Northamptonshire Archaeology

An archaeological watching brief during the water main replacement at Belchford to Nab Hill, Lincolnshire
November to December 2010

Site Code: BNH10
Accession No: LCNCC: 2010.153
NGR: TF 3019 7472 to 3096 7404

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Report 10/204
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QUALITY CONTROL

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OASIS REPORT FORM

PROJECT DETAILS		
Project title	An archaeological watching brief during the water main replacement at Belchford to Nab Hill, Lincolnshire, November to December 2010	
Short description	An archaeological watching brief of land adjacent to Furlongs Lane, Belchford, was carried out during the installation of a replacement water main. The evaluation revealed no archaeology apart from three flint waste flakes in the topsoil.	
Project type	Watching brief	
Site Status		
Previous work	None	
Current land use	Arable and pasture	
Future work	Unknown	
Monument type and period	None	
Significant finds	None	
PROJECT LOCATION		
County	Lincolnshire	
Site address	Furlongs Lane, Belchford, Lincolnshire	
Post code		
OS co-ordinates	TF 3019 7472 to 3096 7404	
Area (sq m/ha)	Approximately 2.85ha	
Height aOD	97m at Furlongs Lane	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	Lincolnshire County Council	
Project Design originator	NA	
Director/Supervisor	Angela Warner, Lazlo Lichtenstein	
Project Manager	Simon Carlyle	
Sponsor or funding body	Anglian Water	
PROJECT DATE		
Start date	1/11/2010	
End date	10/12/2010	
ARCHIVES	**Location (Accession no.)**	**Contents**
Physical	The Collection Museum, Lincoln. Accession number: LCNCC:2010.153	3 worked flint flakes
Paper		Watching brief forms (32), colour slides (74), black and white negatives with contact prints (2 films), digital photographs with printout (137)
Digital		Report text and figures
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report (NA report)	
Title	An archaeological watching brief during the water main replacement at Belchford to Nab Hill, Lincolnshire, November to December 2010	
Serial title & volume	10/204	
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AN ARCHAEOLOGICAL WATCHING BRIEF DURING THE WATER MAIN REPLACEMENT AT BELCHFORD TO NAB HILL, LINCOLNSHIRE NOVEMBER TO DECEMBER 2010

Abstract

An archaeological watching brief of land adjacent to Furlongs Lane, Belchford, was carried out during the installation of a replacement water main. The evaluation revealed no archaeology apart from three flint waste flakes in the topsoil.

1 INTRODUCTION

In November and December 2010, an archaeological watching brief was carried out by Northamptonshire Archaeology (NA) on land adjacent to Furlongs Lane, Belchford, Lincolnshire (NGR: TF 3019 7472; Fig 1). The work was commissioned by Anglian Water and was undertaken to preserve by record any archaeological features disturbed by the work.

The scope of works was outlined in the brief (LCCHET 2010) issued by Lincolnshire County Council's Planning Archaeologist and detailed in the specification prepared by Northamptonshire Archaeology (NA 2010). The objectives of the watching brief were to determine the presence of any archaeological features or deposits within the area of excavation and to date and characterise their extent, depth of burial and state of preservation.

