

KENT WHARF DEPTFORD LONDON BOROUGH OF LEWISHAM

Geoarchaeological Deposit Model Report

NGR: TQ 3760 7745

Site Code: KWF15

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1. INTRODUCTION

This report summarises the findings arising out of the geoarchaeological fieldwork and deposit modelling undertaken by Quaternary Scientific (University of Reading) in connection with the proposed development of land at Kent Wharf, Deptford, London Borough of Lewisham (NGR centred on: TQ 3760 7745; site code: KWF15; Figures 1 & 2). Quaternary Scientific were commissioned by CgMs Consulting Ltd to undertake the geoarchaeological investigations. The area of investigation at Kent Wharf (*centred* on NGR TQ 3760 7745; Figure 1) lies in the valley of the Ravensbourne, a minor right bank tributary of the River Thames that rises in Bromley (Barton, 1992). The site is within the tidal reach of the River, known here as Deptford Creek, around 500m upstream from its confluence with the Thames. British Geological Survey (BGS) mapping (1:50,000 Sheet 270 South London 1998) shows the valley of the Ravensbourne cutting down into the Upper Chalk and the floor of the valley occupied by Alluvium, with a narrow strip of terrace gravel (the Kempton Park Gravel) present on both sides of the valley.

Fifteen geotechnical boreholes have been put down on or around the 0.4 hectare site (Figure 2). Of these, only four reach the surface of the terrace gravels, recording it between approximately -2.2 and -1.6m OD (5.7-7 BGL; Kent-MBH1 to Kent-MBH4 & VW-MBH1). The overlying alluvial deposits are up to 4m thick and largely inorganic, consisting of clays, silts and sands. The exception to this is VW-MBH1 in which a 90cm thick horizon of peat is recorded overlying the Shepperton Gravel. In addition, the alluvium in Kent-MBH1 is described as containing organic fragments. The results thus suggest that the sequence is more organic on the western part of the site.

At both Greenwich Creekside East (250m to the north; Batchelor, 2015b), and the Faircharm Creative Quarter (175m to the south; Young, 2014) (Figure 1), geoarchaeological investigations revealed a sequence of dominantly inorganic alluvium overlying Shepperton Gravel (recorded between *ca.* 0 and -3m OD), capped by Made Ground; similar therefore, to the majority of sequences on the eastern part of the Kent Wharf site. However at Greenwich Creekside East, an apparent depression (potentially indicative of a former channel) was recorded, orientated approximately south-west to north-east across the site. One of the boreholes towards the centre

of this depression also contained a concentration of waterlogged wood remains at the interface between the Gravel and Alluvium, but otherwise, no other organic remains or peat were recorded on either site.

Further upstream of the Ravensbourne at Old Seager Distillery (Batchelor *et al.*, 2009, 2014; Figure 1), peat (overlying gravel) was recorded between 0.44 and 1.80m OD and radiocarbon dated between 7200-6440 and 5580-5320 cal BP (late Mesolithic to Neolithic). Significantly, this peat also contained a lithic assemblage of ten struck flints including blades, truncated blades and flakes, thought to represent tool use and discard during the Mesolithic or Early Neolithic. The biostratigraphic record indicates that during the earlier part of this period of peat formation (between ca. 6800 and 5450 cal BP) the wetland was dominated by fen woodland, whilst the dryland was occupied by mixed deciduous woodland. A decline in elm woodland is recorded after 6740-6540 cal BP, which could be linked to human activity (Batchelor *et al.*, 2009, 2014). Following a long hiatus, a second phase of peat formation occurred between 1940-1810 and 1020-930 cal BP (Roman and Medieval periods). During this period, the wetland was dominated by aquatics and emergent plants, with a much reduced woodland cover, while the dryland was open and dominated by herbaceous communities (Batchelor *et al.*, 2009, 2014).

The DLR Lewisham Extension site (Sidell *et al.*, 1999; Figure 1) indicated a similar sedimentary sequence to Old Seager Distillery; basal alluvial silt/clays were overlain by peat from 7430-7030 cal BP (Late Mesolithic) that accumulated between ca. 0 and 0.5m OD. A hiatus in peat formation of unknown duration also occurred here, represented by a weakly organic clay indicating deposition under aquatic conditions.

The Kent Wharf site thus offers an opportunity to contribute to our understanding of landscape evolution in this part of the Ravensbourne tributary and Lower Thames Valley. In particular, the western part of the site has the potential to contain thick peat horizons, which on the basis of the findings from Old Seager Distillery may be of prehistoric and/or historic date, and include evidence of both palaeoenvironmental change and human activity. Five significant research aims were thus proposed within the geoarchaeological Written Scheme of Investigation (WSI; Batchelor, 2015a) for the site as follows:

1. To clarify the nature of the sub-surface stratigraphy across the site;
2. To clarify the nature, depth, extent and date of any alluvium and peat deposits
3. To investigate whether the sequences contain any artefact or ecofact evidence for prehistoric or historic human activity
4. To investigate whether the sequences contain any evidence for natural and/or anthropogenic changes to the landscape (wetland and dryland)
5. To integrate the new geoarchaeological record with other recent work in the local area for publication in an academic journal

The content of this report achieves the first two of these aims and considers the potential of addressing aims 3 to 5 through laboratory-based assessment and analysis. The following objectives were carried out in order to address aims 1 & 2:

1. To retrieve three geoarchaeological borehole sequences on a north - south transect across the site (Figure 2)
2. To utilise the stratigraphic data from the new and existing records to produce a deposit model of the major depositional units across the site.



Figure 1: Location of (1) Kent Wharf, Deptford, London Borough of Lewisham, and nearby sites discussed in the text: (2) Greenwich Creekside East (3) Faircharm Creative Quarter (FCM14); (4) Old Seager Distillery (DEG00) and (5) the DLR Lewisham Extension site (DXK96; Sidell *et al.*, 1999). *contains Ordnance Survey data © Crown copyright and database right [2015].*

