

**ARCHAEOLOGICAL WATCHING BRIEF
LENHAM WASTEWATER TREATMENT WORKS
LENHAM HEATH ROAD
KENT**

NGR 590421 150872

**ASE Project No: 4860
Site Code: LWK 11**

**ASE Report No: 2011234
OASIS ID: archaeol6-111378**

By Chris Russel

October 2011

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Abstract

Archaeology South-East was commissioned by 4D to undertake an archaeological watching brief during ground works associated with construction of a new ferric dosing treatment kiosk at Lenham Wastewater treatment Works, Lenham Heath road, Kent.

Natural geology, consisting of clay alluvium was recorded between c. 92.64m and 91.87m OD across the monitored area. This was often truncated by activity associated with the present treatment works and was overlain by made ground with a thickness of 0.51m-0.80m.

A single undated linear feature was recorded, the location of which correlates strongly with a field boundary shown on 1897 Ordnance Survey map.

No finds were recovered during the watching brief.

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1.0 INTRODUCTION

1.1 Introduction

1.1.1 Archaeology South-East (ASE), the contracting division of the University College London (UCL) Institute of Archaeology (IoA) Centre for Applied Archaeology (CAA), was commissioned by 4D to undertake a programme of archaeological works during ground works associated with the construction of a new ferric dosing kiosk and associated infrastructure improvements at Lenham Wastewater Treatment Works (hereafter referred to as 'the site'). The site is centred on National Grid Reference (NGR) 590421 150872 and its location is shown in Figure 1.

1.2 Geology and Topography

1.2.1 According to current data from the British Geological Survey, the site lies on alluvium consisting of silty, peaty, sandy clay (BGS 2011). Head deposits occur immediately to the north of the site and it is bordered by mudstone to the east and west and Folkestone Formation sandstone to the south (*ibid*).

1.2.2 The site is situated at around 92.80m OD and comprises tarmac roads, reed beds and upstanding structures associated with the existing water treatment works located at the site. It is bounded on all sides by agricultural land.

1.3 Planning Background

1.3.1 The site was not subject to planning conditions but it was advised by KCC that as part of the statutory consultation process the works should be subject to an archaeological watching brief.

1.3.2 A *Specification* outlining the requirements for the archaeological work was subsequently produced by KCC (KCC 2011). All work was carried out in accordance with this document and with the relevant standards and guidance of the Institute for Archaeologists (IfA 2008).

1.4 Scope of Report

1.4.1 This report details the results of the archaeological watching brief undertaken during groundworks on the site. The work was undertaken between 13th of July and 2nd August 2011 by Chris Russel (Archaeologist), Kathy Grant (Archaeologist) and Giles Dawkes (Senior Archaeologist). The fieldwork was managed by Andy Leonard (Project Manager) and the post-excavation analysis was managed by Jim Stevenson (Project Manager).

2.0 ARCHAEOLOGICAL BACKGROUND

2.1 A 500m HER search centred on NGR 590421 150872 produced the following entries. These are marked on Figure 1.

KCC HER No	OS Coordinates (TQ)	Description
MKE 40149	590715 150306	Iron Age, Roman and medieval finds from east of Chapel Farm
MKE 40155	589924 150888	Worked Flints, Bronze Age pottery. Kiln Fragments
MKE 44172	-	Railway
MKE 44574	590538 151067	18 th Century cottages (now demolished)
MKE 71110	590200 151300	Iron Age copper Alloy Coin

Table 1: HER Search Results

- 2.1.1 There is evidence of prehistoric activity west of the site in the form of worked flints and Bronze Age pottery. Kiln fragments were also recovered in this area.
- 2.1.2 SSE of the site, in the area of Chapel Farm, evidence of activity from the Iron Age, Roman and medieval periods is recorded. Further Iron Age activity is evidenced north-west of the site by a single coin find.
- 2.1.3 Later activity is noted north of the site in the form of 18th Century farm cottages (now demolished) and the Sevenoaks, Maidstone and Tunbridge Wells branch railway which is still in use.

