



C263 ARCHAEOLOGY LATE EAST

Fieldwork Report

Archaeological Evaluation

Custom House XT113

Document Number: C263-MLA-W-RGN-CRG03-50014

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DRAFT C263 Custom House Evaluation Fieldwork Report v1



Non-technical summary

This report covers four evaluation trenches, and two geotechnical boreholes carried out by the Museum of London Archaeology (MOLA) on the site of the future Crossrail Custom House Station, London Borough of Newham. The report was commissioned from MOLA by Crossrail Ltd.

Four trial trenches and two window samples afforded opportunities to sample the alluvial sequence above Shepperton Pleistocene Thames gravel. A consistent sequence was examined over all exposures. Above the gravel (from 96.7m ATD) was a thick layer wood peat, derived from the “backswamp area” of the Thames floodplain to 99.82m ATD(although the wood peat had been eroded by tidal creeks in many places below this level). The wood peat was covered by alluvial clay to 101.03m ATD.

No artefacts or structures were recovered.



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1 Introduction

Crossrail is a new cross London rail link project which will provide transport routes in the south-east and across London. The proposed development will include the construction of seven stations within central London which will have interchange with other public transport modes including the London Underground, National Rail and the London Bus service; the development will also include the renewal and/or upgrade of existing stations outside central London. The route itself will link Maidenhead and Heathrow in the west with Shenfield in the north-east and Abbey Wood in the south-east.

As part of these works a new station is required at Custom House, in Newham, London E16. It is located south of Victoria Dock Road near its junction with Freemasons Road. It will replace the disused North London Line station of the same name. The Custom House Worksites are shown on Figure 1 and centre on NGR, 540773.251 180918.725

The Crossrail mitigation response to archaeology is described in the Crossrail Generic WSI (Crossrail 2009a) and the detailed desk based assessment (DDBA; Crossrail 2008), and can be summarised as follows:

- In the event that intact and important archaeological remains are identified at Crossrail worksites through this process, it may be preferable, where practicable, to preserve these where they are found (ie preservation in situ).
- However, because of the nature of major works projects such as Crossrail, experience of other similar projects suggests that preservation by record is usually the most appropriate method of dealing with archaeological finds.
- Following an extensive Environmental Impact Assessment (EIA) supporting the Crossrail Bill, and the production of site-specific DDBAs, appropriate mitigation measures were scoped and specified in detail in individual project designs (site-specific WSIs – Written Schemes of Investigation) which were prepared in accordance with the principles set out in the Generic WSI, and developed in consultation with the relevant statutory authorities.
- Archaeological information that is gained from fieldwork will be followed by analysis and publication of the results and will be transferred to an approved public receiving body.



This report details the Trial-Trench evaluation archaeological investigation task carried out, by C263 Museum of London Archaeology (MOLA). All fieldwork was conducted between 15/04/13 and 10/06/13. Archaeological investigations were, directed by MOLA Senior Archaeologist David Sankey and Senior Geoarchaeologist Virgil Yendell, and included the following:

Task	Principal Contractor	dates
Trial trench evaluation 3 trenches located across the surface rail alignment, where track lowering is required, 1 to rear of the former Barge Public House	C520 Laing O'Rourke	Completed
General Watching Brief (enabling works and service diversion for the eastern site compound)	C520 Laing O'Rourke	Completed – no significant archaeological remains, details in weekly reports
NLBH recording (on the Barge public house, in separate report Document Number: C263-MLA-X-RGN-CRG03-50044)	C520 Laing O'Rourke	Completed
2 Geoarchaeological boreholes	C520 Laing O'Rourke	Completed

Table 1: Fieldwork conducted between 15/04/13 to 10/06/13.

All grid coordinates in this report are cited as both the National Ordnance Survey and London Survey Grid, and all levels cited as Above Tunnel Datum (m ATD)(ATD = OD +100m).

The event code (sitecode) is **XTI13**.

2 Planning background

The overall framework within which archaeological work will be undertaken is set out in the Environmental Minimum Requirements (EMR) for Crossrail (<http://www.crossrail.co.uk/railway/getting-approval/environmental-minimum-requirements-including-crossrail-construction-code#.T979khdFFXs>). The requirements being progressed follow the principles of Planning Policy Guidance Note 16 (PPG16)(DoE, 1990), and its replacements Planning Policy Statement 5 (PPS5)(DCLG, 2010) and the National Policy Planning Framework (NPPF)(DCLG, 2012), on archaeology and planning. Accordingly the nominated undertaker or any



contractors will be required to implement certain control measures in relation to archaeology before construction work begins.

Schedules 9, 10 and 15 of the Crossrail Bill (2005) concern matters relating to archaeology and the built heritage and allows the dis-application by Crossrail of various planning and legislative provisions including those related to listed building status, conservation areas and scheduled ancient monuments (Schedule 9). Schedule 10 allows certain rights of entry to English Heritage given that Schedule 9 effectively dis-applied their existing rights to the Crossrail project, and Schedule 15 allows Crossrail to bypass any ecclesiastical or other existing legislation relating to burial grounds.

Notwithstanding these disaplications, it is intended that agreements setting out the detail of the works and requiring relevant consultations and approvals of detail and of mitigation arrangements will be entered into by the nominated undertaker with the relevant local planning authorities and English Heritage in relation to listed buildings and with the Department of Culture, Media and Sport (DCMS) and English Heritage in relation to Scheduled Ancient Monuments (SAMs).

3 Origin and scope of the report

This report has been commissioned from Museum of London Archaeology (MOLA) by Crossrail Ltd. The report has been prepared within the terms of the relevant standard specified by the Institute for Archaeologists (IfA, 2008) and the English Heritage Greater London Archaeological Advisory Service for London's guidelines (2009). It considers the significance of the fieldwork results (in local, regional or national terms) and makes appropriate recommendations for any further action, commensurate with the results.

This report will be made available from The London Archaeological Archive and Research Centre (LAARC) in due course.

4 Previous work relevant to archaeology of site

The principal previous Crossrail studies are as follows:

- Crossrail, Assessment of Archaeological Impacts, Technical Report, Part 2 of 6, Central Section, Report Number 1E0318-C1E00-00001, 2005.
- Crossrail, Archaeological Programming Assessment, Report Number 1E0318-G0E00-00006 (Rev B), 2006
- Crossrail, Archaeology Generic Written Scheme of Investigation, Document Number CR-PN-LWS-EN-SY-00001, 2009.
- MOLA, C263 ARCHAEOLOGY LATE EAST, Interim Statement, Non-listed Built Heritage Recording, The Barge Public House' Document Number: C263-MLA-X-RGN-CRG03-50031, 2013 .
- C263 ARCHAEOLOGY LATE EAST, Interim Statement, Archaeological Evaluation, Custom House XTI13, Document Number: C263-MLA-X-RGN-CRG03-50036, 2013



The fieldwork was carried out in accordance with:

- A Crossrail **Site-specific Written Scheme of Investigation** (SS-WSI Crossrail, Custom House Station Archaeological WSI, Document No C520-XRL-T1-RGN-CR145 -50001, Revision 5.0, 2011
- An **Archaeological Method Statement**: MOLA, C263 Archaeology Late East, Method Statement Trench evaluation, sample excavation, watching briefs, and non listed built heritage recording, Custom House Station, Version 4 Document Number: C263-MLA-X-GMS-CR145-50001, 2013 The MOLA method statement was prepared in line with the Principal Contractor's method statement.
- An **Archaeological Method Statement**: MOLA, C263 Archaeology Late East, Method Statement Trench evaluation, sample excavation, watching briefs, and non listed built heritage recording, and geoarchaeological boreholes Custom House Station, Version 5 Document Number: C263-MLA-X-GMS-CR145-50001, 2013 The MOLA method statement was prepared in line with the Principal Contractor's method statement, updated for geoarchaeological boreholes.

The Written Scheme of Investigation (WSI) and Method Statements will be available from the LAARC.

5 Geology and topography of site

The geological and topographical setting for the Custom House Station site was covered in detail in the SS-WSI (Custom House Station Archaeological WSI, March 2011, Document No C520-XRL-T1-RGN-CR145 -50001, Revision 5.0). This information is summarised below.

The site lies on the reclaimed alluvial floodplain of the River Thames, approximately 700m to the north of the Thames. Overlying London Clay are Pleistocene floodplain sands and gravels, deposited when the Thames was a fast flowing braided river, formed of interconnected channels interspersed with higher sand and gravel bars. These floodplain gravels form the 'Holocene Template' on which Mesolithic activity would have taken place, the areas around channels and lakes providing resources attracting a hunter-gatherer population.

