

**Archaeological Evaluation Report
Sandhurst Wastewater
Treatment Works
Kent**

**NGR: 581003 128937
(TQ 81003 28937)**

**ASE Project No: 170989
Site Code: SDT17
ASE Report No: 2018105
OASIS id: archaeol6-312178**



By Lucy May with Alice Dowsett

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Abstract

This report presents the results of an archaeological evaluation and borehole survey carried out by Archaeology South-East at the Sandhurst Wastewater Treatment Works, Sandhurst, Kent on 19 March 2018. The fieldwork was commissioned by Southern Water in advance of upgrading works within the late-20th century sewage works.

The borehole survey comprised the implementation of nine hand-excavated window samples targeted along a transect placed across the southernmost part of a possible medieval moat identified on Ordnance Survey maps and in an archaeological desk-based assessment. The window samples successfully confirmed the presence of waterborne deposits consistent with the infill of a moat. Extensive re-profiling of the site and the presence of large amounts of made ground, mean that the integrity of the possible moat deposits in the area of the site is questionable and no further assessment work has been suggested. However, it is the recommendation of this report that the earthwork forming the possible moat be added to the Kent Historic Environment Register.

The trial trenches encountered no archaeological finds, features or deposits within the area monitored on site which can generally be characterised as having been landscaped and levelled during the construction of the Wastewater Treatment Works.

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1.0 INTRODUCTION

1.1 Site Background

- 1.1.1 Archaeology South-East was commissioned by Southern Water to undertake a borehole survey and an archaeological trial trench evaluation at Sandhurst Wastewater Treatment Works (WTW), Sandhurst, Kent, centred on NGR 581003 128937, Figure 1. This report details the results of the work which was carried out on the 19th of March 2018.
- 1.1.2 The site comprises of a triangle of land located along an unnamed farm track off Crouch lane near Sandhurst. Small woodland surround the site on the north-eastern and south-eastern edge along with vineyards surrounding the entire site.
- 1.1.3 Previous archaeological work at the site includes a desk-based assessment (ASE 2107) and a geoarchaeological watching brief, which was carried out during preliminary geotechnical investigations undertaken in 2017 (ASE 2018). Both of these investigations identified a sunken feature in the north of the site, thought to be a medieval moated site, which is described in more detail in section 2 below.

1.2 Geology and Topography

- 1.2.1 The British Geological Survey (BGS 2018) shows the underlying geology as Wadhurst Clay Formation - Mudstone. Sedimentary bedrock formed approximately 134 to 139 million years ago in the Cretaceous period.
- 1.2.2 The site slopes from the western edge at its highest point 13.0m AOD to its lowest within the main area of treatment works, 11.1m AOD. As mentioned above in section 1.1.3, the area thought to be the medieval moated site, comprised of an area of make up for the current facilities followed by a sharp drop within the edge towards the moated area from 11.06m AOD to 9.84m AOD.

1.3 Planning Background

- 1.3.1 The trial trenching is in advance of proposed upgrading works within the late-20th century sewage works, which is still in service and comprises a mix of extant structures positioned over areas of grass and hardstanding.
- 1.3.2 The development falls within permitted works and this investigation is being conducted as best practice by Southern Water.

2.0 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

- 2.1.1 A full archaeological and historical background is presented in the DBA, (ASE 2017) and is summarised below.
- 2.1.2 The site is considered to lie within an area of generally low or unknown potential for most periods whilst the northern part of the WTW area has high potential in relation to the localised remains of a possible medieval moat feature.

2.2 Roman

- 2.2.1 Sandhurst was located at the centre of the Wealden iron industry from Roman times, although no iron-working evidence has yet been identified close to the site. The Weald produced over a third of all iron in Britain. Ironstone was taken from clay beds and then heated with charcoal from the abundant woods in the area. Many of the Roman roads in the wider area were built in order to transport iron.

2.3 Medieval

- 2.3.1 Medieval settlement in the Weald is typified by a dispersed pattern of farmsteads with associated open field systems (often enclosed at an early stage producing irregular field patterns), hamlets and moated sites. Isolated churches served these settlements. Much of the medieval settlement still exists as modern farmsteads. Higher status features of medieval settlement are less evident.
- 2.3.2 There is the possibility of the moated feature having been identified in the north of the site (Figures 1 and 2) and this type of monument is often associated with high status medieval settlement. The DBA assessed the dimensions of the feature as approximately 85m from north to south and 55m from east to west with a current depth of around 1m (N.B. it may have been partially infilled therefore not necessarily the original depth of the actual feature). The postulated maximum extent of the earthwork within the WTW is based on an amalgamation of resources (e.g. maps, aerial images and LiDAR imagery where the earthwork is shown). With the exception of the record of 'moat field' in the tithing surveys (c.1826), no further documentation could be found relating to this moat site, except its clear outline in 20th century OS mapping, aerial images and LiDAR imagery. The absence of documentary evidence for the moat site suggests that it may have been short-lived or abandoned relatively early and only therefore surviving in local memory, perhaps by the person farming the land in the first half of the 19th century. This assessment has shown that the northern part of the WTW area is likely to have been levelled and landscaped prior to previous construction works (resulting in the infilling of the moat).

