

of the Vale Of Pickering, North Yorkshire. It passes through the parishes of Cayton (NGR TA 050 830), Lebberston (NGR TA 070 820), Gristhorpe (NGR TA 080 810), Muston (NGR TA 090 790) and Hunmanby (NGR TA 090 790). At no point does the route of the water main impact directly on residential or commercial areas of the above mentioned parishes and their associated villages. The approximate pipeline corridor in relation to the Ordnance Survey map data is illustrated in Figure 1, above.

It has been proposed by Yorkshire Water Services to provide a new water supply main from Cayton reservoir to Muston reservoir. This will involve the establishment of an easement strip along with the excavation of a pipe trench, for a total length of 7920m, of which 2520m shall follow the route across farmland and 5400m follows the route of the existing road network: the B1261 and the A165 respectively. The proposed route of the water main follows an existing main for part of the distance: circa 2500m, but nevertheless the laying of the new water main alongside the existing main still requires an easement strip and the excavation of a pipe trench across an area potentially rich in archaeological remains.

1.3 Aims, Objectives and Methodology.

In accordance with the Institute of Field Archaeologists' standard definition of a Desk-based Assessment, this report will provide, "...an assessment of the known or potential archaeological resource within a specified area... It consists of a collation of existing written and graphic information in order to identify the likely character, extent and quality and worth of the known or potential archaeological resource in a local, regional, national or international context as appropriate..." (IFA 1997). The aim of this report, therefore, is to act as the initial stage of assessment, the findings of which will then be used to inform subsequent decisions on the level of archaeological monitoring that may be required prior to or during the actual development work. It is designed to anticipate as closely as possible any archaeological evidence that might be affected by the development and to recommend a strategy to investigate any archaeological evidence that does come to light, causing as little damage as possible to the resource.

This assessment is based on a thorough and detailed search of libraries, archives, record offices, archaeological institutions and collections relating to the archaeological and historical character of the area, in order to ascertain the potential archaeological resource within the study area. The study area was defined as a tract of land extending approximately one kilometre either side of the proposed pipeline route.

Sources consulted include:

- North Yorkshire County Sites & Monuments Record Office
- North Yorkshire County Record Office
- Scarborough District Museum and Library Service
- Malton Museum
- The Borthwick Institute, York

- The Yorkshire Museum, York
- The National Monuments Record Office, Swindon
- Aerial Photographic Service, Cambridge University

1.4 *Geology, Topography and Land Use.*

The parishes of Cayton, Lebberston, Gristhorpe, Muston and Hunmanby are located at the Eastern end of the Vale of Pickering. Here the bottom of the valley stretches for 5 km north to south and is bounded to the south by the chalk escarpment of the Wolds and by higher ground to the north representing the limestone and gritstone fringes of the North York Moors (see **fig. 1**).

The Vale of Pickering extends for approximately 50 km, between Byland in the west to the East Yorkshire coastline near Filey in the east. The geology of the floor of the valley consists of deposits contingent with glacio-fluvial processes and subsequent peri-glacial activity associated with the last glaciation (Devensian). It is known that the ice sheet of the last glaciation only reached as far south as this area of North Yorkshire, at c. 18000 - 16000 BP, (before present) effectively damming the western end of the vale where the full-glacial Lake Pickering formed (Mellars and Dark 1998). The ensuing melting of the ice sheet led to the deposition of glacio-fluvial sands and gravels and finally in the late-glacial the formation of a post-glacial lake at the eastern end of the vale, Lake Flixton (*ibid.*). Thus, associated with the area of the eastern end of the vale are numerous glacial and post-glacial features such as kettle holes, eskers, kames and glacial moraines; an example of the latter blocks the vale at its eastern extremity: the Flamborough end moraine (*ibid.*), which produced a ridge of high ground constituting a watershed between the coast and the eastern end of the post-glacial Lake Flixton.

The late-glacial area of Lake Flixton (at c. 13000-14000 BP), now completely filled with a complex stratigraphy of late-glacial, glacio-fluvial deposits of clays and gravels, early post-glacial peat deposits and topsoil, reached a level of 25 m above sea level, which by the time occupation commenced at sites around the lake shoreline in the early Mesolithic period at around 9600 BP, for example at Star Carr (*ibid.*), had fallen to 23.5 metres AOD. At this time the lake had an approximate extent of 4.5 km east to west and 2.0 km from north to south, with at least four associated islands, comprised of glacial deposits, of a hectare or more in extent and an outlet channel at the western end of the lake, the present day canalised Hertford River (see **fig. 2**). The extent of the lake is vaguely visible in the landscape of today as a broad expanse of level ground defined by the area of The Carrs (NGR TA 000 800) centred on Cayton Carr (NGR TA 050 810).

The resulting topography of the eastern end of the Vale of Pickering encountered today, thus, resembles a level area of drained arable and grazing farmland, the former Lake Flixton, surrounded by gently undulating low lying hillocks, (lying between the 30-50 metre contour) formed by glacial deposits of sands, gravels and boulder clays and the morainal ridge, upon which settlement activity is mostly confined. The southern edge of the Vale is bounded by

the chalk scarp of the Yorkshire Wolds, and the northern edge by the dip-slope of the limestone hills of the North York Moors.

