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> PROPOSED PORT TERMINAL AT FORMER TILBURY POWER STATION



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VOLUME 6 PART B

ES APPENDIX 15.C: ASBESTOS INVESTIGATION AND RECOMMENDATIONS REPORT

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ASBESTOS INVESTIGATION AND RECOMMENDATIONS TILBURY 2 TILBURY PORT OF TILBURY (LONDON) LTD AIR-20752-17-246 OCTOBER 2017



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SECTION 1 INTRODUCTION

- 1.1 Port of Tilbury (London) Ltd (Port of Tilbury) proposes to redevelop an area of land located at the former Tilbury Power Station site. Idom Merebrook Limited (Merebrook) has been commissioned by Port of Tilbury to undertake an asbestos investigation and to advise on the implications of asbestos contamination to the redevelopment of the site.
- 1.2 The development will comprise a new infrastructure corridor (road/rail/cycle lane/footways), new road over rail bridge, culverting, landscaping/ecology corridors, new RoRo terminal comprising rail network, ground remediation, pavements, duct works, drainage, lighting, fencing, associated gate houses, security systems and amenity office buildings and new warehousing. In addition, the development will include a new bulk terminal.
- 1.3 The proposed infrastructure corridor has yet to be investigated, but given the current land uses (including vehicle servicing and maintenance facility, car park and railway terminal), made ground is likely to be encountered. Where made ground is encountered, there is the potential for asbestos within the soil. Buildings along the proposed infrastructure corridor have the potential to contain asbestos, which may lead to asbestos fragments at the surface.
- 1.4 During the investigation, it was not possible to access Zone 4A, Zone 4B or Zone 8 (RWE areas west of the main Power Station building). These will be investigated at a later date and reported under separate cover.
- 1.5 A further phase of investigation will be conducted in due course and reported as an addendum to this report.
- 1.6 The objectives of the investigation are to:
 - *i.* Review the available asbestos data from previous site investigations;
 - *ii.* Assess surface and sub-surface ground for asbestos (no other contaminants will be considered in this report);
 - iii. Evaluate the risks associated with asbestos onsite; and
 - *iv.* Provide recommendations for the mitigation of any significant risks identified and remediation.
- 1.7 This report presents the findings of the asbestos investigation and the implications with respect to development.
- 1.8 This report has been prepared for Port of Tilbury for the sole purpose described above and no extended duty of care to any third party is implied or offered. Third parties making reference to the report should consult Port of Tilbury and Merebrook as to the extent to which the findings may be appropriate for their use.

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SECTION 2 SITE BACKGROUND

2.1 SITE LOCATION AND SETTING

- 2.1.1 The site is located at the site off the former Tilbury Power Station site off Fort Road.
- 2.1.2 The site occupies an area of approximately 58.5 hectares located at National Grid Reference 565968, 175702 and indicated on drawings 20752-304-001, 20752-304-002 and 20752-304-003 presented in Appendix 1 of this report.
- 2.1.3 The site is boarded by a railway line to the north, with residential properties beyond. To the northeast of site are open fields, while Tilbury Power Station and associated infrastructure is located to the east of the site. The River Thames runs to the south of the site, a sewage works, Tilbury Fort and commercial developments lie to the southwest.
- 2.1.4 The site has been used for power generation for more than 50 years. Most of the above ground structures have now been decommissioned, with the site now largely covered by vegetation in the north and hardstanding in the south. During a site walkover, fragments of asbestos containing cement sheet were noted within the former Lytag area.

2.2 GEOLOGY

- 2.2.1 The published geological map indicates the presence of superficial drift deposits of Alluvium. The Alluvium is described as generally silt and clay with local inclusions of peat. The underlying bedrock geology comprises Cretaceous Upper Chalk which is described as soft, white with coarse flint gravel and cobbles.
- 2.2.2 Previous investigations have encountered variable thicknesses of made ground (generally in the range 0.5 to 2.5 m) above the superficial deposits.
- 2.2.3 The Alluvial deposits in previous investigations have been found to be variable in nature, but generally comprise very soft clay to soft silty clay interbedded with fibrous peat. The typical thickness of Alluvium was found to be 12 to 17 m. Deposits of sand and gravel, known as the Kempton Park Gravel are expected beneath the Alluvium (generally 2.0 to 9.0 m thick).
- 2.2.4 The Seaford and Newhaven Chalk Formations are known to underlie the Kempton Park Gravel. The formation has been encountered at depths of approximately 20 metres below ground level (m bgl) in previous reports.