2.4 Post-Medieval

2.4.1 Whilst there is increased activity recorded on the HER within the study area during the post-medieval period, the landscape character remains fairly static and rural across cartographic sources, which limits its potential for further, thus far unknown, remains to be identified

2.5 Project Aims and Objectives

2.5.1 The broad aims of the investigation, in keeping with previous similar projects are:

- To determine the presence or absence of archaeological remains on site
- To assess the character, extent, preservation, significance, date and quality of any remains and deposits
- To assess how they might be affected by the development of the site
- To establish the extent to which previous groundworks and/or other processes have affected archaeological deposits at the site
- To assess what options should be considered for mitigation

2.5.2 Specific aims relating to moated sites

2.5.3 The possible moated site, although previously unrecorded on the Kent HER database and consequently not scheduled by Historic England (as many other examples are) is considered to be of high archaeological potential and of regional significance. The island may contain evidence of the organisation and development through buildings or other structures, while the waterlogged moat is likely to contain evidence of the climate and economy in addition to normally perishable artefacts. The archaeological potential of the possible moat feature should be good since the continued waterlogging of the moat will provide excellent conditions for the preservation of normally perishable artefacts (in the bottom of the ditch), and also of evidence from seeds and pollen of the environment and economy of the site while it was in use. This will depend on the degree of survival in relation to the past impact of the construction works associated with the WTW. The site specific research aims include, but are not limited to the following:

- The borehole survey should try to identify any potential evidence of the climate and economy within the waterlogged deposits of the moat
- The borehole survey should collect samples to allow for the environmental assessment of seeds and pollen
- The evaluation should try to determine the presence of any normally perishable artefacts which have been preserved within the waterlogged deposits artefacts

- The trial trenching should try to establish if there is any evidence of the organisation and development through buildings or other structures on the island located within the site

2.6 South East Research Framework (SERF)

2.6.1 The South East Research Framework sets out the additional research agendas in relation to moated sites:

- Regional comparison of moated sites in order to understand their cultural and historical contexts and to explore these monuments and their related material culture and environmental and zooarchaeological evidence as indicators of social differentiation and change [*SERF: 28*]
- Survey and comparison of individual settlement layouts in terms of relationships with other features such as moats and manor houses as well as industry and trade [*SERF: 29*]

3.0 ARCHAEOLOGICAL METHODOLOGY

(Figure 2)

- 3.1 All fieldwork was carried out in accordance with the methodology set out in the Written Scheme of Investigation (ASE 2017) and with the Standards and Guidance of the ClfA (ClfA 2018).
- 3.2 The evaluation originally comprised of three trenches, however due to site constraints (see 3.7) only two could be excavated.
- 3.3 The trenches were located using GPS and scanned prior to excavation using a Cable Avoidance Tool (CAT) operated by accredited ASE personnel. A mechanical excavator fitted with toothless ditching bucket was used for excavation under archaeological supervision.
- 3.4 The trenches were excavated in spits of no more than 0.25m.
- 3.5 Upon CAT scanning the location of Trench 1 appeared to pick up some disturbance, whilst also, visually, there seemed to be a linear feature running across the trench. The site manager revealed there to be a service around that area so it was deemed unsafe to excavate and the trench was therefore moved approximately 1.5m to the west at the northern end, and 4.0m west at the southern end.
- 3.6 Trench 2 was shortened by c. 1.5m at the south-western end due to the presence of a road.
- 3.7 Trench 3, was located directly above a service and there was no space in which to move it to so it was not excavated.
- 3.8 All deposits were recorded using the standard context record sheets used by Archaeology South-East. All trenches were planned using digital survey technology. Sections were hand drawn at scales of 1:10 or 1:20. A digital photographic record was maintained.

4.0 GEOARCHAEOLOGICAL METHODOLOGY

- 4.1 All fieldwork was carried out in accordance with the methodology set out in the Written Scheme of Investigation (ASE 2017) and with the Standards and Guidance of the ClfA (ClfA 2018).
- 4.2 A borehole survey was required in order to assess the presence of a probable medieval moat. This required a transect of window samples to be placed across the probable moat, in order to obtain a cross-section of the sediments. A Terrier Rig/ window sampler was employed to carry this out, however once on the site, the operators decided that the rig would not be able to be placed in the desired locations. This was due to the incline of the bank, and limited space at the base of the bank. The Terrier Rig operators had specialist tools with them that can be used to quickly hand excavate window samples and it was agreed that this method of excavation should be used to create the transect. This was also possible because the Quaternary sediments were fairly shallow throughout the transect.
- 4.3 A transect of nine window samples, each measuring 0.40m in diameter, was carried out at the Sandhurst WTW, and was placed across a possible moat feature (Figure 2). The location of this transect was slightly different to the initially proposed location, and was placed more closely parallel to the site boundary. This was to ensure all current services were avoided, and to ensure that maximum potential for reaching the moat deposits was achieved.
- 4.4 All deposits were recorded using the standard window sample record sheets used by Archaeology South-East. All window samples were planned using digital survey technology. A digital photographic record was maintained for all excavated window samples.