The proposed route of the water main terminates at a reservoir located on the top of the Wolds escarpment at the southern extreme of the parish of Muston and approximately 0.5 km from the centre of the village of Hunmanby. This area of the Vale of Pickering is geologically and topographically different from the area around Cayton. Here the same glacial and peri-glacial processes have had an effect on the landscape, but due to the slightly peripheral location of the area in respect to the main ice sheet of the last glaciation, the nature of the underlying geology, and the difference in height of the ground surface, a different pattern of geomorphical features ensued. It is known that the ice sheets did not cover the whole of the Wolds and that only the eastern margins were glaciated. However, peri-glacial conditions exerted an influence in that gelifluction and valley incision occurred (Ellis and Newsome 1991). Moreover, the landscape lying off the scarp edge has a greater deposition of glacial till. In this respect the glacial deposits are composed of boulder clays forming an undulating, rolling landscape of low ridges and hillocks, lying between the 40 to 50 metre contour forming the Flamborough end moraine. Thus, where the proposed route of the water main approaches the North Moor (NGR TA 100 780) c. 1 km south of Muston it crosses an area of arable and grazing farmland dominated by a gently sloping ridge, with some out crops of chalk and clay with flints. It then falls to a shallow valley with boulder clay deposits before climbing fields predominantly given over to grazing forming the Wold escarpment.

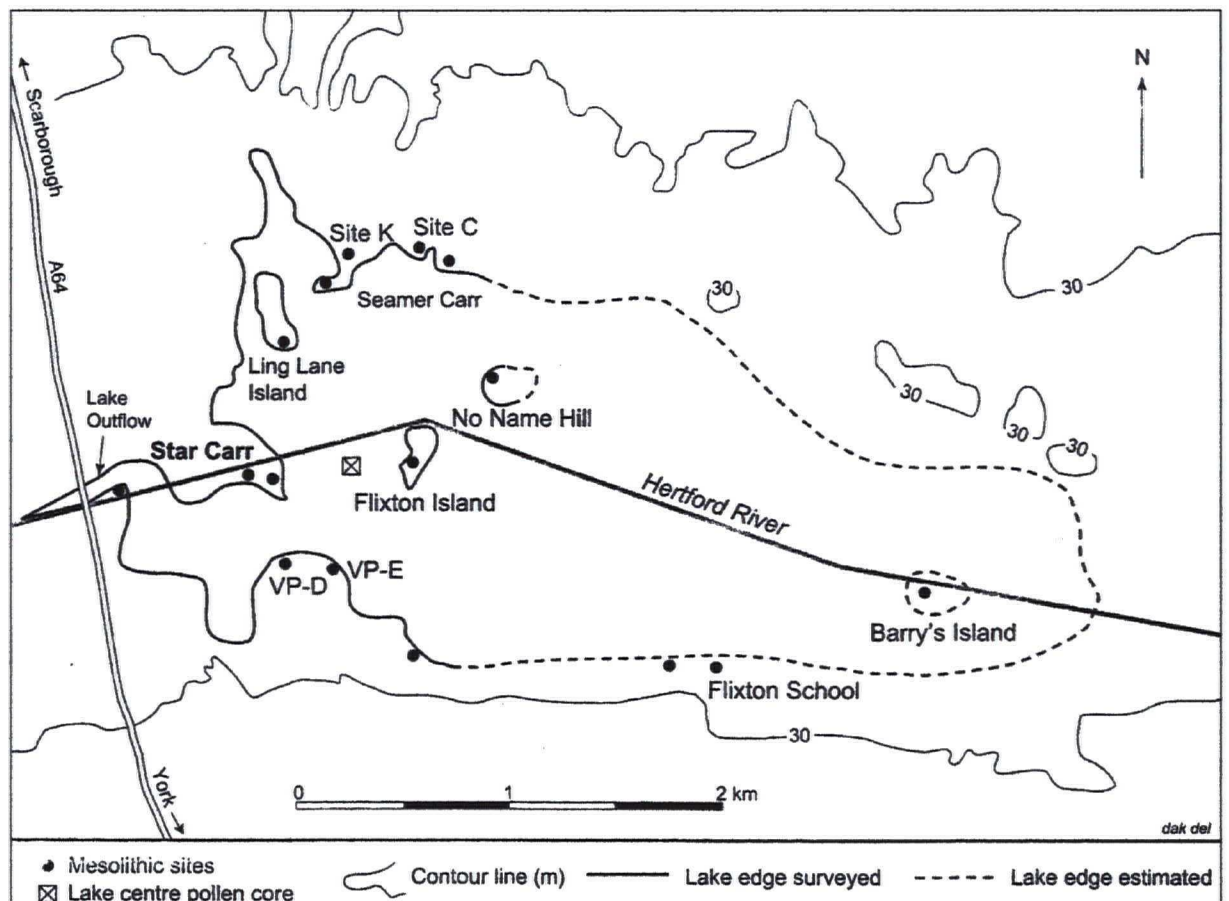


Figure 2. Reconstructed plan of Lake Flixton (from Cloutman 1998a, fig 8: Schadla-Hall & Lane forthcoming).

2.0 Archaeological Sites In The Vicinity.

It is known that evidence for occupation in the area of the proposed route for the water main stretches back for a considerable period of time. Known archaeological sites and findspots have been recorded for an area encompassing a tract of the landscape one kilometre each side of the proposed route (see **fig. 3**). Furthermore evidence from known archaeological sites from the wider local area has been collated. It is considered that such sites may have a bearing on the impact of the aforementioned route corridor on archaeological deposits within the area. Additionally, within the area covered in this report extensive archaeological excavations have been undertaken on sites of both regional and national importance. There have also been numerous discrete findspots of archaeological artefacts from random locations in the area recorded, mainly found during the digging of drainage ditches. Those archaeological sites and findspots tentatively referred to above are listed below in approximate chronological order:

2.1 *Starr Carr (NGR TA 029 809).*

A Mesolithic occupation site located on the shores of the former lake Flixton, excavation of which produced contemporary animal remains, flint tools and possible structures (Clark 1954; Mellars and Dark 1998).