2.3 HYDROGEOLOGY

2.3.1 The Alluvium beneath is identified by the Environment Agency as a Secondary (undifferentiated) aquifer and the River Terrace Deposits are a Secondary A aquifer. The Chalk bedrock at the site has been classified as a Principal Aquifer.

- 2.3.2 No Environment Agency Groundwater Source Protection Zones (SPZ) were identified on site, the closest was identified 0.9 km to the north of site.
- 2.3.3 It is understood that three groundwater abstraction licences were operated at the Power Station site. These are thought to relate to a single borehole advanced into the underlying Chalk, used for the occasional top-up of process water onsite. In addition, licences were held for a tidal abstraction and a surface water abstraction from the River Thames. RWE have advised that there are no abstraction boreholes within the Tilbury 2 site.

2.4 HYDROLOGY

2.4.1 The site lies on the northern bank of the River Thames. Two ponds and shallow ditches are located on site – the majority of the site drains into artificial channels and then to the Thames *via* a series of interceptors.

2.5 **PREVIOUS INVESTIGATIONS**

- 2.5.1 Numerous phases of investigation have been conducted by others, those with relevance to asbestos contamination of soil are considered here. Notably the other site investigations not discussed did not include testing or screening for asbestos and, given the aims of this assessment, have not been considered further.
- 2.5.2 Jacobs 2008
- 2.5.2.1 Suspected asbestos containing material (ACM) was identified in the form of roof tiles at the location of the former Lytag building. A limited number of samples were recovered but asbestos was not identified in any of the samples.
- 2.5.2.2 The report also referred to the suspected presence of buried asbestos within the former coal yard.
- 2.5.3 Structural Soils 2011
- 2.5.3.1 Suspected ACMs were encountered at two locations (B-BH1 and B-BH2), samples were not recovered to confirm if this was the case.
- 2.5.4 Structural Soils 2012
- 2.5.4.1 Structural Soils encountered suspected asbestos containing material at WS6 and WS13. Samples of these materials confirmed the presence of asbestos.
- 2.5.4.2 RPS, August 2015 Ground Investigation Interpretative Report (JER6376)
- 2.5.4.3 Suspected Asbestos Containing Material (ACM) was encountered at TP-Z11-01 and TP-Z11-02 at 1.0 m and 0.7 m respectively. Samples of the suspected ACM were found to comprise amosite asbestos.

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- 2.5.4.4 The results of soil sample analysis are summarised in Table 1 below. It should be noted that RPS only conducted an asbestos screen with no quantification or assessment of the prevalence of asbestos.
- 2.5.4.5 RPS was able to attribute the occurrence of asbestos to suspected sources as detailed below:
 - *i.* TP-Z11-01 to 03 within an area where asbestos was believed to have been buried historically (in the former coal yard);
 - *ii.* TP-Z19-14 to TP-Z19-19 where suspected fibrous asbestos was encountered by Structural Soils in 2011 and the presence of demolition arisings was noted by RPS in 2015

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SAMPLE ID	TYPE OF ASBESTOS	MATERIAL	CONCENTRATION OF ASBESTOS (%)	INVESTIGATION
TP-Z19- 09 1.0m	Amosite			RPS 2015
TP-Z19- 14 0.8m	Amosite			RPS2015
TP-Z19- 19 0.6m	Amosite			RPS2015
TP-Z19- 15 0.9m	Amosite			RPS2015
TP-Z19- 16 0.9m	Amosite			RPS2015
TP-Z19- 18 0.9m	Amosite			RPS2015
TP-Z19- 17 1.9m	Crocidolite			RPS2015
TP-Z19- 12 0.8m	Amosite			RPS2015
B-BH1	Suspected ACM		No sample taken	Structural Soils 2011
B-BH2	Suspected ACM		No sample taken	Structural Soils 2011
WS-Z12- 01 1.8m	Amosite			RPS2015
WS-Z13- 01 1.0m	Amosite			RPS2015
WS6 2.1m	Amosite	Board	90*	Structural Soils 2012
TP-Z11- 05 1.4m	Amosite			RPS2015
TP-Z11- 03 0.8m	Amosite			RPS2015
WS13 0.65-2.0m	Amosite	Fibres	5.65*	Structural Soils 2012
WS13 1.2- 2.0m	Amosite	Fibres/board	8.74*	Structural Soils 2012