4.5 Archive

4.5.1 The site archive is currently held at the offices of ASE and will be deposited at a suitable local repository in due course. The contents of the archive are tabulated below (Table 1).

Context sheets	6
Section sheets	0
Plans sheets	0
Colour photographs	0
B&W photos	0
Digital photos	16
Context register	1
Drawing register	0
Watching brief forms	0
Trench Record forms	2

Table 1: Quantification of site paper archive

Bulk finds (quantity e.g. 1 bag, 1 box, 0.5 box 0.5 of a box)	0
Registered finds (number of)	0
Flots and environmental remains from bulk samples	0
Palaeoenvironmental specialists sample samples (e.g. columns, prepared slides)	4
Waterlogged wood	0
Wet sieved environmental remains from bulk samples	0

Table 2: Quantification of artefact and environmental samples

5.0 ARCHAEOLOGICAL RESULTS

5.1 Trench 1

Context	Type	Interpretation	Length (m)	Width (m)	Depth(m)	Height (mAOD)
1/001	Layer	Topsoil	20	1.8	0.10-0.15	11.38-11.87
1/002	Layer	Made ground	20	1.8	0.27-0.33	-
1/003	Layer	Natural	20	1.8	-	12.15-12.54

Table 3: Trench 1 list of recorded contexts

5.1.1 This trench measured c. 20m x 1.8m. A yellow-orange (Wadhurst) clay was overlain by a geotechnical membrane covered with ballast. A thin topsoil deposit, consisting of a dark, grey-brown, silty clay, sealed all this.

5.1.2 No archaeological finds, features or deposits were encountered.

5.2 Trench 2

Context	Type	Interpretation	Length (m)	Width (m)	Depth(m)	Height (mAOD)
2/001	Layer	Topsoil	8.5	1.8	0.08-0.12	11.85-11.98
2/002	Layer	Subsoil	8.5	1.8	0.27-0.33	-
2/003	Layer	Natural	8.5	1.8	-	11.53-11.61

Table 4: Trench 2 list of recorded contexts

5.2.1 This trench measured c. 8.5m x 1.8m. A yellow-orange (Wadhurst) clay was overlain by a subsoil comprising of a mid, orange-brown, silty clay. A dark, grey-brown, silty clay topsoil sealed this.

5.2.2 No archaeological finds, features or deposits were encountered.

6.0 GEOARCHAEOLOGICAL RESULTS

6.1 Lithology

6.1.1 Nine window samples (WS101-WS109) were undertaken to assess the preservation of a possible medieval moat (Figure 2). Much of the Quaternary deposits were shallow and disturbed by made ground, though some possible natural riverine deposits were encountered.

6.2 WS101

Unit	Sediment description	Depth (m)	Height (mAOD)	Interpretation
001	Dry and loose grey-brown sandy clay with 50% SR flint pebbles. Well rooted.	0.00-0.36m	11.15-10.79	Topsoil
002	Firm mottled grey-blue and orange-brown clay with occasional angular mudstone inclusions.	0.36-0.78m	10.79-10.37	Weathered Wadhurst Clay Formation
004	Very stiff orange-brown mottled with light grey gravelly clay, gravel is angular mudstone	0.78m+	10.37+	Wadhurst Clay Formation

Table 5. Sediment log for WS101

6.2.1 WS101 comprised a stiff orange-brown, mottled with light grey, clay with mudstone inclusions [001], interpreted as the Wadhurst Clay Formation. This was overlain by a firm mottled grey-blue and orange-brown clay with mudstone inclusions [002], which was interpreted as weathered Wadhurst Clay Formation. A grey-brown sandy clay with flint gravel topsoil [001] sealed this.

6.3 WS102

Unit	Sediment description	Depth (m)	Height (mAOD)	Interpretation
001	Dry and loose grey-brown sandy clay with 50% SR flint pebbles. Rooted.	0.00-0.50m	10.89-10.39	Topsoil
002	Firm mottled grey-blue and orange-brown clay with occasional angular mudstone inclusions.	0.50-0.80m	10.39-10.09	Weathered Wadhurst Clay Formation
004	Very stiff orange-brown mottled with light grey gravelly clay, gravel is angular mudstone	0.80m+	10.09+	Wadhurst Clay Formation

Table 6. Sediment Log for WS102

6.3.1 WS102 comprised a stiff orange-brown, mottled with light grey, clay with

mudstone inclusions [001], interpreted as the Wadhurst Clay Formation. This was overlain by a firm mottled grey-blue and orange-brown clay with mudstone inclusions [002], which was interpreted as weathered Wadhurst Clay Formation. A grey-brown sandy clay with flint gravel topsoil [001] sealed this.

