81 LESLIE ROAD, E16

LONDON BOROUGH OF NEWHAM

AN ARCHAEOLOGICAL WATCHING BRIEF

November 2005

COMPASS ARCHAEOLOGY

81 LESLIE ROAD, E16

LONDON BOROUGH OF NEWHAM

AN ARCHAEOLOGICAL WATCHING BRIEF

SITE CODE: LSI05

SITE CENTRE NGR: TQ 40793 81122

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November 2005

Project 333

Abstract

An archaeological watching brief took place in October 2005 during geotechnical investigation of a proposed redevelopment site in Leslie Road, London Borough of Newham. The work was carried out as part of the planning process, and to inform on the need for further archaeological mitigation.

The site is within an Archaeological Priority Area as defined by the local UDP. A previous desk-based impact assessment had identified a moderate to high potential for prehistoric and geo-archaeological remains (MoLAS 2005). *There was little evidence for later activity, and it is likely that the area remained open and at least partly flooded up to the 19th century. The land was probably developed in conjunction with construction of the Royal Victoria Dock in the 1850s.*

*The geotechnical investigation included six machine-dug trial pits and one shallower trench, plus two subsequent boreholes. The pits were approximately 4m deep and were dug from the present ground surface (*c *1.15m to 1.60m OD) to the level of natural River Terrace deposits.*

The recorded deposits were broadly comparable across the site. Between 0.6m and 2.0m of 19th century and later made ground overlay an alluvial sequence comprising clean silt, mixed silt/organic material and peat. These lower horizons did not produce any cultural artefacts or other remains, although the principal peat deposits probably relate to a single prehistoric marine regression. Organic silts to the northeast may derive from a separate event, whilst the overlying sterile silts reflect rising sea levels and flooding which continued into the post-medieval period.

The alluvial and peat sequence was between 2.15m and 3.0m thick and sealed natural River Terrace sands and gravels at between -1.56m and -2.71m OD. The high point of natural was recorded midway along the northern boundary of the site, with falls elsewhere and particularly to the southeast. It is likely that in the earlier prehistoric period much of the area would have been above the contemporary river level, with progressive flooding during or after the Bronze Age.

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1. Introduction

1.1 This report describes the results of an archaeological watching brief during geotechnical investigation of land at 81 Leslie Road, E16, London Borough of Newham.

The site itself covers a open rectangular plot some 60m by 70m in plan, some 1.3 km northeast of the present-day course of the Thames, and is approximately centred at National Grid Reference TQ 40793 81122 (Figure 1). The ground surface is fairly level, at about 1.15m to 1.60m OD.

1.2 The watching brief was required as part of the planning process prior to residential development, and to inform upon the need for further archaeological mitigation. The site lies within an Archaeological Priority Area as defined by the LB of Newham UDP, and has been considered within a previous desk-based Archaeological Impact Assessment (MoLAS 2005).

1.3 The Assessment concluded that the site had a high potential for geo-archaeological finds and for remains of Neolithic and Bronze Age date, and also a moderate potential for Palaeolithic and Mesolithic remains. Existing records in the vicinity indicate a marshy or flooded prehistoric landscape, interspersed with deeper braided channels and banks of higher gravels and sands forming low-lying islands or eyots.

It was considered that there was a low to negligible potential for all other archaeological periods. Documentary and map evidence suggests that for much of the time the land was marshy and periodically flooded, and of marginal value. The area was only really developed in the 19th century, particularly after the construction of the Royal Victoria Dock in the early 1850s.

1.4 The watching brief was carried out during a preliminary geotechnical investigation. A series of trial pits and a shallower trench were dug and archaeologically monitored on the 20th October 2005. Two boreholes were subsequently undertaken and the records added to this report.

2. Acknowledgements

The archaeological watching brief was commissioned by Mr Robert Vozila of Price & Myers Consulting Engineers on behalf of the Community Housing Association Ltd.

Further assistance prior to and during the site investigation was given by Steve Branch and Heather Pemberton of GEA Ltd.

Archaeological measures on this site were supported by David Divers, Greater London Archaeology Advisory Service, English Heritage.

3. Background

The location, history and archaeological background to the site have been comprehensively discussed within the previous desk-based assessment (MOLAS 2005). It is not proposed to repeat the details of that document here, although its conclusions are briefly summarized above (1.3).

4. The watching brief

4.1 Areas of investigation

The geotechnical investigation included six trial pits located across the redevelopment site (Figure 2). These were dug by a JCB excavator and were each about 1.0m wide by 1.7m to 2.0m in length, and from 3.5m to 4.3m deep. The pits are numbered in the order of excavation, TP1 to TP6.

In addition there was one shallower east-west trial trench, some 1.1m by 7.0m in plan and up to 1.7m deep (TR B), and subsequently two boreholes in this same area and in the southwest corner of the site (BHs 1 & 2). These last were not directly recorded (except for surface level), and are included here courtesy of the driller's logs supplied by GEA.

4.2 Methodology

A *Specification for an Archaeological Watching Brief* was agreed prior to commencement of the fieldwork (Compass Archaeology, October 2005). The programme was also carried out in accordance with guidelines issued by English Heritage and by the Institute of Field Archaeologists.

The exposed deposits were recorded, measured and photographed, although individual layers did not produce any significant finds and were not separately contexted. Levels were derived from an OSBM on the front wall of No. 22 Freemasons Road, value 1.49m OD (Figure 1). The areas of investigation were located by taped measurement onto a 1:500 enlargement of the current Ordnance Survey plan (Figure 2).

