

# Archaeological Monitoring and Recording of Geotechnical Test pits, Watford, Hertfordshire



## Archaeological Watching Brief Report



September 2013

**Client: Geotechnical Engineering  
Limited on behalf of AECOM**

OA East Report No: 1523

OASIS No: oxfordar3-159700

NGR: TL 10878 95475

**Archaeological Monitoring and Recording of Geotechnical Test pits, Watford,  
Hertfordshire**

*Site Code: XHT CAR 13*

*Project No; 15943*

*Date of Works: 30th July to 20th August 2013*

*Report No:1523*

*Excavator: Helen Stocks-Morgan, Michael (Tam) Webster.*

*Client: Geotechnical Engineering Limited on behalf of AECOM*

*Report Date: September 2013*

## Table of Contents

<b>Summary.....</b>	<b>5</b>
<b>1 Geology and Topography.....</b>	<b>7</b>
<b>2 Archaeological Background .....</b>	<b>7</b>
<b>3 Methodology.....</b>	<b>7</b>
<b>4 Results.....</b>	<b>8</b>
4.1 Introduction.....	8
4.2 Test pit 19.....	8
4.3 Test pit 23.....	9
4.4 Test pit 24.....	9
<b>5 Discussion and Conclusions.....</b>	<b>9</b>
5.1 Discussion.....	9
5.2 Significance.....	9
5.3 Recommendations.....	10
<b>6 Acknowledgements.....</b>	<b>10</b>
<b>Bibliography .....</b>	<b>10</b>
<b>Appendix A. Trench Descriptions and Context Inventory.....</b>	<b>11</b>
<b>Appendix B. OASIS Report Form .....</b>	<b>24</b>

### List of Figures

- Fig. 1 Site location map  
Fig. 2 Location of test pits  
Fig. 3 Selected Test Pit sections

### List of Plates

- Plate 1 Buried soil in Test Pit 3  
Plate 2 Upper terrace river gravels Test Pit 5  
Plate 3 Machining of Test Pit 20  
Plate 4 Buried skip in Test Pit 13  
Plate 5 Wall in Test Pit 19  
Plate 6 Pit in Test Pit 23  
Plate 7 Wall in Test Pit 24  
Plate 8 Chalk natural base of Test Pit 26.  
Plate 9 Palaeo-deposit Test Pit 11  
Plate 10 Palaeo-deposit Test Pit 10



## **Summary**

*Between 30th July and 20th August 2013, OA East carried out an archaeological watching brief on land at Watford General Hospital (TL 10878 95475). The monitoring was carried out during a programme of geotechnical investigations. No Archaeological remains were observed during the site investigation. Two of the test pits exposed evidence of walls, one contained a pit, these were modern, of 19th to 20th century date. Two test pits contained evidence of palaeo-deposits and one the remains of a buried soil, each sealed the natural gravel, no features or finds were observed associated with these layers, but they indicate the potential for archaeological survival at these locations.*



## 1 GEOLOGY AND TOPOGRAPHY

- 1.1.1 The site is located on an industrial estate to the south-west of Watford Town Centre approximately 300m to the north of the River Colne (centred on TQ 1083 9554, Figure 1). To the north of the site are allotment gardens, to the east of the site are terraced houses. The site is located at a height of approximately 53.5m AOD
- 1.1.2 The underlying geology in the vicinity of Watford comprises of Seaford Chalk. The superficial deposits which were encountered during the excavations comprised of Alluvium, clay and silts (BGS).

## 2 ARCHAEOLOGICAL BACKGROUND

- 2.1.1 The site is located on an industrial estate to the south-west of Watford Town Centre approximately 300m to the north of the River Colne on river terrace deposits (centred on NGR 510872 195813). To the north of the site are Allotment Gardens, to the east of the site are terraced houses. The site is located at a height of approximately 53.5m AOD.
- 2.1.2 The Environmental Impact Assessment heritage chapter (AECOM) has identified that a number of heritage assets, namely post medieval buildings are located within a 500m radius of the site, no other heritage assets are recorded within the vicinity. Given its proximity to the river Colne there is a possibility of prehistoric activity on the site.

## 3 METHODOLOGY

- 3.1.1 The objective of this watching brief was to observe and record the geotechnical test pits.
- 3.1.2 The Brief required that a suitably qualified archaeologist was present during the excavation of the test pits.
- 3.1.3 The area of investigation was located on an industrial estate to the south-west of Watford Town Centre approximately 300m to the north of the River Colne (centred on NGR 510872 195813).
- 3.1.4 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales digital photographs were taken of all relevant features and deposits.
- 3.1.5 Site conditions were mainly hot and dry with occasional showers. The varied land use ie industrial units, car parking, disused industrial land, sports ground and woodland, did inhibit access to parts of the site by machine. This resulted in some of the test pits being hand dug and some not dug at all.



## 4 RESULTS

### 4.1 Introduction

- 4.1.1 Test pits were pre-numbered by Geotechnical Engineering and this system was adhered to when recording the strata. The test pits started at the western end of Cardiff Road industrial estate, close to Laurence Haines School and continued east, stopping at the Watford Irish Club playing fields (see fig. 2 for location).
- 4.1.2 Thirteen test pits were machine excavated (using a JCB wheeled digger, plate 3), up to a depth of 3m, a width of 0.7m and a length of between 2 and 3m, a further 12 test pits were hand dug. The descriptions for each test pit are recorded in appendix A. Where individual test pits vary from the standard they are described in more detail below. A total of five test pits (15, 18, 25, 27 and 28) were not excavated test pit 8 did not require archaeological monitoring.
- 4.1.3 A total of ten test pits (figure 3) exposed natural river gravels, test pits 5 (Plate 2), 29, 30 and 31, located on higher ground, to the north of Cardiff Road, showed evidence of upper terrace gravels, test pits 2, 3, 4, 7, 10, and 11, located on the lower ground, each side of the river Colne, exposed the lower terrace gravels.
- 4.1.4 A single test pit (26), exposed the natural chalk (Plate 8), test pit 13 exposed the remains of a buried skip (Plate 4).
- 4.1.5 Test pits 10 and 11, located close to and on the south side of the river contained evidence of palaeochannel or flood deposits which sealed natural river gravels. (Plates 9 and 10).
- 4.1.6 Test Pit 3, located north of Cardiff Road contained a sealed garden soil which had been partially truncated by the modern layers associated with the current yard surface. (Plate 1).
- 4.1.7 Three of the test pits contained remains of brick walls and a pit, these are described in more detail below.