2.2 *Seamer Carr (NGR TA 030 820).*

A Mesolithic occupation site located on the shores of the former lake Flixton, excavation of which produced contemporary animal remains, flint tools and possible structures (Mellars and Dark 1998).

2.3 *Flixton Carr (NGR TA 035 805).*

A Mesolithic occupation site located on the shores of the former lake Flixton, excavation of which produced contemporary animal remains and flint tools (Mellars and Dark 1998).

2.4 *Killerby Grange (NGR TA 062 817).*

A small scatter of Mesolithic flints were found in a field to the south-west of Killerby Grange (SMR No. 12806).

2.5 *Cayton Carr (NGR TA 050 815 & TA 050 812).*

A flint flake (NGR TA 050 815) thought to be of Mesolithic date (SMR No. 12805) and a flint knife (NGR TA 050 812) tentatively dated to the Mesolithic (SMR No. 12803).

2.6 *Seamer (NGR TA 034 855).*

A polished greenstone axe (not located on **fig. 3**).

2.7 Irton (NGR TA 010 841).

A polished greenstone axe (not located on fig. 3).

2.8 Killerby Grange (NGR TA 067 821).

A polished greenstone axe (SMR No. 12800).

2.9 Cayton (NGR TA 056 829).

A barbed and tanged arrow head (SMR No. 12689) of Bronze Age date.

2.10 Cayton Carr (NGR TA 053 818).

Two late Bronze Age flanged axes (SMR Nos. 126878 and 12688).

2.11 Gristhorpe cliff (NGR TA 094 832).

The severely plough damaged remains of a late Bronze Age round barrow (National Monument Records: No. 80146).

2.12 Filey (NGR TA 100 800).

Bronze age linear bank and ditch feature: part of the Wold Entrenchments (National Monument Records: No. 1040086).

2.13 Rising Sun Farm (NGR TA 096 820).

A possible Bronze Age linear double bank and ditch feature with a northeast to southwest alignment (SMR No. 12695).

2.14 Muston Cottage Farm (NGR TA 093 804).

A double ditched rectangular enclosure, which on typological similarities with known dated examples from the Bronze Age and early Iron Age could be of an analogous date, surviving as a cropmark (National Monument Records: No. 1073825).

2.15 Crossgates (NGR TA 030 830).

A temporary Roman camp which endured a short use span before the ditches were intentionally backfilled and the camp abandoned sometime in the late 1st century AD. Activity continued at the same site after this event with the establishment of a Romano-British settlement, which from the pottery sequence lasted from the late 1st century AD to the late 4th century AD. There was then a slight hiatus in the occupation sequence, until the 5th century AD when an Anglian settlement was established slightly to the west. Furthermore, cropmarks incorporating an extensive network of trackways and field boundaries have been identified in fields to the southwest of the settlement detailed above (NGR TA 023 825) and may, therefore, be associated with that site.

2.16 Holme Hill (NGR TA 041 821).

Spotfinds including the upper and lower parts of beehive querns (SMR No. 12845), sherds of buff ware pottery (SMR No. 12846) and sherds of calcite gritted ware of a 4th century AD date (SMR No. 12847).

2.17 Cayton (NGR TA 056 829).

A Roman coin of Maximianus the first (SMR No. 12690).

2.18 Cayton, No. 3 Green Croft Gardens (NGR TA 054 830).

A small Romano-British hut circle and associated paved flooring and 3rd century pottery of Huntcliff and Crambeck wares (SMR No. 12698).

2.19 Gristhorpe (NGR TA 095 819), to Brookfield Farm (NGR TA 099 818), to Filey (NGR TA 110 812).

The route of the Malton to Filey Roman road (National Monument Records: No. 81383).

2.20 Carr Hills (NGR TA 054 816 and NGR TA 047 818).

Cropmarks of possible rectilinear enclosures, trackways and possible modern drainage.

2.21 Hunmanby (NGR TA 103 767)

Square Barrow chariot burial with associated finds including a brass plate shield and possible sword, chariot fittings and horse trappings (SMR No. 7024 (not located on fig. 3)).

2.22 Muston (NGR TA 096 792).

Medieval ridge and furrow.

2.23 Holme Hill (NGR TA 041 822).

An early medieval earth and stone ^{embankment cross} embanked (SMR No. 12850).

2.24 Killerby (NGR TA 062 828).

The site of a deserted medieval village: house platforms were recorded in a field to the west of the old hall (SMR Nos. 12699.00000 through to 12699.02001; NGR TA 061 830).

Sporadic finds of a number of 12th to 15th century coins and a few sherds of pottery (NGR TA 060 820) are all that testify to its existence.

2.25 Newbiggin (NGR TA 101 818).

A dry moated homestead.

2.26 Muston Weir Bridge Farm (NGR TA 097 798).

A scatter of 13th century Staxton Type Ware (1968 The Transactions of the Scarborough and District Archaeological Society)

2.27 *Hunmanby (NGR TA 101 777).*

Site of an ancient trackway on which a Silver penny was found: struck during the reign of Edward the Confessor sometime between 1050 - 1053 AD at York (Rimington 1976).

2.28 *The Dams (NGR TA 106 788).*

Land along side the stream, which may have been dammed at an earlier date. Moreover, the old Yorkshire term dam refers to water confined by an embankment. At this site a drain or possible bank follows line of parish boundary (SMR No. 7085).