2 BACKGROUND

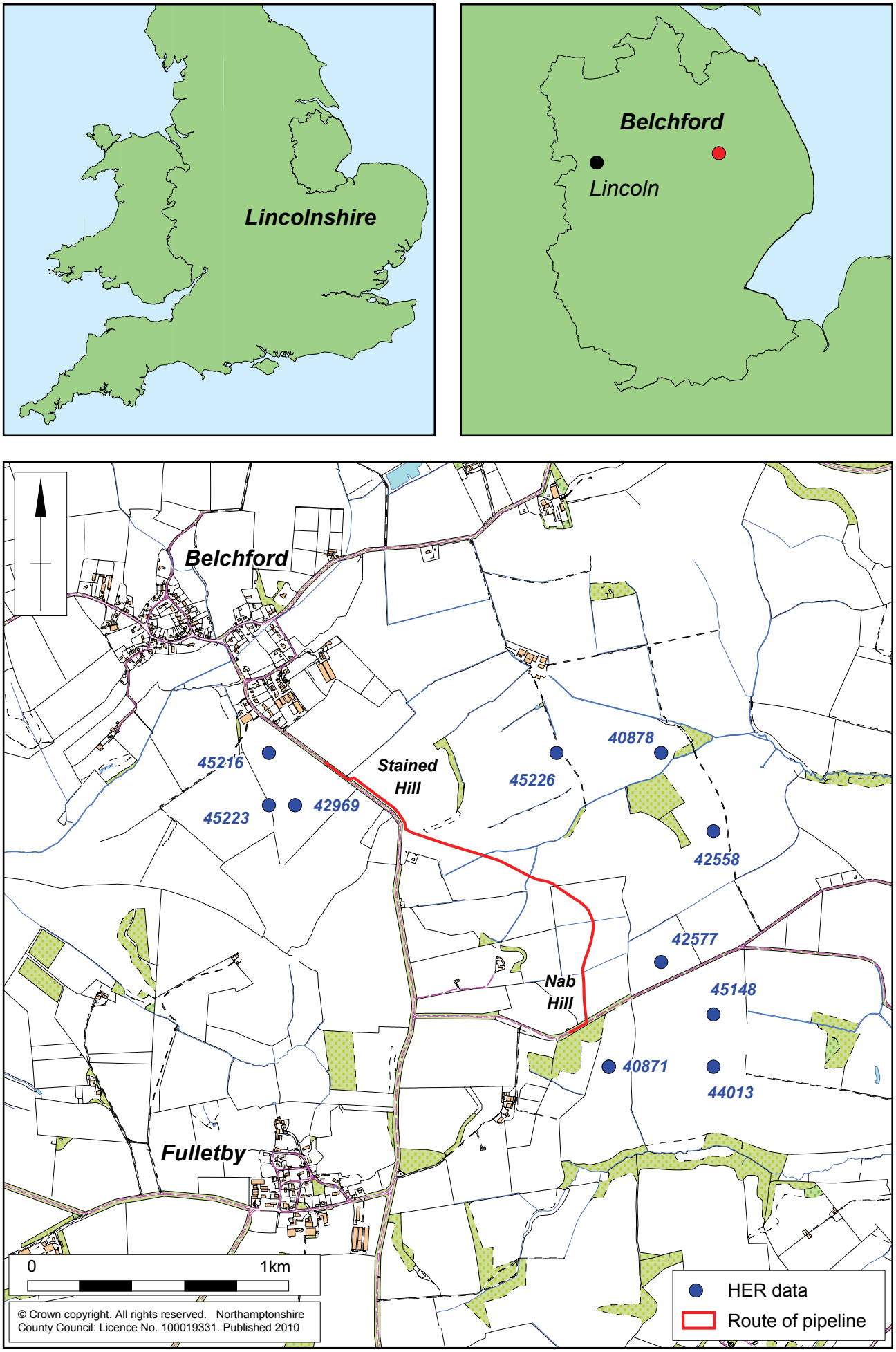
2.1 Topography and geology

The route of the pipeline, the easement of which covers an area of *c* 2.85ha, is located to the south-east of Belchford, along Furlongs Lane and cutting across fields, over Stained Hill to Nab Hill, on an unclassified road to Tetford (Figs 1 and 2).