SAMPLE ID	TYPE OF ASBESTOS	MATERIAL	CONCENTRATION OF ASBESTOS (%)	INVESTIGATION
WS13 1.2- 2.0m	Amosite	Fibres/board	Fragment	Structural Soils 2012
TP-Z11- 01 1.0m	Amosite	Lagging/insulation	Fragment	RPS2015
TP-Z11- 02 0.7m	Amosite	Lagging/insulation	Fragment	RPS2015
TP-Z17- 01 0.3m	Amosite			RPS2015
TP-Z7-09 0.6m	Anthophylite			RPS2015
TP-Z7-07 0.6m	Amosite			RPS2015
TP-Z7-01 1.4m	Amosite			RPS2015
TP-Z7-02 0.8m	Amosite			RPS2015
WS-Z4-10 0.8m	Amosite and Chrysotile			RPS2015
WS-Z4-04 0.7m	Crocidolite			RPS2015
WS-Z4-08 0.2m	Amosite			RPS2015
WS-Z4-02 0.6m	Amosite			RPS2015
WS-Z4-05 0.35m	Amosite			RPS2015
BH-Z7-02 0.6m	Chrysotile			RPS2015

* it is considered that the asbestos in soil concentrations encountered by Structural Soils represent bulk samples of the asbestos product only

SECTION 3 SITE INVESTIGATION

3.1 INTRODUCTION

- 3.1.1 Intrusive sampling locations were chosen on the basis of providing broad spatial coverage of the site and targeting areas where asbestos had been encountered by previous investigations. All Merebrook staff involved in the investigation were asbestos awareness trained.
- 3.1.2 Reassurance air monitoring was conducted during the site investigation. Fibre concentrations were less than the level of detection in all tests. Monitoring data is contained in Appendix 4.

3.2 SITE INVESTIGATION METHODS

- 3.2.1 An intrusive investigation was carried out by Merebrook on 5 to 9 June 2017 and comprised the following scope of work:
 - *i.* Seventy five machine-dug trial holes (MTP1 to MTP75 to a depth of 3.5-4.0 m bgl); and

- ii. Sixteen hand-dug trial holes (MHP1 to MHP16 to a depth of 1.5 m bgl).
- 3.2.2 Exploratory hole locations are indicated on drawings 20752-304-001, 20752-304-002, 20752-304-003 in Appendix 1. Logging of exploratory holes was undertaken by a Merebrook Officer. Exploratory hole logs are contained in Appendix 2.
- 3.2.3 Areas of the site where asbestos was previously identified were targeted (eg. the Lytag building where asbestos was identified at the surface). Investigation locations across the remainder of the site were positioned to provide broad spatial coverage. It should be noted that some locations were relocated due to access issues and services.
- 3.2.4 Made ground or reworked natural soils were sampled to provide an accurate representation of the surrounding soils at that location. Samples were recovered with a trowel that was cleaned between samples or collected with a gloved hand (disposable gloves were changed between samples). Sampling was carried out at various depths and strata to assess the potential for asbestos contamination to be present. Soil samples were submitted to an MCERTS/ UKAS accredited laboratory for an asbestos screen (asbestos quantification was carried out if asbestos was encountered). The results are provided in Appendix 4.

SECTION 4 GROUND CONDITIONS

4.1 SURFACE GROUND CONDITIONS

4.1.1 Most of the above ground structures have now been decommissioned, with the site now largely covered by vegetation in the north and hardstanding in the south. Sporadic asbestos containing material in the form of cement sheeting was encountered on concrete hardstanding at the former lytag factory (SS1 and SS2). Further asbestos fragments were encountered on the surface at MTP29 and MTP40. Suspected ACM was encountered at the bund (at the surface), close to MTP38, however it was not possible to sample this material.