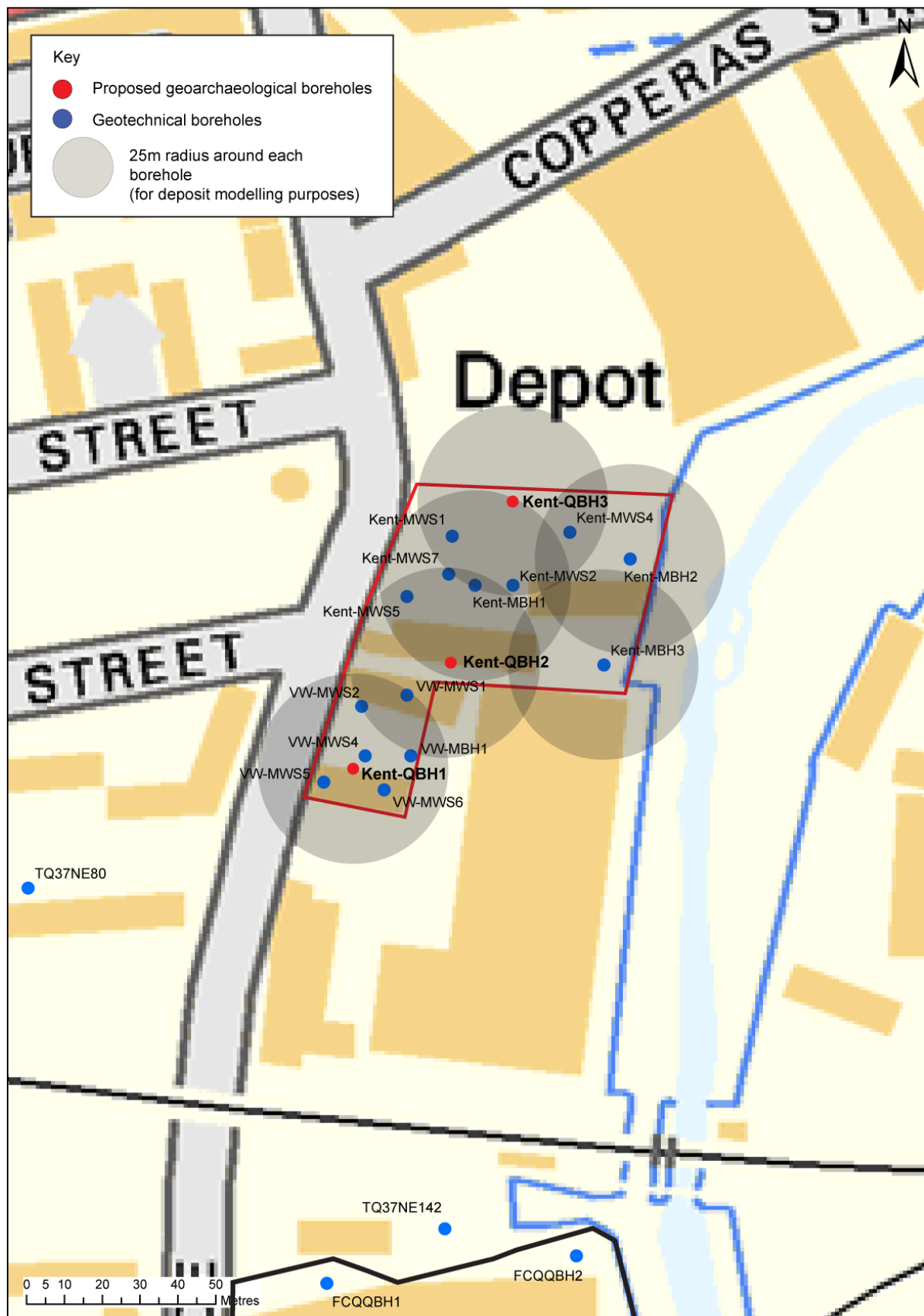


Figure 2: Proposed locations of the geoaerchaeological boreholes, and locations of the existing geotechnical boreholes

2. METHODS

Field investigations and lithostratigraphic descriptions

Three geoarchaeological boreholes (boreholes Kent-QBH1 to QBH3) were put down at the site in October 2015 (Figure 2) by Quaternary Scientific. Borehole core samples were recovered using an Eijkelkamp window sampler and gouge set using an Atlas Copco TT 2-stroke percussion engine. This coring technique is a suitable method for the recovery of continuous, undisturbed core samples and provides sub-samples suitable for not only sedimentary and microfossil assessment and analysis, but also macrofossil analysis. The new and historic borehole locations were obtained with reference to site maps and recent topographic surveys (Table 1).

The lithostratigraphy of the retained core samples was described in the laboratory using standard procedures for recording unconsolidated sediment and organic sediments, noting the physical properties (colour), composition (gravel, sand, clay, silt and organic matter) and inclusions (e.g. artefacts) (Tröels-Smith, 1955). The procedure involved: (1) cleaning the sample using a scalpel; (2) recording the physical properties, most notably colour using a Munsell Soil Colour Chart; (3) recording the composition; gravel (*Grana glareosa*; Gg), fine sand (*Grana arenosa*; Ga), silt (*Argilla granosa*; Ag) and clay (*Argilla steatoides*); (4) recording the degree of peat humification and (5) recording the unit boundaries e.g. sharp or diffuse. The results are displayed in Figures 3 (west-east transect) and 4 (north-south transect) and in Tables 2 to 4.

Deposit modelling

The deposit model was based on a review of 17 borehole records, incorporating the three new geoarchaeological boreholes, and historical records from within or around the site (Figure 2; Table 1). Sedimentary units from the boreholes were classified into three groupings: (1) Gravel, (2) Lower Alluvium; (3) Peat; (4) Upper Alluvium and (5) Made Ground. The classified data for groups 1-5 were then input into a database with the RockWorks 16 geological utilities software. Models of surface height (using a nearest neighbour routine) were generated for the Gravel, Lower Alluvium and Upper Alluvium Alluvium (Figures 5, 6 & 9). Thickness of the Lower Alluvium, Peat, Upper Alluvium and Made Ground (Figures 7, 8, 10 & 11) was also modelled (also using a nearest neighbour routine). Because the boreholes are not uniformly distributed over the area of investigation, the reliability of the models generated using RockWorks is variable. In general, reliability improves from outlying areas where the models are largely supported by scattered archival records towards the core area of commissioned boreholes. Because of the 'smoothing' effect of the modelling procedure, the modelled levels of stratigraphic contacts may differ slightly from the levels recorded in borehole logs and section drawings.

As a consequence of this the modelling procedure has been manually adjusted so that only those areas for which sufficient stratigraphic data is present will be modelled. In order to achieve this, a maximum distance cut-off filter equivalent to a 25m radius around each record is applied to all deposit models. In addition, it is important to recognise that multiple sets of boreholes are represented, put down at different times and recorded using different descriptive terms and subject to differing technical constraints in terms of recorded detail including the exact levels of

the stratigraphic boundaries. Of the records used in the deposit model, the cores from the boreholes monitored and recorded by Quaternary Scientific (Kent-QBH1 to QBH3) represent the most detailed record of the sediment sequences.

Table 1: Borehole attributes for those records used in the deposit model, Kent Wharf, Deptford, London Borough of Lewisham

Borehole number	Easting	Northing	Height (m OD)	Borehole depth (m)	Top of Upper Alluvium (m bgl)	Top of Peat (m bgl)	Top of Lower Alluvium (m bgl)	Top of Gravel (m bgl)	Notes
<i>Geoarchaeological borehole</i>									
Kent-QBH1	537565	177421	4.2	7	2.60	4.30	-	6.21	UA organic-rich between 3.72 & 4.30m bgl
Kent-QBH2	537591	177449	4.3	6	2.60	-	5.00	5.96	Uncertainty distinguishing LA and UA; Gravel horizon towards the base of the LA
Kent-QBH3	537607	177256	4.8	7	2.60	-	4.61	6.90	
<i>Geotechnical boreholes</i>									
Kent-MBH1	537598	177470	4.8	10	3.1	-	5.40	7	Uncertainty distinguishing LA and UA; Gravel horizon towards the base of the LA
Kent-MBH2	537639	177477	4.72	10	-	-	5	6.95	
Kent-MBH3	537632	177449	4.56	10	-	-	4	6.2	
VW-MBH1	537581	177425	4.5	10	2.7	4.8	-	5.7	
<i>Geotechnical window samples</i>									
Kent-MWS1	537592	177483	4.9	5.45	2.8				
Kent-MWS2	537608	177470	4.8	5	2.5				
Kent-MWS4	537623	177484	4.75	5.45	2.9				
Kent-MWS5	537580	177467	5.44	5.45	2.8				
Kent-MWS7	537591	177473	4.8	4.45	1.9				
VW-MWS1	537580	177441	4.5	4	3				
VW-MWS2	537568	177438	4.5	4	3				
VW-MWS4	537569	177425	4.5	4	2.5				
VW-MWS5	537558	177418	4.5	4	2.5				
VW-MWS6	537574	177416	4.5	4	3				

3. RESULTS AND INTERPRETATION OF THE LITHOSTRATIGRAPHIC DESCRIPTIONS AND DEPOSIT MODELLING

The geoarchaeological investigations (Tables 2 to 5) have permitted a programme of deposit modelling of the surface elevation and thickness of each major stratigraphic unit (Figures 3 to 11).

The basal unit at the site is a horizon of sand and gravel, probably equivalent to the Shepperton Gravel that underlies the Holocene alluvium of the Thames (Gibbard, 1985), deposited during the Late Devensian (15,000 to 10,000 years before present) within a high energy braided river environment (Figures 3 to 5). This surface is reached by 7 of the 17 borehole records which are well distributed across the site. The surface of the Gravel was generally very even across the site, ranging between -2.23 (Kent-MBH2) and -1.64m OD (Kent-MBH3). Only in VW-MBH1, was the surface outside of this range, resting at -1.2m OD. These results thus indicate a fairly even valley floor across the site, with the possibility of a rising Gravel surface towards the south.

Three stratigraphic units were recognised above the Shepperton Gravel: the Lower Alluvium (Figures 6 & 7), Peat (Figure 8) and Upper Alluvium (Figures 9 & 10), which in turn were capped by a variable thickness of Made Ground (Figure 11). It is noted however that distinguishing between the Lower Alluvium and Upper Alluvium is difficult within the sedimentary sequences from Kent Wharf, due to the similarity of the material. This is particularly true of the geotechnical borehole records.