The records of the watching brief have been allocated the unique site code *LSI 05* by the Museum of London Archaeological Archive.

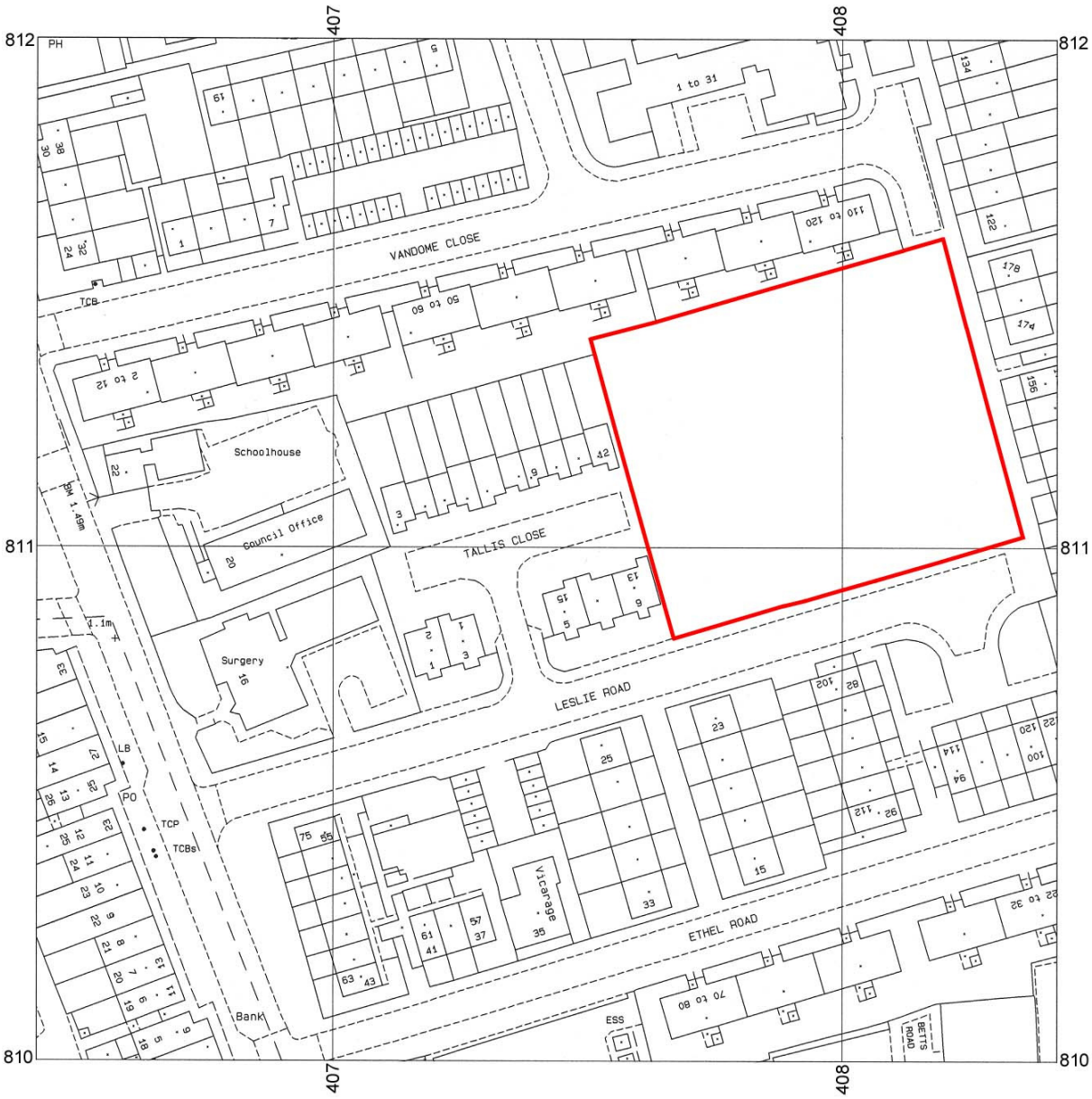


Fig 1 The site boundary in relation to the 1:1250 Ordnance Survey map

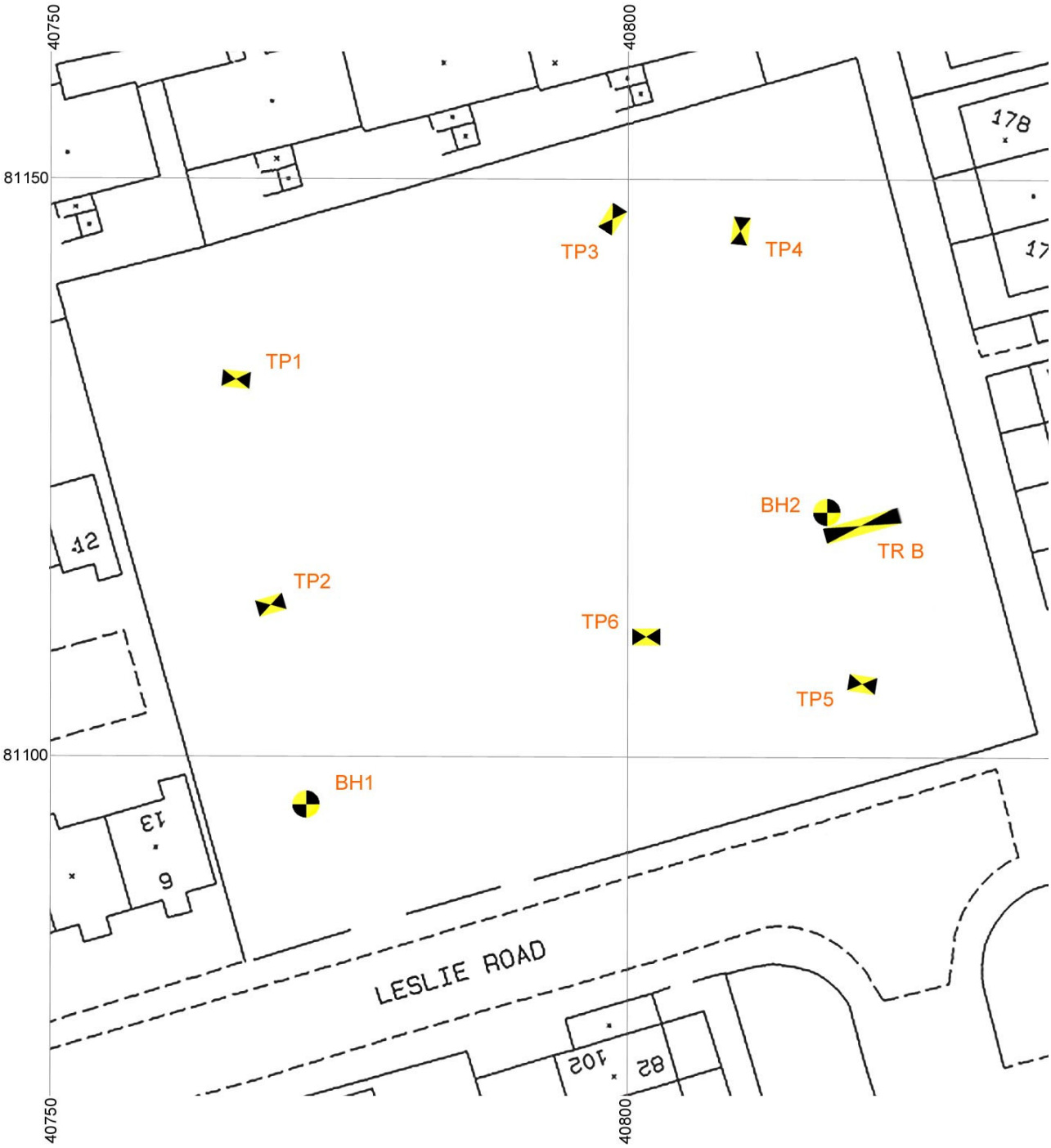


Fig 2 Location of the trial pits (TP1-6), shallower trench (TR B) and boreholes (BH 1 & 2)

1:500 plan based on an enlargement of the OS 1:1250 map

4.3 Diagrammatic sections and photographs

81 Leslie Road E16			(LSI 05)
Trial Pit no. 1	Equipment & methods: JCB 3CX excavator		
Approx. dimensions of pit: 1.10m x 1.85m	Ground level: *c* 1.57m OD	Orientation: E-W	Date: 20.10.05
Description	Reduced level (m)	Legend	Depth (m) *(thickness)*
Turf over dark brown fairly loose silty sand with pebbles & occasional concrete fragments. Becoming lighter below *c* 1.2m OD *(made ground)*	1.57		0 *(1.00)*
Firm, light green to mid grey silt with organic lenses up to 100mm thick *(alluvium)*	0.57		1.00 *(0.40)*
More homogeneous silt, light grey becoming darker blue-grey with depth *(alluvium)*	0.17		1.40 *(1.10)*
Silt with large pockets of organic material, becoming generally dark grey-brown silty peat. Increasingly fibrous with small branches up to 10mm diameter	-0.93		2.50 *(1.20)*
Mixed light grey silt	-2.13		3.70 *(0.10)*