### 4.2 Test pit 19

- 4.2.1 This test pit was located in the overspill car park, south of Cardiff Road. After cutting through a concrete slab with a breaker the test pit was excavated to a depth of 2.20m and in so doing exposed the remains of two walls (19.7 and 19.8 respectively).
- 4.2.2 Because of the unstable sides of the test pit access was not possible, therefore all recording took place from the top edge of the test pit.
- 4.2.3 Wall 19.7 was aligned SE-NW, at 0.30m wide and 1.70m high, the top of the wall was exposed at 0.48m below current ground level and constructed of brick and mortar. (Plate 5)
- 4.2.4 Wall 19.8, was more difficult to interpret, it appeared to be N-S aligned across the west end of the test pit. The machine excavator had cut through the brick work and exposed a large void against the east side of the wall, this is interpreted as being the remains of a subterranean cellar.
- 4.2.5 The building, possibly of early 20th century date, is likely to have been associated with a power station complex, known to have existed on the site.

### **4.3 Test pit 23**

- 4.3.1 This test pit was located towards the east part of the site, on the opposite side of the road to the Irish Centre. The test pit was excavated to a depth of 3m cutting through a modern hardcore surface (23.1) at 0.50m thick, which had truncated the upper parts of a pit 23.4.
- 4.3.2 The pit was only partially exposed, 0.70m deep with a very steep edge, containing two fills, a grey blue clay (23.2), sealing (23.3) a charcoal rich and clay, silt, gravel deposit (Plate 6).
- 4.3.3 The pit was cut into a blue orange clay (23.4) which was up to 2.50m thick and was dated to the mid 19th century

### **4.4 Test pit 24**

- 4.4.1 This test pit was located close to test pit 23, on the opposite side of the road to the Irish Centre. The test pit was excavated to a depth of 3m cutting through a tarmac surface (24.1) and a modern make up deposit (24.2) over a concrete slab (24.4), exposed in the base of the test pit.
- 4.4.2 A brick wall (24.3. Plate 7) was exposed in the side of the test pit at 1.50m below ground level. This modern structure possibly forms part of a subterranean chamber or cellar.

## **5 DISCUSSION AND CONCLUSIONS**

### **5.1 Discussion**

- 5.1.1 Although a large sample of the proposed development site was observed no significant archaeological remains were encountered. A single pit and a series of brick walls were associated with activity of the late 19th into the 20th century. Some of the test pits within the western end of the site confirmed the presence of river terrace gravels and remains of paeleochannel/ flood deposits. Three test pits were not excavated due to access issues. Test pit 25 located in the sports ground and test pits 27 and 28 to the north, of the Irish Centre, were possibly situated in an area of river gravel and paeleo deposits.

### **5.2 Significance**

- 5.2.1 The archaeological monitoring of the geotechnical pits confirmed the presence of palaeochannel deposits and terrace river gravels. The restrictive size of the test pits and lack of dating evidence could not omit the possibility of there being prehistoric activity in the area, the test pits also established that large areas of the site had been heavily truncated during industrial activity in the 19th to 20th century. Some of the test pits, not excavated, were possibly located in areas of river gravels, suggesting that archaeological remains may be present.

## 5.3 Recommendations

- 5.3.1 Recommendations for any future work based upon this report will be made by the County Archaeology Office.

## 6 ACKNOWLEDGEMENTS

- 6.1.1 The author would like to thank AECOM who commissioned and funded the archaeological work. The project was managed by Richard Senior of Geotechnical Engineering Ltd.
- 6.1.2 The site monitoring work was carried out by Helen Stocks Morgan and Michael Tam Webster, with the help of Steve Graham. The Project manager was Aileen Connor and the Illustrations by Lucy Gane.

## BIBLIOGRAPHY

## APPENDIX A. TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

Trench 1						
<b>General description</b>					<b>Orientation</b>	
Test Pit 1 was located within an industrial unit/brick yard mid way along and to the north of Cardiff Road. Because of the problem with sit access this proposed machine dug test pit was hand dug.					<b>Avg. depth (m)</b>	
					1.2	
					<b>Width (m)</b>	
		0.5		<b>Length (m)</b>		
		0.5				
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
1.1	Layer		0.26	Top Soil, Dark brown silty sand plus cinders		
1.2	Natural		0.94	Mid orange gravel and clay		

Trench 2						
<b>General description</b>					<b>Orientation</b>	
Test Pit 2 was located in a scrap yard within the western part of the site, south of Cardiff Road. Because of site access the position of the test pit was moved approximately 50m to the NW of its original position. Method of Excavation: JCB Excavator.					<b>Avg. depth (m)</b>	
					1.5	
					<b>Width (m)</b>	
		0.55		<b>Length (m)</b>		
		3.2				
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
2.1	Layer	1.5	0.25	Upper part to yard surface		Modern
2.2	Layer	1.5	0.1	Part of make up to yard surface		Modern
2.3	Layer	1.5	1.05	Part of a sequence of dumping materials	CBM	Modern
2.4	Layer	1.5	1.1	A redeposited mixed natural	CMB, Concrete and metal	Modern
2.5	Natural	1.5	0.7	Gravels		

Trench 3						
<b>General description</b>					<b>Orientation</b>	
Test Pit 3 was located in a car parking area of a building company, north of Cardiff Road towards the west end of the site. Method of Excavation: JCB Excavator.					<b>Avg. depth (m)</b>	
					3	
					<b>Width (m)</b>	
		0.55		<b>Length (m)</b>		
		1.8				
Contexts						
context	type	Width	Depth	comment	finds	date

no		(m)	(m)		
3.1	Layer	1.8	0.15	Upper surface to car park	Modern
3.2	Layer	1.8	0.15	yard/surface make up.	Modern
3.3	Layer	1.8	0.25	yard/surface make up	Modern
3.4	Layer	1.8	0.2	Base make up for yard/surface	Modern
3.5	Layer	1.8	0.5	The possible remains of a soil horizon late post med.	19/20th century
3.6	Natural	1.8	1.65	A mixed natural of clay, sand and gravels	
3.7	Natural	1.8	0.1	As above but a higher concentration of gravels.	