The Gravel surface is overlain by deposits of generally silty clay, with various inclusions (e.g. detrital plant remains and Mollusca). This horizon is indicative of deposition within a moderate-energy fluvial environment, and is considered to represent the Lower Alluvium recorded elsewhere in the Lower Thames Valley, most likely deposited during the Early Holocene, following a reduction in flow rate at the end of the Late Glacial period. This stratigraphic unit is recorded in all boreholes located towards the north of the site (Kent-QBH2 & QBH3, Kent-MBH1 to MBH3), and varies between 0.96 and 2.2m thick. During the accumulation of the Lower Alluvium, a high energy flood event(s) is indicated across at least part of the site, by the deposition of silty clay with sub-rounded gravel clasts up to 30mm in size in Kent-QBH2 and Kent-QBH3.

Towards the south of the site however, Lower Alluvium is absent and a 2m thick horizon of well-preserved moderately-humified wood Peat is recorded (VW-BH1 & Kent-QBH1). It is unlikely that this horizon accumulated at the same time as the Lower Alluvium. Instead, it is thought more likely that the Lower Alluvium was eroded in this area of the site, most likely by a former course or tributary of the Deptford Creek. This channel was subsequently abandoned, and became infilled by Peat deposits, supporting the growth of wetland woodland. On the basis of the available evidence, it is not possible to ascertain the dimensions or orientation of the former channel, but it must have exceeded 16m in size (the distance between VW-MBH1 & Kent-QBH1). An alternative possibility to the infilling of a former channel, is that the Peat deposits recorded are representative of the infilling of a tree-throw hollow.

Both the Lower Alluvium and Peat deposits were overlain by silty clay. These sediments most likely represent deposition on the floodplain at a distance from any active channels and analogous to the Upper Alluvium recorded elsewhere in the Lower Thames Valleys. This horizon is likely to have accumulated from the late Neolithic period onwards, as a result of increased sediment supply resulting from woodland clearance and agricultural activity within the river catchment. The Upper Alluvium is recorded across the site and is fairly consistent in thickness (2-2.5m). However in certain locations the deposits have been truncated by Made Ground (Kent-MBH2 and Kent-MBH3).

The sequence across the site is capped by variable thicknesses of Made Ground, averaging between 2.5 and 3m.

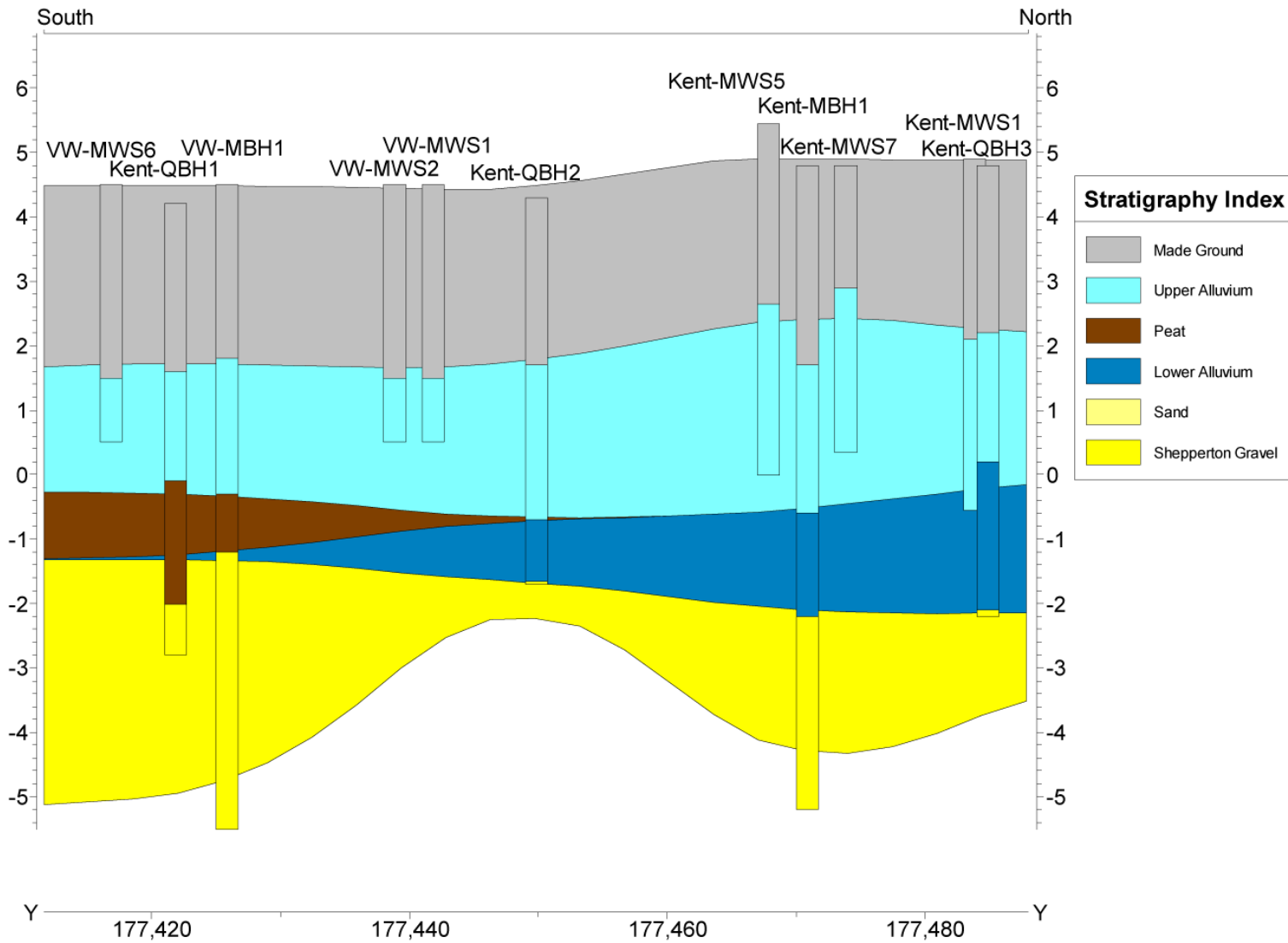


Figure 3: North-South transect of selected boreholes across Kent Wharf, Deptford, London Borough of Lewisham

