2074

TILBURY WILDLIFE POND SITE
TILBURY
ESSEX:
ARCHAEOLOGICAL MONITORING AND RECORDING

Essex County Council
FIELD ARCHAEOLOGY UNIT
November 2010

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ARCHAEOLOGICAL MONITORING AND RECORDING

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	ECC HEM
	ECC HER
	Thurrock Museum

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TILBURY WILDLIFE POND SITE
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SUMMARY

Client: RWE Npower
FAU Project No.: 2074
NGR: TQ 65900 76700
Planning Application No.: 09/00008/TTGFUL
Site Code: THWS10
Dates of Fieldwork: 6th August 2010 & 1st October 2010

Archaeological monitoring of trial pits and groundworks for a pond and bund revealed no archaeological finds or features. A thin layer of peat was present across the site at an average mean depth of 1.5m, sealed below orange-grey clay and the topsoil. The presence of the peat deposit conforms to the general deposit model along the marshland of the Thames Estuary, although the relatively shallow depth beneath the present ground surface of this peat, compared with the much deeper deposits found elsewhere along the Thames marshland, may suggest that it formed after the prehistoric period.

One modern feature, containing plastic bags, was located in trial pit 4. This may represent an anti-glider ditch, excavated during the Second World War, but backfilled after the 1950s.

1.0 INTRODUCTION

This report presents the results of a programme of archaeological monitoring and recording at Tilbury wildlife pond, Tilbury Power Station (TQ 65900 76700), conducted by Essex County Council Field Archaeology Unit (ECC FAU) during groundworks for the excavation of a new pond. The fieldwork was undertaken in response to a condition (09/00008/TTGFUL) placed upon the development by Thurrock Borough Council following advice from Essex County Council Historic Environment Management team (ECC HEM), given in line with Planning Policy Guidance note 16 (DoE 1990), now replaced by Planning Policy Statement 5: Planning for the Historic Environment. The fieldwork was carried out in accordance with a written scheme of investigation provided by ECC FAU (2009), and was monitored by ECC HEM on behalf of the local planning authority.

Bound and digital copies of this report will be supplied to RWE Npower (including a copy for the Local Planning Authority), ECC HEM and the Essex Historic Environment Record (EHER). A digital copy of the report will be uploaded on the online access to the index of archaeological investigations (www.oasis.ac.uk). The site archive and copies of the report will be deposited at Thurrock Museum.

2.0 BACKGROUND

2.1 Location, Geology and Topography (Fig. 1)

The site is located on the West Tilbury Marshes, to the north of Tilbury Power Station and to the south of the Fenchurch Street to Shoeburyness railway line. A former breeze block factory was situated less than 1km to the south-east of the pond location. It is known that the West Tilbury Marshes, the area on which the site is located, were used as dumping grounds for the waste material produced by the manufacture of breeze blocks and by the power station itself. This material comprised ash and clinker. A disused railway line, that once connected the power station to the main railway line, runs along the north-western boundary of the site (Plate 1).

The site land-use comprised arable farmland. The geology of the site comprises alluvial marsh deposits beneath which are Thames alluvial gravels overlying chalk.

2.2 History and Archaeology

This historical and archaeological background is based on information held in the Essex Historic Environment Record (EHER) at County Hall, Chelmsford, and the RWE Npower New Build Development Project Consultancy Statement of Requirements for Contract number: MPC0928.

Buried peat beds in the Tilbury marshes are well-known sources of palaeo-environmental material that provides evidence for changes in climate, sea level and plant cover in the Mesolithic and Neolithic. Archaeological and geotechnical investigations along the Thames Estuary have revealed the presence of peat deposits. These are likely to be associated with a reduction in the rate of sea level rise at around 4000 to 1500 cal BC (Dr. Jane Sidell, pers. comm.) which resulted in the optimum environmental conditions for the formation of peat along the Thames Estuary.

There is evidence for Roman settlement and salt-working on the coastal marshland in the general area of the site. In 1920 the waterlogged remains of four wattle "hut circles" were found on the Thames foreshore at low tide (EHER 1694), together with large quantities of Roman pottery, including samian ware, dated to the 1st-2nd centuries AD (EHER 1734-5 and 1828). A salt extraction site is also suspected approximately 1km east of the site, as waste briquetage and Roman pottery have been found in this area (EHER 1829). These sites are generally known as 'red hills' from the colour of the briquetage debris found on them.