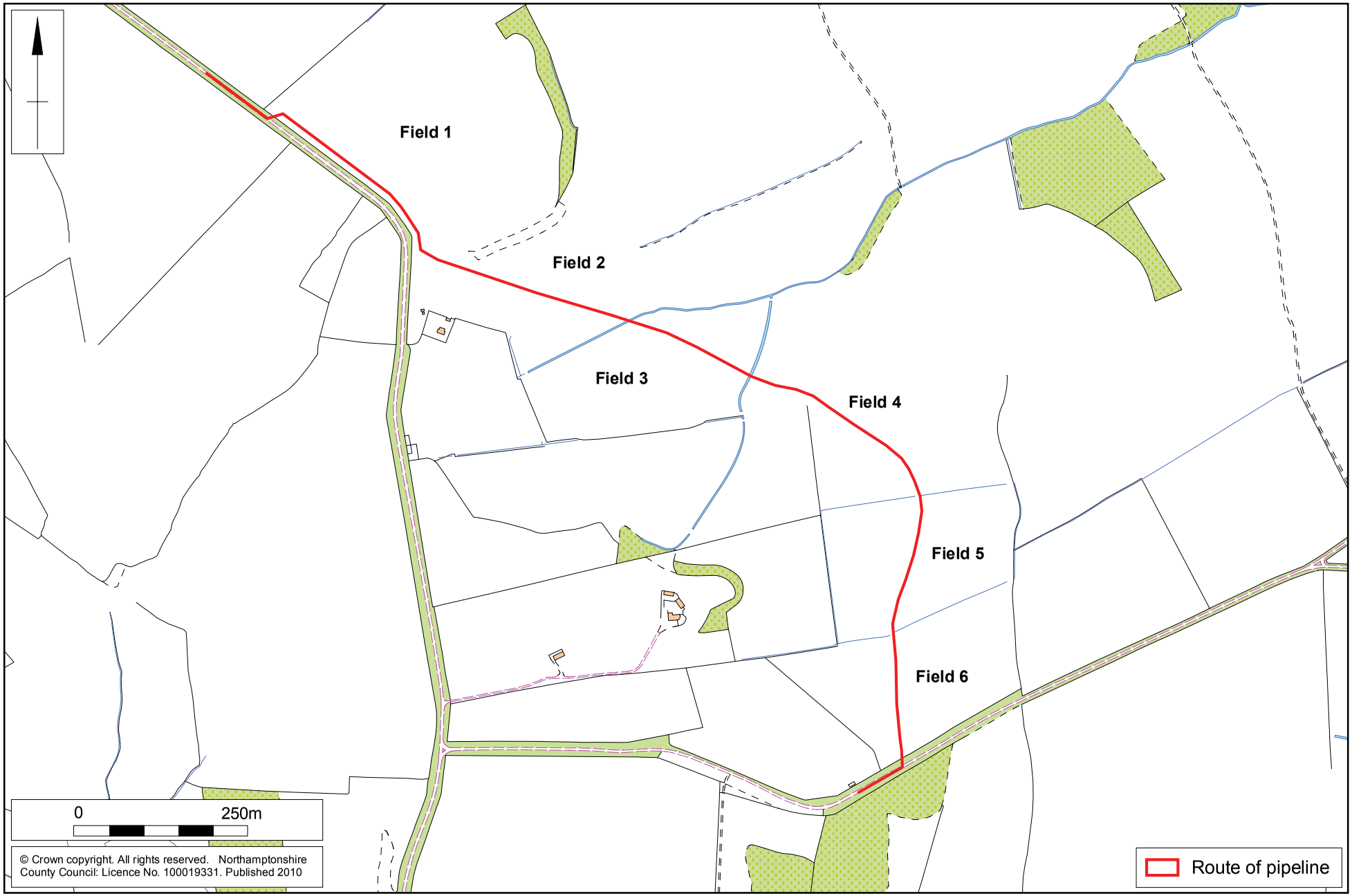
The ground level at the north-west entrance to the site on Furlongs Lane is at approximately 97m aOD, the site lying roughly within the 90m and 120m aOD contours. The site is located in the Lincolnshire Wolds and so encounters many changes in level along the route. The slopes are very even due to heavy ploughing, however, the underlying geology and comparison to the surrounding pasture fields indicate that the land was originally undulating.

The underlying bedrock geology comprises mainly the blue-grey and buff clays and sandy limestones of the Tealby Formation, and borders the Claxby Ironstone Formation. The northernmost part of the site comprises the interbedded mudstones and limestones of the Roach Formation (BGS 2010). No superficial deposits are recorded by the British Geological Survey.

The overlying soils belong to the Wickham 2 Soil Association (711f), comprising slowly permeable seasonally waterlogged fine loamy or silty over clayey soils, with



Scale 1:20,000 Site location showing selected Historic Environment Record information Fig 1



Scale 1:7,500

General site plan showing route of pipeline and field numbers Fig 2

some calcareous soils on steeper slopes. At the southern end of the pipeline the soils change to the Cuckney 2 Soil Association (551c), which consist of well-drained sandy and ferruginous fine loamy soils over soft sandstone (SSEW 1983).