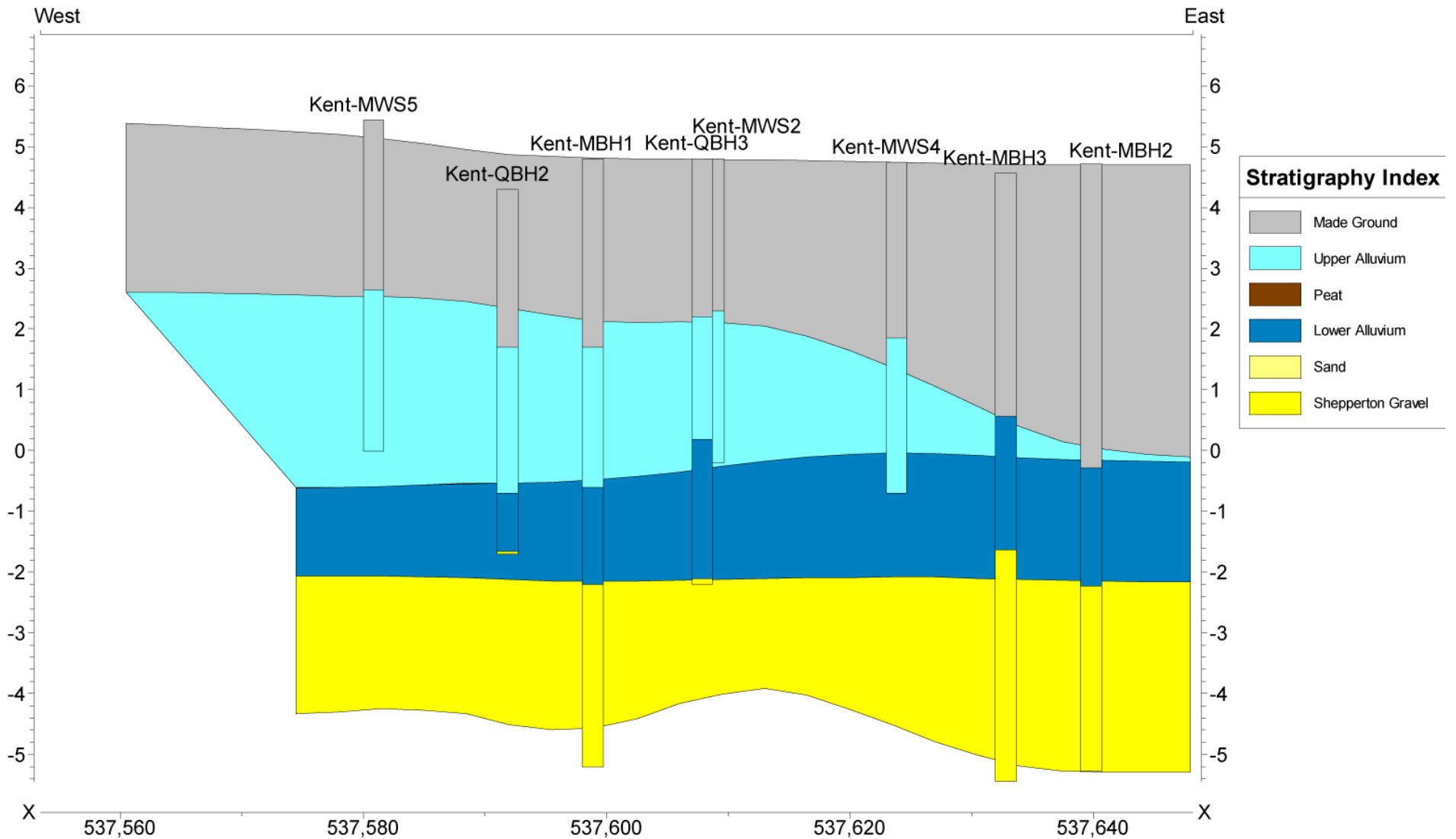


Figure 4: West-East transect of selected boreholes across Kent Wharf, Deptford, London Borough of Lewisham

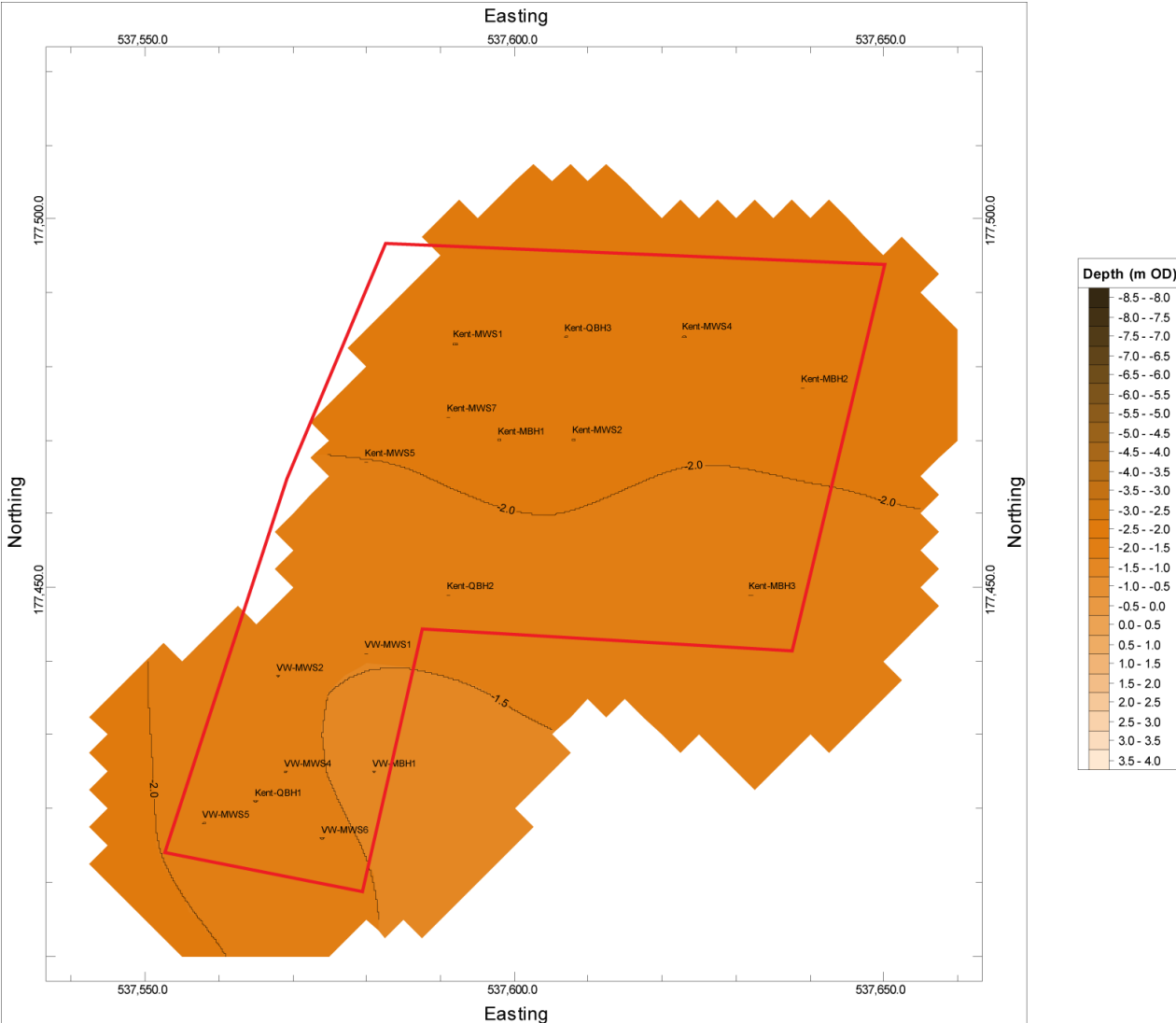


Figure 5: Top of the Shepperton Gravel (m OD) (site outline in red)

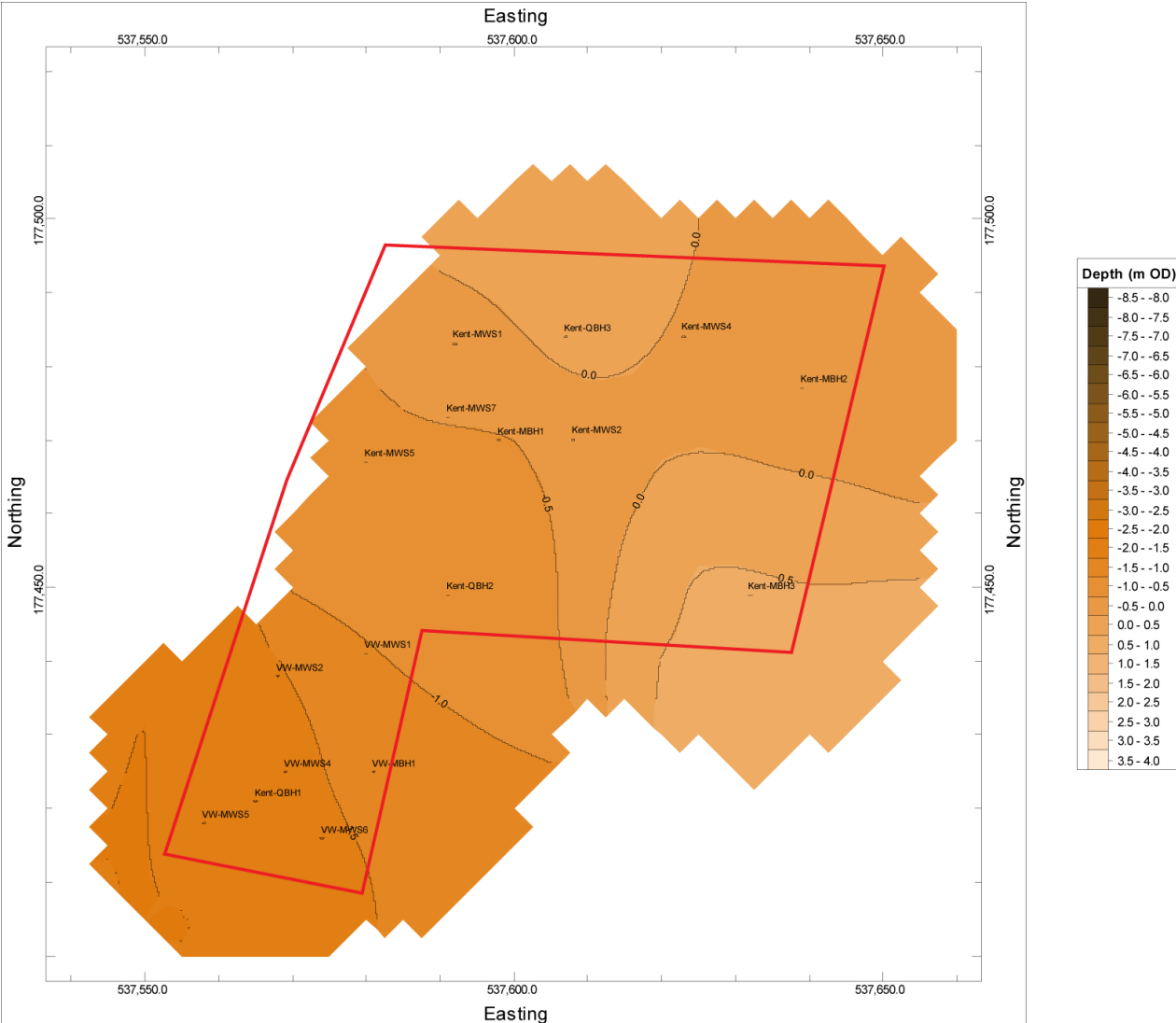


Figure 6: Top of the Lower Alluvium (m OD) (site outline in red)