During the early Holocene, sea levels rose and lower lying areas were inundated. From the Later Neolithic the braided channels gradually silted up and the conditions were conducive to peat formation. The landscape became predominantly marshland, which was crossed by the Thames as a single meandering channel.

A geoarchaeological deposit modelling exercise (Crossrail DDBA, doc no.CR-SD-PRW-X-IS-00001, Appendix 2) has identified four landscape zones (LZs) in the area of the site. This deposit model has been updated with information derived from GI Packages 19, 19A and 30 to enable analysis of underlying geology and the archaeological and palaeoenvironmental potential. The four landscape zones are detailed as follows:

- LZ1 is characterised as gravel terrace, at c 98–100m ATD, probably representing the very beginning of the incline up towards the high ground of the second mid Devensian 'Kempton Park' terrace to the north and does not extend to the Crossrail works;
- LZ2 consists of a network of braided channels of varying depths, cut into the Late Pleistocene/Holocene land surface. The revised deposit model places the northern boundary of this zone slightly further to the south of the Custom House footprint than previously mapped. In general this zone is characterised by an underlying gravel topography which occurs at c 93.5–97.5m ATD;
- LZ3 represents higher gravel 'islands' with potential for dry-land prehistoric activity lying between 98–99m ATD. The updated deposit model suggests that previously identified 'islands' within the Custom House site, actually represent one larger area underlying the majority of the west and central areas of the Custom House station Worksite, including the former Barge Public House;
- LZ4 consists of marginal wetland, characterised by thick peat deposits and has potential for waterlogged later prehistoric remains such as timber trackways. This LZ is found at the westernmost 50m and easternmost 200m of the Custom House site. These layered peat deposits are identified above gravels at c 97.5m–98m ATD.

Modern ground level adjacent to the site lies at c 101.5–102m ATD.

6 Archaeological and Historic Background

The archaeological potential of the Custom House Station site was covered in detail in the SS-WSI (Custom House Station Archaeological WSI, March 2011, Document No C520-XRL-T1-RGN-CR145 -50001, Revision 5.0). This information is summarised below.

The Custom House Station worksites lie within an Archaeological Priority Zone (APZ) as defined by the LB of Newham. This area is identified as having a high potential for prehistoric remains related to the exploitation of high ground and marginal wetland areas present during this period. The site does not include any scheduled Monuments or listed building.

Prehistoric

The alluvial and peat deposits associated with the Thames floodplain would have been targeted during the prehistoric period by hunter-gatherer groups as an important subsistence resource. Occupation such as makeshift camps may have existed on the higher sand and gravel islands of LZ3, with fishing and other activities being carried out in the surrounding river channels of LZ4. A timber platform and jetty with other remains of Mesolithic-to-Bronze Age date were recorded on a site at the Royal Docks Community School (PRG97), approximately 450m north-east of the Custom House Station worksite.

Roman

There is currently no evidence for Roman activity in the vicinity of the site, despite evidence of dropping water levels. During this period the site was most likely inhabitable salt marsh and intertidal mudflats. As the gravel islands forming LZ3 lay at 98 to 99m ATD, they probably remained inundated during this period.

Medieval

The site is likely to have remained uninhabitable in the early medieval period. The marshy low lying areas were gradually drained and reclaimed during the later medieval period. The higher areas to the north of the site saw the origins of the manors of West Ham and East Ham. The medieval manor of Sudbury is indicated on the GLHER, and may have been located towards the south-east end of the Custom House worksite although its exact location is not known. There is potential for associated features such as field systems or land boundaries to be present within the worksite.

Post-medieval

The North Woolwich Railway line, opened in 1847 was constructed across previously undeveloped marshland. The growth of the docks ensured the area altered in character significantly during the post-medieval period, with the Royal Victoria Dock constructed in 1850 to 1855. There is high potential for industrial, and possibly railway, remains from this period on the site. This period also saw a huge increase in the construction of housing throughout the area north of Victoria Dock Road, including The Barge Public House, formerly the Freemasons Tavern, parts of which



were built approximately 1862. The Royal Victoria and Albert Docks Cut (now filled in) is shown on maps of the late Nineteenth Century, and there is potential for this drainage channel at the southern edge of both the portal and Custom House station, and along the DLR diversion. Two smaller channels ran southwards across the Custom House station site into the Docks Cut.

Modern

Although badly damaged during bombing raids of World War II, the docks continued in use until after the war. From the 1960s onwards, the docks suffered from modern improvements in trade, and the move of large shipping to Tilbury docks further downstream. The Royal Victoria Dock ceased to accept commercial shipping in 1980

7 Research objectives and aims

7.1 Objectives of the fieldwork

The overall objectives of the trial trench evaluation was to establish whether significant archaeological remains were present within approximately 1.5m to 4.0m below ground level, and their nature, extent and state of preservation. This included the evaluation of buried industrial and railway structures. This was in order that the evaluation would help to inform subsequent mitigation work on the site (sample excavation and watching brief).

7.2 Research Aims

A number of site specific research aims were stated in the Written Scheme of Investigation. These are;

- What is the development of the local landscape, topography and environment of the Thames floodplain? What Palaeoenvironmental data is there to inform on this development?
- Is there any evidence for Palaeolithic activity at the interface between the Pleistocene gravels and early Holocene channel deposits? If so, what form does this take?
- Is there any evidence for Mesolithic activity at the base of the alluvium/surface of the gravels? Is there any evidence of Mesolithic activity on the higher gravel areas of LZ3? If so, what form does this activity take - fishing, hunting, flint working etc?
- If peat deposits can be securely dated, what activity is contained within them, and how does this help to refine knowledge of prehistoric activity, occupation and settlement in the marginal wetland habitats?
- Can buried wood remains identified in the peat deposits be determined to be natural or artefactual in nature? If so is there evidence for prehistoric trackways additional to that already known in the area, and how do they interrelate?
- Is there any evidence for later prehistoric activity or occupation? What is the nature of activity in the marginal marshlands of LZ4? Is there evidence of prehistoric water management or subsistence fishing? What is the nature of activity on the higher grounds of LZ3? Is there evidence of semi-permanent occupation?
- Is there any evidence for Roman activity, in particular for water management, marginal wetland agriculture, flood defences and/or fishing?
- Is there any evidence for Saxon activity, in particular for water management, marginal wetland agriculture, flood defences and/or fishing?
- Is there any evidence for the medieval manor house of Sudbury?
- What can be learned about the process of land reclamation and management of the area from the medieval period until the construction of the docks, in particular in relation to marginal agriculture and water management?
- What can be learned about the development of the docks during the recent historic period? Can details about London's growth as a 'world city' and the



contribution of the Docks to this economic growth be further elucidated?

- Are there any surviving remains of the Royal Victoria and Albert Docks Cut, and the channels that fed into it? If so, what can be learned about the methods, materials and techniques employed in its construction?

Revised and new objectives for future fieldwork are presented in section 13.1.

8 Methodology of site-based and off-site work

8.1 General

All archaeological excavation and recording during the sample excavation was carried out in accordance with the Crossrail Generic and Site Specific WSIs (Crossrail 2009 and 2011), the MOLA *Method Statement* (Crossrail 2013) and the *Archaeological Site Manual* (MoL, 1994). The trench evaluation took place during the main C520 works contract.

Trench 1 was sited to evaluate the site of the proposed new Crossrail Station ticket hall (on the site of the Former Barge Public House). It was located to the rear of the Barge, north of Victoria Dock Road. Trenches 2 – 4 were located along the proposed Crossrail surface track alignment and station platforms, north of the DLR Custom House Station and south of Victoria Dock Road. All trial trenches measured 4m x 2m. Modern overburden was removed by the Principal Contractor (Laing O’Rourke) by machine under archaeological supervision by a MOLA Senior Archaeologist (no railway remains were observed). Below modern overburden was historic alluvium, without archaeological structures or features. The trenches were excavated to 1m below ground level and stair access provided. The sides of the trenches were manually cleaned and monolith samples taken through the deposit sequence along with 10l bulk soil samples taken at 200mm intervals.