3.0 ARCHAEOLOGICAL METHODOLOGY

3.1 Methodology

- 3.1.1 All ground reduction and trenching was carried out under the constant supervision of an experienced archaeologist, with the exception of areas where prior truncation or disturbance could be demonstrated.
- 3.1.2 Wherever possible, machine excavation was undertaken using a tracked mechanical excavator equipped with a toothless ditching bucket. Where archaeological features or deposits were revealed, machining was stopped and excavation was continued by hand. The spoil from the machine excavations was scanned for the presence of any artefacts.
- 3.1.3 All encountered archaeological deposits, features and finds were excavated and recorded in accordance with the specification (KCC 2011) and with the relevant Standards and Guidance of the Institute of Archaeologists (IfA 2008), using pro-forma context record sheets. Archaeological features and deposits were planned at a scale of 1:50, with selected detail drawn at a scale of 1:20 or 1:10.
- 3.1.4 A photographic record of the work was kept and forms part of the site archive. The archive (quantified in Table 2), is presently held at ASE offices in Portslade, and will in due course be offered to a suitable local museum.

3.2 Aims and Objectives

- 3.2.1 The objectives of the archaeological watching brief, as set out in the specification (KCC 2011) were to contribute to heritage knowledge of Lenham through the recording of the archaeological remains exposed as a result of excavations in connection with the ground works.

3.3 Quantification of Archive

Number of Contexts	6
No. of files/paper record	1 file
Plan and sections sheets	1
Bulk Samples	none
Photographs	37 Digital
Bulk finds	none
Registered finds	none
Environmental flots/residue	none

Table 2: Site Archive Quantification

4.0 RESULTS (Figures 2, 3 and 4)

4.1 Introduction

4.1.1 The following ground works were subject to archaeological monitoring:

- Ground reduction of an area measuring 99.7m² to accommodate the construction of kiosk base.
- Hand excavation of a number of trial pits in order to locate existing service pipes (TP1A, 1B, 2A, 2B, 3A and 3B)
- The machine excavation of a north-south pipe trench (A)
- The machine excavation of a short section of east-west pipe trench (B)
- The excavation of two short trenches running north-west to south-east (C and D)

Number	Type	Description	Max. length	Max. width	Max. depth	Max. height (m OD)
001	Layer	Topsoil	-	-	1.5m	92.80m
002	Layer	Alluvial Clay Geology	-	-	-	92.64m
003	Layer	Made Ground	-	-	0.80m	92.70m
004	Cut	Cut of Linear Feature	0.80m	1.3m	0.40m	92.24m
005	Fill	Fill of Linear Feature	0.80m	1.3m	0.40m	92.24m
006	Layer	Made Ground/Subsoil	-	-	0.33m	92.44m

Table 3: List of recorded contexts

4.2 Test Pits

4.2.1 *Test Pits 1a and 1b*

Test pits 1a and 1b revealed natural clay geology [002] at 92.22m OD. This was overlain by a friable, mid dark brown fine silty clay topsoil [001] seen to a depth of 0.30m. Test pit 1a measured 1.5m wide by 4.10m long and Pit 2b measured 1.6m wide by 4.50m long.

4.2.2 *Test Pits 2a and 2b*

Test pits 2a and 2b revealed concrete at the limit of excavation (LOE) to a thickness of 0.17m overlain by made ground [003]. This made ground consisted of friable, mid grey brown clay silt with very frequent sub angular flint inclusions. The made ground was seen to a depth of 0.51m below ground level (BGL). Test pit 2a was 0.80m wide by 1.70m long and Test Pit 2b measured 0.59m wide by 1.56m long.

4.2.3 *Test Pits 3a and 3b*

Test Pit 3a was dug to a maximum depth of 0.77m and revealed made ground [003] overlain by 0.12m of topsoil [001]. These contexts were identical to those described above. Test Pit 3b was dug to a maximum depth of 0.55m and revealed made ground [003] to the LOE. No topsoil was present in this test pit. Test pit 3a measured 0.9m wide by 1.9m long and 3b measured 0.94m wide by 1.73m long.

4.3 Trenches

4.3.1 Trench A

The southern end of the pipe trench revealed natural alluvial clay [001] at approximately 92.36m OD. This was overlain by made ground [003] seen to a thickness of 0.5m. The sequence was capped by topsoil [001] recorded as being 0.10m deep. Mid trench the natural geology was seen at approximately 92.64m OD. This was overlain by 0.58m of made ground [003] and the sequence was capped by topsoil [001] seen to a depth of 0.70m. The northern end of the pipe trench revealed made ground [003] only to a depth of 0.60m. This trench was frequently interrupted by modern service pipes but contained a single linear feature [004] (see below).