Loose fairly light grey medium-fine gravel (≤40mm), becoming finer and slightly sandy with depth *(natural)*	-2.23 *-2.48*		3.80 *(>0.25)*

Fig 3 Section through deposits in Trial pit 1

Fig 4 View of Trial pit 1 looking north

Fig 5 View of Trial pit 2 looking north

81 Leslie Road E16			(LSI 05)
Trial Pit no. 2	Equipment & methods: JCB 3CX excavator		
Approx. dimensions of pit: 1.0m x 1.7m	Ground level: *c* 1.27m OD	Orientation: E-W	Date: 20.10.05
Description	Reduced level (m)	Legend	Depth (m) *(thickness)*
Turf over dark brown silty sand with occ. pebbles *(imported topsoil)*	1.27		0 *(0.25)*
Light to med. brown sandy silt with pebbles & occasional CBM *(made ground)*	1.02		0.25 *(0.45)*
Compacted building rubble with light brown sandy silt *(made ground)*	0.57		0.70 *(0.50)*
Firm light grey slightly sandy silt *(alluvium)*	0.07		1.20 *(0.45)*
Darker grey-brown silt with frequent organic material, becoming silty peat. Includes branches of up to 30mm diameter & one of 230mm	-0.38		1.65 *(1.35)*
Light greenish grey sandy silt with occasional gravel & organic traces *(alluvium)*	-1.73		3.00 *(0.50)*
Loose, light grey med-fine gravel with some sandy silt, becoming finer and more sandy with depth *(natural)*	-2.23		3.50 *(>0.50)*
Limit of excavation	*2.73*		