Trench 4						
<b>General description</b>				<b>Orientation</b>		
This Test Pit was located within a wooded area at the west end of Cardiff Road. The test pit was hand dug to a depth 1.30m and then augured to a final depth of 1.50m where the auger ceased to penetrate any deeper.				<b>Avg. depth (m)</b>		1.5
				<b>Width (m)</b>		0.4
				<b>Length (m)</b>		0.4
<b>Contexts</b>						
context no	type	Width (m)	Depth (m)	comment	finds	date
4.1	Layer		0.12	Top Soil a mid to dark grey brown sandy silt		
4.2	Layer		0.45	Made ground comprising a mid grey brown sandy silt including occasional flints and gravels		
4.3	Layer		0.4	As above put far more flints and gravels.		
4.4	natural		0.3	Gravel, clays and sand lenses .		

Trench 5						
<b>General description</b>				<b>Orientation</b>		
This Test Pit was located on high ground within the north part of the wooded area at the west end of the site. A site of former allotments. The test pit was excavated to a depth of 1.30m by hand and then augured to an overall depth of 1.6m, the auger ceased to penetrate any deeper.				<b>Avg. depth (m)</b>		N-S
				<b>Width (m)</b>		1.6
				<b>Length (m)</b>		0.4
<b>Contexts</b>						
context no	type	Width (m)	Depth (m)	comment	finds	date
5.1	Layer		0.1	Turf		
5.2	Layer		0.15	A mixed brick and concrete floor or yard		

				surface		
5.3	Layer		0.3	A made up ground comprising a mid brown sandy silt and rubble		Modern
5.4	Layer		0.15	A deposit possibly formed by flood/water comprising a dark grey brown sandy silt with some flint/pebble inclusions.		
5.5	Natural		0.6	Gravel and clays with sand lenses		

Trench 6						
<b>General description</b>				<b>Orientation</b>	E-W	
This Test Pit was located in the wooded area to the west end of the site. The test pit was dug by hand and ceased at a depth of 1.30m where auger penetration was aborted.				<b>Avg. depth (m)</b>	1.3	
				<b>Width (m)</b>	0.35	
				<b>Length (m)</b>	0.55	
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
6.1	Layer		0.12	Turf/top soil		
6.2	Layer		0.2	Made ground comprising a mid grey brown sandy silt including occasional flints/pebbles.		
6.3	Layer		0.42	Made ground comprising a pale grey brown sandy silt with frequent flints/pebbles.		
6.4	Natural?		0.56	A mixed mid-strong brown sandy silt includes frequent flints/pebbles and clay lumps. This is possibly the natural ground.		
Trench 7						
<b>General description</b>				<b>Orientation</b>	N-S	
This Test Pit was located south of the wooded area at the west end of the site, in a former industrial unit. The test pit was excavated to a depth of 1.30m by hand, and was terminated at this depth.				<b>Avg. depth (m)</b>	1.3	
				<b>Width (m)</b>	0.35	
				<b>Length (m)</b>	0.5	
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
7.1	Layer		0.05	Turf		
7.2	Layer		0.12	A gravel/stone hard standing		Modern

7.3	Layer		0.55	Made ground comprised a mid to dark brown sandy silt including rubble, flints/pebbles and clay lumps		Modern
7.4	Layer		0.48	Made ground comprised a very dark grey clay silt including brick fragments, flints and sand lenses.		Modern
7.5	Layer		0.1	A possible natural comprising a dark grey sandy silt, including frequent pebbles and gravels plus occasional clay lumps.		

#### Trench 8

##### General description

This Test Pit was hand excavated but did not require observation because it was located on the side of a modern bund.

##### Orientation

Avg. depth (m)

Width (m)

Length (m)

##### Contexts

context no	type	Width (m)	Depth (m)	comment	finds	date

#### Trench 9

##### General description

This Test Pit was located on scrub land south of the river, to the north of a dis used railway. The test pit was excavated by hand to a depth of only 0.80m where solid concrete was encountered.

##### Orientation

Avg. depth (m)

0.8

Width (m)

0.5

Length (m)

0.5

##### Contexts

context no	type	Width (m)	Depth (m)	comment	finds	date
9.1	Layer		0.08	Turf		
9.2	Layer		0.22	Made ground comprised a dark reddish brown sandy silt with frequent Brick and CBM and occasional flint/pebbles.		Modern
9.3	Layer		0.3	Made ground comprised mid red brown sandy silt with very frequent bricks and rubble.		Modern
9.4	Layer		0.2	Made up ground comprised a dark grey		Modern

				brown clay silt with very frequent bricks and rubble		
9.5	Layer			Concrete block or slab		Modern
<b>Trench 10</b>						
<b>General description</b>					<b>Orientation</b>	
Located in the same area as test pit 9, this test pit was dug by hand to a depth of 1.20m where it encountered natural gravels?					<b>Avg. depth (m)</b>	1.2
					<b>Width (m)</b>	0.5
					<b>Length (m)</b>	0.5
<b>Contexts</b>						
<b>context no</b>	<b>type</b>	<b>Width (m)</b>	<b>Depth (m)</b>	<b>comment</b>	<b>finds</b>	<b>date</b>
10.1	Layer		0.1	Turf		
10.2	Layer		0.3	Made ground consists of a mid red brown sandy silt with very frequent inclusions of brick and rubble		Modern
10.3	Layer		0.3	Made ground consists of dark red brown silty clay with frequent brick and rubble		Modern
10.4	Layer		0.1	Made ground consists of a dark red brown clay silt including gravels and frequent flints/pebbles		Modern
10.5	Layer		0.4	A deposit of dark grey brown clay silt with small angular flints/pebble, this layer possibly represents the remains of a palaeo channel or former stream course.		?
<b>Trench 11</b>						
<b>General description</b>					<b>Orientation</b>	
This test pit was located in the same area as 9 and 10 excavated to a depth of 1.20m down on to the top of natural gravels?					<b>Avg. depth (m)</b>	1.2
					<b>Width (m)</b>	0.5
					<b>Length (m)</b>	0.5
<b>Contexts</b>						
<b>context no</b>	<b>type</b>	<b>Width (m)</b>	<b>Depth (m)</b>	<b>comment</b>	<b>finds</b>	<b>date</b>
11.1	Layer		0.1	Turf		
11.2	Layer		0.35	Made ground comprised a dark red brown sandy silt including very frequent bricks and rubble		Modern
11.3	Layer		0.35	Made ground comprised a		Modern