6.4 WS103

Unit	Sediment description	Depth (m)	Height (mAOD)	Interpretation
003	Firm orange-brown mixed with blue-grey sandy clay with concrete, CBM and clinker. Rooted.	0.00-0.62m	10.54-9.92	Made ground
002	Firm mottled grey-blue and orange-brown clay with occasional angular mudstone inclusions.	0.62-0.70m+	9.92-9.84+	Weathered Wadhurst Clay Formation

Table 7. Sediment Log for WS103

6.4.1 WS103 comprised a firm mottled grey-blue and orange-brown clay with mudstone inclusions [002], which was interpreted as weathered Wadhurst Clay Formation. This was not bottomed as water came in at depth. This was overlain by an orange-brown mixed with blue-grey sandy clay with CBM and concrete [003], this was interpreted as made ground.

6.5 WS104

Unit	Sediment description	Depth (m)	Height (mAOD)	Interpretation
003	Firm orange-brown mixed with blue-grey sandy clay with concrete, CBM and clinker. Rooted.	0.00-0.66m	10.12-9.46	Made ground
002	Firm mottled grey-blue and orange-brown clay with occasional angular mudstone inclusions.	0.66-0.95m+	9.46-9.17+	Weathered Wadhurst Clay Formation

Table 8. Sediment Log for WS104

6.5.1 WS104 comprised a firm mottled grey-blue and orange-brown clay with mudstone inclusions [002], which was interpreted as weathered Wadhurst Clay Formation. This was not bottomed as water came in at depth. This was overlain by an orange-brown mixed with blue-grey sandy clay with CBM and concrete [003], this was interpreted as made ground.

6.6 WS105

Unit	Sediment description	Depth (m)	Height (mAOD)	Interpretation
003	Firm orange-brown mixed with blue-grey sandy clay with concrete, CBM and clinker. Rooted.	0.00-0.34m	10.38-10.04	Made ground
005	Compact grey-brown silty-clayey gravel, with 50% gravel. Gravel is large rounded flint pebbles (50mm). Rooted and slightly organic in places with fragments of leaves.	0.34-0.68m	10.04-9.70m	Natural high-energy riverine deposit?
006	Soft dark-grey brown silty clay with occasional organics.	0.68-0.76m	9.70-9.62	Natural low-energy riverine deposit?
002	Firm mottled grey-blue and orange-brown clay with occasional angular mudstone inclusions.	0.76-0.86m+	9.62-9.52+	Weathered Wadhurst Clay Formation

Table 9. Sediment Log for WS105

6.6.1 WS105 comprised a firm mottled grey-blue and orange-brown clay with mudstone inclusions [002], which was interpreted as weathered Wadhurst Clay Formation. This was overlain by a dark-grey silty clay with occasional organics [006], which was interpreted as a possible low-energy natural riverine deposit. Overlaying this was a grey-brown silty clayey gravel [005] with occasional organics, which was interpreted as a possible natural high-energy riverine deposit. Finally, this was sealed by an orange-brown mixed with blue-grey sandy clay with CBM and concrete [003], this was interpreted as made ground.

6.7 WS106

Unit	Sediment description	Depth (m)	Height (mAOD)	Interpretation
003	Firm orange-brown mixed with blue-grey sandy clay with concrete, CBM and clinker. Rooted.	0.00-0.24m	10.00-9.76	Made ground
005	Compact grey-brown silty-clayey gravel, with 50% gravel. Gravel is large rounded flint pebbles (50mm). Rooted and slightly organic in places with fragments of leaves.	0.24-0.53m	9.76-9.47	Natural high-energy riverine deposit?
006	Soft dark-grey brown silty clay with occasional organics.	0.53-0.70m	9.47-9.30	Natural low-energy riverine deposit?
002	Firm mottled grey-blue and orange-brown clay with occasional angular mudstone inclusions.	0.70-0.82m+	9.30-9.18+	Weathered Wadhurst Clay Formation

Table 10. Sediment Log for WS106

6.7.1 WS106 comprised a firm mottled grey-blue and orange-brown clay with mudstone inclusions [002], which was interpreted as weathered Wadhurst Clay Formation. This was overlain by a dark-grey silty clay with occasional organics [006], which was interpreted as a possible low-energy natural riverine deposit. Overlaying this was a grey-brown silty clayey gravel [005] with occasional organics, which was interpreted as a possible natural high-energy riverine deposit. Finally, this was sealed by an orange-brown mixed with blue-grey sandy clay with CBM and concrete [003], this was interpreted as made ground.