2.29 *North Moor (NGR TA 106 785).*

An embanked enclosure, on top of a low glacial knoll, with an in turned entrance and possible quarry pits to the south. The feature also has 4 circular hollows inside the embankment. This feature could be the site of the former rabbit warren and associated lodge (SMR No. 7084).

2.30 *Cayton Station (NGR TA 058 824).*

Railway station.

2.31 *West House Farm (NGR TA 095 798).*

Grade Two listed building: 1752 farmhouse.

3.0 Aerial photographic Evidence.

Aerial photographic evidence was consulted at the North Yorkshire Sites and Monuments offices and the National Monument Record Offices at Swindon. The evidence from the North Yorkshire Sites and Monuments offices indicates several areas of interest in the route corridor. That is to say at Carr Hills (NGR TA 0554 816) crop marks defining enclosures have been recognised along with possible tractor marks. In the same location (NGR TA 047 818) possible trackways and modern drainage ditches have been identified from aerial photographs. At Seamer Carr (NGR TA 023 825) an extensive network of cropmarks interpreted as trackways and associated field boundaries have been identified.

At the National Monument Record Offices six oblique aerial photographs were consulted. These included two photographs of separate crop marks and four of the same crop mark. The first photograph (Accession No. 16856) shows medieval ridge and furrow to the north and west of the village of Lebberston (NGR TA 077 825). The second photograph (Accession No. 556) shows cropmarks of pits which were identified as the possible site of brickfields on the northern outskirts of the village of Hunmanby (NGR TA 098 782). Also there ^{are} crop marks of a linear grid pattern which probably represents modern drainage. There is also a linear feature present which has been tentatively interpreted as a trackway, but could also represent modern drainage. The third set of photographs (Accession Nos. 12715 and 12718) show cropmarks of a rectilinear enclosure (NGR TA 107 818) which is located near to the site of the moated farm house (see section 2.25 above).

4.0 Archaeological Background.

It has already been touched on in the preceding section that evidence for occupation in the area of the proposed route for the water main stretches back for a considerable period of time. Thus, this section of the feasibility study shall outline the known archaeological sequence for the area encompassing a tract of the landscape one kilometre each side of the proposed route. It shall also integrate evidence from known archaeological sites from the wider local area which, it is considered, may have bearing on the aforementioned route corridor.

4.1 *Late Upper Palaeolithic (c. 10 000 - 7600 BC).*

The Vale of Pickering holds some potential for the archaeology of this period, as indicated by discoveries made at Flixton Carr and Seamer Carr. Both these sites have produced Creswellian flint artefacts, and Spratt (1993) suggests that this area might have been part of the 'exploration zone' for Upper Palaeolithic hunter-gatherers. The documentary trawl for this assessment, however, found no instances of known archaeology of this period within the study area.

4.2 *Mesolithic (c. 7600 - 3500 BC).*

The Mesolithic is traditionally divided into an earlier and later period: the earlier existing from c.7600 BC to 6600 BC and the later from 6600 BC to 3500 BC. Earlier sites are distinguished from the later by diagnostic differences in the flint assemblages: earlier working practices produced larger and simpler shaped flakes or microliths, whereas later assemblages are disparate in that they are composed of smaller microliths with geometrically shaped outlines (Pierpoint 1981). The diagnostic differences can also extend to other types of tools such as barbed spearheads made from antler or bone (Clark 1954). However in the area located near to the proposed route of the water main only sites pertaining to the early Mesolithic have yet been discovered.

The evidence for early Mesolithic occupation is centred on the former post-glacial Lake Flixton where a number of sites have been discovered (see **fig. 2**): most notably those at Star Carr (NGR TA 029 809), Seamer Carr (NGR TA 030 820) and Flixton Carr (NGR TA 035 805). Here the remains of occupation sites incorporating preserved wooden platforms and artefacts, worked bone and antler tools, stone tools, possible beads and pendants and evidence of human manipulation of the environment have been discovered, which indicate a predominantly early Mesolithic occupation of the area (Mellars and Dark 1998). Star Carr was first occupied as early 10700 BP to 10400 BP on an, inferred, year round basis, where tasks such as antler working and the butchering and skinning of animals were undertaken (*ibid.*). Based on the extensive work undertaken by the Vale of Pickering Research Trust, it would appear that Mesolithic sites tend to focus on the 24.5m AOD surface contour (Lane, 1998), which approximately defines the contemporary perimeter of Lake Flixton.

Furthermore, sporadic finds of worked flint showing diagnostic affinities with knapping methods known from the Mesolithic and tentatively ascribed to the later part of the period

have also been discovered in the area. A small scatter of flints (SMR No. 12806) were found in a field (NGR TA 062 817) to the south-west of Killerby Grange. The flint assemblage comprised numerous blades and flakes, 12 scrapers, 1 microlith and 1 micro burin (Wymer 1997). Interestingly the location of the assemblage was on the higher ground to the north of the former lake edge. Also a random discovery of a flint flake (SMR No. 12805) thought to be of Mesolithic date (*ibid.*) was made on Cayton Carr (NGR TA 050 815). In similar circumstances and from the same area (NGR TA 050 812) an intricately worked flint knife (SMR No. 12803) tentatively dated to the Mesolithic has also been found, again in association with the site of the former Lake Flixton (see Reports in The Transactions of the Scarborough and District Archaeological Society (TSDAS) 1969: p 43).