				dark brown grey clay silt including a moderate Brick and rubble		
11.4	Layer		0.4	A deposit of mid grey brown clay silt containing a moderate small flints/pebbles		?
<b>Trench 12</b>						
<b>General description</b>					<b>Orientation</b>	
Access was not allowed, the ecologist on site found a slow worm in the access area to the site so would not allow the machine to enter this part of the site. As a result the test pit was excavated by hand to a depth of only 0.50m where it exposed concrete. The test pit was located in a former industrial yard towards the west end of the site.					<b>Avg. depth (m)</b>	0.5
					<b>Width (m)</b>	0.5
					<b>Length (m)</b>	0.5
<b>Contexts</b>						
<b>context no</b>	<b>type</b>	<b>Width (m)</b>	<b>Depth (m)</b>	<b>comment</b>	<b>finds</b>	<b>date</b>
12.1	Layer		0.1			
12.2	Layer		0.4	Made ground consists of a mid red brown sandy silt with very frequent bricks and rubble		Modern
12.3	Layer			A reinforced concrete slab		Modern
<b>Trench 13</b>						
<b>General description</b>					<b>Orientation</b>	SW-NE
Test Pit 13 was located in a builders yard within the western half of the site, south of Cardiff Road. The Test Pit was widened because the initial pit was cut into the fill of a buried skip, the pit was only excavated to a depth of 1.9m because asbestos was exposed. Method of excavation: JCB Excavator.					<b>Avg. depth (m)</b>	1.9
					<b>Width (m)</b>	1.25
					<b>Length (m)</b>	2
<b>Contexts</b>						
<b>context no</b>	<b>type</b>	<b>Width (m)</b>	<b>Depth (m)</b>	<b>comment</b>	<b>finds</b>	<b>date</b>
13.1-13.6	Layers	2	1.7	Infill of Buried Skip		Modern
13.7	Layer	1	0.4	Yard surface make up		Modern
13.8	Layer	1	1.5	Dump material	CBM + Asbestos	Modern
<b>Trench 14</b>						
<b>General description</b>					<b>Orientation</b>	SW-NE
Test Pit 14 was located in a builders yard within the west side of the site, south of Cardiff Road. Method of excavation: JCB Excavator.					<b>Avg. depth (m)</b>	3.2
					<b>Width (m)</b>	0.75
					<b>Length (m)</b>	2
<b>Contexts</b>						
<b>context no</b>	<b>type</b>	<b>Width (m)</b>	<b>Depth (m)</b>	<b>comment</b>	<b>finds</b>	<b>date</b>
14.1	Layer	2	1.7	Bund make up.	CBM, Plastic and	Modern

					Metal.	
14.2	Layer	2	1.5	Made up ground	Brick, Tile, plastic and glass	Modern
14.3	Surface		0.35	Concrete slab for current yard surface. Located at the W side of Test Pit.		Modern

#### Trench 15

<b>General description</b>				<b>Orientation</b>		
This Test Pit was not excavated				<b>Avg. depth (m)</b>		
				<b>Width (m)</b>		
				<b>Length (m)</b>		

#### Contexts

context no	type	Width (m)	Depth (m)	comment	finds	date

#### Trench 16

<b>General description</b>				<b>Orientation</b>		E-W
This Test Pit was located in the overspill car park mid way and south of Cardiff Road. The test pit was excavated by a JCB Machine to a depth of 0.85 where it exposed at a concrete slab.				<b>Avg. depth (m)</b>		0.85
				<b>Width (m)</b>		0.55
				<b>Length (m)</b>		1.5

#### Contexts

context no	type	Width (m)	Depth (m)	comment	finds	date
16.1	Layer		0.12	Tarmac car park surface		Modern
16.2	Layer		0.18	A levelling layer for the car park comprised a mid grey brown sandy silt including frequent bricks, stones and gravels.	Pottery discarded.	19th century
16.3	Layer		0.55	Similar to above but contains large lumps of concrete	Plastic sheet discarded	Modern
16.4	Layer			Concrete slab and re bar		

#### Trench 17

<b>General description</b>				<b>Orientation</b>		E-W
This Test Pit was located in the same overspill car park as 16, but approximately 100m to the north east, the test pit was stopped at a depth of only 0.45m because of the presence of concrete.				<b>Avg. depth (m)</b>		0.45
				<b>Width (m)</b>		0.8
				<b>Length (m)</b>		1.3

#### Contexts

context no	type	Width (m)	Depth (m)	comment	finds	date
17.1	Layer		0.12	Tarmac car park surface		Modern
17.2	Layer		0.1	Levelling layer for car park comprised a mid grey brown sandy silt and frequent bricks and rubble		Modern
17.3	Layer		0.22	A thick concrete slab plus re bars. Unable to penetrate with a breaker.		Modern
<b>Trench 18</b>						
<b>General description</b>					<b>Orientation</b>	
This Test Pit was not excavated.					<b>Avg. depth (m)</b>	
					<b>Width (m)</b>	
					<b>Length (m)</b>	
<b>Contexts</b>						
context no	type	Width (m)	Depth (m)	comment	finds	date
<b>Trench 19</b>						
<b>General description</b>					<b>Orientation</b>	E-W
This Test Pit was located in the overspill car park approximately 100m to the north east of test pit 17. The test pit was excavated by JCB machine to a depth of 2.20m where it encountered a possible cellared structure.					<b>Avg. depth (m)</b>	2.2
					<b>Width (m)</b>	0.2
					<b>Length (m)</b>	2
<b>Contexts</b>						
context no	type	Width (m)	Depth (m)	comment	finds	date
19.1	Layer		0.08	Tarmac/concrete car park surface		
19.2	Layer		0.2	Concrete slab surface		
19.3	Layer		0.2	A levelling layer comprised a dark brown sandy silt plus frequent brick/rubble		Modern
19.4	Layer		0.17	A layer forming part of possible cellar backfill a butts wall 19.7. Comprised a dark brown clay silt including flints and pebbles.		Modern
19.5	Layer		0.2	Part of a cellar backfill a butts wall 19.7, comprised a mixed stone and gravels		Modern
19.6	Layer		0.45	Part of cellar back fill a		

				butts wall 19.7, comprised a dark brown grey clay silt including pebbles/flints		
19.7	Wall	0.5	1.2	Remains of a brick wall forming the north east side of possible cellar.		Modern
19.8	Wall			A wall which was observed running along the west end of the trench. Because of safety, unable to gain any more details, possibly related to wall 19.7.		Modern
19.9	Layer		0.25	Part of cellar backfill comprised of rubble and gravels.		Modern
19.1	Layer		0.55	Part of cellar backfill comprised a very dark grey brown clay silt including Brick/rubble and flint.		Modern