6.8 WS107

Unit	Sediment description	Depth (m)	Height (mAOD)	Interpretation
003	Firm orange-brown mixed with blue-grey sandy clay with concrete, CBM and clinker. Rooted.	0.00-0.37m	10.11-9.74	Made ground
005	Compact grey-brown silty-clayey gravel, with 50% gravel. Gravel is large rounded flint pebbles (50mm). Rooted and slightly organic in places with fragments of leaves.	0.37-0.57m	9.74-9.54	Natural high-energy riverine deposit?
006	Soft dark-grey brown silty clay with occasional organics.	0.57-0.72m	9.54-9.39	Natural low energy riverine deposit?
002	Firm mottled grey-blue and orange-brown clay with occasional angular mudstone inclusions.	0.72-0.83m+	9.39-9.28+	Weathered Wadhurst Clay Formation

Table 11. Sediment Log for WS107

6.8.1 WS107 (figure 5) comprised a firm mottled grey-blue and orange-brown clay with mudstone inclusions [002], which was interpreted as weathered Wadhurst Clay Formation. This was overlain by a dark-grey silty clay with occasional organics [006], which was interpreted as a possible low-energy natural riverine deposit. Overlaying this was a grey-brown silty clayey gravel [005] with occasional organics, which was interpreted as a possible natural high-energy riverine deposit. Finally, this was sealed by an orange-brown mixed with blue-grey sandy clay with CBM and concrete [003], this was interpreted as made ground.

6.9 WS108

Unit	Sediment description	Depth (m)	Height (mAOD)	Interpretation
003	Firm orange-brown mixed with blue-grey sandy clay with concrete, CBM and clinker. Rooted.	0.00-0.45m	10.27-9.82	Made ground
005	Compact grey-brown silty-clayey gravel, with 50% gravel. Gravel is large rounded flint pebbles (50mm). Rooted and slightly organic in places with fragments of leaves.	0.45-0.58m	9.82-9.69	Natural high-energy riverine deposit?
006	Soft dark-grey brown silty clay with occasional organics.	0.58-0.72m	9.69-9.55	Natural low energy riverine deposit?
002	Firm mottled grey-blue and orange-brown clay with occasional angular mudstone inclusions.	0.72-0.81m+	9.55-9.46+	Weathered Wadhurst Clay Formation

Table 12. Sediment Log for WS108

6.9.1 WS108 (figure 5) comprised a firm mottled grey-blue and orange-brown clay with mudstone inclusions [002], which was interpreted as weathered Wadhurst Clay Formation. This was overlain by a dark-grey silty clay with occasional organics [006], which was interpreted as a possible low-energy natural riverine deposit. Overlaying this was a grey-brown silty clayey gravel [005] with occasional organics, which was interpreted as a possible natural high-energy riverine deposit. Finally, this was sealed by an orange-brown mixed with blue-grey sandy clay with CBM and concrete [003], this was interpreted as made ground.

6.10 WS109

Unit	Sediment description	Depth (m)	Height (mAOD)	Interpretation
001	Dry and loose grey-brown sandy clay with 50% SR flint pebbles. Well rooted.	0.00-0.10m	10.47-10.37	Topsoil
003	Firm orange-brown mixed with blue-grey sandy clay with concrete, CBM and clinker. Rooted.	0.10-0.50m	10.37-9.97	Made ground
002	Firm mottled grey-blue and orange-brown clay with occasional angular mudstone inclusions. Iron staining at the top of the deposit.	0.50-0.87m+	9.97-9.60+	Weathered Wadhurst Clay Formation

Table 13. Sediment Log for WS109

6.10.1 WS109 comprised a firm mottled grey-blue and orange-brown clay with mudstone inclusions [002], which was interpreted as weathered Wadhurst Clay Formation. This was overlain by an orange-brown mixed with blue-grey sandy clay with CBM and concrete [003], this was interpreted as made ground. A grey-brown sandy clay with flint gravel topsoil [001] sealed this.

7.0 THE ENVIRONMENTAL SAMPLES

7.1 Introduction

7.1.1 Four of the nine window samples encountered possible natural riverine deposits from between 9.39-9.76 mAOD. This included a possible riverine gravel deposit [005] and a possible silty clay riverine deposit [006]. Samples were taken from WS106, WS107 and WS108. Due to the nature of hand excavating the window samples, it was difficult to obtain clean samples from a definite known depth. This is the reason only a small range of samples could be obtained.

7.2 The Samples

Sample number	Unit	Type	Size (L)	Depth (m)	Height (mAOD)	Possible Proxy
1	005	Bulk	1	0.24-0.53	9.76-9.47	Pollen, Diatoms, Ostracods/forams
2	005	Bulk	1	0.37-0.57	9.74-9.54	Pollen, Diatoms, Ostracods/forams
3	006	Bulk	0.5	0.57-0.72	9.54-9.39	Pollen, Diatoms, Ostracods/forams
4	006	Bulk	0.1	0.72-0.83	9.69-9.55	Pollen, Diatoms, Ostracods/forams

Table 14. Samples from window samples

7.3 Environmental Sample Potential

7.3.1 Although the samples have the potential to hold palaeoenvironmental evidence, such as pollen, diatoms, ostracods and foraminifera, it is not possible to be certain that these deposits have not been disturbed by the considerable amount of re-profiling of the site, signified by the large amount of built up made ground.