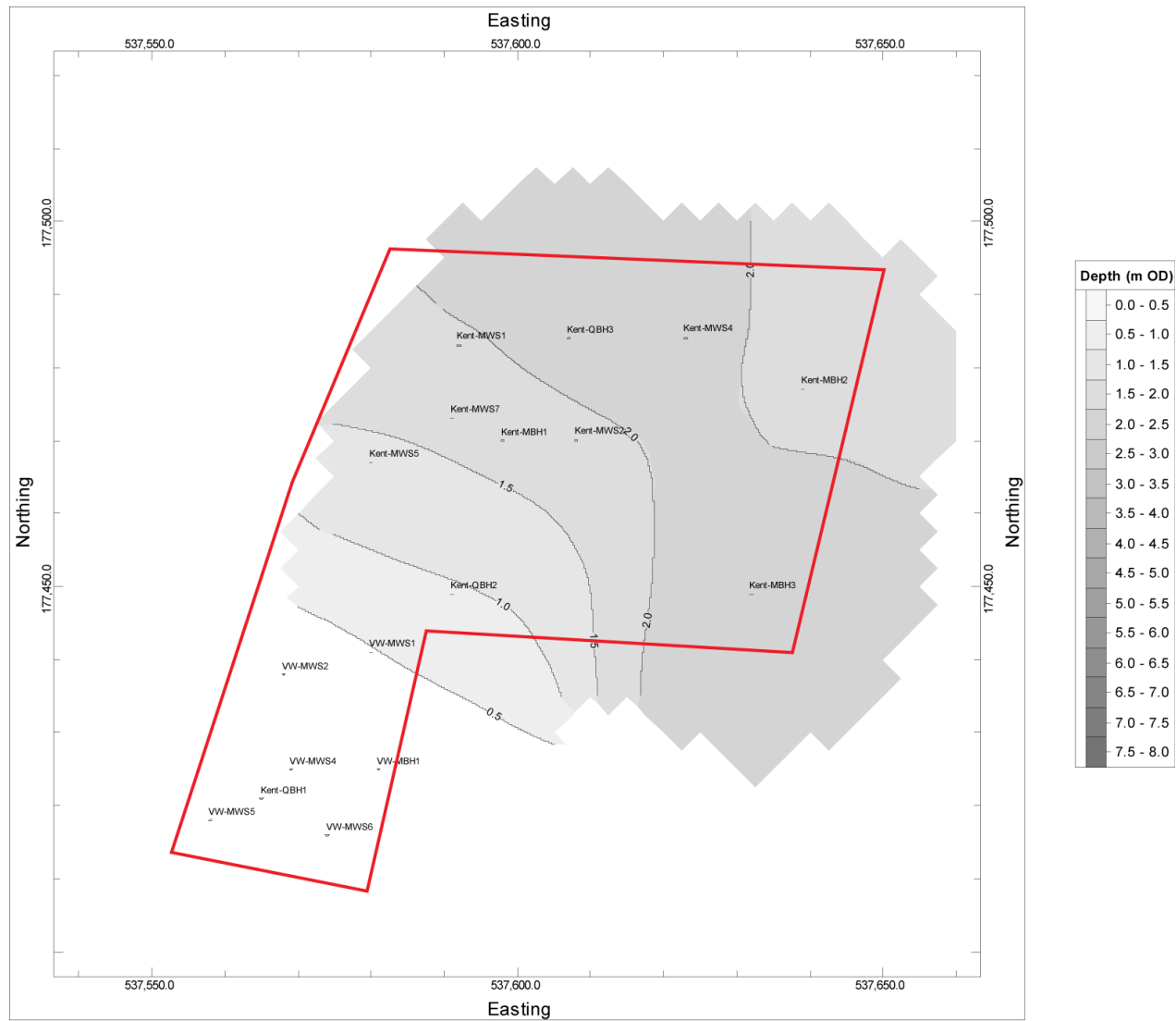


Figure 7: Thickness of the Lower Alluvium (m) (site outline in red)

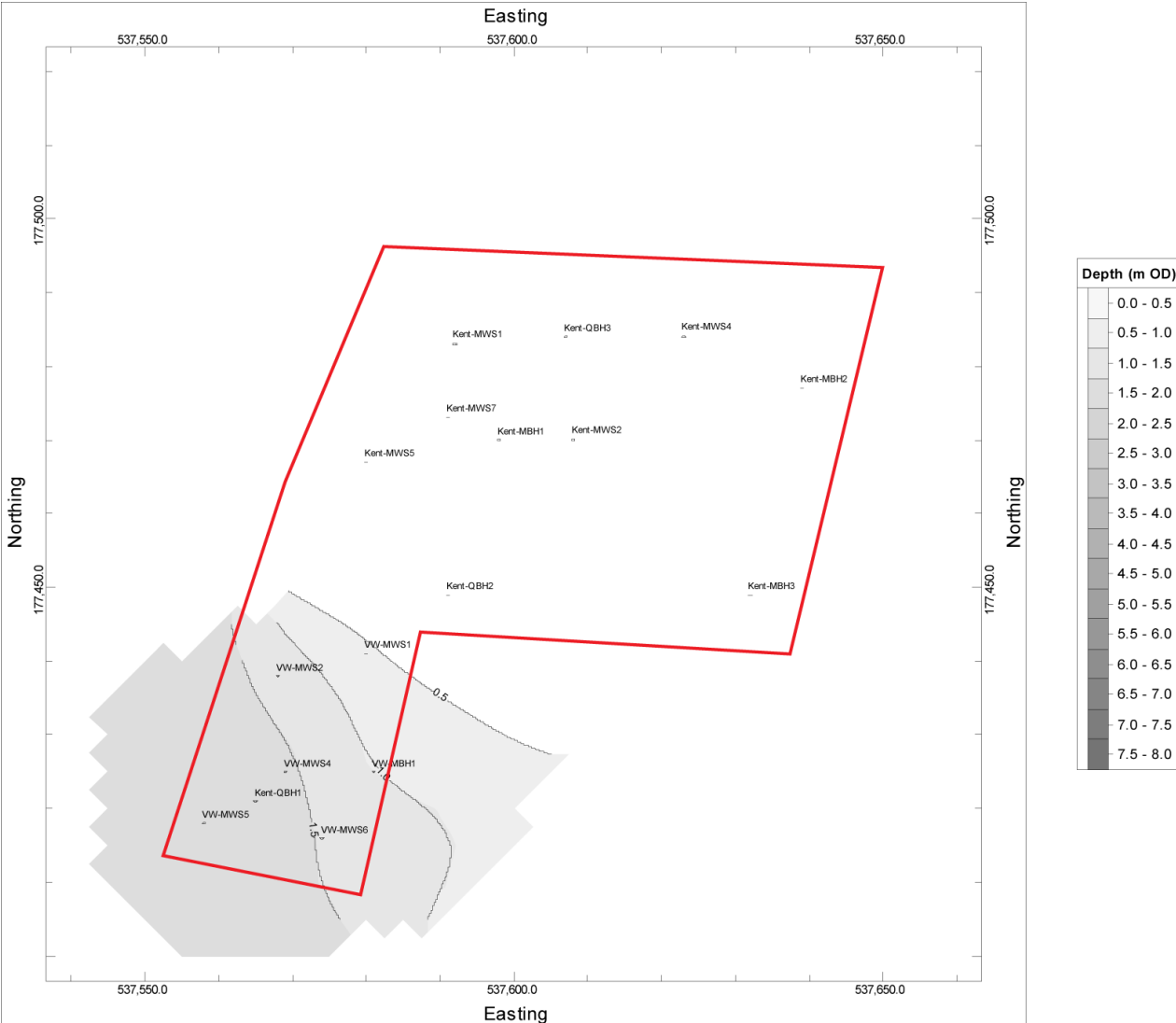


Figure 8: Thickness of Peat (m) (site outline in red)