4.2 SUB-SURFACE GROUND CONDITIONS

4.2.1 A summary of the ground conditions encountered is presented in Table 2, whilst a more detailed assessment of the strata is contained in the following sections of the report.

Table 2: Summary of Sub-surface Ground Conditions

STRATA	DEPTH TO TOP RANGE (m bgl)	THICKNESS RANGE (m)
Topsoil	0.0	0.1-0.25
Made Ground	0.0-0.25	0.6-3.0
Alluvium	0.25-4.2	2.9+

- 4.2.2 Topsoil
- 4.2.2.1 Topsoil was encountered at MHP1, MHP7, MHP8, MHP11, MHP12, MTP57 and MTP59. The topsoil generally comprised silty clayey sand to dark silty clay with inclusions of flint and brick.
- 4.2.3 Made Ground
- 4.2.3.1 Made ground was present in the majority of locations from ground level or below topsoil. Made ground was not encountered at MTP25 (topsoil was directly over probable natural soils).
- 4.2.3.2 The following table shows the locations in which reworked natural soils were encountered and their depth in metres below ground level (m bgl).

LOCATION	DEPTH TO TOP (m bgl)	THICKNESS (m)
MTP5	1.3	1.0
MTP10	1.8	Not proven
MTP16	1.7	0.7
MTP26	1.6	0.4
MTP30	0.5	Not proven
MTP32	1.0	0.4
MTP34	1.4	0.3
MTP37	0.6	0.5
MTP44	0.7	Not proven
MTP46	0.5	1.3
MTP50	1.8	Not proven
MTP55	1.2	0.1
MTP65	1.2	Not proven
MTP69	0.6	1.4

Table 3: Reworked natural soils

- 4.2.4 The made ground was found to comprise medium brown silty sandy clay to black sand with variable amounts of flint, chalk, brick and concrete gravel and cobbles.
- 4.2.5 Coal, clinker, lytag and bituminous surfacing were recorded locally, whilst minor amounts of other materials including wood, metal, wire, glass and pottery fragments. Not surprisingly, lytag in the form of sand and gravel was most prevalent in the vicinity of the former Lytag factory.
- 4.2.6 Asbestos insulation board (AIB) fragments were encountered within made ground at MTP57 (0.5m) and MHP8 (0.4m). Asbestos fragments encountered at the surface are detailed in section 4.1.1.
- 4.2.7 Trial Pits, MTP72 to MTP74 were aborted due to thick concrete, whilst MTP75 was aborted due to the presence of sheet piles.

- 4.2.8 Natural ground
- 4.2.9 Natural soils were found to comprise stiff dark grey clay to soft silty clay. Lenses of peat were commonly encountered.

SECTION 5 ENVIRONMENTAL ASSESSMENT

5.1 SOIL QUALITY

- 5.1.1 A total of one hundred and twenty four soil samples were submitted to the laboratory for chemical analysis for an asbestos screen and quantification, where identified. The laboratory chemical analysis certificates are contained in Appendix 4. The results of the analysis are summarised in Table 4.
- 5.1.2 In addition, samples of ACM were recovered from the surface at the former Lytag factory (SS1 and SS2). Further asbestos fragments were encountered at MTP40 and MTP29. Asbestos insulation board (AIB) fragments were encountered within made ground at MTP57 (0.5m) and MHP8 (0.4m).
- 5.1.3 Suspected ACM was encountered at the bund (at the surface), close to MTP38, however it was not possible to sample this material.

SAMPLE ID	TYPE OF ASBESTOS	MATERIAL	CONCENTRATION OF ASBESTOS (%)
MTP1 0.1-0.2m	Chrysotile	Loose Fibres	0.002
MTP1 1.0-1.1m	Chrysotile	Loose Fibres	< 0.001
MTP1 2.7-2.8m	Chrysotile	Loose Fibres	< 0.001
MTP2 0.1-0.2m	Chrysotile	Loose Fibres	< 0.001
MTP2 0.7-0.8m	Chrysotile, Amosite & Crocidolite	Loose Fibres & Hard/Cement Type Material	0.005
MTP4 0.1-0.2m	Chrysotile & Amosite	Loose Fibres & Hard/Cement Type Material	0.002
MTP5 0.4-0.5m	Chrysotile	Loose Fibres	< 0.001
MTP17 0.2-0.3m	Amosite, Crocidolite	Loose Fibres	< 0.001
MTP28 0.2-0.3m	Chrysotile & Crocidolite	Loose Fibrous Debris	0.008
MTP45 0.2-0.3m	Chrysotile & Amosite	Loose Fibres & Hard/Cement Type Material	0.001
MTP46 0.5-0.6m	Amosite & Crocidolite	Loose Fibres	0.004
MTP51 1.3-1.4m	Amosite	Loose Fibrous Debris	<0.001