2.2 Historical and archaeological background

The Historic Environment Record (HER) for Lincolnshire, consulted via the Heritage Gateway (www.heritagegateway.org.uk), indicates that there are a number of sites in the vicinity of the mains replacement scheme dating to the prehistoric, Roman and medieval periods (Fig 1).

A search for items within 1km of the approximate centre of the site returned the 38 results shown in Table 1. A selection of these results have been plotted onto the map in Figure 1.

In summary, the majority of the archaeological finds or features are prehistoric, with the majority of these being worked flint found during fieldwalking. Prehistoric remains have also been identified from cropmarks in fields to the south (45216 and 45223) and east (45225) of Belchford; these include the site of a possible Neolithic long barrow (42969). A Neolithic flint knife was found on the eastern slope of Stained Hill (43521).

HER Number	NGR	Details
40871	TF 310 738	Early neolithic to late bronze age flint
40878	TF 312 750	Neolithic flint axe
42292	TF 314 753	Unidentified pottery
42360	TF 313 751	Mesolithic microliths and long blades
42558	TF 314 747	Anglo Saxon pottery
42575	TF 315 747	Bronze age perforated stone hammer
42577	TF 312 742	Bronze age flint blades and scrapers
42639	TF 316 744	Bronze age burials
42969	TF 298 748	Cropmarks of possible long barrow
43121	TF 307 739	Palaeolithic knife
43128	TF 314 753	Possible palaeolithic denticular flint
43150	TF 313 753	Mesolithic flint scatter of over 100 microliths
43166	TF 313 752	Iron age pottery
43324	TF 314 753	Neolithic knife
43343	TF 313 745	Prehistoric end scraper
43344	TF 313 752	Early neolithic to late bronze age end scraper
43428	TF 312 746	Poss. upper palaeolithic elongated flint point
43520	TF 312 751	Neolithic knife
43521	TF 311 751	Neolithic knife
43539	TF 312 754	Lower palaeolithic flint flakes
43540	TF 312 752	Lower palaeolithic flint flake
43642	TF 314 747	Neolithic rough out of flint axe

43648	TF 314 751	Mesolithic microlith
44013	TF 314 738	Early bronze age pottery
44050	TF 314 752	Mesolithic flint scatter
45146	TF 314 749	Mesolithic microliths
45148	TF 314 740	Cropmarks of boundaries
45202	TF 314 749	Undated cropmarks
45216	TF 297 750	Prehistoric cropmark enclosures
45219	TF 299 756	Medieval ridge and furrow
45223	TF 297 748	Prehistoric cropmarks
45225	TF 300 755	Prehistoric crop marks
45226	TF 308 750	Prehistoric cropmark boundaries
45231	TF 314 750	Prehistoric cropmark enclosure
45232	TF 314 751	Cropmarks of possible Roman road
45233	TF 312 753	Prehistoric cropmarks
45234	TF 310 753	Undated cropmark linear feature
47523	TF 296 754	Early 18th century cottages

Table 1: Historic Environment Record Information

3 OBJECTIVES AND METHODOLOGY

The aim of the project was to monitor groundworks associated with the installation of the replacement water main and establish the presence or absence of archaeological remains within the area of disturbance. The replacement pipeline is being installed alongside the existing water main.

The fieldwork comprised the continuous monitoring of the removal of topsoil from the easement area to an average width of approximately 10m, followed by the continuous monitoring of the excavation of the 400mm wide pipe trench. The depths of both phases of the excavations were dependent upon the level required for the correct depth of cover of the pipe.

The groundworks were carried out using a 360° tracked excavator fitted with a toothless ditching bucket. It was necessary to use a toothed bucket for a portion of the topsoil stripping in Field 3 due to the heavy rain on the clay soils, however visibility of the underlying subsoil and natural was not compromised following close inspection. The pipe trench was excavated using a tracked mini-digger using a toothless bucket, with the final northernmost section of the trench excavated using a toothed bucket due to the frozen ground conditions. The groundworks were affected by the weather which was frequently wet, adversely affecting the clay rich soils.