#### Trench 20

##### General description

Test pit 20 was located within a goods yard, towards the eastern end of the site.  
Method of Excavation: JCB Machine

##### Orientation

NE-SW

##### Avg. depth (m)

3

##### Width (m)

0.7

##### Length (m)

2.5

##### Contexts

context no	type	Width (m)	Depth (m)	comment	finds	date
20.1	layer	2.5	0.6	Topsoil		Modern
20.2	layer	2.5	1.2	Redeposited clay	CBM, concrete	Modern
20.3	Natural	2.5	1.2	Blue orange clay		

#### Trench 21

##### General description

Test pit 21 was located within a goods yard, towards the eastern end of the site.  
Method of Excavation: JCB Machine

##### Orientation

NE-SW

##### Avg. depth (m)

3

##### Width (m)

0.7

##### Length (m)

2.5

##### Contexts

context no	type	Width (m)	Depth (m)	comment	finds	date
21.1	Layer	2.5	0.55	Hardcore and tarmac		Modern
21.2	Layer	2.5	2.45	Redeposited clay	CBM, concrete	Modern

#### Trench 22

General description					Orientation	NE-SW
Test pit 22 was located within a goods yard, towards the eastern end of the site. Method of Excavation: JCB Machine					Avg. depth (m)	3
					Width (m)	0.7
					Length (m)	2.5
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
22.1	Layer	2.5	2.9	Hardcore		Modern
22.2	Natural	2.5	0.1	Greyish yellow clayey silt		

Trench 23						
General description					Orientation	NE-SW
Test pit 23 was located within a scrap yard, towards the eastern end of the site. Method of Excavation: JCB Machine					Avg. depth (m)	3
					Width (m)	0.7
					Length (m)	2.5
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
23.1	Layer	2.5	0.5	hardcore		Modern
23.2	Fill	1.2	0.4	Grey blue clay fill of pit		Victorian
23.3	Fill	1.2	1.2	Charcoal fill of pit	Glass	Victorian
23.4	Cut	1.2	1.2	Rubbish pit		Victorian
23.5	Natural	2.5	2.5	Natural clay		

Trench 24						
General description					Orientation	NE-SW
Test pit 24 was located within a goods yard, towards the eastern end of the site. Method of Excavation: JCB Machine					Avg. depth (m)	3
					Width (m)	0.7
					Length (m)	2.5
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
24.1	layer	3	0.1	Tarmac		Modern
24.2	layer	3	2.9	Redeposited clays	CBM, concrete	Modern
24.3	masonry	0.2	1.5	Red brick wall		modern
24.4	masonry	2.5	-	Concrete slab		Modern

Trench 25						
General description					Orientation	
This Test Pit was not excavated					Avg. depth (m)	

					Width (m)	
					Length (m)	
<b>Contexts</b>						
context no	type	Width (m)	Depth (m)	comment	finds	date
<b>Trench 26</b>						
<b>General description</b>					<b>Orientation</b>	NE-SW
Test pit 26 was located at the eastern end of the Irish club playing fields. Method of Excavation: JCB Machine					<b>Avg. depth (m)</b>	3m
					<b>Width (m)</b>	0.7
					<b>Length (m)</b>	2.5
<b>Contexts</b>						
context no	type	Width (m)	Depth (m)	comment	finds	date
26.1	Layer	2.5	0.05	Turf and topsoil		Modern
26.2	Layer	2.5	0.95	Redeposited clay	CBM, concrete	Modern
26.3	Layer	2.5	1	Redeposited chalk		Modern
26.4	Natural	2.5	1	Natural clays		-
<b>Trench 27</b>						
<b>General description</b>					<b>Orientation</b>	
This Test pit was not excavated					<b>Avg. depth (m)</b>	
					<b>Width (m)</b>	
					<b>Length (m)</b>	
<b>Contexts</b>						
context no	type	Width (m)	Depth (m)	comment	finds	date
<b>Trench 28</b>						
<b>General description</b>					<b>Orientation</b>	
This Test pit was not excavated					<b>Avg. depth (m)</b>	
					<b>Width (m)</b>	
					<b>Length (m)</b>	
<b>Contexts</b>						
context no	type	Width (m)	Depth (m)	comment	finds	date

Trench 29						
<b>General description</b>					<b>Orientation</b>	E-W
This test pit was located in the wooded area at the far west end of site. The test pit was hand dug to 1.20m and with an auger could only reach an overall depth of 1.40m. The test pit was slightly moved to the east because a cable was found in its original position.					<b>Avg. depth (m)</b>	1.4
					<b>Width (m)</b>	0.4
					<b>Length (m)</b>	0.85
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
29.1	Layer		0.13	The top soil.		
29.2	Layer		0.25	Made ground comprised a mid grey brown sandy silt including flints/pebbles		
29.3	Layer		0.3	Made ground comprised a pale to mid grey brown sandy silt includes chalk/flint lumps, brick fragment and plastic sheeting.		Modern
29.4	Natural		0.2	A natural of gravel, sands and chalk lumps.		
29.5	Natural		0.5	Natural chalk plus flint nodules.		
Trench 30						
<b>General description</b>					<b>Orientation</b>	N-S
This Test Pit was located in the wooded area towards the west end of the site. The test pit was hand dug to a depth of 1.20m and with an auger reached an overall depth of 1.50m.					<b>Avg. depth (m)</b>	1.5
					<b>Width (m)</b>	0.4
					<b>Length (m)</b>	0.55
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
30.1	Layer		0.08	Turf/Top Soil		
30.2	Layer		0.2	Made ground comprised a mid brown sandy silt plus frequent flints and gravels		
30.3	Layer		0.52	Made ground comprised a mid grey brown sandy silt including pebbles, flints and gravels.	Tile	Modern
30.4	Layer		0.7	Similar to above but these frequent gravels, and contains clay and sand lenses.		
Trench 31						

