



C263 ARCHAEOLOGY LATE EAST
Interim Statement
Archaeological Evaluation
Custom House XT113

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Fig 1 Location of Evaluation trench and watching brief areas

1 Introduction

This Interim Statement covers the archaeological excavation and watching brief carried out at the location of the future Crossrail Custom House Station by the C263 Museum of London Archaeology (MOLA).

All fieldwork was conducted between 15/04/13 to 10/06/13, directed by MOLA Senior Archaeologist David Sankey and Virgil Yendell Senior Geoarchaeologist. It included:

- **Trial trench evaluation**, (4 Trial Trenches located across the surface rail and to the rear of the former Barge public house)
- **Geoarchaeological boreholes**, (2 boreholes were added to the scope of evaluation work to record the entire alluvial sequence and recover samples from the Trench 4 location)

The event code (site code) is XTI13.

This document is an interim statement of the results of the fieldwork completed at Custom House. Other fieldwork and standing building recording is expected. More extensive background, results, and conclusions will be included in the Fieldwork Report which will be submitted within six weeks of the end of fieldwork (Crossrail, *Archaeology, Specification for Evaluation & Mitigation (including Watching Brief, Doc. No. CR-PN-LWS-EN-SP-00001, v. 0.3, 26.06.09)*).

The fieldwork was carried out in accordance with:

- The Crossrail **Generic Written Scheme of Investigation**: *Archaeology Generic Written Scheme of Investigation*, Doc No. CR-PN-LWS-EN-SY-00001, 2009.
- A Crossrail **Site-specific Written Scheme of Investigation** (SS-WSI): *Custom House Station WSI, Site-specific Written Scheme of Investigation*, Doc. No. C520-XRL-T1-RGN-CR145-50001 revision 5; dated 26.11.12.
- 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 (XTI13)* Doc. No. C263-MLA-X-GMS-CR145-50001, version 4; dated 26.03.13

The two geoarchaeological boreholes were carried out in accordance with the above Crossrail documents and:

- An **Archaeological Method Statement** MOLA, *C263 Archaeology Late East, Method Statement Trench Evaluation, sample excavation, watching briefs, non-listed built heritage recording and geoarchaeological boreholes, Custom House Station (XTI13)* Doc. No. C263-MLA-X-GMS-CR145-50001, version 5; dated 07.06.13

2 Site Methodology and fieldwork objectives

2.1 Evaluation methodology and sampling method

Trench 1 was located to the rear of the former Barge Public House, north of Victoria Dock Road, Trenches 2 – 4 along the main station platform, 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.

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 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.

3 Provisional Results

See Fig 1 for locations.

All levels in this interim report are quoted in metres Above Tunnel Datum (m ATD). Tunnel Datum is calculated as being 100m above Ordnance Datum e.g. 1m OD = 101m ATD.

3.1 Evaluation Trench 1, The Barge Public House



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	
<p>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.</p>	



Trench 1: sampling the top of the sequence

3.2 Evaluation Trench 2, West



Trench 2: Taking samples from 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.	



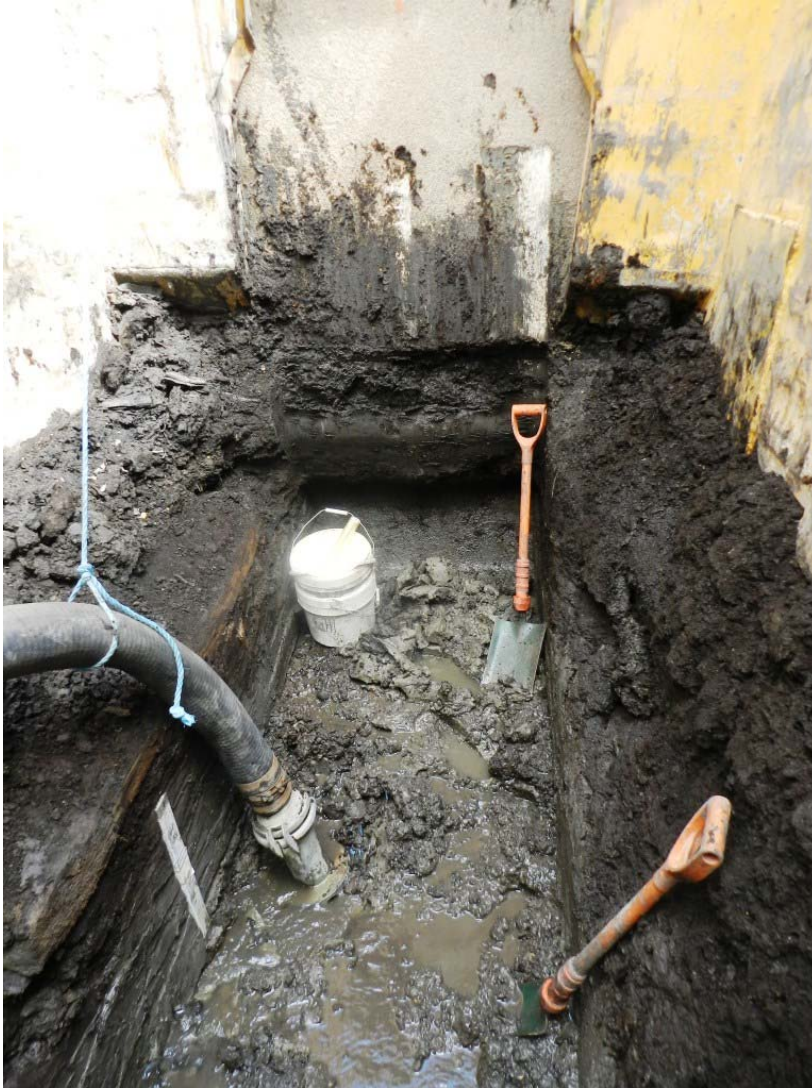
Trench 2 monolith <25> with water undermining the section