Table 4: Summary of the asbestos encountered

SAMPLE ID	TYPE OF ASBESTOS	MATERIAL	CONCENTRATION OF ASBESTOS (%)
MTP59 0.0-0.15m	Amosite	Loose Fibres	<0.001
MTP61 0.5-0.6m	Chrysotile & Amosite	Loose Fibres	<0.001
MTP62 0.05- 0.15m	Chrysotile	Loose Fibrous Debris	0.003
MTP67B 0.2-0.3m	Chrysotile	Loose fibres	< 0.001
MTP67B 0.65- 0.75m	Amosite	Loose Fibres	<0.001
MTP70 0.3-0.4m	Chrysotile & Amosite	Loose Fibrous Debris & Sheeting/Board Debris	0.004
MHP2 0.05-0.15m	Chrysotile	Sheeting/Board Debris	< 0.001
MHP2 0.15-0.25m	Amosite	Hard/Cement Type Material	0.003
MTP11 0.2-0.3m	Chrysotile & Amosite	Loose Fibres	0.001
MTP12 0.2-0.4m	Chrysotile & Amosite	Loose Fibres & Sheeting/Board Debris	< 0.001
MTP18 1.25-1.4m	Amosite	Loose Fibres	< 0.001
MTP19 0.1-0.3m	Chrysotile & Amosite	Loose Fibres	< 0.001
MTP390.1-0.2m	Chrysotile	Loose Fibres	< 0.001
MTP40 0.6-0.8m	Amosite	Loose Fibres	< 0.001
MTP42 0.05- 0.15m	Chrysotile & Amosite	Sheeting/Board Debris	0.001
MTP47 1.0-1.5m	Chrysotile & Amosite	Loose Fibres & Loose Fibrous Debris	0.026
MTP54 0.1-0.2m	Chrysotile	Loose Fibres	< 0.001
MTP54 0.3-0.5m	Chrysotile	Loose Fibres & Hard/Cement Type Material & Loose Fibrous Debris	0.004
MTP73 0.1-0.3m	Chrysotile & Amosite	Loose Fibres	< 0.001
MTP75 0.1-0.5m	Chrysotile & Amosite	Loose Fibres & Hard/Cement Type Material	0.069
MTP72 0.0-0.2m	Chrysotile & Amosite	Loose Fibres	< 0.001
MHP6 0.0-0.4m	Amosite	Loose Fibres	< 0.001
MHP8 0.1-0.4m	Chrysotile & Amosite	Loose Fibres	< 0.001

SAMPLE ID	TYPE OF ASBESTOS	MATERIAL	CONCENTRATION OF ASBESTOS (%)
MHP10 0.1-0.2m	Chrysotile & Amosite	Loose Fibres	0.002
MHP10 0.3-0.5m	Chrysotile & Amosite	Loose Fibres & Loose Fibrous Debris	0.003
MHP13 0.1-0.3m	Amosite	Loose Fibres	< 0.001
MHP15 0.05-0.2m	Amosite	Loose Fibres	< 0.001
MHP15 0.4-0.5m	Chrysotile & Amosite	Loose Fibres	< 0.001
MHP4 0.0-0.4m	Chrysotile & Amosite	Loose Fibrous Debris & Loose Fibres	< 0.001
MHP5 0.0-0.4m	Chrysotile	Loose Fibrous Debris	0.002
MHP16 0.0-0.5m	Amosite	Loose Fibres	< 0.001
SS1	Chrysotile	Cement type material	Fragment
SS2	Chrysotile	Cement type material	Fragment
MTP29 (0m)	Chrysotile and crocidolite	Cement type material	Fragment
MTP40 (0m)	Chrysotile	Cement type material	Fragment
MTP57 (0.5m)	Chrysotile	Insulation/board tile	Fragment
MHP8 (0.4m)	Chrysotile	Insulation/board tile	Fragment
A suspected ACM fragment was encountered close to MTP38	Suspected asbestos cement	Cement type material	Fragment

Note: The concentration of asbestos in each sample relates to the concentration of fibres and/or solid material in a sample.