4.3.2 Trench B

The short section of pipe trench dug east-west revealed 0.80m of made ground [003] capped by topsoil 0.15m deep. The geological horizon was not encountered in this trench.

4.3.3 Trenches C and D

Trenches C and D were dug in the south of the site and yielded similar results. Natural geology [002] at approximately 91.87m OD was overlain by made ground [003] to an approximate depth of 0.55m with the sequence capped by topsoil [001] of 0.15m depth.

4.4 The Kiosk Footprint

4.4.1 An area of existing hard standing and made ground was removed to accommodate the footprint of a new works kiosk. This revealed heavily truncated natural geology [002] which was encountered at approximately 92.35m OD in the south of the area rising to 92.45m in the north. No archaeological finds or features were observed within the kiosk footprint.

4.5 Archaeological Evidence

4.5.1 A single linear feature was observed during the excavation of the Trench A. This consisted of cut [004] which was 1.3m wide and 0.40m deep and ran approximately south east to north-west across Trench A. It was filled by a single fill [005] a friable, dark grey brown fine silt with rare sub angular flint inclusions. This feature had been truncated from above, presumably during construction work for the present water treatment works. It was overlain by a layer of made ground [006] which consisted of light to mid orangey grey brown silty clay. There is a strong correlation between this feature and the location of a field boundary shown on the 1897 Ordnance Survey map. No finds were recovered from the feature.

5.0 THE FINDS

- 5.1 No finds were recovered during the watching brief at Lenham Water Treatment Works.

6.0 DISCUSSION

6.1 Geology and Overburden

- 6.1.1 The natural alluvial geology [002] was encountered intermittently during the excavation at Lenham but was often truncated by modern activity associated with the existing water treatment works. This alluvium was encountered at approximately 92.64m OD in the north of the site and 91.87m OD in the south. The natural geology was almost always overlain by a layer of made ground [003] which varied between 0.51m and 0.80m in thickness. This made ground was presumably laid down during works associated with the construction of the present water treatment works. This sequence was intermittently capped by topsoil with an average depth of 0.15m

6.2 The Archaeological Evidence

- 6.2.1 A single linear feature [004] was recorded during the watching brief at Lenham. This was seen to run approximately north-west to south-east across Trench A. The feature had been truncated from above and the fill contained no dating evidence. There is a strong correlation between this linear feature and a field boundary shown on the 1897 Ordnance Survey map. This field boundary is dated by the KCC Historic Landscape Characterisation (K-LIS 2011) as 'late medieval or early post medieval'.

Bibliography

BGS 2011 *Geology of Britain viewer*

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K-LIS 2011. *Kent Landmark Information Service* <http://extranet7.kent.gov.uk/klis/> Last accessed 7.10.2011

Acknowledgements

ASE would like to thank 4D Ltd for commissioning the work and KCC for their guidance throughout the project.

HER Summary Form

Site Code	LWK 11					
Identification Name and Address	Lenham Wastewater Treatment Works					
County, District &/or Borough	Kent. Maidstone.					
OS Grid Refs.	590421 150872					
Geology	Alluvium					
Arch. South-East Project Number	3513					
Type of Fieldwork	Eval.	Excav.	Watching Brief	Standing Structure	Survey	Other
Type of Site	Green Field	Shallow Urban	Deep Urban	Other Infrastructure		
Dates of Fieldwork	Eval.	Excav.	WB. 13.7.11— 2.8.11	Other		
Sponsor/Client	4D					
Project Manager	Andy Leonard					
Project Supervisor	Chris Russel					
Period Summary	Palaeo.	Meso.	Neo.	BA	IA	RB
	AS	MED	PM	Other	Modern	
Abstract						
<p>Archaeology South-East was commissioned by 4D to undertake an archaeological watching brief during ground works associated with construction of a new ferric dosing treatment kiosk at Lenham Wastewater treatment Works, Lenham Heath road, Kent.</p> <p>Natural geology, consisting of clay alluvium was recorded between c. 92.64m and 91.87m OD across the monitored area. This was often truncated by activity associated with the present treatment works and was overlain by made ground with a thickness of 0.51m-0.80m.</p> <p>A single undated linear feature was recorded, the location of which correlates strongly with a field boundary shown on 1897 Ordnance Survey map.</p> <p>No finds were recovered during the watching brief.</p>						