The wildlife pond site is located approximately 1.5km north-east of Tilbury Fort, a scheduled monument (SM 26309; EHER 1678). The original fort was built in the 1540s as a simple blockhouse, but after the Dutch raid up the Thames and Medway in 1667 it was completely rebuilt between 1670 and 1685 as a star fort with an improved artillery battery, bastions and a double moat. It was added to and refurbished in the 18th, 19th and 20th centuries.

The fort was situated in an area of largely uninhabited coastal salt marsh, as shown on Chapman and Andre's map of 1777, and the 1872 First Edition Ordnance Survey map still depicts the surrounding area, including the development site itself, as sparsely inhabited farmland and common, with a characteristic network or irregular field boundaries suggestive of piecemeal reclamation, and areas of true salt marsh still surviving towards the foreshore.

Construction of Tilbury A Power Station began in 1951, with the first unit synchronised to the national grid in 1956. Initially commissioned as a coal-fired station, the boilers were converted to burn oil before coming into full commercial operation. In 1981 Tilbury A effectively ceased operation and the station boilers and turbine hall were demolished in 1999. Construction of the coal-fired Tilbury B Power Station began in 1961 and the station was fully operational by 1969, following partial synchronisation to the national grid in 1967. In 2004 the coal jetty was extended to enable larger vessels, carrying up to 65,000 tons of coal, to be brought alongside. The power station has been identified in the National Monuments Protection Programme as an industrial site of "potential national importance" (EHER 15093).

Anti glider ditches, constructed during World War II, have been identified on aerial photographs to the north and north east of the power station (EHER 3967), including within the development site.

3.0 AIMS AND OBJECTIVES

The aim of the archaeological monitoring was to preserve by record any archaeological deposits that may be damaged or destroyed by the development. With specific objectives to identify:

- Evidence for the anti-glider ditches known to cross the site;
- Evidence for any earlier activity in the area relating to the settlement and exploitation of the marsh;
- Any palaeo-environmental material that may provide evidence for changes in climate, sea level and plant cover in the Mesolithic and Neolithic.

4.0 METHOD

The excavation of four, out of a total of six, trial pits was monitored prior to the start of the groundworks for the pond and bund area. Topsoil stripping across part of the development area was monitored by an archaeologist and the stripped area was inspected for archaeological deposits and artefacts. Unfortunately the bund area and the south-western half of the pond area were stripped of topsoil prior to archaeological monitoring and subsequently tracked over by plant, thereby obscuring the surface of the natural orange grey clay (Fig. 1, Plate 2).

The archaeological fieldwork was carried out in accordance with *IFA* standards and by-laws (IFA 1997), and especially the IFA *Standard and Guidance for Archaeological Watching Briefs* (IFA 1999), and ALGAO's *Standards for Field Archaeology in the East of England*, EAA Occ Paper 14 (Gurney 2003) throughout the project. The ECC FAU is a registered archaeological organisation with the *IFA*.

5.0 FIELDWORK RESULTS (Fig. 1)

5.1 Trial Pit 1

4m x 1m(max) x 3m

Aligned NW-SE

Depth (m)	Description
0.0 – 0.3	Topsoil
0.3 – 1.3	Orange grey clay
1.3 – 1.7	Peat
1.7+	Blue grey clay

5.2 Trial Pit 2

4m x 1m (max) x 3m

Aligned NW-SE

Depth (m)	Description
0.0 – 0.4	Topsoil
0.4 – 1.4	Orange grey clay
1.4 – 1.7	Peat
1.7+	Blue grey clay

5.3 Trial Pit 3

4m x 1m (max) x 3m

Aligned NW-SE

Depth (m)	Description
0.0 – 0.2	Topsoil
0.2 – 1.7	Orange grey clay
1.7 – 2.0	Peat
2.0+	Blue grey clay

A modern pit, measuring 3.9m+ x 1m+ x 1m, was sealed by topsoil (Fig. 2, Plate 3). It contained one fill, an orange-brown sandy silt with gravel inclusions. Finds included a length of cloth, plastic bags and blue waxed rope; none were retained for further analysis.