It is clear that the site of the former lake was an important focus for occupation over extended periods of time. Moreover a comprehensive understanding of the settlement pattern for this period in this area is far from detailed and other sites probably exist, yet undiscovered. In this respect, those sites may survive located around the circuit of the former lake edge and even further back onto the higher, and then, drier ground standing peripheral to the area of the former lake.

4.3 Neolithic (c. 3500 - 1700 BC).

The inception of the Neolithic has traditionally been regarded as the crossover point from hunter gathering subsistence technologies of the Mesolithic to a sedentary lifestyle based on an agricultural economy, concordant with the construction of large ceremonial monuments. This view is now recognised as an over simplification of events. Recent evidence coupled with the reinterpretation of the standing archaeological record (Thomas 1991) has shed new light on the complexity of cultural development during this period. If anything, recent research and fieldwork has drawn attention to the question of continuity across the modern, artificial boundaries of later prehistory. So while there were indeed major changes in the way that people in the past perceived and interpreted their worlds at those thresholds of cultural change, they should not be distinguished as a complete break with what came before and it is probable that elements of the new and the old were utilised and reworked in order to produce a tangible future.

For the Neolithic we are again faced with a two fold division of earlier and later periods (3500-2500 BC and 2500-1700 BC respectively) based on stylistic differences in worked flint and different forms of undecorated and decorated pottery; although it must be said that there is some overlap between the latter. This division is also reinforced through the difference in monument types: long and round barrows, causewayed enclosures and cursus dominate the early Neolithic; henge monuments and stone circles being confined to the later part of the period.

In the area of the proposed route of the water main very little evidence relating to the Neolithic period has been encountered thus far. That Neolithic activity did occur in the vicinity, however, is attested by the site of Sammy Rider's Pit, at Flixton, where a row of pits or post holes were discovered with Grimston and Grooved ware pottery sherds in the fills (Brewster, unpublished). One polished greenstone axe has been discovered in fields at

Seamer (NGR TA 034 855) and a second at Irton (see Reports in the TSDAS 1970 and 1971 respectively), with another discovered in a field near to Killerby Grange (SMR No. 12800; NGR TA 067 821). Evidence for settlement in the Neolithic is rich on the higher ground of the Wolds and the fringes of the North York Moors and there is the occasional example of ceremonial monuments such as long mounds and round barrows further west in the Vale of Pickering. Nevertheless it is assumed that further Neolithic sites exist in the eastern end of the vale, although they are undetectable either through plough damage or later depositional activity.

4.4 Bronze Age (c. 1700 - 600 BC).

Once again, traditionally, the Bronze Age is divided into an early and a late phase: the dividing point being at around 1300 BC when a noticeable change in burial customs, pottery style, bronze technology and the nature in which land territorial divisions were constituted, takes place (Spratt 1993). The settlement pattern in the earlier Bronze Age relates to permanent settlements on the lowlands and in the valleys skirting the North York Moors and the Yorkshire Wolds, while the higher ground was exploited seasonally where mixed farming and pastoralism pertained. Moreover, on higher ground in the early Bronze Age we now begin to see the marking of land tenure through the construction of barrows on prominent watershed locations and the cutting of linear bank and ditch systems (*ibid.* and Vyner 1995).

During the later Bronze Age the settlement pattern was much the same as it was in the earlier Bronze Age, although on the North York moors, round barrow construction ceased. On the Wolds such activity may have persisted for longer and the division of the landscape by the construction of linear bank and ditch systems continued. With the cessation of barrow construction, religious and burial rites fade from the archaeological record. There was however some secondary use of barrows for burial, but this evidence is sparse and it may be that flat cremation cemeteries were used, although no examples of such have yet been recorded for the region. Furthermore, changes take place in bronze working technology: from flat bronze axes to flanged and later socketed axes (Spratt 1993).

Along the proposed route of the pipeline there are no known Bronze Age sites, although sporadic find spots and the presence of barrows and possible boundary banks and ditches on the higher ground directly to the north and south of the eastern end of the Vale of Pickering would suggest settlement within the area. A barbed and tanged arrow head (SMR No. 12689; NGR TA 056 829) dated to the Bronze Age was found a couple of hundred metres south of Cayton on farm land. Also within the area of the proposed route of the water main two late Bronze Age flanged axes have been found at Cayton Carr (SMR Nos. 126878 and 12688; NGR TA 053 818) which had evidence for wear indicative of use before they were deposited. Additionally, to the north located on the 90 metre contour on the edge of Gristhorpe cliff (NGR TA 094 832), next to the sea, are the ploughed out remains of an early Bronze Age round barrow. Furthermore, there is evidence for the existence of stretches of linear bank and ditch features, referred to as the Wolds Entrenchments, within the area of the proposed route of the water main. Normally, these earthworks are predominantly confined to the area of the higher Wolds, but there is a reported example to the east of Filey (NGR TA 100 800). In

addition a similar feature (SMR No. 12695; NGR TA 096 820) of undetermined date located in fields to the north-east of Rising Sun Farm could be an example of a similar linear bank and ditch boundary (see Reports in the TSDAS 1960). This double bank and ditch feature was visible as a linear earthwork with a northeast to southwest alignment in the early years of this century when it was included on the 1911, 1:2500 scale Ordnance Survey Map. By the 1960s it had been reduced to a slight earthwork feature through subsequent ploughing and now is only visible as a cropmark on aerial photographs. From this it can be assumed that other, more ephemeral sites pertaining to the Bronze Age, may have been subjected to the same destructive forces and thus remain undetected.