Fig 6 Section through deposits in Trial pit 2

81 Leslie Road E16			(LSI 05)
Trial Pit no. 3	Equipment & methods: JCB 3CX excavator		
Approx. dimensions of pit: 1.1m x 1.8m	Ground level: *c* 1.24m OD	Orientation: NE-SW	Date: 20.10.05
Description	Reduced level (m)	Legend	Depth (m) *(thickness)*
Compacted fine rubble surface over clean orange sandy gravel *(made ground)*	1.24		0 *(0.50)*
Dark grey-brown sandy silt *(?buried soil)*	0.74		0.50 *(0.15)*
Firm, light greenish-grey silt. Slightly sandy/ laminated & very occasional organic traces. Becoming more blue-grey with depth *(alluvium)*	0.59		0.65 *(1.75)*
Dark brown lensed organic material and silt	-1.16		2.40 *(0.40)*
Fairly loose, light buff-grey gravely silty sand *(?disturbed natural)*	-1.56		2.80 *(0.20)*
Loose, light grey medium-fine gravel with some silty sand, becoming slightly finer & darker with depth *(natural)*	-1.76		3.00 *(>0.70)*
	-2.46		

Fig 7 Section through deposits in Trial pit 3

Fig 8 View of Trial pit 3 looking northwest

Fig 9 View of Trial pit 4 looking east

81 Leslie Road E16			(LSI 05)
Trial Pit no. 4	Equipment & methods: JCB 3CX excavator		
Dimensions of pit: 1.1 x 2.0m	Ground level: *c* 1.27m OD	Orientation: N-S	Date: 20.10.05
Description	Reduced level (m)	Legend	Depth (m) *(thickness)*
Compacted rubble surface over clean orange sandy gravel *(made ground)*	1.27		0 *(0.45)*
Mid grey-brown mixed layer including redeposited silt *(disturbed or made ground)*	0.82		0.45 *(0.25)*
Firm mid greyish slightly sandy silt. With depth becoming lighter greenish-grey & more frequent sandy lenses *(alluvium)*	0.57		0.70 *(1.70)*
Fairly dark grey-brown silt with scattered organic lenses *(alluvial deposit)*	-1.13		2.40 *(0.90)*
Light buff-grey sandy med-fine gravel, becoming slightly darker & less sandy with depth *(natural)*	-2.03 *-2.23*		3.30 *(>0.20)*

Fig 10 Section through deposits in Trial pit 4

81 Leslie Road E16			(LSI 05)
Trial Pit no. 5	Equipment & methods: JCB 3CX excavator		
Dimensions of pit: 1.0 x 1.8m	Ground level: *c* 1.39m OD	Orientation: E-W	Date: 20.10.05

Description	Reduced level (m)	Legend	Depth (m) *(thickness)*
Turf over mid to dark brown sandy soil *(imported topsoil)*	1.39		0 *(0.40)*
Compacted building rubble with some silty sand *(made ground)*	0.99		0.40 *(0.70)*
Firm mottled mid brown to light grey silt *(alluvium)*	0.29		1.10 *(0.80)*
Very dark brown organic material with frequent twigs & some larger branches up to 120mm diam. *(peat)*	-0.51		1.90 *(1.70)*
Solid mid blue-grey silt with occasional organic traces, becoming slightly lighter & with more sand/fine gravel below *c* –2.50m OD *(alluvium)*	-2.21		3.60 *(0.50)*
Loose, light buff-grey silty medium-fine gravel, becoming more sandy with depth *(natural)*	-2.71		4.10 *(>0.25)*
Limit of excavation	*-2.96*		