Samples were taken by a Geo-archaeologist and Senior Archaeologist according to standard sampling procedures for an alluvial sequence:

Sample	Sampled by	Material	Processing
Column bulk (20 litre), at 0.1m intervals down deposit profiles	Archaeologist on advice of geoarchaeologist	Freshwater and terrestrial molluscs, ostracods,	Disaggregated and wet sieved
		Plant macrofossils	Flotation or wet sieving
		Insects	Paraffin flotation
Monolith	geoarchaeologist	Sediments	Laboratory cleaning
		Pollen and Diatoms	Sub-sampled for external Specialist

Below 1m a trench box was inserted with solid end boards. The central area within the trenches was excavated a further metre, leaving 500mm-wide benches around the perimeter of the trench. These were sampled as above, and the benches were reduced by machine after archaeologists had vacated the trench. Boxes were then pushed down to the former limit of excavation and a new 1m-deep section was excavated. This proceeded until gravels were encountered.

In all cases, water ingress was severe where gravels were exposed, and in Trench 3 at the interface between the peat and the underlying alluvial clay. A combination of loose peat particles blocking the pump and all screens used, and limitations on disposal of pumped water, prevented sampling of the lowest 1m in Trench 1 behind



the Barge Public House. A large diesel pump and silt trap allowed work to proceed south of Victoria Dock Road.

The alluvial sequence was sampled by monolith tins and adjacent bulk samples at 200mm intervals in all of the trenches, although a complete sequence was only recovered from Trench 2. It was not possible to recover samples from the very lower part of the sequence in Trenches 1 and 3 due to health and safety issues and only the upper part of the sequence was sampled in Trench 4. In Trench 3, the lowest 200mm of alluvial clay was hand augered through to underlying Terrace Gravel.

Due to the limited success in Trench 4, two geoarchaeological boreholes (window samples) were drilled to record the sequence and recover samples in this location. The boreholes were located at the east and west ends of Trench 4 and were drilled with a Terrier Rig by a contractor down to the surface of the Pleistocene river gravels (c 4-5m bgl). The location of the window samples were surveyed and measured in respect to Trench 4. The pile mat in the locations of the two window samples was stripped by the principal contractor by mechanical excavator prior to the arrival of the terrier rig. Continuous cores were collected through the made ground and alluvial deposits. The cores recovered were 1m long Perspex tubes, roughly 100mm diameter. One of the samples was logged onsite and re-sealed, whilst the second sample was left sealed to retain sample integrity and provide increased preservation. Both cores have been retained for further palaeoenvironmental assessment.

9 Results and observations including stratigraphic report and quantitative report

See Fig 1 for trench locations

9.1 Excavated Evaluation Trenches

9.1.1 Trench 1

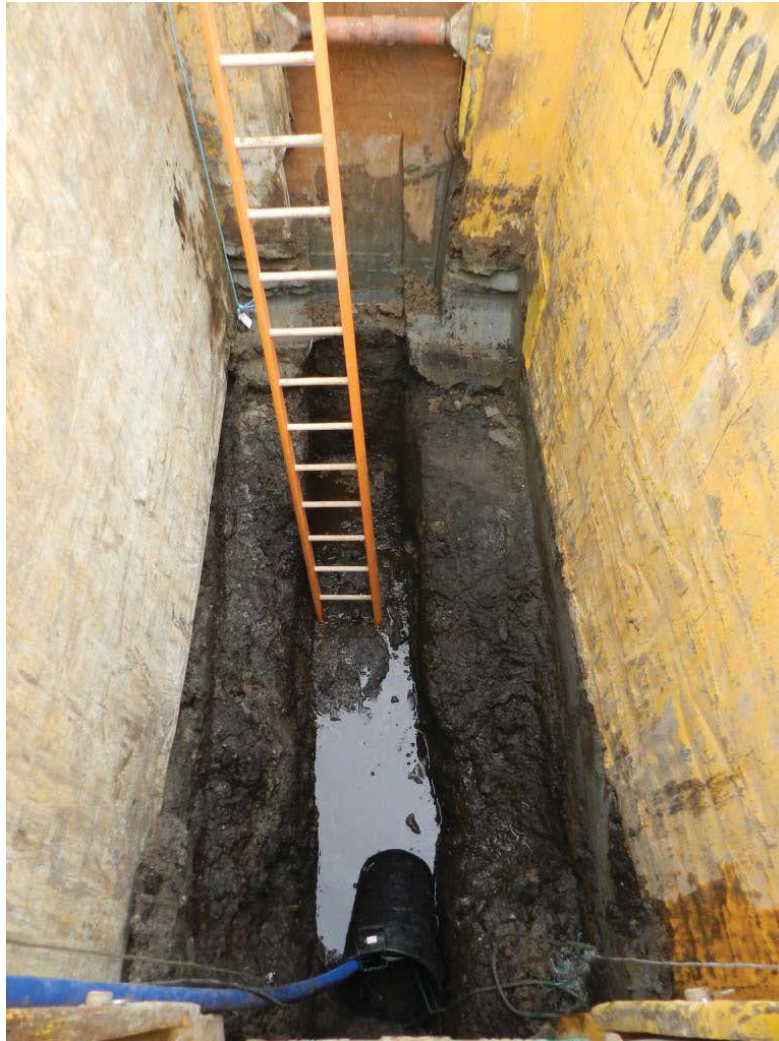


Photo 1 Trench 1: Looking north, wood peat exposed at base

Evaluation Trench 1	
Location	To the rear of the former Barge Public House, north side of Victoria Dock Road
Dimensions	4m x 2m
LSG coordinates	91005.5423 35463.5444
OS National grid coordinates	540673.743,180971.282
Modern Ground Level/top of the slab	101.47m ATD (1.47m OD)
Modern subsurface deposits	Concrete and grass +building rubble and 20 th -c building footings 500mm deep

Level of base of archaeological deposits observed and/or base of trench	A sedimentary sequence was sampled
Natural Pleistocene observed	Untruncated Terrace Gravel 98.32m ATD
Natural Holocene observed (truncated/not truncated ?)	Truncated clay 100.87m ATD over wood peat
Extent of modern truncation	0.5m bGL
Archaeological remains	Dating Evidence, Finds, and Samples
None – a Holocene sedimentary sequence was sampled	
[1] Grey clay 1m+	<1>-<3> Monoliths <5>-<8> Bulk
[2] Humic Silt 150mm thick	<3>-<4> Monoliths <9> Bulk
[3] wood peat 600mm thick	<4> Monolith <10>-<11> Bulk
[4] Pleistocene Terrace Gravel	
Interpretation and summary	
Pleistocene Thames Terrace Gravel [4] was observed at 98.32m ATD. It was overlain by wood peat [3] from the backswamp area of the Holocene Thames Floodplain (the Thames was an inland meandering river initially). The top of which undulated from 99.82m to 99.62m ATD, probably from the formation of tidal creeks as the river levels rose and became tidal, in line with sea level rise. There was a thin transitional layer of humic peat 150mm thick [2] indicating a short lived transition to an actively depositing river as the former floodplain became repeatedly flooded and left clay [1] with a degree of estuarine influence.	



Photo 2 sampling the top of the sequence in trench 1

9.1.2 Trench 2



Photo 3 sampling the top of the trench, looking west

Evaluation Trench 2	
Location	West side of proposed track and platforms, south side of Victoria dock Road
Dimensions	4m x 2m
LSG coordinates	90986.0823 35426.1821
OS National grid coordinates	540655.233,180933.449
Modern Ground Level/top of the slab	101.08m ATD (1.08m OD)
Modern subsurface deposits	Crushed Concrete 400mm deep
Level of base of archaeological deposits observed and/or base of trench	A sedimentary sequence was sampled
Natural Pleistocene observed	Untruncated Terrace Gravel 98.06m ATD
Natural Holocene observed (truncated/not truncated ?)	Truncated clay 100.68m ATD over wood peat
Extent of modern truncation	<1m bGL
Archaeological remains	Dating Evidence, Finds, and Samples
None – a Holocene sedimentary sequence was sampled [5] Grey clay 1m+	<14>, <18> _<19>Monoliths <15>-<17> and <20>-<22>Bulk

[6] wood peat 1m+ thick	<19>, <24>-<25> Monoliths <26>-<29> Bulk
[7] Grey silt 140mm-thick	<25> Monolith <30> Bulk
[8] Pleistocene Terrace Gravel	
Interpretation and summary	
Pleistocene Thames Terrace Gravel [8] was observed at 98.06m ATD. It was overlain by Holocene silt [7] followed by wood peat [6] from the backswamp area of the Thames Floodplain, to 99.42m ATD. Above this was alluvial clay [5] with a degree of estuarine influence.	



