

ARCHAEOLOGICAL WATCHING BRIEF AT TWEEN BRIDGE WIND FARM, THORNE, SOUTH YORKSHIRE (TBWF 09)

Work Undertaken For Donaldson Associates Ltd

May 2009

Report Compiled by Paul Cope-Faulkner BA (Hons) AIFA

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Quality Control Tween Bridge Wind Farm Thorne TBWF 09

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1. SUMMARY

A watching brief was undertaken during groundworks at Tween Bridge, Thorne, South Yorkshire. The watching brief monitored geotechnical examinations.

The site lies within a raised mire peatland which has produced evidence of prehistoric activity including a Bronze Age (2200-800 BC) timber track. Romano-British (AD 43-410) settlement has also been identified in the vicinity.

The boreholes recorded a sequence of deposits relating mainly to post-glacial sedimentation comprising alluvium and peat formation. Made-ground deposits may represent infilled peat workings or are possibly derived from warping, a method of improving soils with wet silt and clay. No archaeological features were identified and no artefacts were retrieved from the investigation.

2. INTRODUCTION

2.1 Definition of a Watching Brief

An archaeological watching brief is defined as "a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed." (IFA 1999).

2.2 Planning Background

Archaeological Project Services was commissioned by Donaldson Associates Limited to undertake an archaeological watching brief during geotechnical examinations associated with a proposed new wind farm at Tween Bridge, Thorne, South Yorkshire. The watching brief was carried out on the 18th February 2009.

2.3 Topography and Geology

Thorne is located 12km southwest of Goole and 15km northeast of Doncaster in South Yorkshire (Fig. 1).

The proposed wind farm site lies c. 4km east of the centre of Thorne as defined by the parish church of St Nicholas at National Grid Reference SE 720 129 (Fig. 2). The site is situated on gently undulating ground at heights of around 3m OD.

Local soils are of the Foggathorpe 2 Association, typically pelo-stagnogley soils (Hodge *et al.* 1984). These overlie a series of drift deposits comprising mainly fine sediments deposited in the Humber Lake formed during or at the end of the last glaciation (Gaunt 1987, 17). Alluvial deposits overlay this and from about 5000 BC peat developed across the area to form a raised mire (*ibid.* 19).

2.4 Archaeological Setting

Thorne lies in an area of known archaeological remains dating from the Mesolithic period to the present day. Stone axes of the Mesolithic and Neolithic periods have been found along the southern boundary of the site.

Bronze Age tools are also known from within the site boundary and a trackway, constructed of split timbers, was partially excavated northeast of the site and may be one of several that crossed the area. In addition, antiquarian accounts of bog bodies have been reported upon from the general vicinity, though are poorly provenanced (Van de Noort 2001, 136).

Rectangular enclosures and ditched trackways have been identified to the east of the site and may represent the remains of Romano-British ladder-type settlement of which several are known further east. Thorne is first mentioned in the Domesday Survey of *c.* 1086. Referred to as *Torne*,

the name is derived from the Old English *born* meaning a 'thorn-bush' (Ekwall 1989, 467). The Domesday Survey records that the land was held by William de Warenne as sokeland of his manor of Conisborough (Williams and Martin 1992, 832).

Extant remains of the medieval period are restricted to the centre of Thorne. The site lay within a raised mire peatland which was an important resource, particularly peat, which has since vanished or extracted from the area of the site.

3. AIMS

The requirements of the watching brief were to locate and record archaeological deposits and, if present, to determine their date, function and origin.

4. METHODS

The watching brief was undertaken during geotechnical boring at selected locations within the site. The nature of the boring precluded archaeological observations at the site and the following results are based on the borehole logs provided by the client.

5. RESULTS

The deposits encountered within each borehole are listed and described below.