General description					Orientation	E-W
This Test Pit was located in a wooded area at the west end of the site. The test pit was excavated by hand to a depth of 1.20m and augured to an overall depth of only 1.25m.					Avg. depth (m)	1.25
					Width (m)	0.35
					Length (m)	0.45
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
31.1	Layer		0.15	Turf/Top soil		
31.2	Layer		0.2	Made ground comprised a mid grey brown sandy silt including flints/pebbles		
31.3	Layer		0.35	Possible made ground comprised a mid to dark grey brown sandy silt including frequent flints/pebbles		
31.4	Natural		0.55	Natural sands and gravel.		



## APPENDIX B. OASIS REPORT FORM

All fields are required unless they are not applicable.

### Project Details

OASIS Number	oxfordar3-159700			
Project Name	Archaeological Monitoring and Recording of Geotechnical Test pits, Watford, Hertfordshire			
Project Dates (fieldwork)	Start	30-07-2013	Finish	20-08-2013
Previous Work (by OA East)	No	Future Work	Unknown	

### Project Reference Codes

Site Code	XHTCAR13	Planning App. No.	
HER No.		Related HER/OASIS No.	

### Type of Project/Techniques Used

Prompt

### Please select all techniques used:

<input type="checkbox"/> Field Observation (periodic visits)	<input type="checkbox"/> Part Excavation	<input type="checkbox"/> Salvage Record
<input type="checkbox"/> Full Excavation (100%)	<input type="checkbox"/> Part Survey	<input type="checkbox"/> Systematic Field Walking
<input type="checkbox"/> Full Survey	<input type="checkbox"/> Recorded Observation	<input type="checkbox"/> Systematic Metal Detector Survey
<input type="checkbox"/> Geophysical Survey	<input type="checkbox"/> Remote Operated Vehicle Survey	<input checked="" type="checkbox"/> Test Pit Survey
<input type="checkbox"/> Open-Area Excavation	<input type="checkbox"/> Salvage Excavation	<input type="checkbox"/> Watching Brief

### Monument Types/Significant Finds & Their Periods

List feature types using the [NMR Monument Type Thesaurus](#) and significant finds using the [MDA Object type Thesaurus](#) together with their respective periods. If no features/finds were found, please state "none".

Monument	Period	Object	Period
Brick Walls	Modern 1901 to Present		Select period...
Pit	Post Medieval 1540 to 1901		Select period...
Paleo channel	Uncertain		Select period...

### Project Location

County	Hertfordshire	Site Address (including postcode if possible)	
District	Watford	Unit 3, Cardiff Road Industrial Estate, Watford, Hertfordshire.	
Parish			
HER			
Study Area	Approx 15.6 Hectres.	National Grid Reference	510872/195813

### Project Originators

Organisation	OA EAST
Project Brief Originator	
Project Design Originator	
Project Manager	Aileen Connor
Supervisor	Helen Stocks Morgan, Michael Tam Webster

### Project Archives

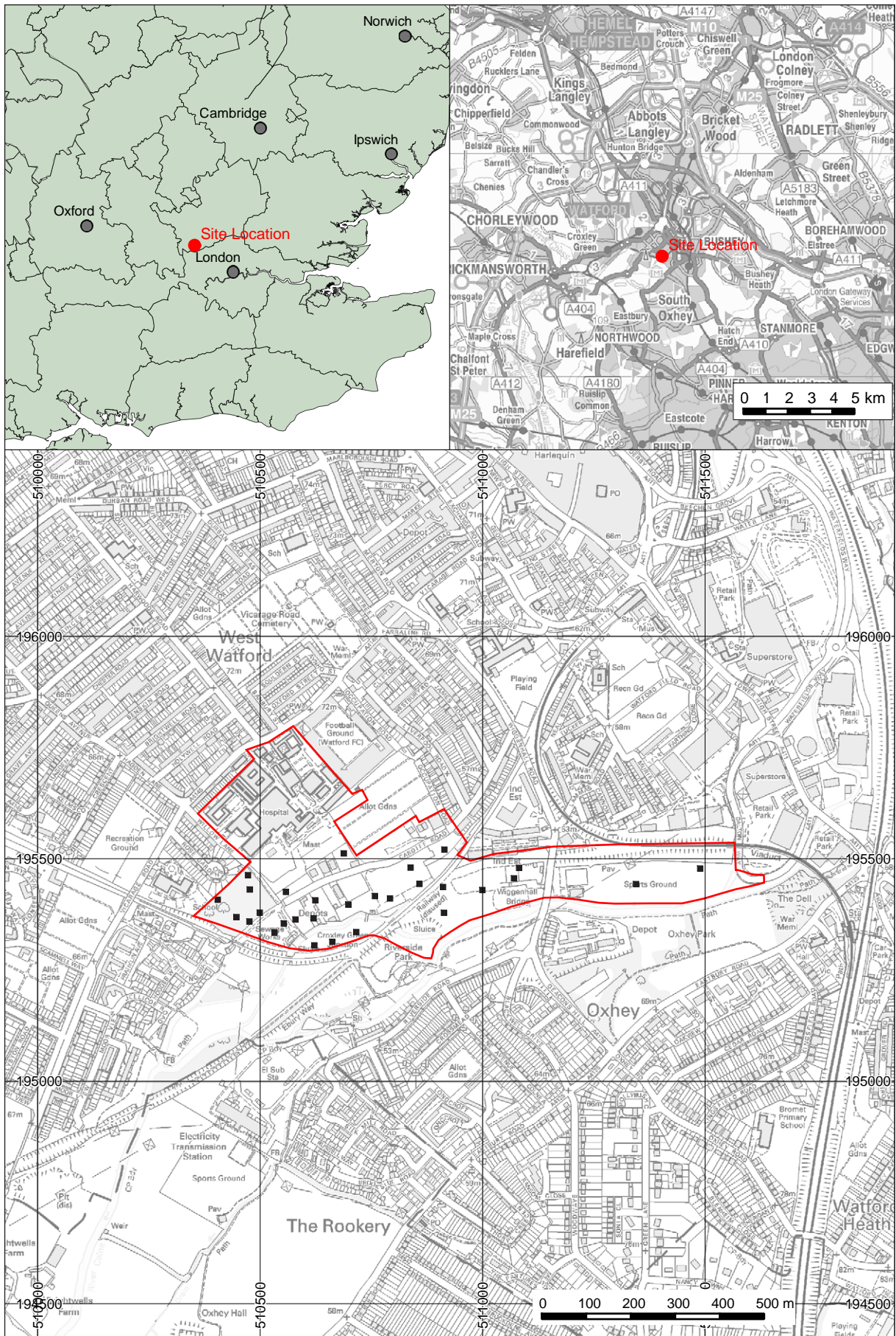
Physical Archive	Digital Archive	Paper Archive
OA East Bar Hill	OA East Bar Hill	OA East Bar Hill
Accession ID ...	Accession ID ...	Accession ID ...

