in order to establish the exact nature of current land use, and the potential for viewing the ground with reference to crop status.

The methodology apphed to the field walking survey was somewhat different from standard practice due to the presence of crops only the area taken by the easement could be walked. The length and width of the easement through individual fields were used as transects and walked systematically and intensively. The finds from each transect were collected, and any special finds were located by a four figure national grid reference.

Field walking (6th - 8th May 1997)

During the course of 6th May 1997 the pipeline was walked from its origin at Elvington Water Treatment Works to the terminus at Harton Water Tower A total of 57 fields were covered by the walkover of which 15 were suitable for a more intensive field walking study. Most of the remaining fields contained crops too dense or too high to view the ground 4 were set to pasture and there were also areas of young trees where the ground was overgrown with grass.

A detailed field walking survey and surface collection was undertaken in the fifteen fields where this was applicable This work took place on 7th and 8th May 1997. The fields walked are located at the National Grid References given in Table 1.

F ld No	OS Parcel	NGR	Ср	Height	Walked
1	1200	SE 7020 6195			
2		SE 7000 6185	dlings	2	08 05 97
3		SE 7015 6175	e eal	50	
4	3756	SE 7035 6155	1	70	
5	3630	SE 7040 6130	e l	5	08 05 97
6	3600	SE 7035 6120	ere 1	40	
7		SE 7038 6060	ете 1	40	
8	0023/2100	SE 7035 6020	cere 1	5	08 05 97
9	6900	SE 7060 6010	cereal	45	
10		SE 7055 5975	e eal	40	
11	4068	SE 7040 5970	p ture		
12		SE 7030 5955	re l	5	08 05 97
13		SE 7025 5935	ere 1	40	
14		SE 7015 5920			08 05 97
15		SE 7012 5908	ere 1	40	
16		SE 7050 5870	pea	5	0S 05 97
17		SE 7035 5850	se dlings	2	08 05 97
18		SE 7055 5830	ce eal	50	
19	5300	SE 7045 5800	potat	5	08 05 97
20	3678/3785	SE 7040 5775	дга s	10	
21	3255	SE 7030 5755	er 1	45	
22		SE 7035 5725	ere 1	35	Ţ
23	3900	SE 7040 5710			0S 05 97
24	5080	SE 7050 5680	seedlings	2	07 05 97
25	6047	SE 7060 5645	cereal	20	
26	4200	SE 7065 5620	cereal	25	
27	4176	SE 7035 5575	cereal	70	
28	3061	SE 7030 5560	tas d "	20	
29	2750	SE 7020 5547	mf rs		
30	0029	SE 6990 5525	pastur		
31		SE 6970 5525	pasture		<u></u>
32		SE 6965 5500	plmgs		ļ
33		SE 6950 5450	cereal	50	
34	4600	SE 6960 5415	cereal	40	
35	0002	SE 6985 5390	cereal	20	ļ. <u>.</u>
36	8162	SE 6980 5365	cereal	25	
37	6154	SE 6960 5355	ere 1	50	
38	6300	SE 6970 5315	e l	65	
39	6468	SE 6960 5270	ere 1	45	
40	4462	SE 6950 5255	ere 1	40	
41	0066	SE 6975 5240	er al	35	
42	7323/6700	SE 6970 5215	1	35	
43	5183	SE 6950 5180	dlings	2	07 05 97
44	4355	SE 6945 5155	ereal	10	07 05 97
45	0237	SE 6920 5145	seedlings	2	07 05 97
46	0237	SE 6920 5125	cereal	10	07 05 97
47	5500	SE 6945 5110			07 05 97
48		SE 6945 5090	cereal	60	
49	3764	SE 6940 5065	pasture		ļ
50	5948	SE 6960 5050	ereal	40	
. 51	5000	SE 6950 4990	re l	45	
52	5271	SE 6950 4970	cere 1	40	
53	5446	SE 6955 4950	cereal	40	
54	6300	SE 6960 4915	cere 1	65	-
55		SE 6975 4880	1	. 55	
56	0050	SE 6990 4850	s dltngs	2	07 05 97
57	0034	SE 7005 4830	tas d ?		

Table 1 Location of fields along route crop type crop height and date walked (where applicable)

Appendix 3 SOURCES

Secondary sources

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City of York Council Sites and Monuments Record

North Yorkshire County Council Sites and Monuments Record

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