Fig 11 Section through deposits in Trial pit 5

Fig 12 View of Trial pit 5 looking north

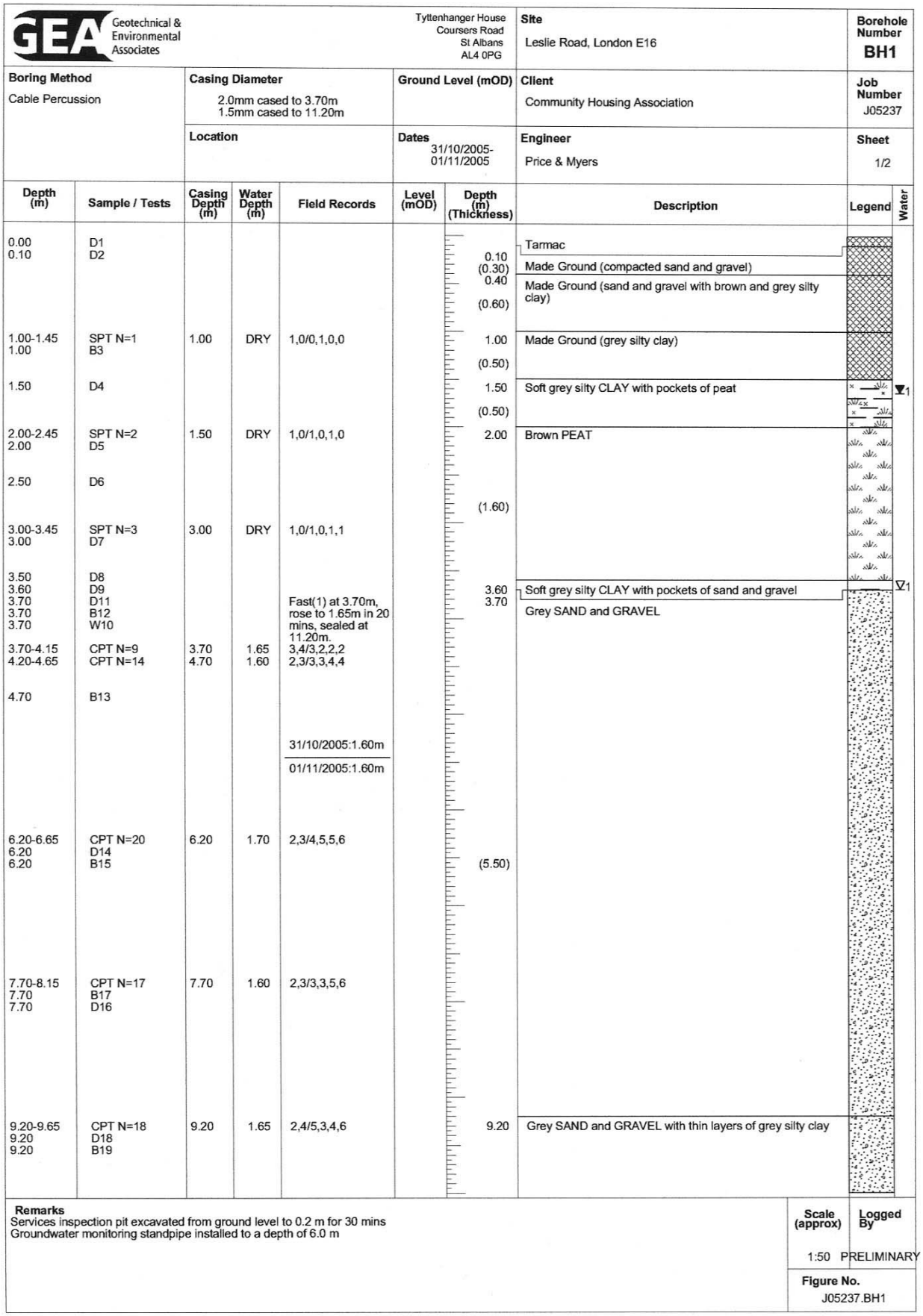
Fig 13 View of Trial pit 6 looking north

81 Leslie Road E16			(LSI 05)
Trial Pit no. 6	Equipment & methods: JCB 3CX excavator		
Dimensions of pit: 1.1 x 1.9m	Ground level: *c* 1.53m OD	Orientation: E-W	Date: 20.10.05
Description	Reduced level (m)	Legend	Depth (m) *(thickness)*
Compacted fine rubble surface over mixed sandy soil & building rubble *(made ground)*	1.53		0 *(1.00)*
Fairly firm mixed sandy silt with pebbles and occasional brick/tile frags. *(made ground)*	0.53		1.00 *(0.50)*
Mid to light blue-grey silt with occasional organic traces *(alluvium)*	0.03		1.50 *(0.70)*
Mid to dark brown silt with organic lenses, including frequent branches up to 40mm diam. & finer fibrous material. Becomes mid brown homogeneous peat below *c* –1.15m OD	-0.67		2.20 *(1.10)*
Firm light grey slightly sandy silt with very occasional organic traces *(alluvium)*	-1.77		3.30 *(0.55)*
Light grey sandy silt & fine gravel, becoming predominantly gravely sand with depth *(natural)*	-2.32		3.85 *(>0.45)*
Limit of excavation	*-2.77*		

Fig 14 Section through deposits in Trial pit 6

81 Leslie Road E16			(LSI 05)
Trench B	Equipment & methods: JCB 3CX excavator		
Dimensions of pit: Approx. 1.1 x 7.0m	Ground level: *c* 1.58m OD	Orientation: E-W	Date: 20.10.05
Description	Reduced level (m)	Legend	Depth (m) *(thickness)*
Turf over mixed brown sandy soil *(imported topsoil)*	1.58		0 *(0.15)*
Building rubble with some sand & pebbles *(made ground)*	1.43		0.15 *(0.65)*
Mid brown sandy silt with some grey lensing *(weathered alluvium)*	0.78		0.80 *(0.55)*
Mid-light blueish grey slightly sandy silt with occasional organic material *(alluvium)*	0.23		1.35 *(>0.35)*
Limit of excavation	*-0.12*		

Fig 15 Section through deposits at the eastern end of Trench B



GEA Geotechnical & Environmental Associates

Tyttenhanger House, Coursers Road, St Albans, AL4 0PG

Site: Leslie Road, London E16

Borehole Number: BH1

Boring Method: Cable Percussion

Casing Diameter: 2.0mm cased to 3.70m; 1.5mm cased to 11.20m

Ground Level (mOD):

Client: Community Housing Association

Job Number: J05237

Location:

Dates: 31/10/2005-01/11/2005

Engineer: Price & Myers

Sheet: 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00	D1						Tarmac		
0.10	D2					0.10			
						(0.30)	Made Ground (compacted sand and gravel)		
						0.40			
						(0.60)	Made Ground (sand and gravel with brown and grey silty clay)		
1.00-1.45	SPT N=1	1.00	DRY	1,0/0,1,0,0		1.00	Made Ground (grey silty clay)		
1.00	B3					(0.50)			
1.50	D4					1.50	Soft grey silty CLAY with pockets of peat		▼1
						(0.50)			
2.00-2.45	SPT N=2	1.50	DRY	1,0/1,0,1,0		2.00	Brown PEAT		
2.00	D5								
2.50	D6								
						(1.60)			
3.00-3.45	SPT N=3	3.00	DRY	1,0/1,0,1,1					
3.00	D7								
3.50	D8								
3.60	D9					3.60	Soft grey silty CLAY with pockets of sand and gravel		▽1
3.70	D11			Fast(1) at 3.70m, rose to 1.65m in 20 mins, sealed at 11.20m.		3.70	Grey SAND and GRAVEL		
3.70	B12								
3.70	W10								
3.70-4.15	CPT N=9	3.70	1.65	3,4/3,2,2,2					
4.20-4.65	CPT N=14	4.70	1.60	2,3/3,3,4,4					
4.70	B13								
				31/10/2005:1.60m					
				01/11/2005:1.60m					
6.20-6.65	CPT N=20	6.20	1.70	2,3/4,5,5,6					
6.20	D14								
6.20	B15					(5.50)			
7.70-8.15	CPT N=17	7.70	1.60	2,3/3,3,5,6					
7.70	B17								
7.70	D16								
9.20-9.65	CPT N=18	9.20	1.65	2,4/5,3,4,6		9.20	Grey SAND and GRAVEL with thin layers of grey silty clay		
9.20	D18								
9.20	B19								

Remarks
Services inspection pit excavated from ground level to 0.2 m for 30 mins
Groundwater monitoring standpipe installed to a depth of 6.0 m

Scale (approx): 1:50

Logged By: PRELIMINARY

Figure No.: J05237.BH1

Fig 16 Log of deposits in Borehole 1 *(reproduced from GEA preliminary report)*

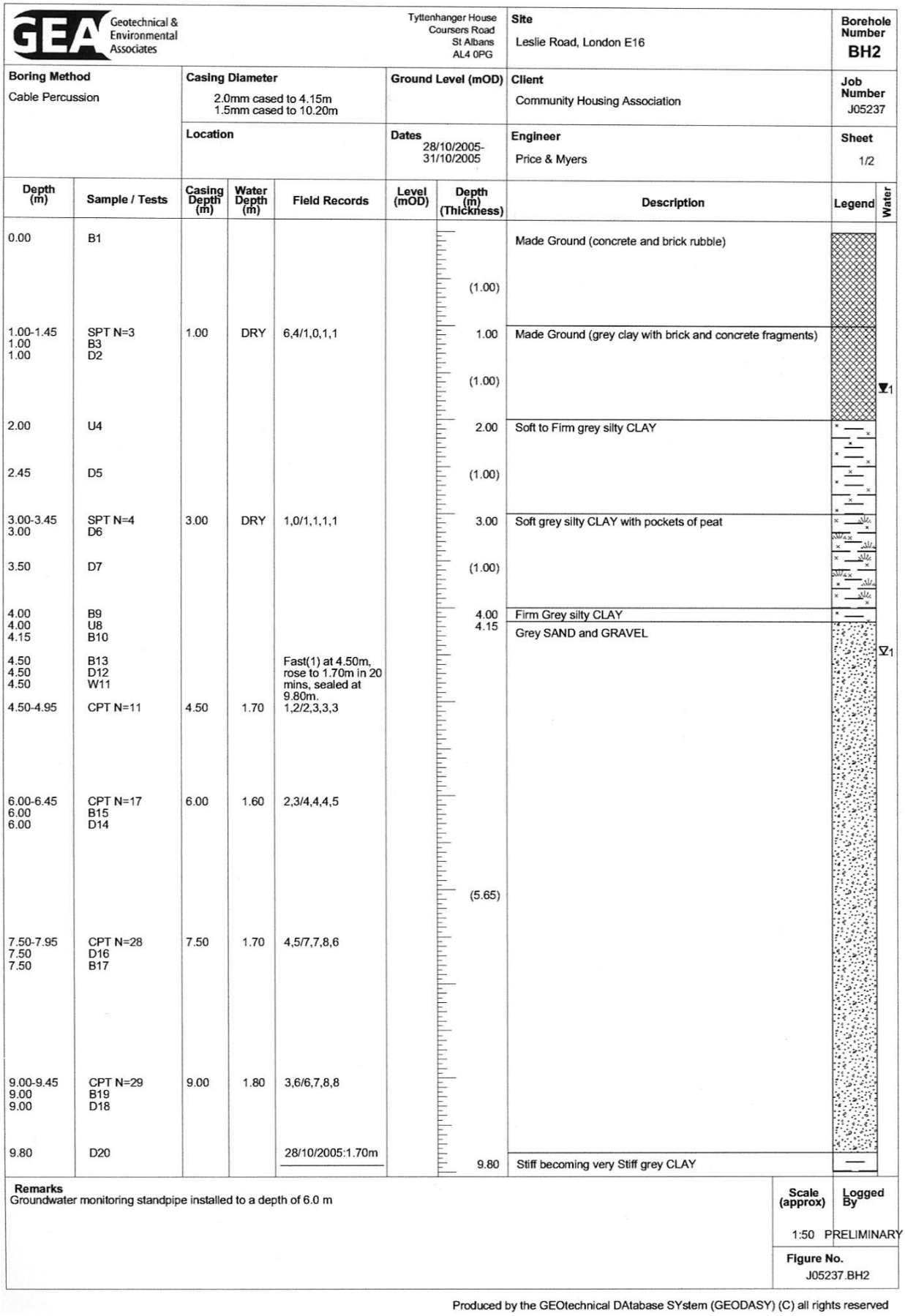


Fig 17 Log of deposits in Borehole 2 *(reproduced from GEA preliminary report)*

5. Summary of the findings and conclusion

5.1 The watching brief revealed a broadly comparable sequence of deposits across the site, with mid 19th century and later made ground and imported topsoil overlying a series of alluvial and peat horizons and thence natural River Terrace deposits. There was no direct evidence for pre-19th century human activity, either in the form of discrete artefacts or *in situ* remains such as timber trackways.