Photo 4 monolith <25> with water undermining the section

9.1.3 Evaluation Trench 3, Central



Photo 5 Trench 3: sampling the base of the upper alluvial clay and top of wood peat

Evaluation Trench 3	
Location	Centre of proposed track and platforms, south side of Victoria dock Road
Dimensions	4m x 2m
LSG coordinates	91138.2489 35433.9782
OS National grid coordinates	540807.126,180945.071
Modern Ground Level/top of the slab	102m ATD (Approx. 2m OD)
Modern subsurface deposits	Crushed Concrete 400mm deep
Level of base of archaeological deposits observed and/or base of trench	A sedimentary sequence was sampled
Natural Pleistocene observed	Untruncated Terrace Gravel 97.6m ATD
Natural Holocene observed (truncated/not truncated ?)	Truncated clay 101.03m ATD over wood peat
Extent of modern truncation	<1m bGL
Archaeological remains	Dating Evidence, Finds, and Samples

<p>None – a Holocene sedimentary sequence was sampled</p> <p>[9] Pale Grey clay 600mm thick</p> <p>[10] Blue-grey clay divided from [9] by 600mm fibrous humic clay</p> <p>[11] wood peat 1m+ thick</p> <p>[12] Grey silt 800mm-thick</p> <p>[13] Pleistocene Terrace Gravel</p>	<p><31>Monolith <32> and <33> Bulk</p> <p><31>, <35>-<36> Monoliths and <37>-<40> Bulk</p> <p><36>, <42> and <46> Monoliths <41> <43>-<45> and <48> Bulk</p> <p><48> Monolith <49>-<50> Bulk</p>
<p>Interpretation and summary</p>	
<p>Pleistocene Thames Terrace Gravel [13] was observed at 97.6m ATD. It was overlain by Holocene silt [12] followed by wood peat [6] from the backswamp area of the Thames Floodplain, to 99.42m ATD. Above this was alluvial clay [5] with a degree of estuarine influence.</p>	

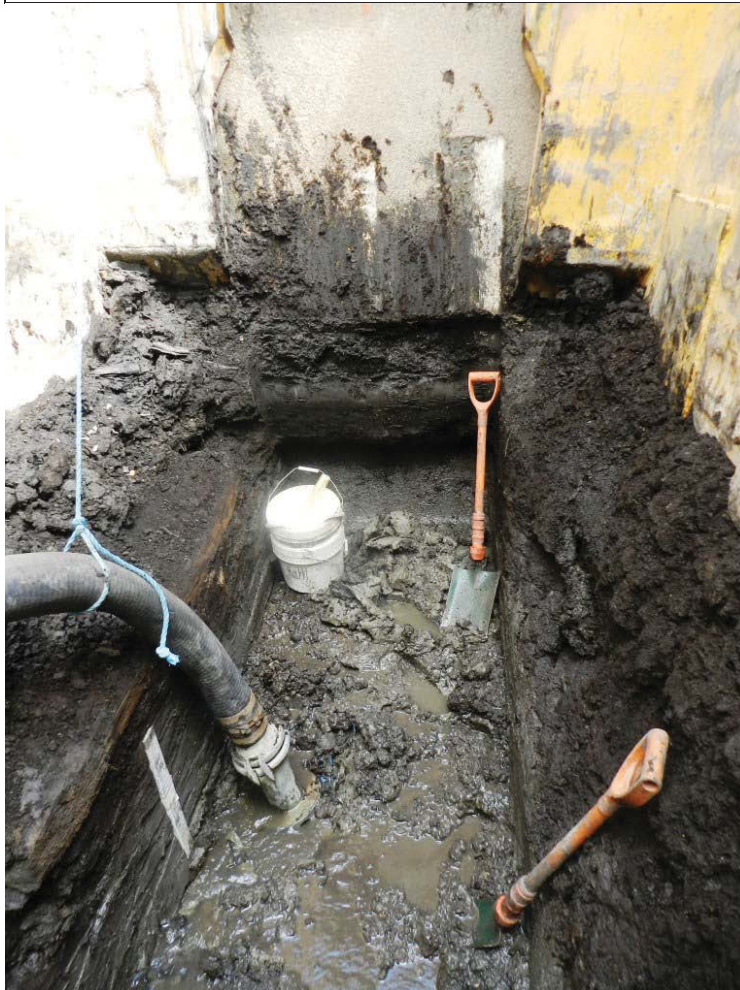


Photo 6 Trench 3: sampling the base of the wood peat and lower alluvial clay

9.1.4 Evaluation Trench 4



Photo 7 Trench 4: alluvium exposed beneath imported topsoil

Evaluation Trench 4	
Location	East of Proposed track and platforms, south side of Victoria dock Road
Dimensions	4m x 2m
LSG coordinates	91213.9839 35435.3638
OS National grid coordinates	540882.788,180948.362
Modern Ground Level/top of the slab	101.57m ATD (1.57m OD)
Modern subsurface deposits	Crushed Concrete 300mm deep, imported topsoil from unknown source 1.83m
Level of base of archaeological deposits observed and/or base of trench	A sedimentary sequence was sampled
Natural Pleistocene observed	Not observed
Natural Holocene observed (truncated/not truncated ?)	Truncated clay 99.44m ATD over wood peat
Extent of modern truncation	1.83m+ bGL
Archaeological remains	Dating Evidence, Finds, and Samples
None – a Holocene sedimentary sequence was sampled	

[14] Blue-grey clay	<51>- <52> Monoliths and <54> Bulk
[11] wood peat 1m+ thick	<52> Monoliths <55>- <56> Bulk

Interpretation and summary

Because of the degree of water ingress and because large limbs or trunks of trees pulled in the sides of the excavation, sampling stopped at 98.84m ATD (excavation with observations from the surface continued to approximately 98.1m ATD). The investigation of this area continued with Window Samples 1 and 2

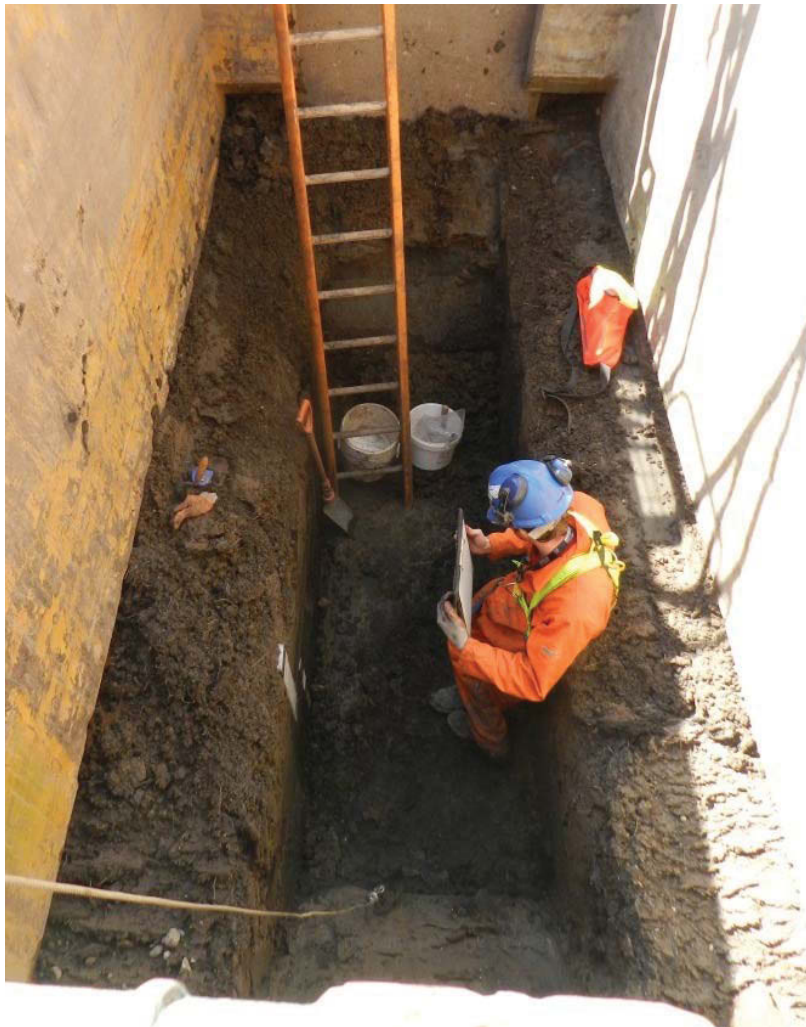


Photo 8 Trench 4: sampling the base of alluvial clay and top of wood peat



9.1.5 Window sample 1

Window sample 1	
Location	East of Proposed track and platforms, south side of Victoria dock Road
Dimensions	5m x 0.1m
LSG coordinates	91217.04 35435.16
OS National grid coordinates	540886.1565 180948.0917
Modern Ground Level/top of the slab	101.50m ATD (1.50m OD)
Modern subsurface deposits	Crushed Concrete 300mm deep, imported topsoil 1.83m
Level of base of archaeological deposits observed and/or base of window sample	A sedimentary sequence was sampled
Natural Pleistocene observed	Sands and gravels 96.7m ATD
Natural Holocene observed (truncated/not truncated ?)	Truncated clay 99.3m ATD
Extent of modern truncation	1.83m+ bGL
Archaeological remains	Dating Evidence, Finds, and Samples
None – a Holocene sedimentary sequence was sampled	
[14] Blue-grey clay	WS1 5 x 1m cores
[11] wood peat 1m+ thick	
Interpretation and summary	
<p>WS1 samples the full sequence of the surviving alluvial deposits immediately to the east of Trench 4. Pleistocene Thames Terrace Gravel was observed at 96.7m ATD. This graded up into a wood peat [11] from the backswamp area of the Thames Floodplain, to 99.3m ATD. Above this was alluvial clay [14] with a degree of estuarine influence. The interface between the alluvial clay and overlying >1m of dumped clayey soil was hard to accurately locate whilst recording the sediments within the window samples.</p>	