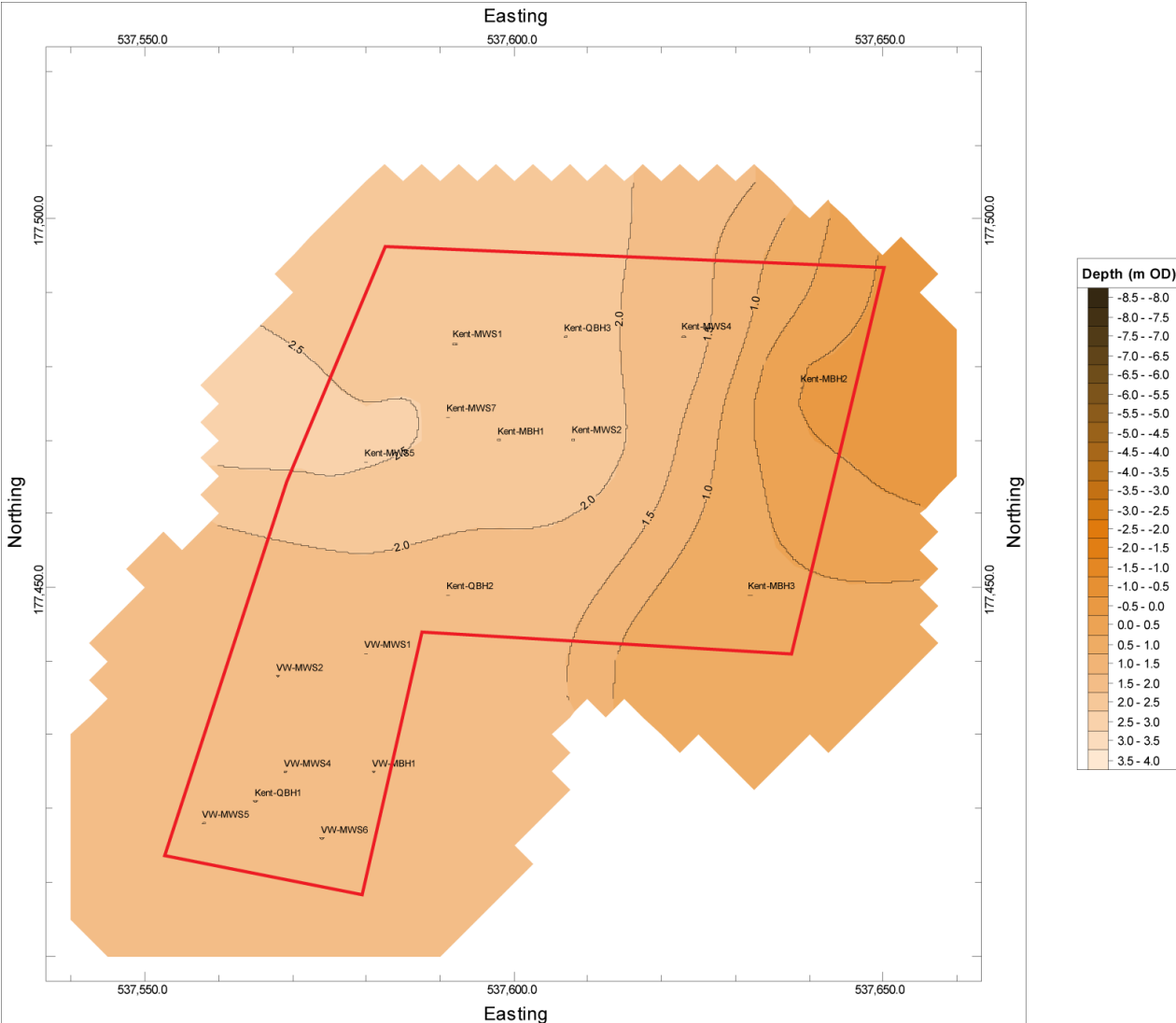


Figure 9: Top of the Upper Alluvium (m OD) (site outline in red)

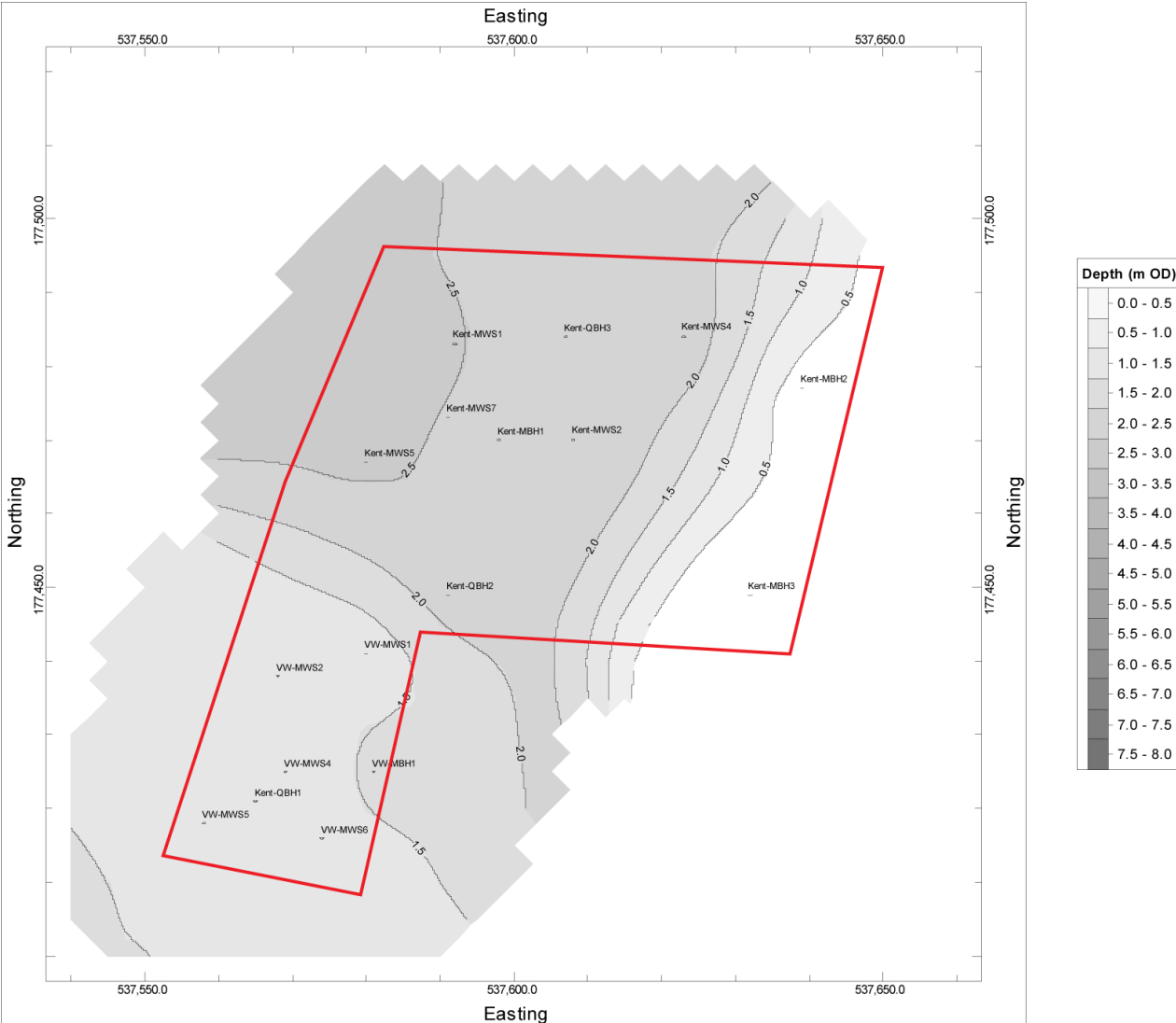


Figure 10: Thickness of the Upper Alluvium (m) (site outline in red)