The principal points of the trial pit and borehole record can be summarised as follows, and are also depicted in Figure 18 overleaf:

Investigation area	Surface level (m OD)	Depth of topsoil & recent made ground (m)	Alluvial sequence		Top of natural Terrace Gravel (m OD)
			Top (m OD)	Thickness (m)	
TP1	1.57	1.00	0.57	2.80	-2.23
2	1.27	1.20	0.07	2.30	-2.23
3	1.24	0.60	0.64	2.20	-1.56
4	1.27	0.70	0.57	2.60	-2.03
5	1.39	1.10	0.29	3.00	-2.71
6	1.53	1.50	0.03	2.35	-2.32
TR B	1.58	0.80	0.78	>0.90	–
BH1	1.15	1.50	-0.35	2.20	-2.55
BH2	*c* 1.58	2.00	-0.42	2.15	-2.57

5.2 It is likely that fairly recent activity has truncated the alluvium in several areas, although the highest recorded silt in Trial pits 1, 3 and 4 was at an almost identical level (0.57m to 0.59m OD). Moreover, in Trial pit 3 this was sealed by a possible buried soil, which may represent the pre-development (early-mid 19th century) land surface.

The upper level of alluvium comprised generally clean and sterile silt or slightly sandy silt, indicating a flooded environment with little plant life. Organic material was only really apparent towards the top of Trial pit 1 and Borehole 1, as lenses or pockets of material within a more homogeneous clay/silt. Elsewhere there was only trace evidence and no sign of other activity such as molluscs.

There was a marked change in the alluvial sequence between -0.38m and -1.42m OD. In general this appeared as a darker mixed organic silt, which in several areas (TPs 1, 2 & 6) become much more peaty with depth. The bulk of this material was quite fine but also included frequent twigs and small branches up to *c* 120mm diameter, and in one instance a piece measuring 230mm.