9.1.1 Window sample 2

Window sample 2	
Location	East of Proposed track and platforms, south side of Victoria dock Road
Dimensions	5m x 0.1m
LSG coordinates	91210.98 35435.50
OS National grid coordinates	540880.0899 180948.2790
Modern Ground Level/top of the slab	101.50m ATD (1.50m OD)
Modern subsurface deposits	Crushed Concrete 300mm deep, imported topsoil 1.83m
Level of base of archaeological deposits observed and/or base of window sample	A sedimentary sequence was sampled
Natural Pleistocene observed	Sands and gravels c. 96.7m ATD
Natural Holocene observed (truncated/not truncated ?)	Truncated clay c. 99.3m ATD
Extent of modern truncation	1.83m+ bGL
Archaeological remains	Dating Evidence, Finds, and Samples
None – a Holocene sedimentary sequence was sampled	
[14] Blue-grey clay	WS2 5 x 1m cores
[11] wood peat 1m+ thick	
Interpretation and summary	
<p>WS2 samples the full sequence of the surviving alluvial deposits immediately to the west of Trench 4. This sample was retained unopened to enhance preservation and provided better sample integrity. The deposit depth observations are assumed from WS1 and confirmed by observation of the open top and bottom of the core. Pleistocene Thames Terrace Gravel was observed at c. 96.7m ATD. This graded up into a wood peat [11] from the backswamp area of the Thames Floodplain, to c. 99.3m ATD. Above this was alluvial clay [14] with a degree of estuarine influence.</p>	

9.2 Quantification

Sixty six samples were recovered, comprising 17 monoliths, 10 window-sample cores and 39 bulk samples. There were 15 context records, 7 sections and 4 trench sheets

10 Assessment of results against original expectations and review of evaluation strategy

The draft revised GLAAS guidelines (English Heritage, 2009) require an Assessment of results against original expectations (these no longer mention the criteria for assessing national importance).

10.1 Reliability of results

The results of these investigations are consistent between exposures – the alluvial sequence is clearly defined. There are no archaeological remains.

10.2 Research aims

The original research objectives (see 7) were met as follows; information was recovered on:

- *What is the development of the local landscape, topography and environment of the Thames floodplain? What Palaeoenvironmental data is there to inform on this development?*

A consistent sequence of wood peat and alluvial clay overly Shepperton Gravels – their interpretation depends upon further work

There were no archaeological remains. Other research aims were dependent upon the recovery of archaeological finds. There was therefore no evidence for activity dated to the Roman, medieval, or post-medieval periods. No evidence for Dock or early railway structures were found.

For revised and new objectives for further fieldwork based on evaluation results see section 13.1.

11 Statement of potential archaeology

11.1 Known remains, demonstrated to be present on the site:

- There are no archaeological remains. The site has a simple alluvial sequence.

11.2 Potential for further remains:

- Low potential for prehistoric activity, which is likely to be limited to stray finds and isolated truncated features.

11.3 Importance of Resources

The importance of the excavated remains has been assessed using professional judgement, informed, where applicable, by the criteria for assessing the national importance of monuments (DCMS 2010, Annex 1).



The accurate assessment of the resource is dependent upon the processing and assessment of the samples taken. At this time, their principle significance would appear to be as part of the wider geo-archaeological investigations in this part of the Crossrail project, where they might have a direct impact upon interpreting prehistoric and medieval landscapes. They may be contrasted with the high-surviving sand (possibly a former levee or dune) upon which the nearby prehistoric settlement at the Royal Docks Community School site.

12 Conclusions

The site has recovered samples from a simple alluvial sequence (over Shepperton Gravels) of potentially prehistoric wood peat of a former backswamp area of the Thames floodplain, eroded at the surface by creek formation as a result of tidal action and increased energy environments. This was overlain by potentially medieval alluvial clays.



13 Recommendations for appropriate mitigation strategy

It is recommended that the assessment, analysis of the geoarchaeological samples and the publication and dissemination of the results of the analysis will provide appropriate mitigation for this site.

13.1 Revised and new objectives for further fieldwork

No further fieldwork is recommended.

14 Publication and dissemination proposals

Evaluation results will initially be disseminated via this report; the supporting site archive of records, including digital data and by incorporation into the wider predictive deposit modelling for the Crossrail scheme. The results from Custom House will also be included in the East Area Geo-archaeology Report (CRL12), where two specific themes from Sect 5.7 of the Crossrail Central Archaeology Updated Project Design for Post-excavation Works (Doc No. CR-XRL-T1-STP-CR001-50001) will be addressed.

15 Archive deposition

The site archive containing original records will be stored temporarily with MOLA pending a future decision over the longer-term archive deposition and public access process for the wider Crossrail project.



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17 Acknowledgements

The fieldwork was commissioned and managed for Crossrail by Iain Williamson and Jay Carver.

All archaeological investigations were supervised by the author and Virgil Yendell. The MOLA Contracts Managers were David Divers and Michael Smith



18 NMR OASIS archaeological report form

OASIS ID: molas1-156676

Project details

Project name	Archaeological and geo-archaeological excavation of Crossrail Station Site
Short description of the project	4 trial trenches and two window samples exposed former wood peat interpreted to be the former backsamp area of the Thames Floodplain) overlying late Pleistocene Shepperton Gravels. Above the peat was estuarine influenced alluvial clay
Project dates	Start: 15-04-2013 End: 10-06-2013
Previous/future work	No / Not known
Any associated project reference codes	XTI13 - Sitecode
Type of project	Field evaluation
Site status	Area of Archaeological Importance (AAI)
Current Land use	Transport and Utilities 2 - Other transport infrastructure
Methods & techniques	"Augering", "Targeted Trenches"
Development type	Rail links/railway-related infrastructure (including Channel Tunnel)
Prompt	Crossrail Act

Project location

Country	England
Site location	GREATER LONDON NEWHAM EAST HAM Custom House
Postcode	E16
Study area	11577.00 Square metres
Site coordinates	TQ 4077 8092 51 0 51 30 32 N 000 01 43 E Point
Height OD / Depth	Min: -3.00m Max: 1.00m

Project creators

Name of Organisation	MOLA
Project brief originator	Crossrail

Project design originator Crossrail



Project director/manager Michael Smith

Project supervisor David Sankey

Type of sponsor/funding body Developer

Name of sponsor/funding body Crossrail Ltd

Project archives

Physical Archive Exists? No

Digital Archive recipient To be designated

Digital Contents "Survey"

Digital Media available "Images raster / digital photography","Survey","Text"

Paper Archive recipient To be designated

Paper Media available "Notebook - Excavation',' Research',' General Notes',"Unpublished Text"

Project bibliography

Publication type Grey literature (unpublished document/manuscript)

Title C263 ARCHAEOLOGY LATE EAST Fieldwork Report
Archaeological Evaluation Custom House XTI13

Author(s)/Editor(s) Sankey, D.