- 5.1.4 Asbestos was encountered in forty three samples this equates to 35% of the samples taken. Visible asbestos fragments (chrysotile cement) were encountered on hardstanding at the former Lytag plant (SS1 and SS2), further surface fragments of cement were encountered at MTP40 and MTP29. Furthermore insulation board was encountered within the soil at MTP57 (0.5m) and MHP8 (0.4m) this would potentially lead to a Hazardous classification for waste disposal purposes. Asbestos concentrations in all soil samples were below the hazardous waste classification (0.1%).
- 5.1.5 Laboratory test results indicate a likely waste classification of non-hazardous would be applicable based on asbestos fibre concentrations in the soil. If ACM is present in the form of visible fragments (eg board/tile/cement/sheeting) then the material that contains these items would be automatically considered hazardous (As per EA document WM3).

SECTION 6 CONCEPTUAL MODEL

- 6.1 The conceptual model (Table 5) identifies a number of potential sources of asbestos contamination which could present a risk to human health and the environment. However, the level of risk depends upon the availability of pathways for asbestos contamination to reach vulnerable receptors including site users and the environment. In the site's current form, potential pathways for subsurface asbestos are limited by hardstanding and thick vegetation meaning that the risk is considered to be Low. Where asbestos has been encountered at the surface the risk is considered to be Medium due to the number of current site users.
- 6.2 The areas referred to in table 5 are indicated on drawing indicated on drawing 20752-304-001 contained in Appendix 1.

Possible Pollutant Linkage			
Potential Sources (origin)	Pathways	Receptors	Risk Characterisation
	Inhalation of loose	Human health Site Personnel and visitors Current workers on-site visitors to the former Tilbury A Power Station, Security staff; Railway maintenance workers;	ACM within the soil matrix: Low The site is surfaced with hardstanding or thick vegetation, minimising the possibility of exposure.
ACM within soil and at the surface – excluding the former Lytag facility and fields in the east	works	 Workers at the electricity substation; Members of the public using public rights of way across the infrastructure corridor and the public footpath/cycle track along the infrastructure corridor. 	ACM at the surface: Medium ACM fragments at the surface were rare and in the form of cement – making fibre release less likely. The fragments were amongst vegetation.
	Migration of loose fibres to adjacent land prior to works	 Human health Workers at the former Tilbury B Power Station and adjacent sewage treatment works; Members of the public including users of the coastal path. 	Low The presence of vegetation and hardstanding limits the exposure to fibres in the soil matrix. ACM fragments at the surface were rare and in the form of cement – making fibre release less likely and minimising the risk to adjoining land.
	Inhalation of loose fibres during groundworks	 Human health Site Personnel and visitors Construction workers, visitors to site, security staff; Railway maintenance workers; Workers at the electricity substation; Members of the public using public rights of way across the infrastructure corridor and the public footpath/cycle track along the infrastructure corridor. 	Medium ACM including lagging and AIB were recorded in this area within the soil matrix. These materials pose a risk of fibre release and mobilisation during materials handling, in the absence of appropriate controls.

Table 5: Conceptual Model (without mitigation)