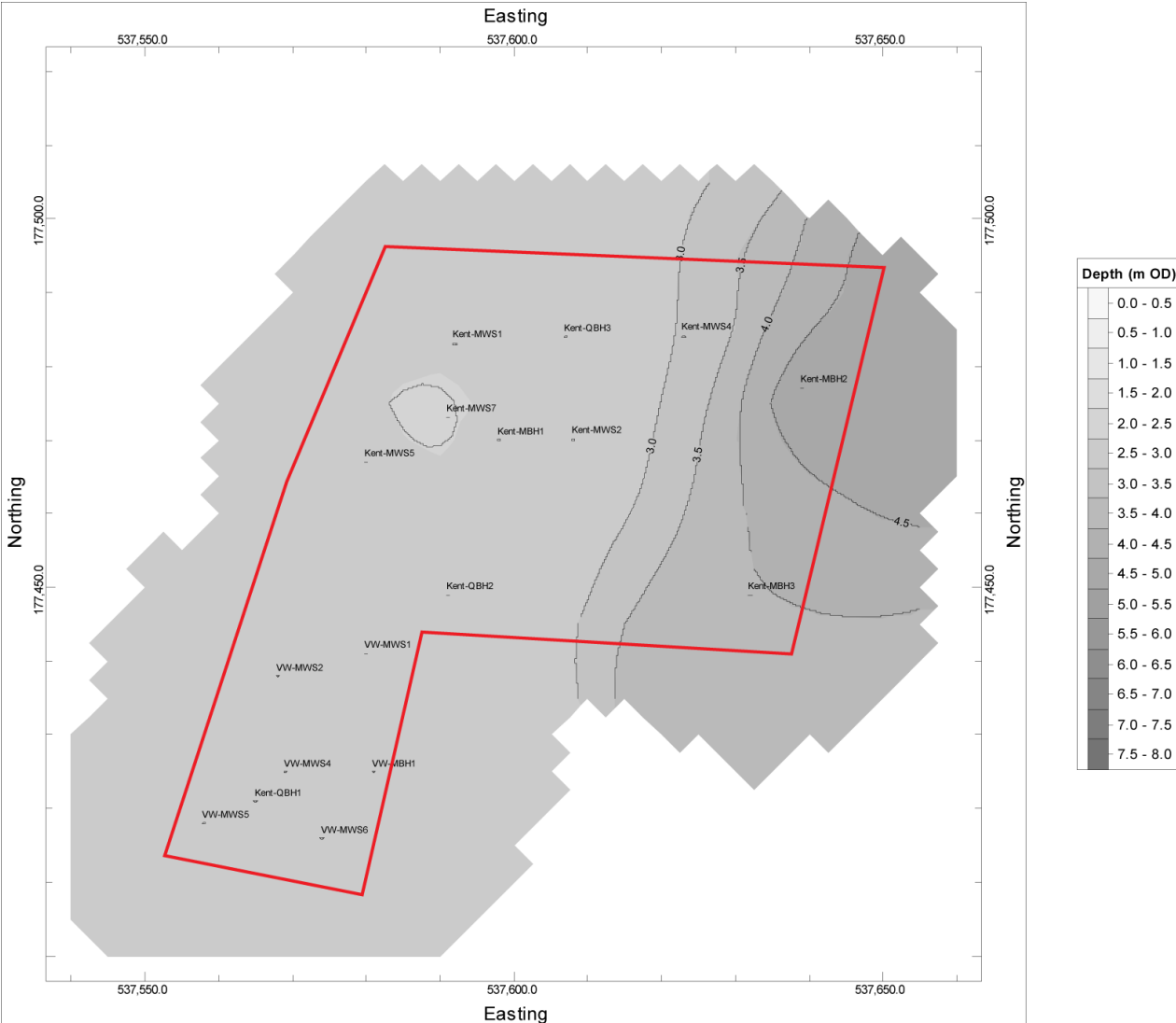


Figure 11: Thickness of Made Ground (m) (site outline in red)

Table 2: Lithostratigraphic description of borehole Kent-QBH1, Kent Wharf, Deptford, London Borough of Lewisham

Depth (m OD)	Depth (m bgs)	Description
4.20 to 1.60	0 to 2.60	Made Ground
1.60 to 1.20	2.60 to 3.00	Gley 2 4/1; As3, Ag1, Dh+; Dark bluish grey silty clay with detrital plant remains. Diffuse contact into:
1.20 to 0.48	3.00 to 3.72	Gley 1 6/1; As3, Ag1, Dl+; Greenish grey silty clay with detrital wood remains. Diffuse contact into:
0.48 to 0.29	3.72 to 3.91	10YR 4/1; As2, Sh1, Ag1, Dl+; Dark grey organic-rich silty clay with detrital wood remains. Diffuse contact into:
0.29 to 0.20	3.91 to 4.00	10YR 4/1; As2, Sh1, Ag1, Dl+; Dark grey organic-rich silty clay with detrital wood remains; Diffuse contact into:
0.20 to 0	4.00 to 4.20	10YR 4/1; As2, Sh1, Ag1, Dl+, Dh+; Dark grey organic-rich silty clay with detrital wood and plant remains (sedges/reeds). Diffuse contact into:
0 to -0.10	4.20 to 4.30	10YR 4/1; As2, Sh1, Ag1, Dh+; Dark grey organic-rich silty clay with detrital plant remains (sedges/reeds). Diffuse contact into:
-0.10 to -0.54	4.30 to 4.74	10YR 2/1; Tl ² , Sh2; Humo 3; Black well-humified wood peat. Diffuse contact into:
-0.54 to -0.64	4.74 to 4.84	10YR 2/1; Tl ² , Sh1, As1; Humo 2; Black moderately-humified wood peat with clay. Diffuse contact into:
-0.64 to -0.98	4.84 to 5.18	10YR 4/1; As2, Sh2, Tl+; Dark grey very organic-rich clay with wood remains. Diffuse contact into:
-0.98 to -1.60	5.18 to 5.80	10YR 2/1; Sh3, Tl31; Humo 3; Black well-humified wood peat. Diffuse contact into:
-1.60 to -1.80	5.80 to 6.00	10YR 3/1; Sh3, As1, Gg+, Dl/Tl+; Very dark grey very organic-rich clay with occasional gravel clasts. Diffuse contact into:
-1.80 to -2.01	6.00 to 6.21	10YR 4/3; Sh2, Ag1, Gg1, Dl+; Brown very organic-rich gravelly silt with detrital wood remains; sharp contact into:
-2.01 to -2.80	6.21 to 7.00	10YR 4/1; Gg3, Ag1, As+, Ga+; Dark grey silty gravel with traces of clay and sand. Gravel clasts of flint up to 30mm, sub-angular to well-rounded.

Table 3: Lithostratigraphic description of borehole Kent-QBH2, Kent Wharf, Deptford, London Borough of Lewisham

Depth (m OD)	Depth (m bgs)	Description
4.30 to 1.70	0 to 2.60	Made Ground
1.70 to 1.30	2.60 to 3.00	10YR 4/1; As2, Ag1, Dl1, Gg+; Dark grey silty clay with detrital wood and traces of gravel.
1.30 to 0.99	3.00 to 3.31	10YR 4/1; As2, Ag1, Ga1, Dl+; Dark grey gravelly silty clay with traces of detrital wood and brick/tile fragments. Diffuse contact into:
0.99 to -0.70	3.31 to 5.00	10YR 5/1; As3, Ag1; Grey silty clay. Unknown contact into:
-0.70 to -1.04	5.00 to 5.34	10YR 4/1; As2, Gg2; Dark grey gravelly clay. Gravel clasts of flint up to 30mm, sub-angular to well-rounded. Sharp contact into:
-1.04 to -1.66	5.34 to 5.96	10YR 5/1; As3, Ag1, Dl+; Grey silty clay with detrital wood remains. Diffuse contact into:
-1.66 to -1.70	5.96 to 6.00	10YR 4/1; Gg3, As1, Ga+; Dark grey clayey gravel. Gravel clasts of flint up to 30mm, sub-angular to well-rounded.