The photographic record of the excavation was maintained using 35mm black and white film and colour slides, supplemented with digital images. The written record utilises Northamptonshire Archaeology's pro-forma sheets.

All works were conducted in accordance with the Institute for Archaeologists' *Code of Conduct* (IfA 2010) and *Standard and Guidance for Archaeological Field Evaluation* (IfA 2008).

4 THE EXCAVATED EVIDENCE

4.1 General stratigraphy

The underlying geology was glacial till, which was encountered at approximately 0.1 to 0.2 m below the modern ground surface. This occurred as light orangish-yellow clay with veins of mid bluish-grey clay with areas of mid-dark orangish-brown clayey sands with occasional angular pieces of ironstones. The subsoil, where present, was mid-dark orangish-brown sandy clay and the topsoil was dark orangish-brown slightly humic loamy clay, containing very occasional ironstone pieces. Occasional pebbles were observed in the topsoil, but these may well have been from the backfill of land drains, similarly, the occasional limestone pieces may well have been remnants of soil liming.

The ground has been heavily disturbed by ploughing and frequent land drains.

4.2 The archaeological evidence

Topsoil removal

The topsoil was stripped using a toothless bucket and set aside for reinstatement. The depth was adjusted according to the depth of soil. Subsoil was not present in all areas; the underlying boulder clays were very close to the surface in many places and subsequent ploughing had incorporated a high proportion of clay into the topsoil. Where subsoil was observed, it consisted of a clayey sand with varying proportions of sandstone.

Frequent land drains were encountered and were noted to have been installed at various stages due to the differing styles of drain and backfilling materials used.

Only one ditch was observed during the topsoil stripping, running approximately north-east to south-west between the escarpment in Field 2 and the derelict house; the fill contained modern building rubbish, including late-20th century aerated concrete blocks (Fig 3.)

No archaeological features were observed. Three flint waste flakes were found on the surface of the topsoil.

Field 2, looking south east, showing the modern ditch Fig 3

Trench excavation

The pipe trench was excavated using a 400mm toothless bucket, to an approximate depth of 1.3m. The natural geology was cut into along the entire length of the trench. No archaeological features or finds were observed (Fig 4). Frequent land drains were observed in the fields and in the road side verges, where disturbance from the existing water main was also apparent (Fig 5).

Pipe trench during excavation, also showing the changes in geology Fig 4

A section of backfill of the existing pipe trench Fig 5

5 WORKED FLINT by Yvonne Wolframm-Murray

Three pieces of worked flint were recovered as residual finds from the plough soil. The flints comprised of three flakes, summarised in Table 2 below. The condition of the flakes was not good, post-deposition edge damage consisting of frequent nicks and crushing. The raw material was a vitreous flint of mid grey-brown colour and the cortex comprised patination or a mid brown colour with a worn surface. One flake was squat and two flakes had cortical striking platforms. The worked flints are not directly dateable, but their technological characteristics suggest a broadly Neolithic date.

Small Find	Object	Portion	Cortex	Material	Comments
1	Natural	-	-	-	Discarded
2	Flake	Whole	-	Vitreous mid grey-brown	Heavy post-depositional edge damage
3	Flake	Whole	Mid brown	Vitreous mid grey-brown	Cortical striking platform
4	Flake	Whole	Patina	Vitreous mid grey-brown	Squat flake with cortical striking platform

Table 2: Summary of flint small finds

6 CONCLUSION

The archaeological watching brief identified no archaeological features within the area of the pipeline excavation. A modern ditch was observed in Field 2 and numerous land drains were encountered throughout the area. A crop-mark observed in Field 4, running north to south on satellite images of the area was proven to be a modern ceramic land drain, replaced during the project by a plastic drain. The recently removed hedgeline in Field 4, also visible in the satellite pictures, was noted during topsoil stripping.

Three flint flakes discovered on the surface of the topsoil indicate human activity in the area in the Neolithic period, confirming finds of a similar nature noted on the HER.

Heavy ploughing has disturbed the natural geology across the site and rendered the surface of the fields even, in contrast with the surrounding pasture fields, indicating that any archaeological features may have already been lost to ploughing.

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Maps

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