Borehole 1

Depth (m)	Description	Interpretation
0-0.2		Topsoil
0.2- 0.4	Firm brown sandy clay with gravel	Made-ground
0.4-	Yellow brown clayey silty	Natural
1.5	sand	deposit
1.5-4	Firm brown sandy silt	Natural deposit

Borehole 2

Depth (m)	Description	Interpretation
0-0.4	Brown gravelly clay	Made-ground
0.4-	Oranga brawn silty sand	Natural
1.2	Orange brown silty sand	deposit
1.2-	Orange brown silt and	Natural
1.8	sand	deposit
1.8-4	Firm brown sandy silt	Natural
1.8-4	Firm brown sandy silt	deposit

Borehole 3

Depth (m)	Description	Interpretation
0-0.4	Grey brown sandy clay with ash	Made-ground
0.4-	Firm brown gravelly clay	Natural
0.8	Thin blown graverry etay	deposit
0.8-	Orange brown sandy silt	Natural
1.2	Orange brown sandy sint	deposit
1.2-	Orange brown silty sand	Natural
2.2	Orange brown sirty saile	deposit
2.2-7	Brown sandy clay	Natural
2.2-1	Brown sandy clay	deposit
7-8	Soft to firm brown sandy	Natural
7-0	silt	deposit
8-10	Brown sand	Natural
8-10		deposit

Borehole 4

Depth (m)	Description	Interpretation
0-0.4	Soft grey brown gravelly clay	Made-ground
0.4-	Oranga brown sand	Natural
1.5	Orange brown sand	deposit
153	1.5-3 Firm brown sandy clay	Natural
1.5-5		deposit
3-5	Brown sand	Natural
3-3	Diowii saiiu	deposit
5-4 Firm brown sandy silt	Firm horses and sile	Natural
	deposit	

Borehole 5

Depth (m)	Description	Interpretation
0-0.5	Firm grey gravelly clay	Made-ground
0.5-	Firm brown sandy clay	Natural
1.2		deposit
1.2-	Firm brown silty clay	Natural
1.7		deposit
1.7-4 Grey sand	Natural	
	Grey saild	deposit

Borehole 6

Depth (m)	Description	Interpretation
0-0.3	Soft brown gravelly clay	Made-ground
0.3-	Firm grey brown gravelly	Natural
0.7	clay	deposit
0.7-	Coft heaven most	Natural
1.5	Soft brown peat	deposit
1.5-	Brown sand	Natural
3.4		deposit
3.4-4 Firm brown silty clay	Firm brown silty aloy	Natural
	Firm brown sifty clay	deposit

6. DISCUSSION

The earliest deposits encountered within the boreholes comprise brown sandy silts, sand, sandy clays and silty clays as well as grey sand. These deposits appear to relate to fluvial sand deposits formed after Lake Humber had drained towards the end of the last ice age (Gaunt 1987, 17).

These deposits are overlain by orange and yellow silty sands, sandy silts and sand with brownish gravelly clays probably relate to post-glacial alluvium which was deposited up to about 3000 BC (*ibid.* 19). Peat was only identified in Borehole 6 and represents a southern continuation of the surviving peat mire of the Humberhead Peatlands. As such, it has great potential for palaeo-environmental study.

Areas of made-ground were also encountered and may represent either warping, which occurred across the site, or possibly infilled peat workings.

No archaeological features were clearly identified and no artefacts were retrieved from the investigation.

7. CONCLUSION

An archaeological watching brief was undertaken between Tween Bridge Moor and Thorne Moor, Thorne, as the site lay in an area of archaeologically sensitive wetlands.

However, no archaeological remains were encountered. A sequence of deposits was identified which relate largely to glacial and post-glacial fluvial and alluvial deposits. Peat was encountered in a single borehole and areas of made-ground may indicate the position of infilled peat workings or evidence for warping.