5.4 Trial Pit 4

4m x 1m (max) x 3m

Aligned NW-SE

Depth (m)	Description
0.0 – 0.3	Topsoil
0.3 – 1.7	Orange grey clay
1.7 – 2.1	Peat
2.1+	Blue grey clay

5.5 Pond and bund area excavation

No archaeological finds or features were identified. A similar deposit model, to that recorded in the trial pits, was present in the area of the pond.

6.0 CONCLUSION AND ASSESSMENT

Archaeological monitoring revealed no archaeological finds or features. One modern pit in Trial Pit 3 was identified. A thin layer of peat was present across the site at an average mean depth of 1.5m, sealed below orange-grey clay and the topsoil (Plate 4). The presence of the peat deposit conforms to the general deposit model along the marshland of the Thames Estuary. The relatively shallow depth of this thin peat deposit, compared with the much deeper peat deposits containing Mesolithic and Neolithic finds revealed elsewhere along the Thames marshland, might suggest that it formed after the prehistoric period.

It would appear that the West Tilbury Marshes were not greatly impacted upon by the human population until the 1940s with the excavation of anti-glider ditches, as shown in aerial photographs. It is possible that the modern pit was an anti-glider ditch, as it extended beyond both the south-western and north-eastern trial pit edges. However the finds within its fill, specifically the plastic bags, indicate that it was backfilled after the 1950s.

ACKNOWLEDGEMENTS

The ECC FAU would like to thank RWE Npower for commissioning and funding the archaeological investigation. Thanks are also due to Lorna Heffron of Tilbury Energy and Environment Centre.

The archaeological fieldwork was undertaken by Phillippa Sparrow. The figures were drawn by Andrew Lewsey.

BIBLIOGRAPHY

ECC FAU	2009	*Written scheme of investigation for archaeological monitoring and recording at Tilbury Pond Wildlife Site, Tilbury, Essex.*
Gurney, D.	2003	*Standards for Field Archaeology in the East of England*, E. Anglian Archaeol. Occ. Paper **14**

APPENDIX 1: ARCHIVE INDEX

THWS10 TILBURY POND WILDLIFE SITE, TILBURY, ESSEX

Index to the Archive

File containing:

1. Introduction

1.1 Brief for evaluation
1.2 WSI for evaluation

2. Research Archive

2.1 Client report
2.2 CD Rom

3. Site Archive

3.1 Trial pit record sheets
3.2 Context record register
3.3 Photographic register
3.4 Photograph contact sheet
3.5 Miscellaneous maps and plans
3.6 Section drawing of trial pit 3

APPENDIX 2: ESSEX HISTORIC ENVIRONMENT RECORD SUMMARY

Site Name/Address: Tilbury Pond Wildlife Site, Tilbury, Essex	
Parish: East Tilbury	***Borough:*** Thurrock
NGR: TQ 65900 76700	***Site Code:*** THWS10
Type of Work: Archaeological Monitoring and Recording	***Site Director/Team:*** Phillippa Sparrow ECC FAU
Dates of Work: 06/08/10 & 01/10/10	***Size of Area Investigated:*** c. 22000m²
Curating Museum: Thurrock Museum	***Funding Source:*** RWE Npower
Further Work Anticipated? No	***Related HER Nos.*** None
Final Report: Summary in EAH	***OASIS Ref:*** essexcou1-83818
Periods Represented: modern	
SUMMARY OF FIELDWORK RESULTS: *Archaeological monitoring of trial pits and groundworks for a pond and bund revealed no archaeological finds or features. A thin layer of peat was present across the site at an average mean depth of 1.5m, sealed below orange-grey clay and the topsoil. The presence of the peat deposit conforms to the general deposit model along the marshland of the Thames Estuary, although the relatively shallow depth beneath the present ground surface of the peat, compared with the much deeper deposits found elsewhere along the Thames marshland, might suggest that it formed after the prehistoric period.* *One modern feature, containing plastic bags, was located in trial pit 4. This may represent an anti-glider ditch, excavated during the Second World War, but backfilled after the 1950s.*	
Previous Summaries/Reports: None	
Author of Summary: P. Sparrow	***Date of Summary:*** 5th November 2010