OASIS Summary form

OASIS ID: archaeol6-111378

Project details

Project name	Watching Brief at Lenham heath WTW
Short description of the project	Archaeology South-East was commissioned by 4D to undertake an archaeological watching brief during ground works associated with construction of a new ferric dosing treatment kiosk at Lenham Wastewater treatment Works, Lenham Heath road, Kent. Natural geology, consisting of clay alluvium was recorded between c. 92.64m and 91.87m OD across the monitored area. This was often truncated by activity associated with the present treatment works and was overlain by made ground with a thickness of 0.51m-0.80m. A single undated linear feature was recorded, the location of which correlates strongly with a field boundary shown on 1897 Ordnance Survey map. No finds were recovered during the watching brief.
Project dates	Start: 13-07-2011 End: 02-08-2011
Previous/future work	Not known / Not known
Any associated project reference codes	LWK 11 - SM No.
Any associated project reference codes	4860 - Contracting Unit No.
Type of project	Recording project
Site status	None
Current Land use	Transport and Utilities 3 - Utilities
Monument type	LINEAR FEATURE Post Medieval
Significant Finds	NONE None
Investigation type	'Watching Brief'
Prompt	Planning condition

Project location

Country	England
Site location	KENT MAIDSTONE LENHAM Lenham WTW
Postcode	ME17 2BJ
Study area	2.00 Hectares
Site coordinates	TQ 590421 150872 50.9127256457 0.262636476320 50 54 45 N 000 15 45 E Point
Height OD / Depth	Min: 91.87m Max: 92.64m

Project creators

Name of	Archaeology South East
---------	------------------------

Organisation

Project brief originator 4 Delivery Ltd

Project design originator Kent County Council

Project director/manager Andy Leonard

Project supervisor Chris Russel

Type of sponsor/funding body 4D Ltd

Project archives

Physical Archive Exists? No

Physical Archive recipient Local Museum

Digital Archive recipient Local Museum

Digital Media available 'Images raster / digital photography'

Paper Archive recipient Local Museum

Paper Media available 'Context sheet', 'Report', 'Section'

Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)

Title AN ARCHAEOLOGICAL WATCHING BRIEF AT LENHAM WASTEWATER TREATMENT WORKS, LENHAM HEATHY ROAD, KENT

Author(s)/Editor(s) Russel,C.