Additionally, aerial photographs show a double ditched rectangular enclosure, which on typological similarities with known dated examples from the Bronze Age and early Iron Age could be of an analogous date, surviving as a cropmark in a field to the north east of Muston Cottage Farm (NGR TA 093 804)

4.5 Iron Age and Romano-British (c. 600 BC - AD 410).

During the Iron Age and Romano-British period, regionally, the settlement pattern, economy and political organisation takes on a whole different dimension, readily apparent in the physical manipulation of the landscape. There was an intensification of all these dimensions in the social infrastructure even more so, later, with the influence and innovation of Roman control. Within the area of the proposed route of the pipeline settlement activity from the Iron Age is very sparse. In fact the only direct evidence from the Iron Age in the area relates to a spectacular chariot burial which was located next to Hunmanby railway station (Sheppard 1907). This extremely rich burial (SMR No. 7026; NGR TA 106 785), dated to the 2nd or 3rd century BC, was covered by a slight square mound, was contained in a slightly sloping pit and comprised the remains of a male, horse and chariot with grave goods and bridle and chariot fittings.

Evidence pertaining to the Romano-British period is more prevalent within the area. At Crossgates (NGR TA 030 830), c.1.7 km from the reservoir at Cayton, excavation prior to quarrying revealed a large 1st century AD enclosure comprising a 4.5 metre wide by 2.00 metre deep ditch enclosing an extensive internal area cut by a network of ditches and gulleys (Pye 1976). This feature was a temporary Roman camp which endured a short use span before the ditches were intentionally backfilled and the camp abandoned sometime in the late 1st century AD (*ibid.*). Occupation continued on the site after this event with the establishment of a Romano-British settlement which, based on the pottery sequence, lasted from the late 1st to the late 4th century AD. There was then a slight hiatus in the occupation sequence at the site until the 5th century AD when an Anglian settlement was established slightly to the west (Pye 1983). Interestingly there was no evidence of any human remains, although a cemetery was excavated at Seamer Lime quarries (NGR TA 024 834) c.1.2 km to the north earlier this century.

Spot finds, including the upper and lower parts of beehive querns (SMR No. 12845; NGR 041 820), sherds of buff ware pottery (SMR No. 12846; NGR 042 821) and sherds of calcite gritted ware of a 4th century AD date (SMR No. 12847; NGR 042 822) have been discovered

on a low natural hillock called Holme Hill, c.0.8 km to the south-west of the reservoir at Cayton. To the north of the proposed route of the water main, near Cayton, two other find locations from the Romano-British period have been identified: the first a Roman coin of Maximianus the first (SMR No. 12690; NGR TA 056 829) was found in the same location as the barbed and tang arrow head referred to above. The second site (SMR No. 12698; NGR 054 830): a small Romano-British hut circle and associated paved flooring and 3rd century pottery of Huntcliff and Crambeck wares was discovered in the back garden of No. 3 Green Croft Gardens, Cayton (Pye 1977). Finally it is also known that a Roman road ran from Malton to Filey, the route of which was discovered at several points during the laying of electricity cables in 1935. From these brief glimpses it is known that the road follows a route to the southwest of the existing A165 (NGR TA 095 819) to the east of Gristhorpe, it is then cut by the A165 as the Roman road continues to the east (NGR TA 099 818), to the north of the roundabout near to Brookfield farm, finally entering Filey to the east (NGR TA 110 812).

Aerial photographs taken of the area under consideration, showing cropmarks of enclosures, trackways and field boundaries are tentatively ascribed as being of Romano-British date, based on the grounds of similarity in layout with other examples from different parts of the region which have been securely dated, have been identified in three areas near to the proposed route of the water main. The first set of cropmarks are located in a field near to Carr Hills (NGR TA 054 816) and comprise possible rectilinear enclosures. Secondly another set of cropmarks incorporating an extensive network of trackways and field boundaries have been identified in fields to the southwest of the settlement detailed above (NGR TA 023 825) and may, therefore, be associated with that site. Finally, a third group of cropmarks relating to trackways and possible modern drainage have been identified in fields near to Carr Hill (NGR TA 047 818). The above evidence indicates that an extensive settlement pattern existed in the area of the proposed route of the water main in the Romano-British period, thus implying that there may be more of this pattern remaining unidentified and yet to be discovered.

4.6 *Anglo-Saxon to Medieval (c. AD 410 - AD 1540).*

The early medieval period in the area sees the consolidated establishment of settlement, taking place on a larger scale than in any preceding period, predominantly on the slightly elevated ground fringing the much higher ground to the north and south, at locations where it is continued to this day. For example incorporated into the structure of the church at Hunmanby are several examples of Anglo-Saxon stone carving believed to have come from an earlier church that stood within the village. Furthermore, many of the contemporary villages are known to have been established as centres of occupation quite early as their names are mentioned in the Domesday Book: for example Muston and Hunmanby. Moreover if the plan of the village of Cayton is consulted on the 6inch Ordnance Survey map of 1854 a familiar pattern of tofts and crofts clustered along the route of a road with access tracks to the back of the crofts can be detected. Usually associated with villages is a manor and a surrounding open field system discernible on aerial photographs and existing as earthwork features as ridge and furrow. Concomitantly, in a field used for grazing, located to the south of Muston (NGR TA 096 792), ridge and furrow survives as an earthwork feature, whereas in the

surrounding fields which have been given over to arable there are no extant above ground remains of the features observable. The same occurrence is found at Lebberston where cropmarks on aerial photographs show extensive tracts of ridge and furrow to the west of the village and probably also to the north (centred on NGR TA 080 825).