Date 2013

Issuer or publisher MOLA

Place of issue or publication London

Description A4 report

Entered by David Sankey (DSankey@mola.org.uk)

Entered on 7 August 2013

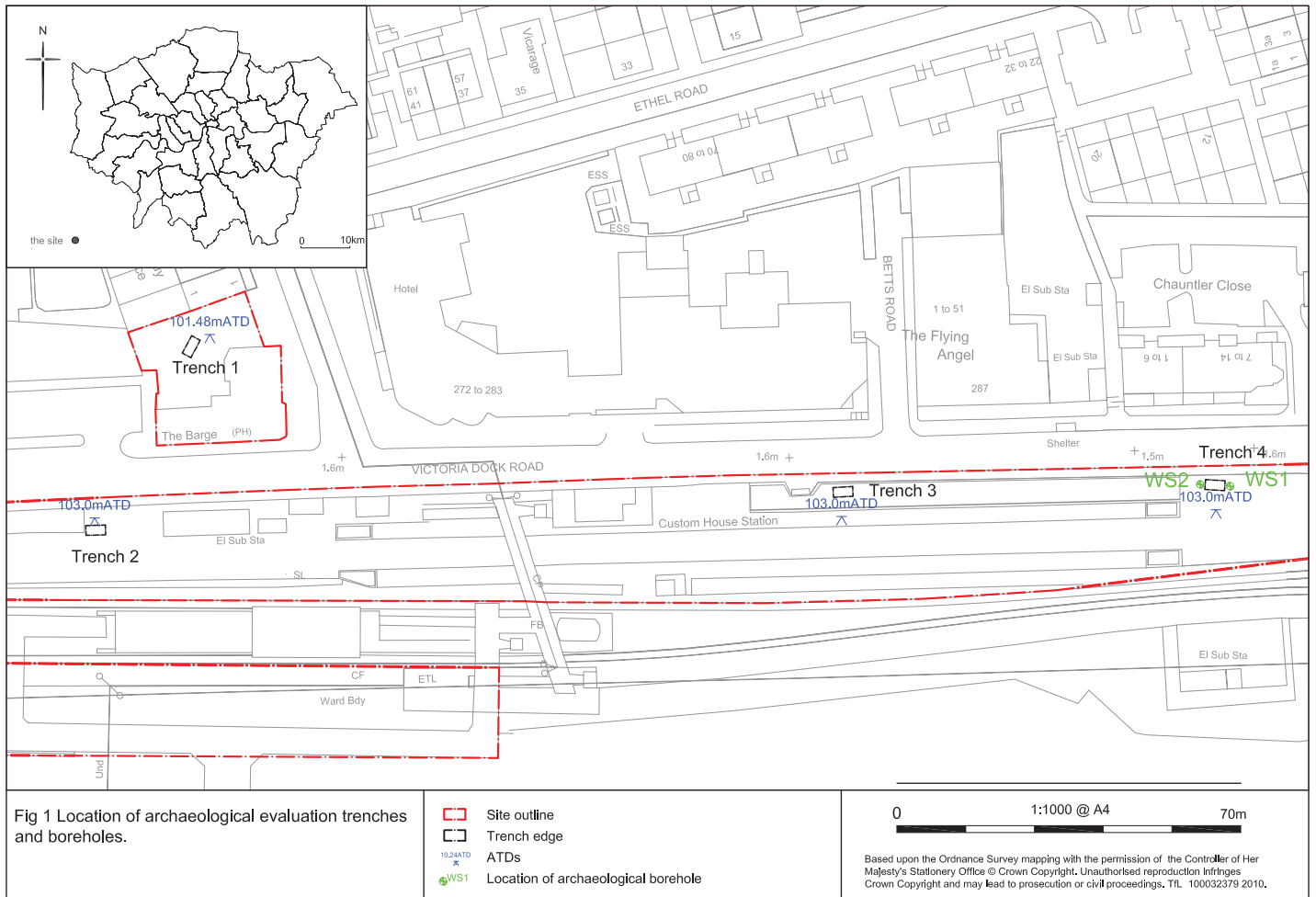


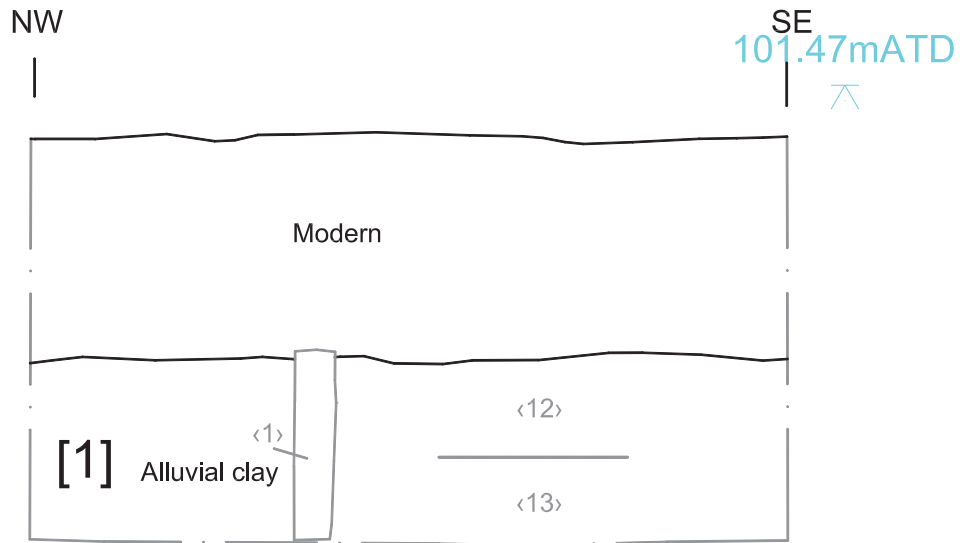
Fig 1 Location of archaeological evaluation trenches and boreholes.

- Site outline
- Trench edge
- X ATDs
- S Location of archaeological borehole

0 70m
1:1000 @ A4

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South-west facing



South-east facing

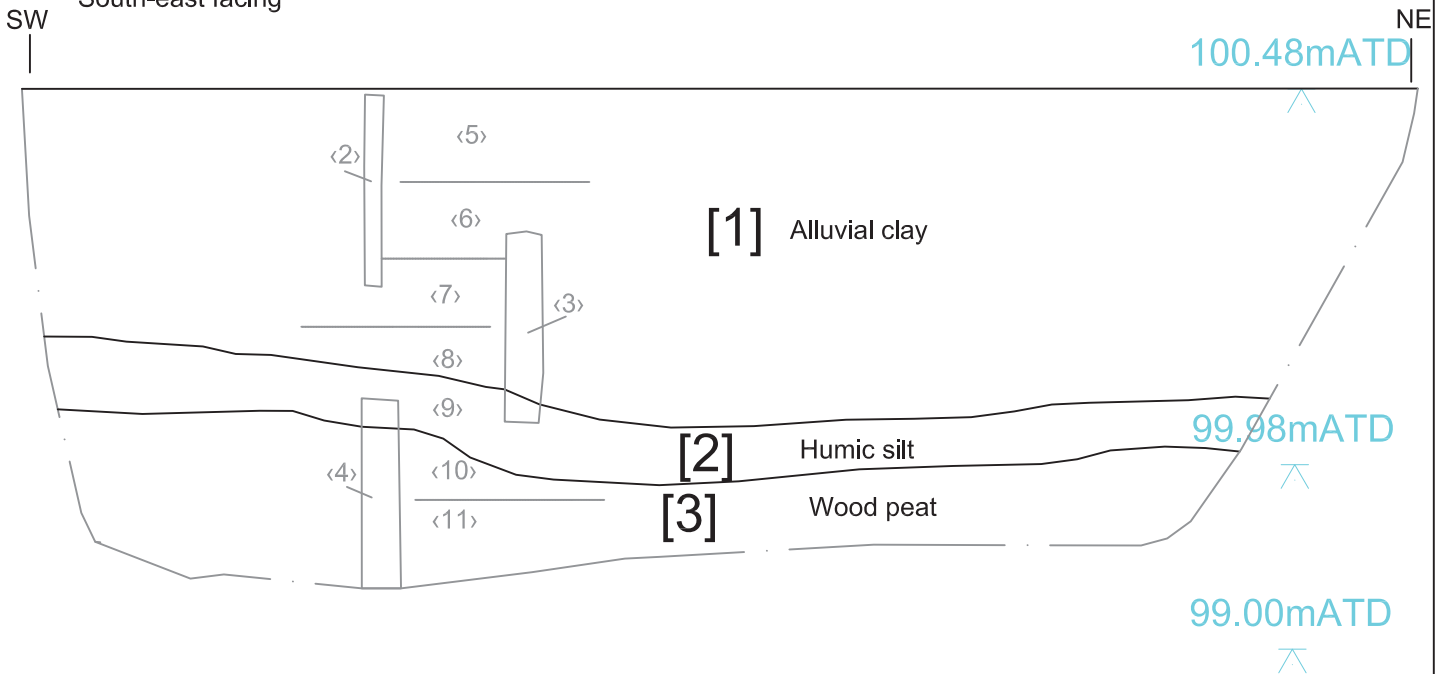





Fig 2. Trench 1. South-east and South-west facing.