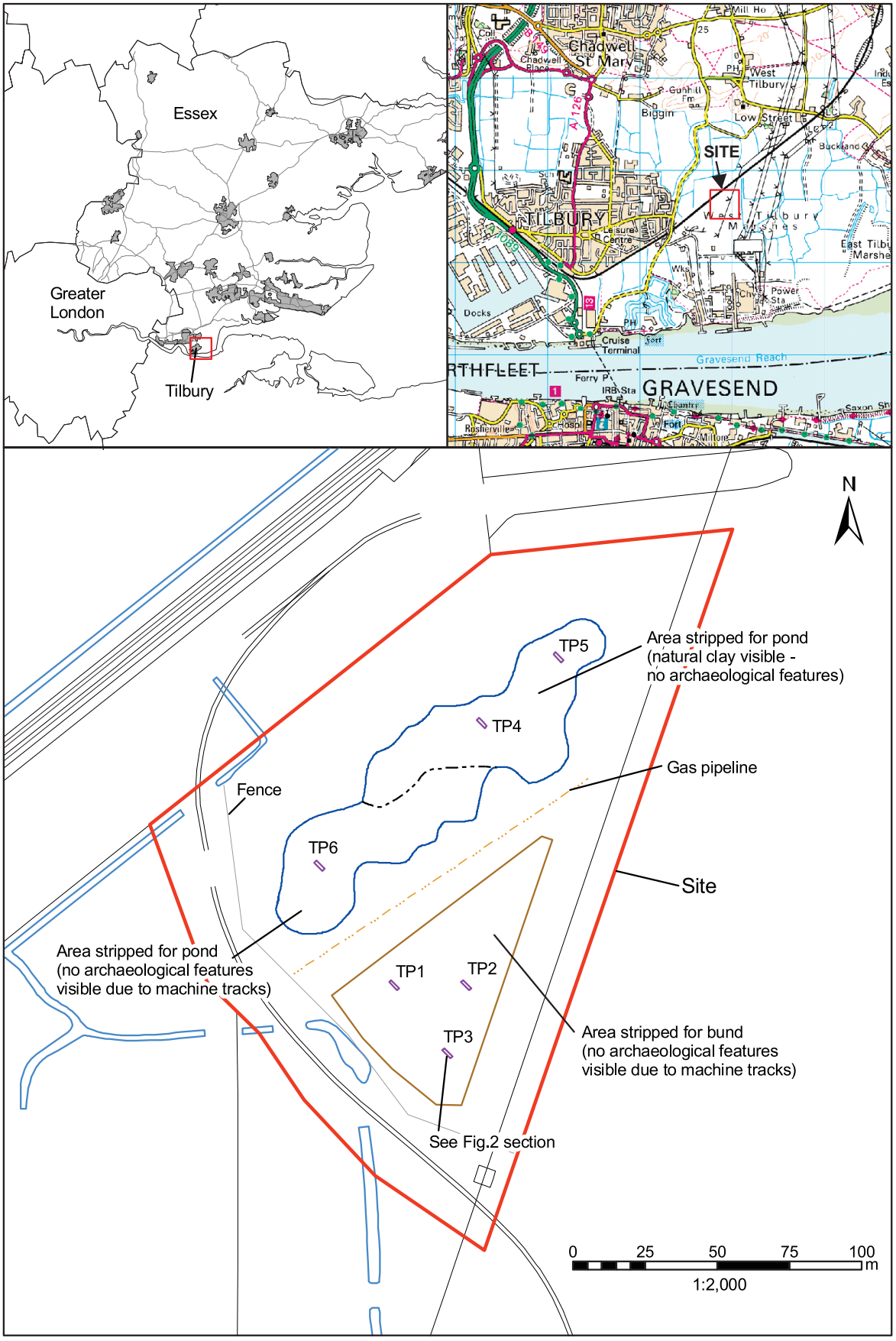

Fig.1. Site location

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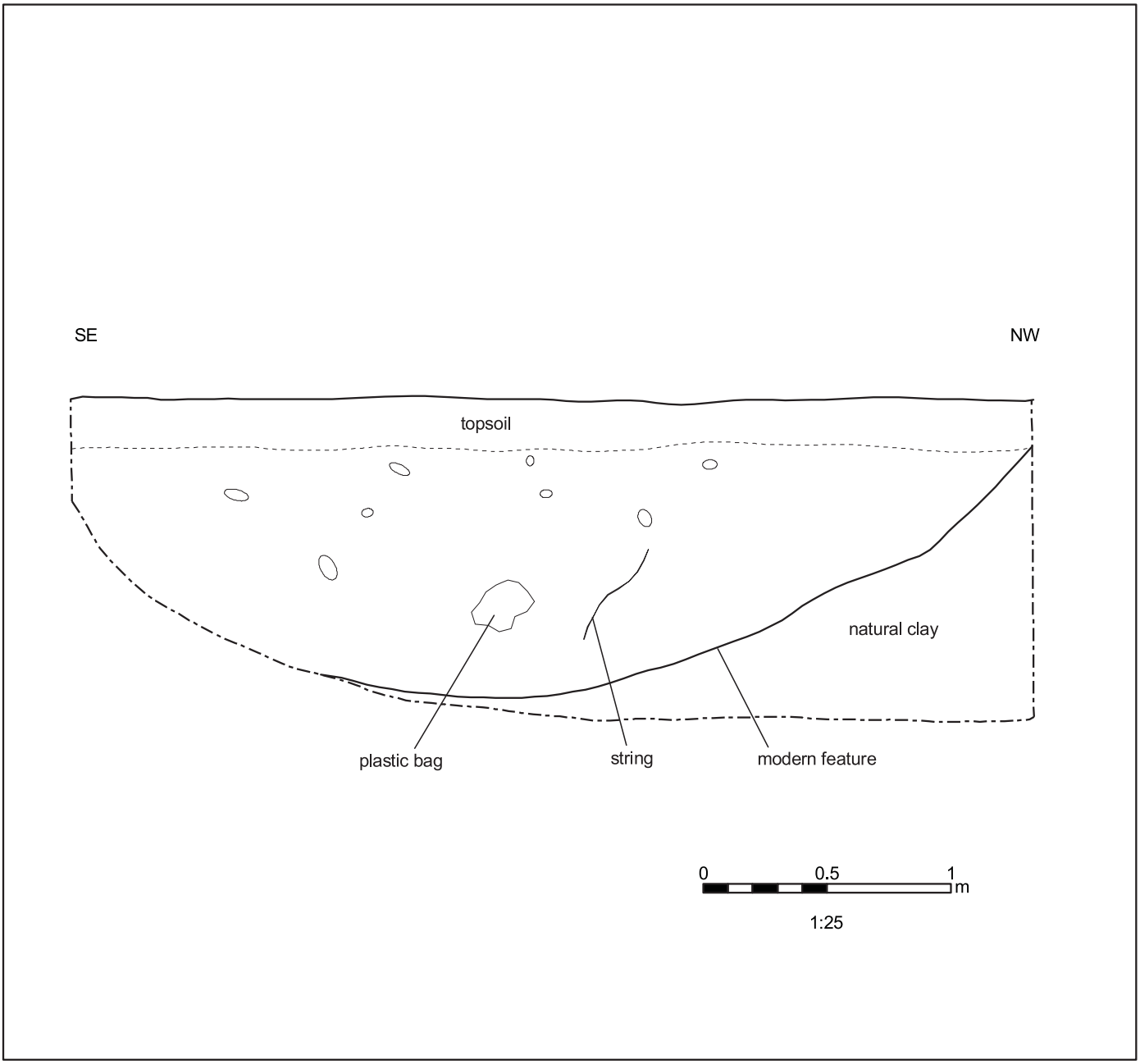

Fig.2. North-east facing section through test pit 3

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Plates

Plate 1. Disused railway line along the north-western site boundary. Looking south.

Plate 2. Bund area stripped but obscured by plant tracks.

Plate 3. Modern pit in Trial Pit 4. Looking south-east. 1m scale.

Plate 4. Site stratigraphy