During the medieval period the influence of the church on the landscape rises to its peak. Land was often given over by the lord of the manor to monastic house as a bequeathment, or appropriated by the wealthier houses; in this respect land was held around Cayton by the monasteries of Rivaulx and Whitby. Moreover there are several examples of monastic granges surviving as farms to this day: for example at Killerby. Monuments to the honour of the church were also raised at prominent places within the landscape, and an early medieval earth and stone embanked cross survives on Holme Hill (SMR No. 12850; NGR TA 041 822).

Nevertheless, not all medieval villages and their associated buildings survive in their entirety. This is nowhere more obvious than at Killerby where the old hall and grange still survives today, but the associated site of the village tofts has been obliterated. It is known that the village existed at the time of the Domesday Book as it is mentioned in the text. House platforms were recorded in a field to the west of the old hall (SMR Nos. 12699.00000 through to 12699.02001; NGR TA 061 830) but sporadic finds of a number of 12th to 15th century coins and a few sherds of pottery (NGR TA 060 820) are all that now testify to its existence. In the same vein an earthwork feature comprising a rectangular ditch of a dry moated homestead survives in a field to the southeast of Newbiggin (NGR TA 101 818). This feature is of probable medieval date, but could date to the post medieval period. Furthermore, a scatter of pottery: 13th century Staxton Type ware (TSDAS 1968) was recorded from Muston Weir Bridge Farm, north of the village of Muston.

4.7 *Post-Medieval (c. 1540 to the present).*

There are numerous archaeological features surviving both above and below ground from this period. In the former case the railway station at Cayton (NGR TA 058 824) has been classified as a listed building. Similarly West House Farm (NGR TA 095 798) located to the north of Muston is a 18th century farmhouse which has been classified as a grade two listed building. Moreover, land along side the stream to the north of Hunmanby is known as The Dams (NGR TA 106 788) which may have been dammed at an earlier date. The old Yorkshire term dam refers to water confined by an embankment. At this site a drain or possible bank follows line of parish boundary (SMR No. 7085).

Furthermore, an area of land to the north of Hunmanby is called *the intakes* and the North Moor (centred on NGR TA 100 785). *The intakes* probably refers to land which has been reclaimed from moorland as farm land, possibly in the later medieval period. The North Moor is an area of higher ground now given over to arable farming, but in the recent past was used for a number of purposes linked with the daily economic gain of the village. In 1753 a rabbit warren was kept on the moor together with a lodge which was constructed for the warreners use (Pugh 1974). Furthermore, there are documentary sources relating to brick fields that were kept on the moor itself and in fields in the intakes to the north of the village

(*ibid.*). It is known that brick fields were associated with brick making and survive as pits and quarries where the clay was retrieved to make the bricks from.

5.0 Potential Impact On Archaeology.

Three main areas of concern can be identified.

The first area relates to the possibility of the easement strip encountering mesolithic residues associated with occupation activity near to the site of a former post-glacial lake (centred on NGR TA 040 810). Although the proposed route of the water main does not impact directly on the site of the former lake margins it crosses an area of higher ground where possible occupation on drier ground may have taken place. Similarly, the first stage of the water main skirts the edge of a small natural hillock that may have archaeological deposits relating to settlement activity from the Romano-British period onwards. It is known from spot finds and site excavation (for example finds of querns and pottery dating from the 1st to 3rd centuries AD and an early medieval embanked cross on Holme Hill NGR TA 041 822; also excavation of a Romano-British homestead site at No. 3 Green Croft Gardens, Cayton NGR TA 055 830 c. 500 metres north of the water main route) that higher, drier terrain in the Vale of Pickering was preferred for settlement, a pattern that is still visible to this day.

Secondly, the route of water main passes through two fields to the south of Killerby. It is known that there was a castle on this site in the 13th century, with an associated village. The village was deserted in the later medieval period, but no direct evidence has been discovered from which to locate its former dimensions, except for three house platforms recorded in a field to the west of the old hall (NGR TA 061 830) and spot finds of a number of 12th and 15th century coins in fields to the north and south of the B1261 as it passes through Killerby. In this instance it would seem advisable to carry out further survey work in the field to try and locate the site of the village so that the excavation of the water main does not impact on the site. Further to the east of this site at the village of Leberston Aerial Photographs testify to the existence of medieval ridge and furrow to the north and east of the village, which may be encountered during the excavation of the pipe trench.

Thirdly, the final part of the proposed route of the water main cuts across farm land, where it diverges from the A165 at the roundabout below Mill Farm (NGR TA 108 798), and continues up to the reservoir located on the top of the Wolds escarpment in the parish of Muston. This area of farmland is known as the North Moor and was utilised as common land by the villagers of Muston and Hunmanby during the medieval and post-medieval periods. Both the aforementioned villages have origins in the medieval period: both are referred to in the Domesday Book, and there is a strong possibility that the associated open field system may have encroached onto the moor. Concomitantly, during the inspection of the proposed route, in the field, several fields to the south of Muston were identified with the remains of ridge and furrow in them. Also, the water main will cut through an area of the moor called the Dams: a name which refers to land alongside a stream, which from an early date may have been intentionally managed. Furthermore, the Dams is an old Yorkshire term which refers to a water course confined by an embankment: a possible drain or embankment, which in this instance is followed by the line of Hunmanby parish boundary.