-  Archaeological features
-  Samples
-  TBMs

0 1:20 @ A4 1m

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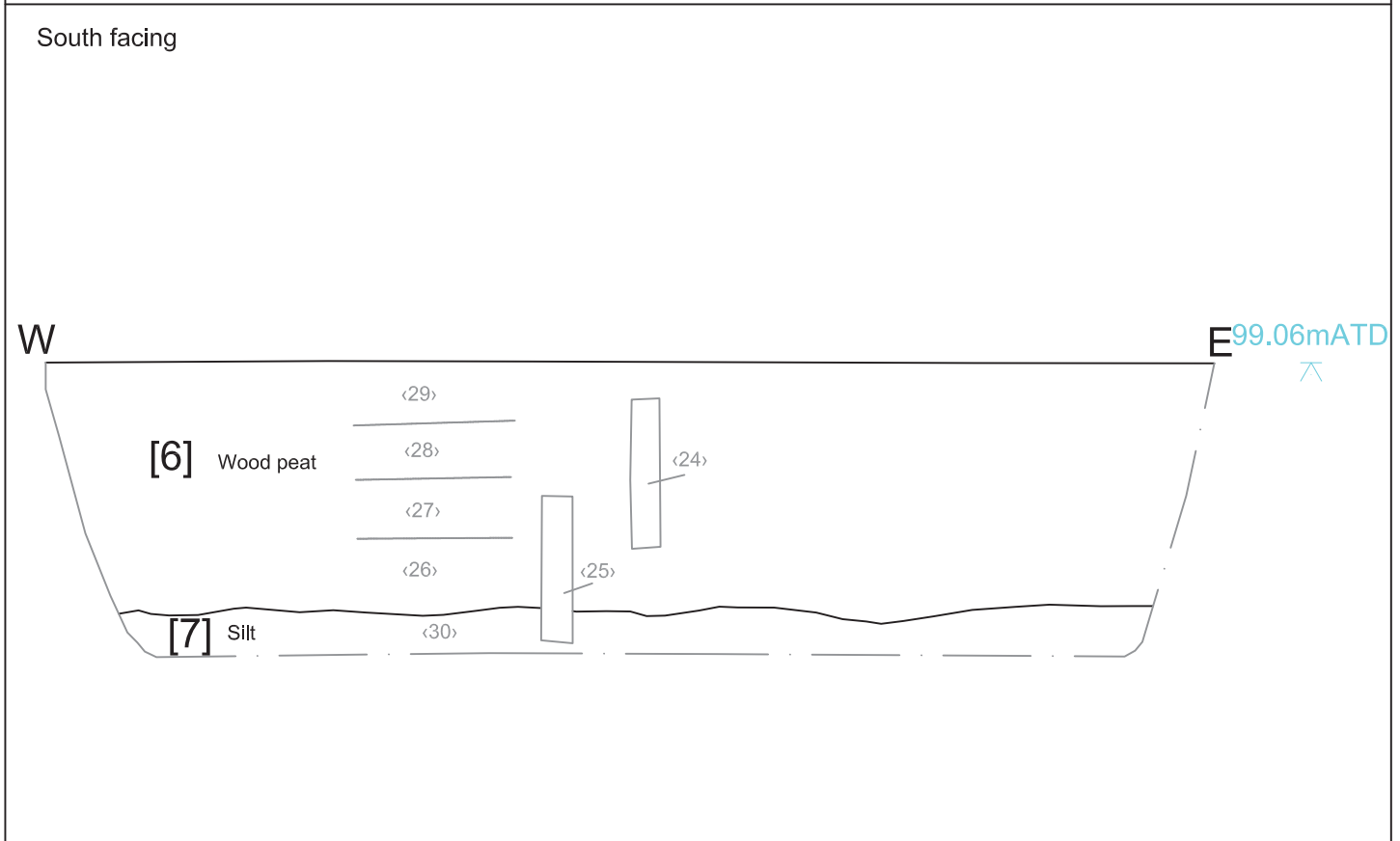
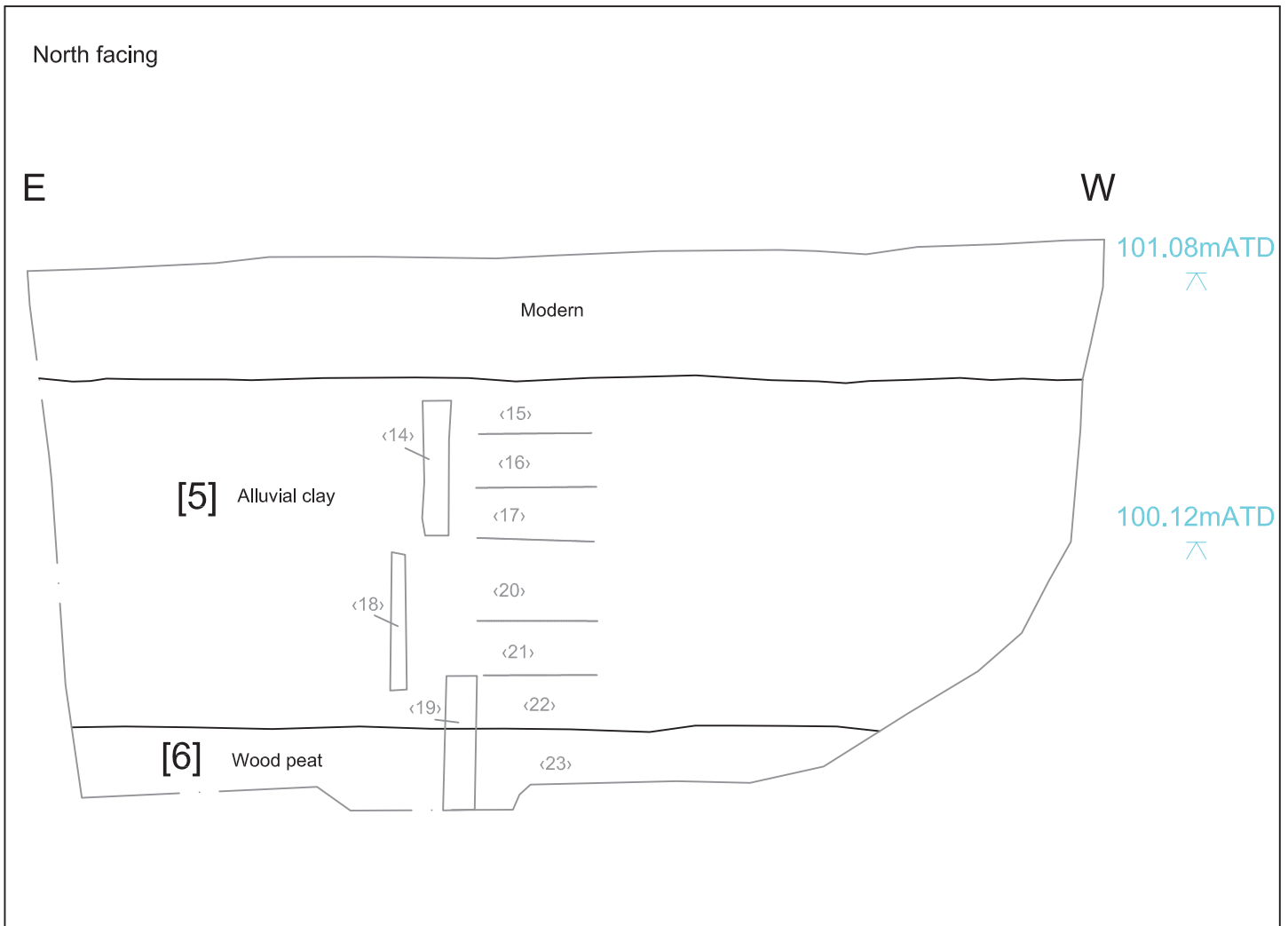


Fig 3. Trench 2. North and South facing.