Other bibliographic details REPORT NUMBER:2011234

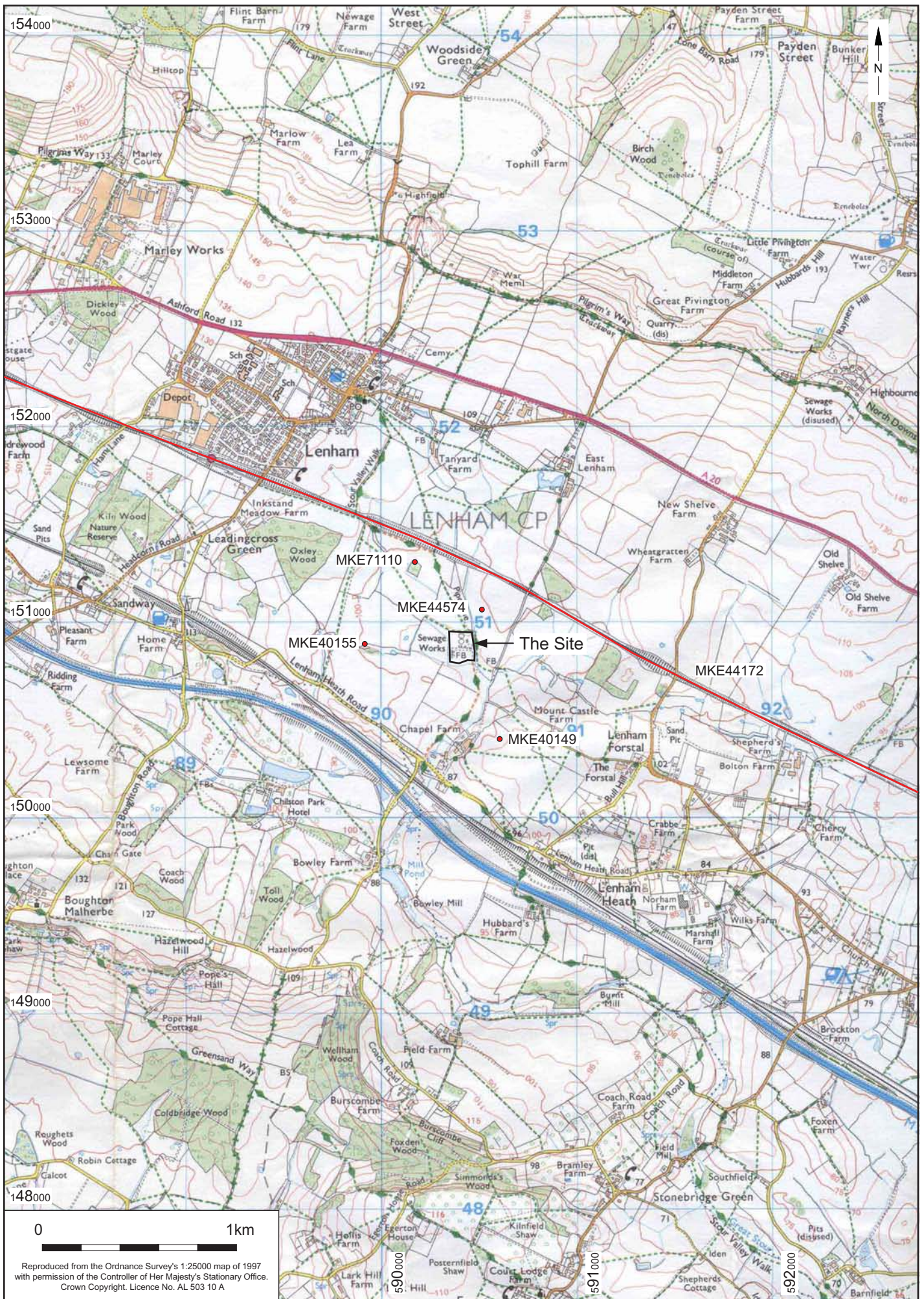
Date 2011

Issuer or publisher Archaeology South East

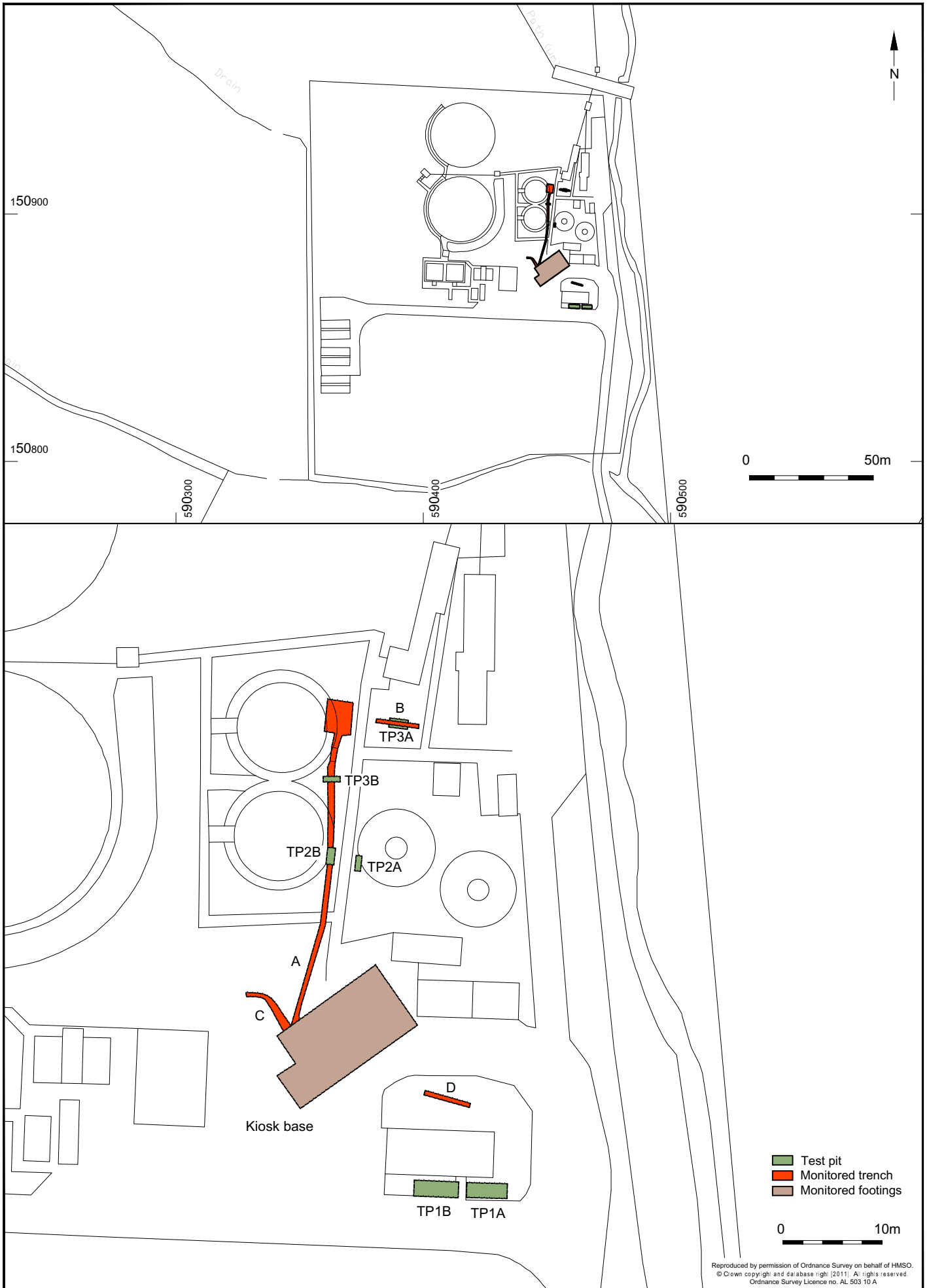
Place of issue or publication Portslade

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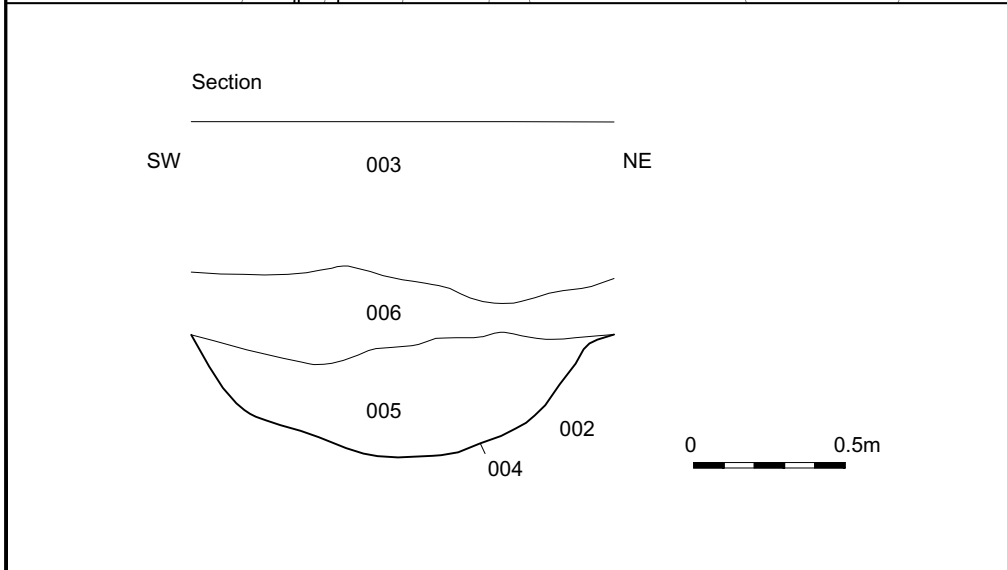