Table 4: Lithostratigraphic description of borehole Kent-QBH3, Kent Wharf, Deptford, London Borough of Lewisham

Depth (m OD)	Depth (m bgs)	Description
4.80 to 2.80	0 to 2.00	Made Ground
2.80 to 2.30	2.00 to 2.50	Made Ground / Disturbed Alluvium
2.30 to 2.21	2.50 to 2.59	10YR 5/1; As3, Ag1; Grey silty clay; sharp contact into:
2.21 to 1.42	2.59 to 3.38	10YR 4/1; Ga2, Ag1, Gg1; Dark grey silty gravelly sand. Sharp contact into:
1.42 to 0.92	3.38 to 3.88	10YR 5/1; As3, Ag1; Grey silty clay. Diffuse contact into:
0.92 to 0.80	3.88 to 4.00	10YR 5/4; As3, Ag1, Dh+; Yellowish brown silty clay with traces of detrital plant remains. Diffuse contact into:
0.80 to 0.19	4.00 to 4.61	10YR 5/1; As3, Ag1, Dh+; Grey silty clay with traces of detrital plant remains. Diffuse contact into:
0.19 to -0.20	4.61 to 5.00	10YR 4/1; As2, Ag2, Dh+, Sh+; Grey silty clay with traces of detrital plant remains, organic material and Mollusca. Diffuse contact into:
-0.20 to -1.20	5.00 to 6.00	10YR 5/1; As2, Ag2, Dl+, Gg+, Sh+; Grey silty clay (sometimes appearing laminated) with traces of gravel, detrital wood, organic remains and Mollusca. Unknown contact into:
-1.20 to -1.95	6.00 to 6.75	10YR 5/1; Gg3, Ga1, Ag+; Grey sandy gravel with traces of silt. Gravel clasts of flint up to 30mm, sub-angular to well-rounded. Sharp contact into:
-1.95 to -2.10	6.75 to 6.90	10YR 5/1; As4, Ag+; Grey clay with traces of silt. Sharp contact into:
-2.10 to -2.20	6.90 to 7.00	10YR 5/1; Gg3, Ag1, Sh+, Dl+; Grey silty gravel with traces of organic remains and detrital wood. Gravel clasts of flint up to 30mm, sub-angular to well-rounded.

4. DISCUSSION

The results of the geoarchaeological investigations have demonstrated a Shepperton Gravel surface resting between -1.64 and -2.23m OD across the majority of the site. This is overlain by 0.96-2.2m of Lower Alluvium, representing Holocene floodplain sedimentation in a moderate to low energy fluvial or estuarine environment. Towards the south of the site, the Lower Alluvium appears to have been eroded by a former channel or tributary of the Deptford Creek. This channel was subsequently abandoned and infilled by a 2m thick horizon of Peat, which at the time of its accumulation would have supported the growth of wetland woodland. An alternative possibility to the infilling of a former channel, is that the Peat deposits recorded are representative of the infilling of a tree-throw hollow. Both the Peat and Lower Alluvium were succeeded by the deposition of Upper Alluvium, representative of an overbank floodplain or estuarine environment. The Kent Wharf sequence was capped by ca. 3m of Made Ground deposits, which in places truncated the Upper Alluvium.

As outlined within the introduction, at both Greenwich Creekside East (250m to the north; Batchelor, 2015), and the Faircharm Creative Quarter site (175m to the south; Young, 2014), previous geoarchaeological investigations indicate a similar inorganic sedimentary sequence to that recorded across the majority of the Kent Wharf site.

Further upstream at Old Seager Distillery however (Batchelor *et al.*, 2009, 2014), Peat (overlying gravel) was recorded within a tree-throw hollow between 0.44 and 1.80m OD, and radiocarbon dated between 7200-6440 and 5580-5320 cal BP (late Mesolithic to Neolithic). Significantly, the Peat also contained a lithic assemblage dating to the Mesolithic or Early Neolithic. The condition of the Peat was relatively poor at the site, limiting the palaeoenvironmental reconstruction of the site, but indicated the growth of fen woodland on the wetland and mixed deciduous woodland on the dryland during this period, with a decline in elm woodland recorded after 6740-6540 cal BP potentially linked to human activity. Following a long hiatus, a second phase of Peat formation occurred between 1940-1810 and 1020-930 cal BP (Roman and Medieval periods). During this period, the wetland was dominated by aquatics and emergent plants, with a much reduced woodland cover, while the dryland was open and dominated by herbaceous communities (Batchelor *et al.*, 2009, 2014).

The DLR Lewisham Extension site (Sidell *et al.*, 1999; Figure 1) indicated a similar sedimentary sequence to Old Seager Distillery; basal alluvial silt/clays were overlain by Peat from 7430-7030 cal BP (Late Mesolithic) that accumulated between ca. 0 and 0.5m OD. A hiatus in Peat formation of unknown duration also occurred here, represented by a weakly organic clay indicating deposition under aquatic conditions.

5. CONCLUSIONS AND RECOMMENDATIONS

The aims of the geoarchaeological investigations at the Kent Wharf site were: (1) to clarify the nature of the sub-surface stratigraphy across the site, (2) to clarify the nature, depth, extent and date of any alluvium and peat deposits, and (3) to evaluate the potential for reconstructing the environmental history of the site and its environs (aims 3 to 5 of the project). In order to achieve these aims, a programme of geoarchaeological fieldwork and deposit modelling was carried out, incorporating previous geotechnical borehole descriptions and records from three new geoarchaeological boreholes.

The results have confirmed the presence of thick Peat deposits towards the south of the site, infilling either a former channel or tree-throw hollow. On the basis of the thickness and location of the site, these deposits may have accumulated for a period of 2000 years, spanning multiple cultural periods during the prehistoric and/or historic period. These deposits have high potential to provide a detailed reconstruction of past environments through the assessment/analysis of palaeoecological remains (e.g. pollen, plant macrofossils & insects) and radiocarbon dating. Furthermore, such investigations have the potential of providing evidence of human activity; unequivocal evidence for which has been recorded at the nearby Old Seager Distillery site.

It is therefore strongly recommended that an environmental archaeological assessment of the Kent-QBH1 sequence is carried out. This assessment should consist of: (1) range-finder radiocarbon dating to ascertain the age of Peat accumulation and cessation; (2) organic matter determinations to aid identification of the sedimentary units; (3) assessment of the palaeobotanical remains (pollen, waterlogged wood and seeds) to provide a provisional reconstruction of the vegetation history; (4) assessment of the diatoms to provide an indication of the palaeohydrology (e.g. marine, brackish or freshwater), and (5) assessment of the zooarchaeological remains (insects and Mollusca) to provide information on the general environmental conditions, climatic change and hydrology of the site. The assessment will also highlight any indications of nearby human activity, and provide recommendations for further analysis (if necessary).

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7. APPENDIX 1: OASIS FORM

OASIS ID: quaterna1-228152

Project details

Project name	Kent Wharf, Deptford, London Borough of Lewisham
Short description of the project	Three geoarchaeological boreholes were put down across the site. The resultant sequences were combined with historical borehole records to produce a deposit model for the site. The deposit model revealed a sequence of Late Glacial Shepperton Gravel, overlain by early-middle Holocene Lower Alluvium. Towards the south of the site, the Lower Alluvium appears to have been truncated by either a palaeochannel or tree-throw hollow. This depression was infilled by wood Peat. Upper Alluvium covered both the Peat and Lower Alluvial deposits. Made Ground capped the sequence. Due to the palaeoenvironmental potential of the sequences, further work was recommended.
Project dates	Start: 12-10-2015 End: 28-10-2015
Previous/future work	No / Yes
Any associated project codes	KWF15 - Sitecode reference
Type of project	Environmental assessment
Monument type	PEAT Uncertain
Significant Finds	TBD Uncertain
Survey techniques	Landscape

Project location

Country	England
Site location	GREATER LONDON LEWISHAM Kent Wharf
Postcode	SE8
Study area	5500 Square metres

Project creators

Name	of Quaternary Scientific (QUEST)
Organisation	
Project	brief Consultant

originator
Project design Dr C.R. Batchelor
originator
Project C.R. Batchelor
director/manager
Project supervisor C.R. Batchelor
Type of Developer
sponsor/funding
body

Project archives

Physical Archive No
Exists?

Digital Archive No
Exists?

Paper Archive LAARC
recipient

Paper Media "Report"
available

Project bibliography 1

Grey literature (unpublished document/manuscript)
Publication type
Title Royal Wharf, Deptford, London Borough of Lewisham
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Other bibliographic Quaternary Scientific (QUEST) Unpublished Report September 2015; Project
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