- [1] Archaeological features
- (12) Samples
- 10.24mOD
⌵ TBM

0 1:40 @ A4 1.25m

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South facing - Top step

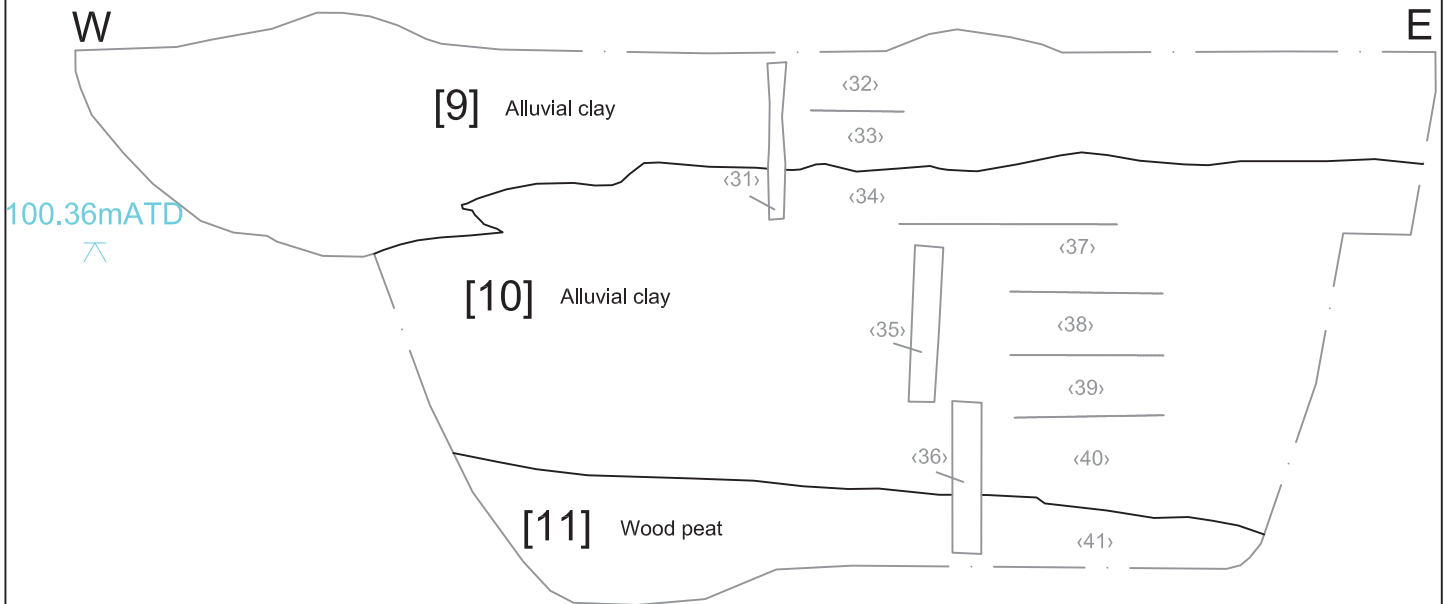


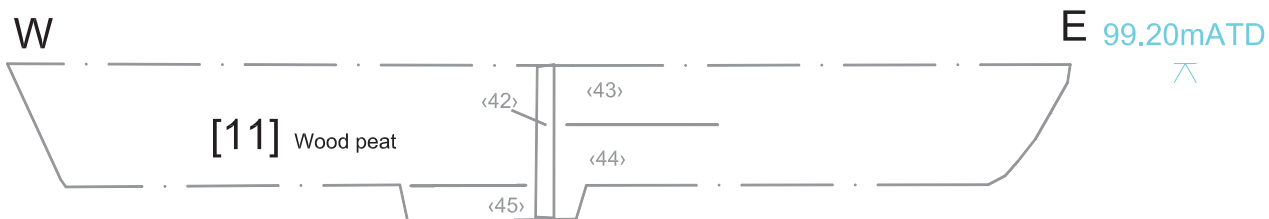
Fig 4. Trench 3. South facing - top step

- [1] Archaeological features
- (12) Samples
- 10.24mOD
⋈ TBM

0 1:40 @ A4 1.25m

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South facing - Middle step



South facing - Bottom step

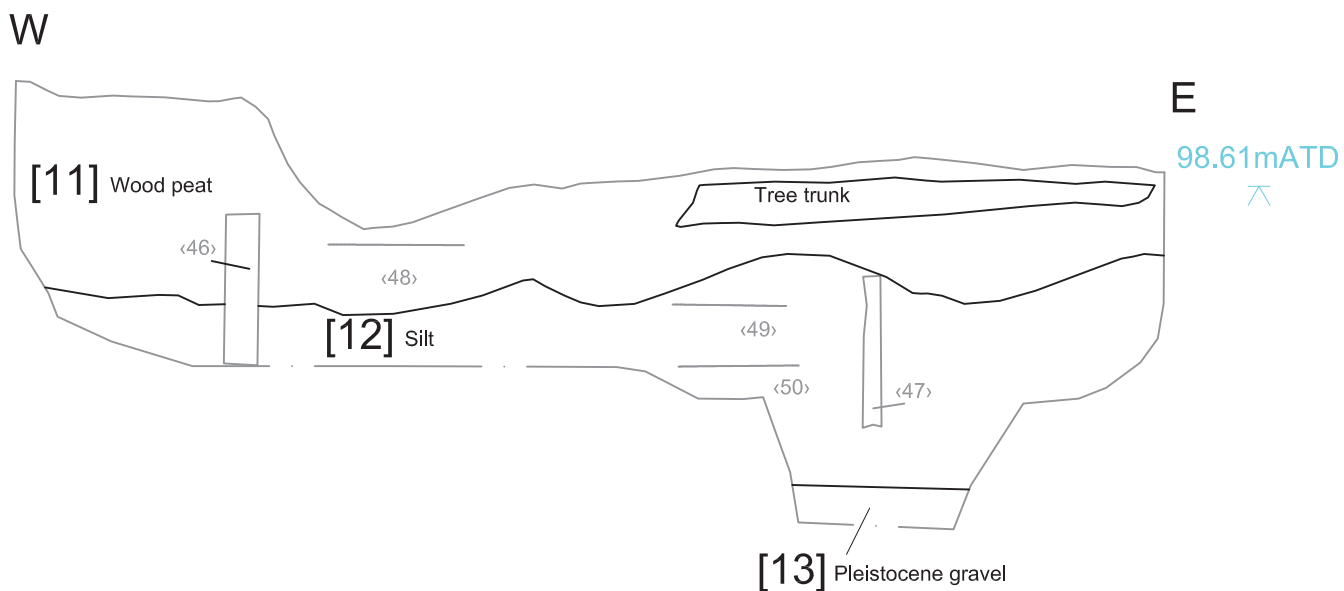


Fig 5. Trench 3. South facing, middle and bottom-step

- [1] Archaeological features
- [12] Samples
- 10.24mOD
⌵ TBMs

0 1:40 @ A4 1.25m

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North facing

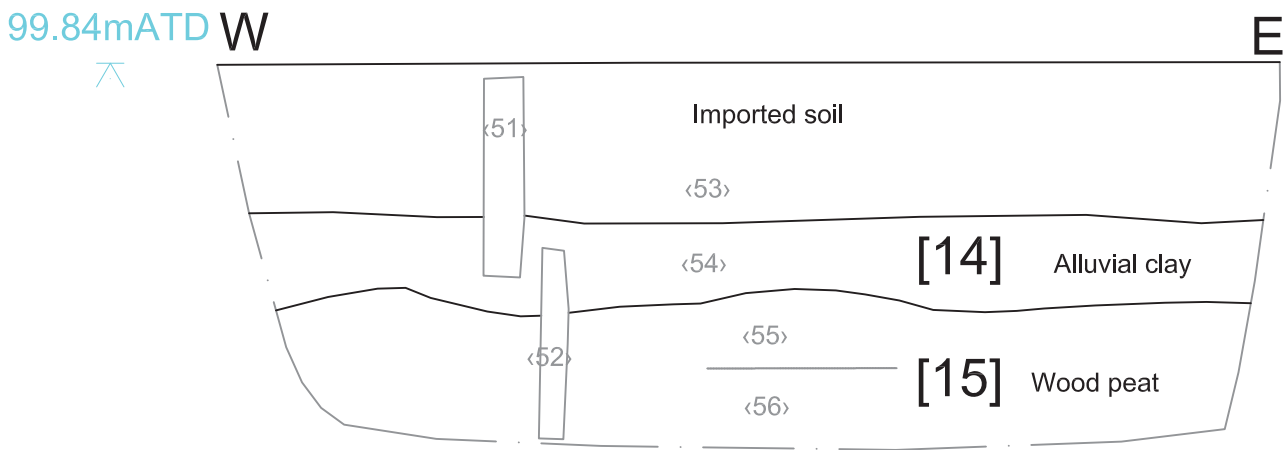


Fig 6. Trench 4. North facing

- [1] Archaeological features
- (12) Samples
- 10.24mOD TBM

0 1:20 @ A4 1m

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