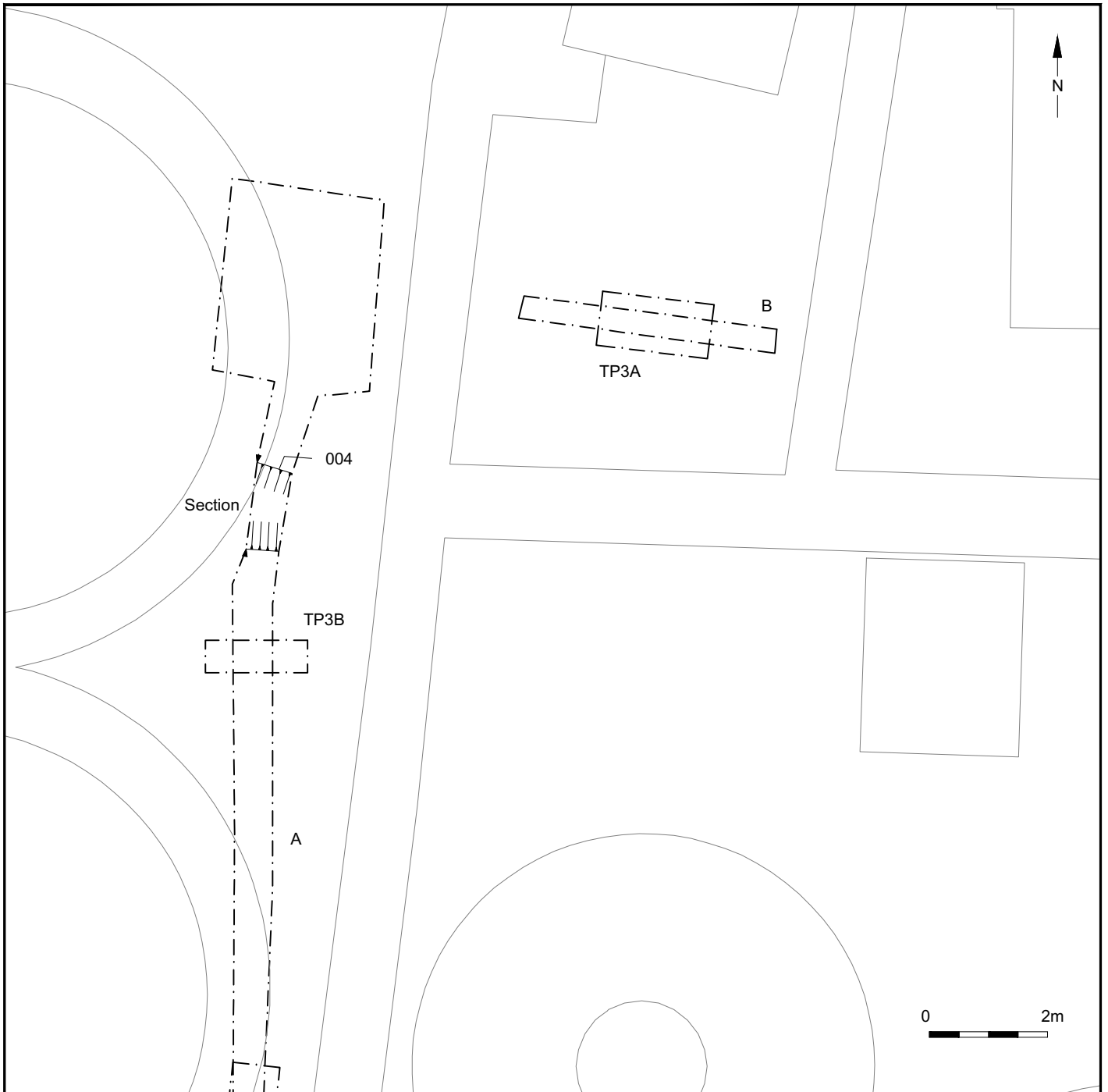
Entered on 6 October 2011



© Archaeology South-East		Lenham WTW		Fig. 1
Project Ref: 4860	Oct 2011	Site location and HER data		
Report Ref: 2011234	Drawn by: JLR			



© Archaeology South-East		Lenham WTW	Fig. 2
Project Ref: 4860	Oct 2011	Monitored areas	
Report Ref: 2011234	Drawn by: JLR		



© Archaeology South-East		Lenham WTW	Fig. 3
Project Ref: 4860	Oct 2011	Selected plan, section and photograph	
Report Ref: 2011234	Drawn by: JLR		



© Archaeology South-East		Lenham WTW	Fig. 4
Project Ref: 4860	Oct 2011	Monitored areas and Ordnance Survey 1897	
Report Ref: 2011234	Drawn by: JLR		

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