8.0 DISCUSSION AND CONCLUSIONS

8.1 Overview of archaeological sequence

- 8.1.1 The stratigraphic sequence within both trenches was different. Trench 1 had natural geology overlain by a modern made ground deposit, c. 0.27-0.33m, followed by topsoil, c. 0.10-0.15m. Within Trench 2, the sequence comprised of natural geology overlain by a subsoil, c. 0.27-0.33m, sealed by topsoil, c. 0.08-0.12m.
- 8.1.2 The natural geology was encountered at its highest within Trench 1 at 12.55m AOD and its lowest within Trench 2 at 11.53m AOD.
- 8.1.3 No archaeological features, deposits or finds were recorded within the trenches.
- 8.1.4 The methodology, as set out in the WSI (ASE 2018), was successfully employed during the evaluation.

8.2 Deposit survival and existing impacts

- 8.2.1 It is clear from Trench 1 that the majority of the site has the potential to have been landscaped and levelled during the construction or improvements of the site, potentially removing any archaeological finds, features and deposits.
- 8.2.2 Trench 2 also suggests that the north-western corner of the site remains untouched from the construction of the WTW, however the trench was sterile of archaeological finds, features and deposits which could relate to the medieval moat.

8.3 Geoarchaeological Sequence by Alice Dowsett

- 8.3.1 From past historic records (ASE 2017) it was suggested that the Sandhurst WTW site was placed across a probable medieval moat feature (Figure 2) and window samples were employed accordingly to assess this presence. The sediments recorded demonstrated some potential for exhibiting deposits consistent with those from a moat. These possible riverine deposits are represented by Units [005] and [006] and were encountered between 9.30-10.04 m AOD (Figure 4). There is no record of this moat having been explored previously.
- 8.3.2 The results indicate that at the lowest point of the site at the base of the bank, along the north-east site boundary, lay deposits which may be related to the medieval moat (WS105-WS108). Directly overlying the weathered Wadhurst Formation is a band of soft dark grey-brown silty clay with occasional organics [006], c.0.08-0.17m. The colour of the deposits indicates that they have not undergone weathering, whilst the fine nature of the silty clay indicates a possible low-energy environmental for deposition in a river. This is then overlain by a band of compact grey-brown silty clayey gravel, with rounded flint pebbles and occasional organics [005], c.0.13-0.34m. This colour also indicates that the sediment has not undergone weathering, and the rolled nature of the gravel indicates possible high-energy riverine deposition. Made ground seals WS105-WS108.

8.3.3 WS101, WS102 and WS109 all exhibited Wadhurst Clay Formation sediment, directly overlain by topsoil and were of no further interest. WS103 and WS104 exhibited Wadhurst Clay Formation sediment, directly overlain by made ground and were also of no further interest.

8.4 Potential impact on archaeological remains

8.4.1 Due to the lack of archaeological finds and features and the extent of the modern disturbance within Trench 1, the proposed development is unlikely to impact on archaeological features or deposits within the evaluated areas as they are likely to have been lost in antiquity or not present.

8.5 Potential impact on geoarchaeological and palaeoenvironmental remains

8.5.1 The bank to the south of the window sample transect is likely completely built up of made ground, which then slopes down fairly steeply by ~1m towards the site boundary to the north. It appears that most of the remnants of the possible moat have likely been removed and replaced with made ground, and that the only surviving moat deposits lay against the north fence of the site, at the base of the slope of built up ground.

8.6 Consideration of research aims

8.6.1 The evaluation was successful in addressing and determining that there was no evidence of archaeological activity relating to medieval moat within the area monitored by trial trenching.

8.7 Consideration of geoarchaeological research aims specific to moated sites

8.7.1 The window sample survey successfully identified and mapped the potential deposits of the former probable medieval moat. Samples were collected to allow for environmental assessment, though there is possible contamination from the substantial made ground on the site. No waterlogged artefacts were encountered during the window sample survey.

8.8 Archaeological Conclusions

8.8.1 The trial trenches encountered no archaeological finds, features or deposits within the area monitored on site and can generally be characterised as having been landscaped and levelled during the construction of the Wastewater Treatment Works.

8.9 Geoarchaeological Conclusions

8.9.1 The window sample survey encountered deposits which indicated the presence of the past probable medieval moat. However, these deposits were limited in depth and range and may have been altered or contaminated by the considerable amount of re-profiling that has occurred on the site, in order to create the water treatment works. Although the samples taken during the borehole survey have the potential to hold palaeoenvironmental evidence, the integrity of these sediments is questionable, due to the extensive built up made

ground. It is therefore suggested that no further work is required for these samples, and that they may be discarded.