Additionally, there are documentary sources, relating to the post-medieval period, which refer to brick making taking place in fields and pits in the outgangs to north of Hunmanby (Pugh 1974); so again there is a possibility that examples of these may be detected in the easement cut. Lastly, there are also documentary sources which refer to the establishment of a post-medieval rabbit warren and warren lodge on the moor in 1713. Unfortunately the location of the site is not known but it may be the site of a crop mark identified on the moor (see section 2.29 above).

Finally, for most of its length the proposed route of the water main will follow an existing main, which in turn runs parallel to the B1261 and the A165. Nevertheless, it is worth noting that the easement strip here may encounter two significant archaeological features: a severely plough damaged double ditch and bank of undetermined date located in a field to the north-west of Stonepit Lane (NGR TA 096 820); and also the route of the Malton to Filey Roman road, part of which is known to run between the village of Gristhorpe (NGR TA 095 819) to the north-eastern outskirts of Filey (NGR TA 110 812).

6.0 Conclusions

The search has recovered copious information regarding the archaeological record of the area. From this record three main areas have been identified which have known archaeological deposits surviving or which may produce archaeological deposits during the excavation of the new water main. These areas are mostly confined to farm land which shall be crossed during the excavation of the pipe trench and are located to the south of Cayton, at Killerby Old Hall and the North Moor out side the village of Hunmanby.

Given the above, and the fact that the nature of the archaeology in the eastern Vale of Pickering has resulted in that area being designated as one of international archaeological importance, the potential threat to archaeological deposits would appear to be significant. Correct mitigation procedures should therefore be undertaken to deal with the eventualities of encountering such during the establishment of the easement strip and the excavation of the pipe trench.

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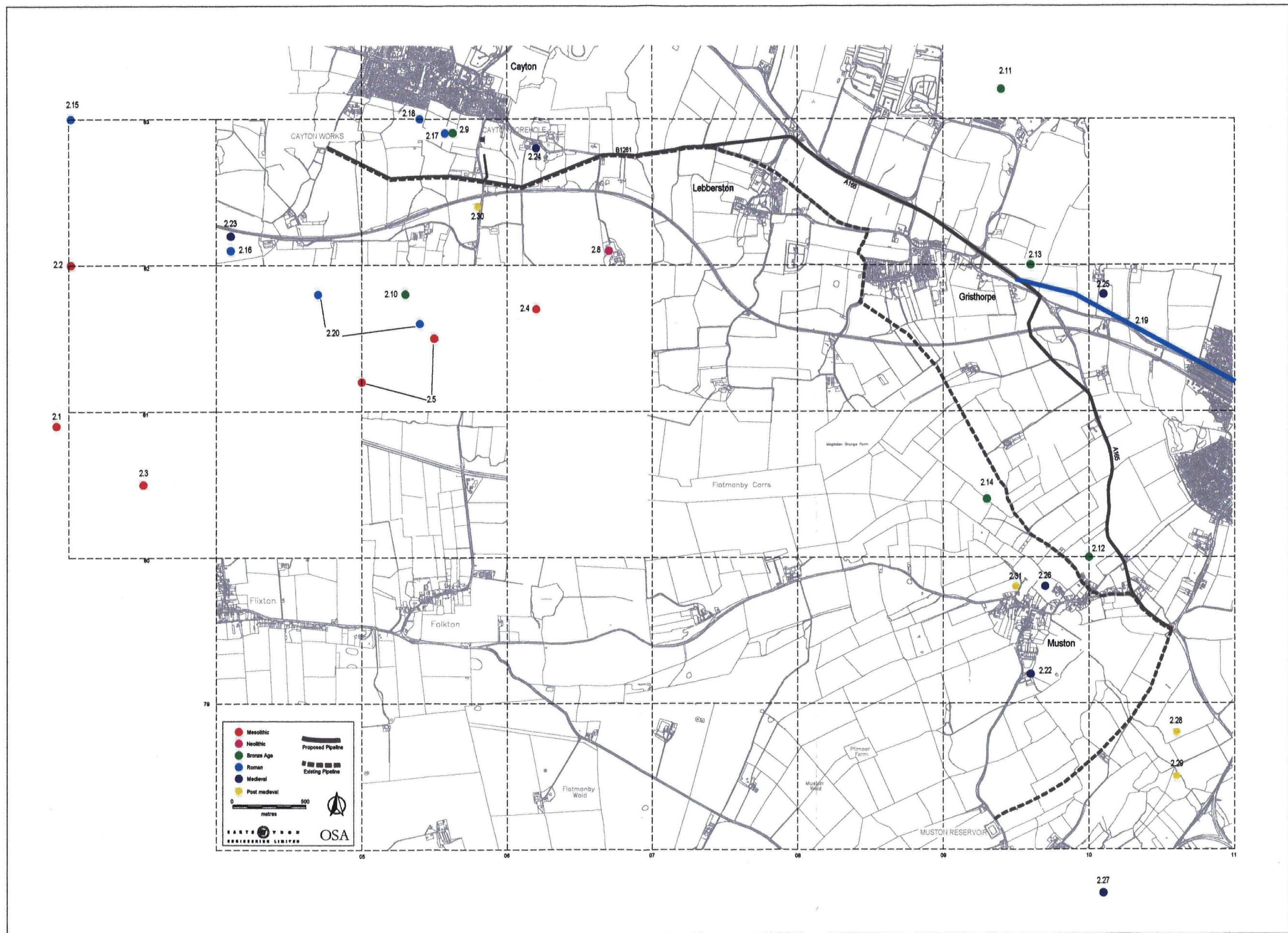


Figure 3. Archaeological locations within the study area. Scale 1:25,000. excludes 2.6, 2.7 & 2.21, which lie beyond drawing limits.