8. ACKNOWLEDGEMENTS

Archaeological Project Services wishes to acknowledge the assistance of Mr N Wallace of Donaldson Associates Limited for commissioning the report and post-excavation analysis. Mr M Turner of ARCUS provided help and advice on the requirements of the watching brief. The work was coordinated by Dale Trimble who edited this report along with Tom Lane. Dave Start kindly allowed access to the library maintained by Heritage Lincolnshire.

9. PERSONNEL

Project Coordinator: Dale Trimble Site Supervisor: Fiona Walker Photographic reproduction: Sue Unsworth Illustration: Paul Cope-Faulkner Post-excavation analysis: Paul Cope-Faulkner

10. BIBLIOGRAPHY

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Van de Noort, R, 2001 'Thorne Moors: a contested wetland in north-eastern England', *The Heritage Management of Wetlands in Europe*, EAC occasional paper no. 1

11. ABBREVIATIONS

APS Archaeological Project Services

EAC Eurpae Archaeologiae Consilium

IFA Institute of Field Archaeologists

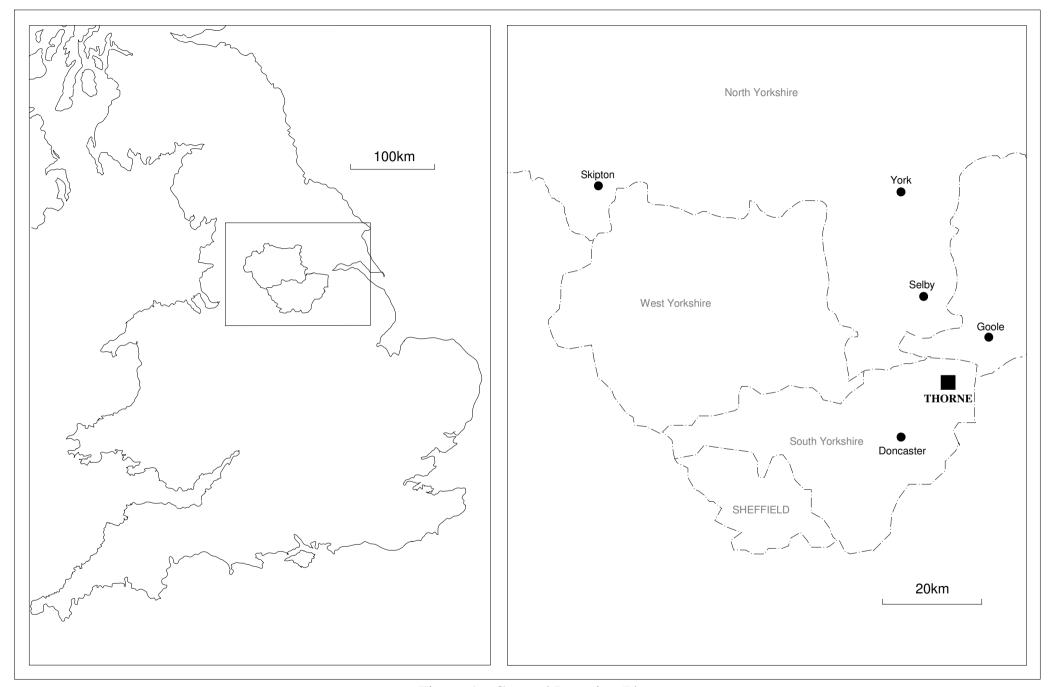


Figure 1 - General Location Plan

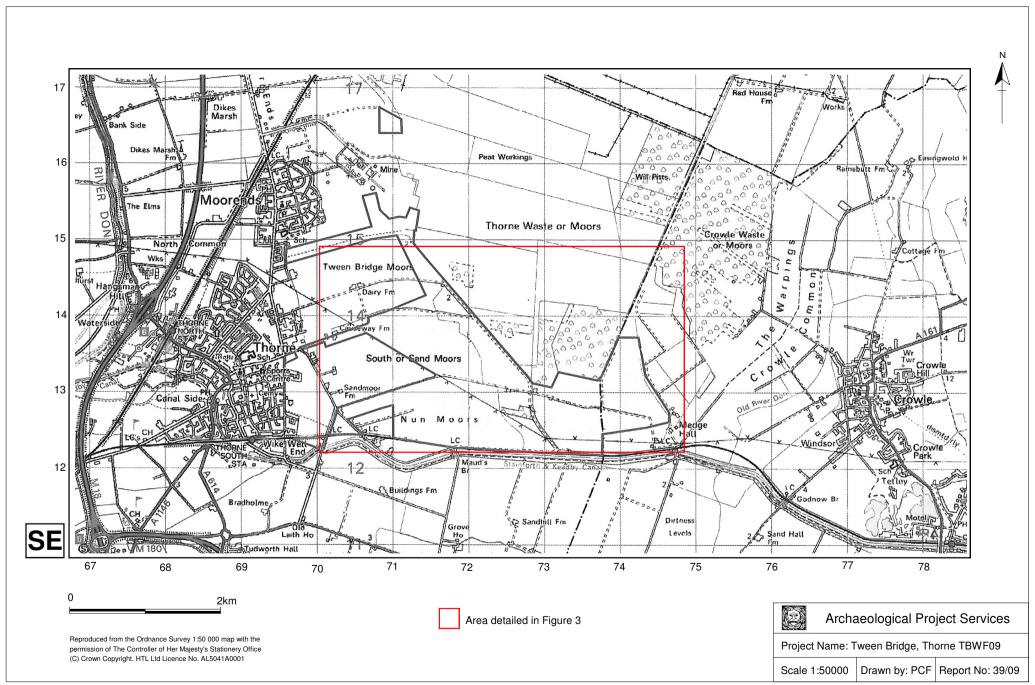


Figure 2 - Site location plan

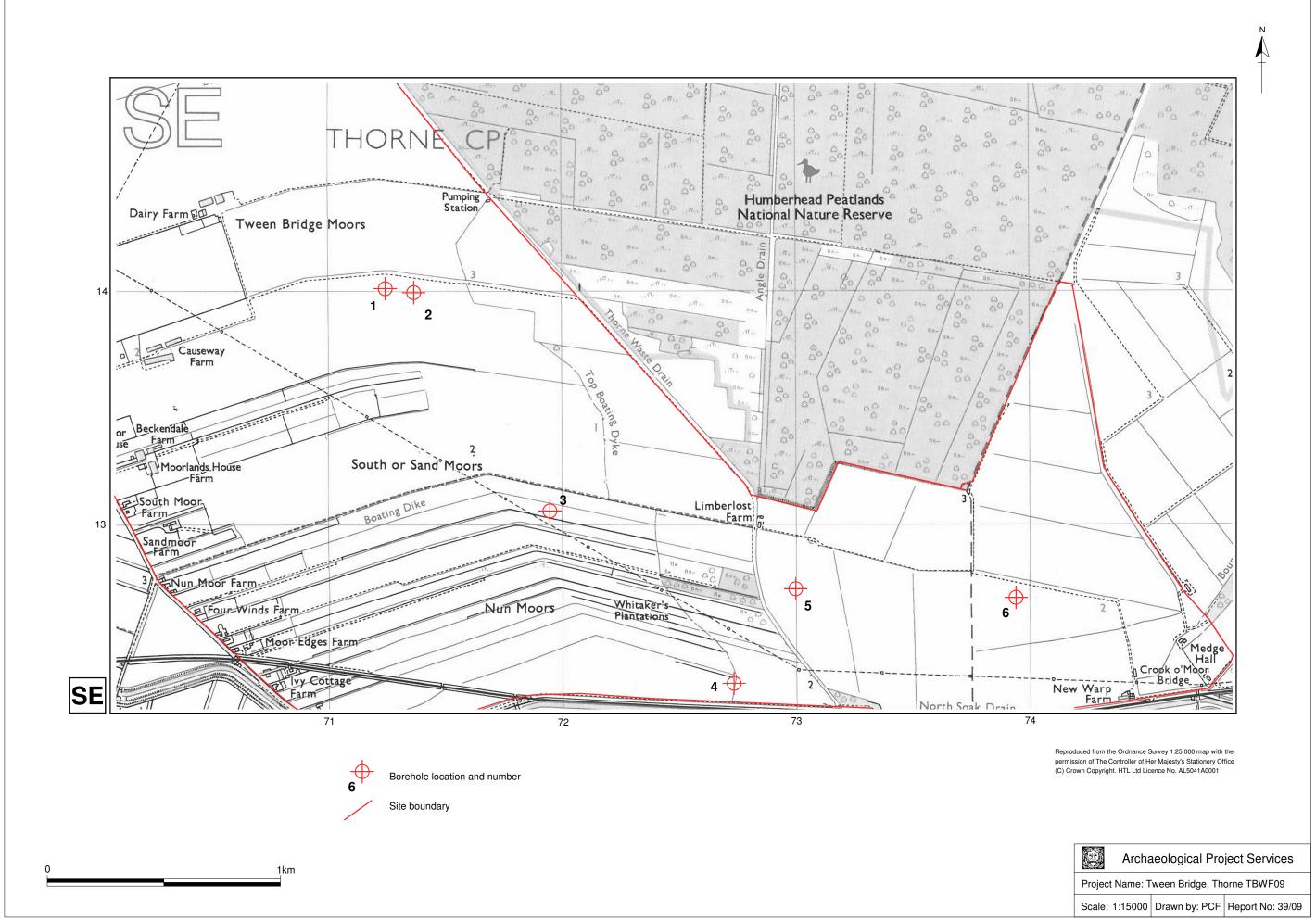