- 8.9.2 However, it is the recommendation of this report that the earthwork forming the possible moat be added to the Kent Historic Environment Register.

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ACKNOWLEDGEMENTS:

ASE would like to thank Southern Water for commissioning the work and for their assistance throughout the project, and Wendy Rogers County Archaeologist Kent County Council for her guidance and monitoring. The evaluation was directed by Lucy May and Alice Dowsett. Naomi Humphreys provided survey; Lauren Gibson and Rob Kaleta produced the figures for this report; Jon Sygrave managed the fieldwork and Dan Swift the post-excavation process.

HER Summary

Site code	SDT17				
Project code	170989				
Planning reference					
site address	Sandhurst WTW, Crouch Lane, Sandhurst,				
District/Borough	Kent				
NGR (12 figures)	581003 128937				
Geology	Wadhurst Clay				
Fieldwork type	Eval				
Date of fieldwork	19th March 2018				
Sponsor/client	Southern Water				
Project manager	Jon Sygrave				
Project supervisor	Lucy May and Alice Dowsett				
Period summary					
			Medieval		
Project summary	<p>This report presents the results of an archaeological evaluation and borehole survey carried out by Archaeology South-East at the Sandhurst Wastewater Treatment Works, Sandhurst, Kent on 19 March 2018. The fieldwork was commissioned by Southern Water in advance of upgrading works within the late-20th century sewage works.</p> <p>The borehole survey comprised the implementation of nine hand-excavated window samples targeted along as a transect placed across the southernmost part of a possible medieval moat identified on Ordnance Survey maps and in an archaeological desk-based assessment. The window samples successfully confirmed the presence of waterborne deposits consistent with the infill of a moat. Extensive re-profiling of the site and the presence of large amounts of made ground, mean that the integrity of the possible moat deposits in the area of the site is questionable and no further assessment work has been suggested. However, it is the recommendation of this report that the earthwork forming the possible moat be added to the Kent Historic Environment Register.</p> <p>The trial trenches encountered no archaeological finds, features or deposits within the area monitored on site which can generally be characterised as having been landscaped and levelled during the construction of the Wastewater Treatment Works.</p>				