### Archive Contents/Media

	Physical Contents	Digital Contents	Paper Contents
Animal Bones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ceramics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Glass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Human Bones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leather	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Metal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stratigraphic		<input type="checkbox"/>	<input type="checkbox"/>
Survey		<input type="checkbox"/>	<input type="checkbox"/>
Textiles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Worked Bone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Worked Stone/Lithic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

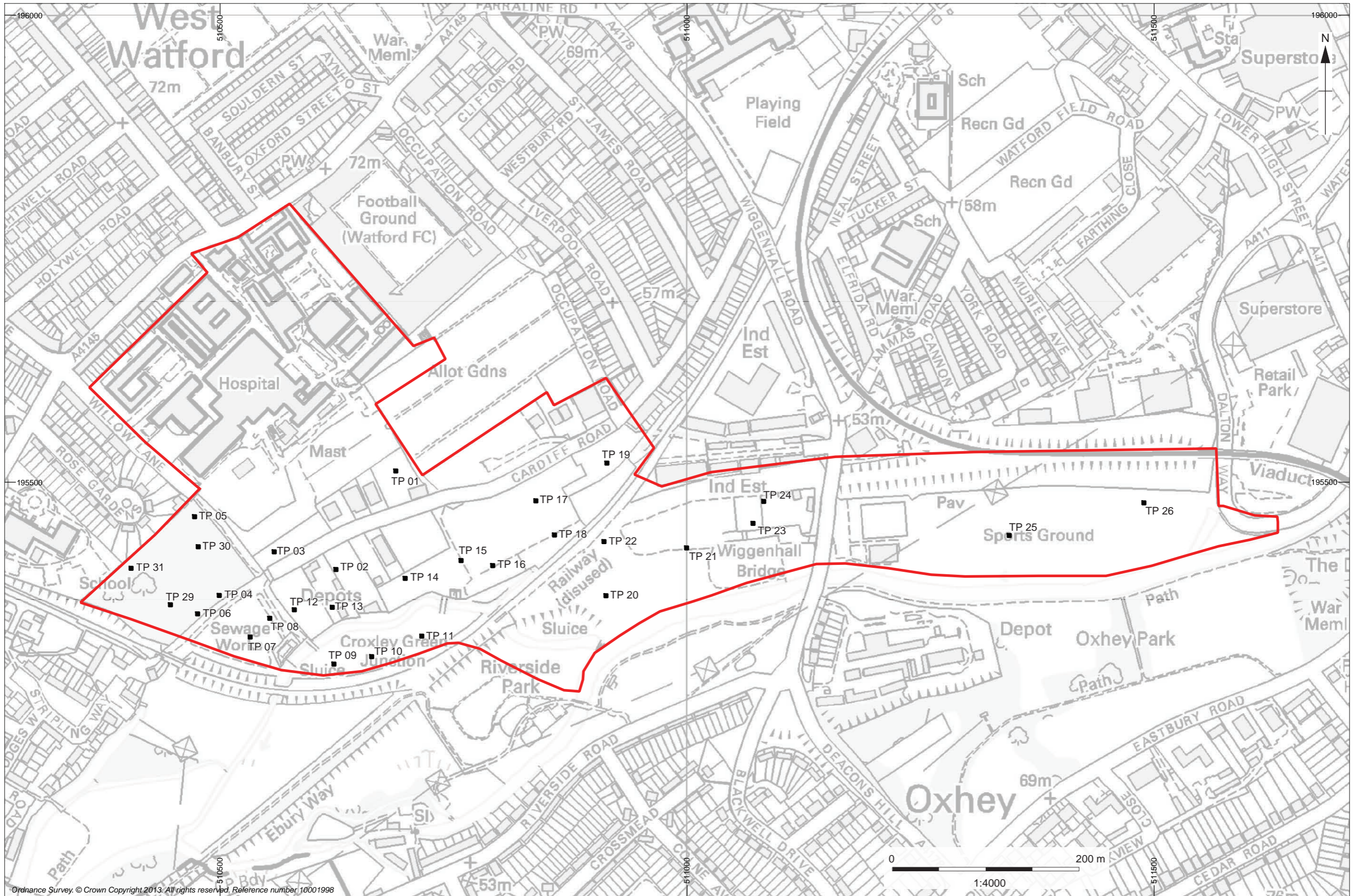
Digital Media	Paper Media
<input type="checkbox"/> Database	<input type="checkbox"/> Aerial Photos
<input type="checkbox"/> GIS	<input checked="" type="checkbox"/> Context Sheet
<input type="checkbox"/> Geophysics	<input type="checkbox"/> Correspondence
<input checked="" type="checkbox"/> Images	<input checked="" type="checkbox"/> Diary
<input checked="" type="checkbox"/> Illustrations	<input checked="" type="checkbox"/> Drawing
<input type="checkbox"/> Moving Image	<input type="checkbox"/> Manuscript
<input type="checkbox"/> Spreadsheets	<input type="checkbox"/> Map
<input type="checkbox"/> Survey	<input type="checkbox"/> Matrices
<input checked="" type="checkbox"/> Text	<input type="checkbox"/> Microfilm
<input type="checkbox"/> Virtual Reality	<input checked="" type="checkbox"/> Misc.
	<input type="checkbox"/> Research/Notes
	<input checked="" type="checkbox"/> Photos
	<input type="checkbox"/> Plans
	<input checked="" type="checkbox"/> Report
	<input checked="" type="checkbox"/> Sections
	<input checked="" type="checkbox"/> Survey