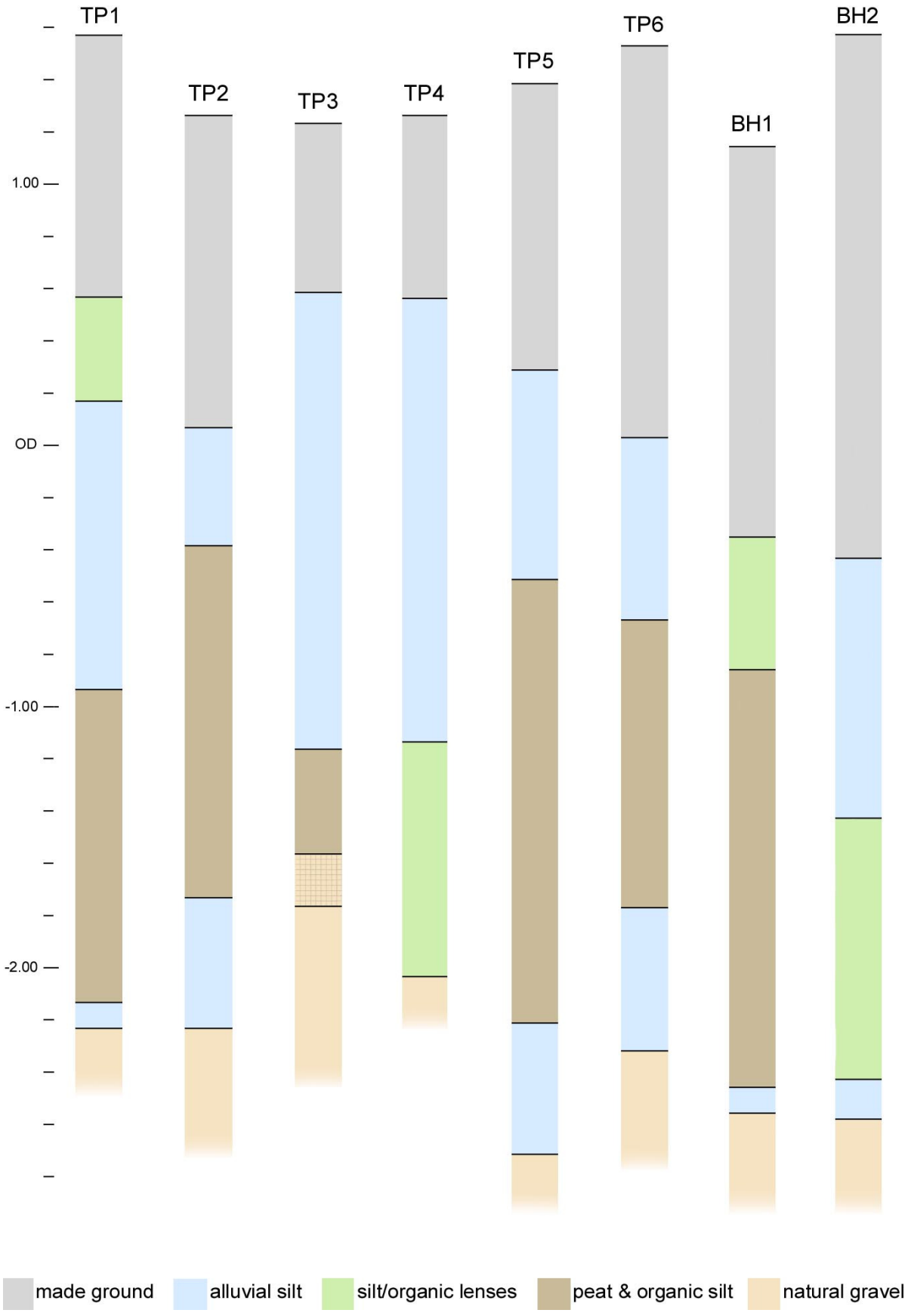


Fig 18 Simplified sections through Trial pits 1-6 and Boreholes 1 & 2

The organic/peat horizons clearly reflect a period of marine regression and development of a fenland-type environment, followed by progressive flooding of the landscape. It is assumed that most of these deposits derive from a single event, although they were noticeably shallower and more silty in the northeastern part of the site (TPs 3 & 4 and BH2). Thus the latter may represent a separate development, or perhaps a wetter area marginal to a creek or channel.

In four of the trial pits and both boreholes the organic/peat horizons overlay a further shallow layer of fairly clean alluvium, at -1.73m to -2.45m OD and between 100mm and 550mm thick. In the remaining two pits (once again Nos. 3 & 4) organic material directly sealed sand or gravel, although the interface levels were not significantly different at -1.56m to -2.03m OD.

The surface of the natural River Terrace was at its highest in the centre/north of the site, at about -1.6m to -1.7m OD (TP3), whilst the lowest point was recorded near the southeast corner at -2.71m OD (TP5). Thus there is some evidence for change in the underlying topography of the site, although not for the higher islands or eyots which have been recorded elsewhere in this area at levels up to about OD. Nevertheless, is clear that in the earlier prehistoric period much of the land would have been above contemporary water level, becoming marginal and progressively flooded during or after the Bronze Age.

Appendix I. OASIS DATA COLLECTION FORM

Printable version

OASIS ID: compassa1-11714

Project details

Project name	Land at 81 Leslie Road, E16, London Borough of Newham
Short description of the project	An archaeological watching brief, by Geoff Potter of Compass Archaeology, monitored the excavation of six machine dug geotechnical trial pits. The recorded deposits were broadly comparable across the site and comprised 19th century and later made ground overlying an alluvial sequence. The alluvial sequence was made up of three layers, which were clean silt, a mixed silt with organic material and peat. Although there were no artefacts or other remains, the principal peat deposits may relate to a single prehistoric marine regression, while the sterile silts reflect rising sea levels and flooding into the post-medieval period. The alluvial sequence was 2.15 to 3 metres thick and sealed natural River Terrace sands and gravels.
Project dates	Start: 20-10-2005 End: 20-10-2005
Previous/future work	No / Not known
Any associated project reference codes	LSI 05 - Sitecode
Type of project	Recording project
Site status	Area of Archaeological Importance (AAI)
Current Land use	Community Service 1 - Community Buildings
Investigation type	'Watching Brief'
Prompt	Direction from Local Planning Authority - PPG16

Project location

Country	England
Site location	GREATER LONDON NEWHAM CANNING TOWN 81 Leslie Road
Postcode	E16
Study area	0.40 Hectares
National grid reference	TQ 40793 81122 Point
Height OD	Min: -2.71m Max: -1.56m

Project creators

Name of Organisation	Compass Archaeology
Project brief originator	English Heritage/Department of Environment
Project design originator	Compass Archaeology
Project director/manager	Compass Archaeology
Project supervisor	Geoff Potter
Sponsor or funding body	Developer

Project archives

Physical Archive recipient	Museum of London archaeological archive
Physical Archive ID	LSI 05
Digital Archive recipient	Museum of London archive
Digital Archive ID	LSI 05
Digital Contents	'Stratigraphic','Survey'
Digital Media available	'Survey','Text'
Paper Archive recipient	Museum of London Archive
Paper Archive ID	LSI 05
Paper Contents	'Stratigraphic','Survey'
Paper Media available	'Drawing','Map','Photograph','Plan','Report','Section'

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	An archaeological Watching Brief at 81 Leslie Road, E16
Author(s)/Editor (s)	Potter, G.
Date	2005
Issuer or publisher	Compass Archaeology
Place of issue or publication	Compass Archaeology
Description	Compass Archaeology in-house developer report A4 spiral bound.
Entered by	Geoff Potter (mail@compassarchaeology.co.uk)
Entered on	27 November 2005

Appendix II. London Archaeologist summary

81 Leslie Road, E16. TQ 40793 81122. CA (Geoff Potter). Watching brief. October 2005. Community Housing Association Ltd. LSI 05.

Summary

A watching brief during geotechnical investigation followed a desk-based assessment that had identified potential for geo-archaeological and prehistoric remains.

Six machine-dug test pits revealed a broadly comparable sequence across the site, with 19th century and later made ground sealing alluvial (silt and organic) horizons. Although there were no cultural artefacts or other remains the principal peat deposits may relate to a single prehistoric marine regression.

The alluvial sequence was up to 3m thick and sealed natural River Terrace sands and gravels at between *c* -1.6m and -2.7m OD.