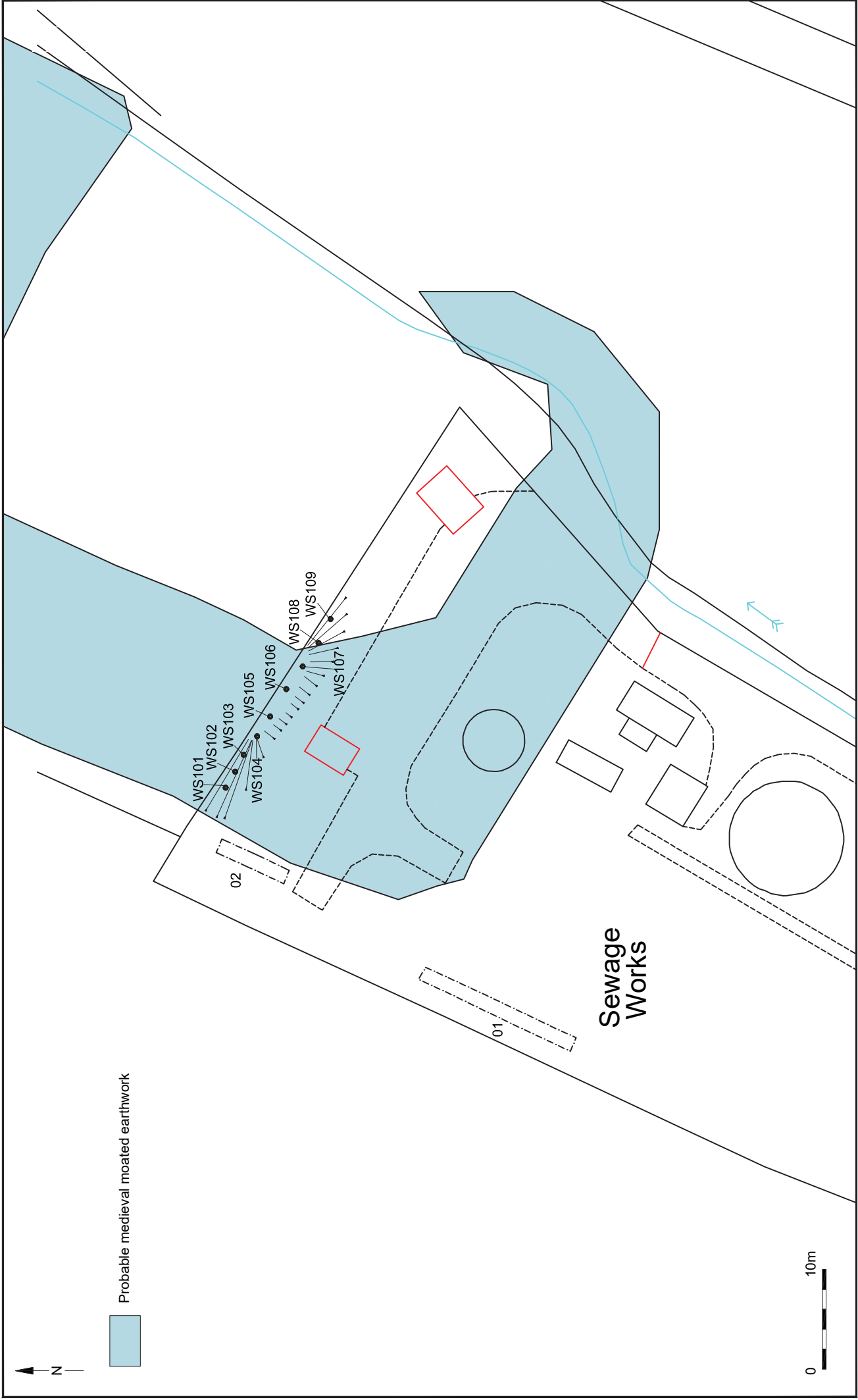
OASIS Form

OASIS ID: archaeol6-312178

Project details

Project name	A Borehole Survey and Archaeological Trial Trenching at Sandhurst Wastewater Treatment Works, Sandhurst, Kent
Short description of the project	<p>This report presents the results of an archaeological evaluation and borehole survey carried out by Archaeology South-East at the Sandhurst Wastewater Treatment Works, Sandhurst, Kent on 19 March 2018. The fieldwork was commissioned by Southern Water in advance of upgrading works within the late-20th century sewage works.</p> <p>The borehole survey comprised the implementation of nine hand-excavated window samples targeted along as a transect placed across the southernmost part of a possible medieval moat identified on Ordnance Survey maps and in an archaeological desk-based assessment. The window samples successfully confirmed the presence of waterborne deposits consistent with the infill of a moat. Extensive re-profiling of the site and the presence of large amounts of made ground, mean that the integrity of the possible moat deposits in the area of the site is questionable and no further assessment work has been suggested. However, it is the recommendation of this report that the earthwork forming the possible moat be added to the Kent Historic Environment Register.</p> <p>The trial trenches encountered no archaeological finds, features or deposits within the area monitored on site which can generally be characterised as having been landscaped and levelled during the construction of the Wastewater Treatment Works.</p>
Project dates	Start: 19-03-2018 End: 19-03-2018
Previous/future work	Yes / No
Any associated project reference codes	SDT17 - Sitecode
Any associated project reference codes	170989 - Contracting Unit No.
Type of project	Field evaluation
site status	None
Monument type	MOATED FEATURE Medieval
Methods & techniques	"Augering", "Sample Trenches", "Targeted Trenches"
Development type	Service infrastructure (e.g. sewage works, reservoir, pumping station, etc.)
Position in the planning process	Not known / Not recorded

Project location	
Country	England
site location	KENT TUNBRIDGE WELLS SANDHURST Sandhurst Wastewater Treatment Works
Postcode	TN18 5PB
site coordinates	TQ 81003 28937 51.03066433935 0.581642961213 51 01 50 N 000 34 53 E Point
Project creators	
Name of Organisation	Archaeology South East
Project brief originator	Archaeology South East
Project design originator	Archaeology South-East
Project director/manager	Jon Sygrave
Project supervisor	Lucy May
Type of sponsor/funding body	Southern Water
Name of sponsor/funding body	Southern Water
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", "Photograph", "Survey "
Entered by	Lucy May (l.may@ucl.ac.uk)
Entered on	20 March 2018



• Archaeology South-East		Sandhurst Wastewater Treatment Works, Kent	
Project Ref: 170989	Mar 2018	Location of trial trenches and boreholes	
Report Ref: 2018105	Drawn by: RK		

Fig.2



Trench 1 looking north-east



Trench 1 looking south-west



Trench 2 looking north-east



Trench 2 looking south-west

• Archaeology South-East		Sandhurst Wastewater Treatment Works, Kent	Fig.3
Project Ref: 170989	Mar 2018	Trench photographs	
Report Ref: 2018105	Drawn by: RK		



© Archaeology South-East		Sandhurst Wastewater Treatment Works, Kent	
Project Ref: 170989	April 2018	Indicative section along window sample transect	
Report Ref: 2018:105	Drawn by: LG		

Fig.4



WS107



WS107



WS108



WS108



General area shot

© Archaeology South-East		Sandhurst Wastewater Treatment Works, Kent	
Project Ref: 170989	April 2018	Selected window sample photographs and transect area shot	
Report Ref: 2018:105	Drawn by: LG		

Fig.5

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