3.3 Evaluation Trench 3, Central



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
None – a Holocene sedimentary sequence was sampled	
[9] Pale Grey clay 600mm thick	<31>Monolith <32> and <33> Bulk
[10] Blue-grey clay divided from [9] by 600mm fibrous humic clay	<31>, <35>-<36> Monoiliths and <37>-<40> Bulk
[11] wood peat 1m+ thick	<36>, <42> and <46> Monoliths <41> <43>-<45> and <48> Bulk
[12] Grey silt 800mm-thick	<48> Monolith <49>-<50> Bulk
[13] Pleistocene Terrace Gravel	
Interpretation and summary	
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.	



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

3.4 Evaluation Trench 4, East



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 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	



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

3.5 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>	

3.6 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 [11] wood peat 1m+ thick	WS2 5 x 1m cores
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>	

4 Summary and conclusions (*provisional*)

4.1 Summary of Fieldwork Results

- Above terrace gravel an alluvial sequence was exposed, including earlier Holocene sediments, backswamp wood peat and later Holocene – medieval clay from tidal floods. Palaeoenvironmental data can be obtained from sedimentary and pollen analyses, planktonic fauna diatoms and foraminifera, plant and faunal macrofossils. Such data would have to be accompanied by carbon dates as there is no artefactual dating available.
- There was no evidence for Palaeolithic or Mesolithic activity
- The palaeoenvironmental evidence preserved within the datable peat deposits could provide indirect evidence of human activity associated with the temporary occupation of gravel highs and other ectonal locations, which would have been targeted by hunter-gatherer groups from the Mesolithic onwards.
- Buried wood remains were natural and there was no evidence for prehistoric structures or trackways
- There was no evidence of later prehistoric, Roman or medieval activity or occupation (neither Saxon nor later medieval Sudbury manor)
- There were no remains pertinent to the process of land reclamation and management of the area from the medieval period until the construction of the docks, or in relation to marginal agriculture and water management. Nor were there remains pertinent to the development of the docks during the recent historic period.
- There were no surviving remains of the Royal Victoria and Albert Docks Cut, and the channels that fed into it.

4.2 *Provisional* conclusions for future work:

The Crossrail Project Archaeologist will determine what further archaeological works are required to mitigate the impact of the Crossrail works.

A Holocene alluvial sequence was sampled with three principle units:

1. Lower clay
2. Wood peat
3. Upper clay

Interpretation of these is dependent upon comparative local data but the fieldwork has confirmed that a deep, relatively untruncated alluvial sequence survives onsite with the surface of the Pleistocene gravels dipping from 98.32m ATD in the west to 96.7m ATD in the east. Such a sequence has the potential to reconstruct the evolving Holocene environment and provide indirect evidence of human activity through their impact on the environment, from the Mesolithic onwards.



5 Future Deliverables

The remaining deliverables for the evaluation, and their delivery dates as specified by *Crossrail, Archaeology, Specification for Evaluation & Mitigation (including Watching Brief)* Doc. No. CR-PN-LWS-EN-SP-00001, v. 0.3, 26.06.09, and in Section 8 of the SS-WSI, *Custom House Station WSI, Site-specific Written Scheme of Investigation*, Doc. No. C520-XRL-T1-RGN-CR145-50001 revision 5; dated 26.11.12, are:

- **Survey report** to be delivered 24/06/13 (2 weeks from the completion of the fieldwork)
- **Fieldwork report** (including OASIS Summary Sheet) to be delivered 22/07/13 (six weeks from the completion of the fieldwork)
- **Summary report** to be delivered 05/08/13 (8 weeks from the completion of the fieldwork)



Annex 1 – Location Plan

Fig 1 Location of Evaluation trench and watching brief areas