Figure 3 - Plan showing location of boreholes



Plate 1 – View looking west along the southern part of the site towards Borehole 4



Plate 2 – Borehole rig at Borehole 2



Plate 3 – View looking east across the areas of Boreholes 1 and 2

Appendix 1

GLOSSARY

Alluvium A deposit (usually clay, silts or sands) laid down in water. Marine alluvium is deposited

by the sea and freshwater alluvium by streams, rivers or within lakes.

Bronze Age A period characterised by the introduction of bronze into the country for tools, between

2250 and 800 BC.

Cropmark A mark that is produced by the effect of underlying archaeological features influencing

the growth of a particular crop.

Layer A layer is a term to describe an accumulation of soil or other material that is not

contained within a cut.

Medieval The Middle Ages, dating from approximately AD 1066-1500.

Natural Undisturbed deposit(s) of soil or rock which have accumulated without the influence of

human activity.

Neolithic The 'New Stone Age' period, part of the prehistoric era, dating from approximately

4500-2250 BC.

Post-medieval The period following the Middle Ages, dating from approximately AD 1500-1800.

Prehistoric The period of human history prior to the introduction of writing. In Britain the

prehistoric period lasts from the first evidence of human occupation about 500,000 BC,

until the Roman invasion in the middle of the 1st century AD.

Romano-British Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.

Saxon Pertaining to the period dating from AD 410-1066 when England was largely settled by

tribes from northern Germany.

Warping A practise whereby silt and clay are artificially deposited, usually by controlled

flooding, over ground to improve the condition of the soil.

Appendix 2

THE ARCHIVE

The archive consists of:

6 Borehole logs

1 Photographic record sheet

1 Daily record sheet

All primary records are currently kept at:

Archaeological Project Services The Old School Cameron Street Heckington Sleaford Lincolnshire NG34 9RW

The ultimate destination of the project archive is:

Doncaster Museum and Art Gallery Chequer Road Doncaster DN1 2AE

Archaeological Project Services Site Code:

TBWF 09

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the development site but away from the areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

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