### Notes:



Ordnance Survey. © Crown Copyright 2013. All rights reserved. Reference number 10001998

Figure 1: Site location showing Test Pit locations (black) in development area (red)



Ordnance Survey. © Crown Copyright 2013. All rights reserved. Reference number 10001998

Figure 2: Location of Test Pits

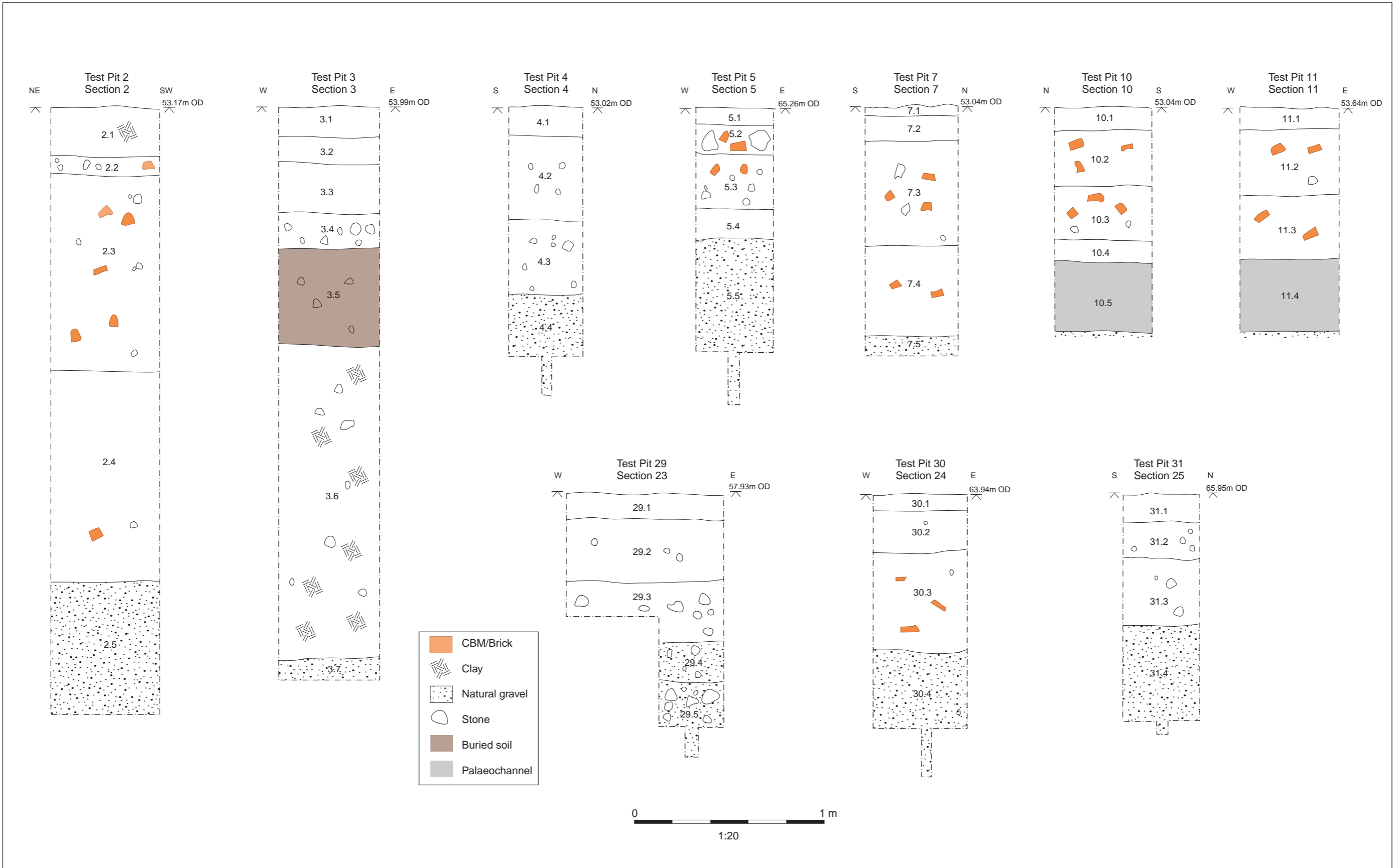


Figure 3: Selected Test Pit sections



Plate 1: Buried soil in Test Pit 3



Plate 2: Upper terrace river gravels Test Pit 5



Plate 3: Machining of Test Pit 20



Plate 4: Buried skip in Test Pit 13



Plate 5: Wall in Test Pit 19



Plate 6: Pit in Test Pit 23





Plate 7: Wall in test Pit 24



Plate 8: Chalk natural base of Test Pit 26



Plate 9: Palaeo channel Test Pit 11



Plate 10: Palaeo channel Test Pit 10



**Head Office/Registered Office/  
OA South**

Janus House  
Osney Mead  
Oxford OX2 0ES

t: +44 (0) 1865 263 800  
f: +44 (0) 1865 793 496  
e: [info@oxfordarchaeology.com](mailto:info@oxfordarchaeology.com)  
w: <http://oxfordarchaeology.com>

**OA North**

Mill 3  
Moor Lane  
Lancaster LA1 1QD

t: +44 (0) 1524 541 000  
f: +44 (0) 1524 848 606  
e: [oanorth@oxfordarchaeology.com](mailto: oanorth@oxfordarchaeology.com)  
w: <http://oxfordarchaeology.com>

**OA East**

15 Trafalgar Way  
Bar Hill  
Cambridgeshire  
CB23 8SQ

t: +44 (0) 1223 850500  
e: [oaeast@oxfordarchaeology.com](mailto: oaeast@oxfordarchaeology.com)  
w: <http://oxfordarchaeology.com>



**Director:** Gill Hey, BA PhD FSA MIFA  
*Oxford Archaeology Ltd is a  
Private Limited Company, N<sup>o</sup>: 1618597  
and a Registered Charity, N<sup>o</sup>: 285627*