TILBURY 2, TILBURY ASBESTOS INVESTIGATION AND RECOMMENDATIONS

	Possible Po		
Potential Sources (origin)	Pathways	Receptors	Risk Characterisation
	Migration of loose fibres to adjacent land during groundworks	 Human health Workers at the former Tilbury B Power Station and adjacent sewage treatment works; Members of the public including users of the coastal path. 	
	Inhalation of loose fibres, following completion	 Human health Future site users Workers at/visitors to the new port facilities, security staff. Railway maintenance workers; Workers at the electricity substation; Members of the public using public rights of way across the infrastructure corridor and the public footpath/cycle track along the infrastructure corridor. 	Low (see Table 6) The proposed redevelopment includes the use of hard standing over the majority of the site. Areas of soft landscaping should be formed of clean soils over a geomembrane. Areas where asbestos is known to be present and is to be left in situ should be covered with a cap
	Migration of loose fibres to adjacent land following completion	 Human health Workers at the former Tilbury B Power Station and adjacent sewage treatment works; Members of the public including users of the coastal path. 	as detailed in Section 10.2.4. In the absence of mitigation measures the potential risk to future site users is considered to be medium.
	Inhalation of loose	Human health Site Personnel and visitors Current workers on-site visitors to the former Tilbury A Power Station, Security staff; Railway maintenance workers;	ACM within the soil matrix: Low The site is surfaced with hardstanding or thick vegetation, minimising the possibility of exposure.
ACM within soil and at the surface - at the former Lytag facility	works	 Workers at the electricity substation; Members of the public using public rights of way across the infrastructure corridor and the public footpath/cycle track along the infrastructure corridor. 	ACM at the surface: Medium Sporadic fragments of ACM were encountered on concrete hardstanding at the surface. Fragments were in the form of cement – making fibre release less likely.
	Migration of loose fibres to adjacent land prior to works	 Human health Workers at the former Tilbury B Power Station and adjacent sewage treatment works; Members of the public including users of the coastal path. 	Low The presence of vegetation and hardstanding limits the exposure to fibres in the soil matrix. ACM fragments at the surface were rare and in the form of cement – making fibre release less likely and minimising the risk to adjoining land.

TILBURY 2, TILBURY ASBESTOS INVESTIGATION AND RECOMMENDATIONS

	Possible Po					
Potential Sources (origin)	Pathways	Receptors	Risk Characterisation			
	Inhalation of loose fibres during groundworks	 Human health Site Personnel and visitors Construction workers, visitors to site, security staff; Railway maintenance workers; Workers at the electricity substation; Members of the public using public rights of way across the infrastructure corridor and the public footpath/cycle track along the infrastructure corridor. 	Medium Cement sheeting has been found at the surface on hardstanding This material poses a risk of fibre release and mobilisation during the breaking out of			
	Migration of loose fibres to adjacent land during groundworks	 Human health Workers at the former Tilbury B Power Station and adjacent sewage treatment works; Members of the public including users of the coastal path. 	concrete hardstanding.			
	Inhalation of loose fibres, following completion	Inhalation of loose fibres, following completion Inhalation of loose fibres, following fibres, followin				
	Migration of loose fibres to adjacent land following completion	 Human health Workers at the former Tilbury B Power Station and adjacent sewage treatment works; Members of the public including users of the coastal path. 	as detailed in Section 10.2.4. In the absence of mitigation measures the potential risk to future site users is considered to be medium			
Fields in the east of site	Inhalation of loose fibres, prior to works	 Human health Site Personnel and visitors Current workers on-site visitors to the former Tilbury A Power Station, Security staff; Railway maintenance workers; Workers at the electricity substation; Members of the public using public rights of way across the infrastructure corridor and the public footpath/cycle track along the infrastructure corridor. 	Low No asbestos has been encountered.			
	Migration of loose fibres to adjacent land prior to works	 Human health Workers at the former Tilbury B Power Station and adjacent sewage treatment works; Members of the public including users of the coastal path. 	Low No asbestos has been encountered.			

TILBURY 2, TILBURY ASBESTOS INVESTIGATION AND RECOMMENDATIONS

	Possible Po	ollutant Linkage		
Potential Sources (origin)	Pathways	Receptors	Risk Characterisation	
	Inhalation of loose fibres during groundworks (within the fields)	 Human health Site Personnel and visitors Construction workers, visitors to site, security staff; Railway maintenance workers; Workers at the electricity substation; Members of the public using public rights of way across the infrastructure corridor and the public footpath/cycle track along the infrastructure corridor. 	Low No asbestos has been encountered.	
	Inhalation of loose fibres released during groundworks on other parts of the site (with the potential to migrate to the eastern fields area)	 Human health Site Personnel and visitors Construction workers, visitors to site, security staff; Railway maintenance workers; Workers at the electricity substation; Members of the public using public rights of way across the infrastructure corridor and the public footpath/cycle track along the infrastructure corridor. 	Medium ACM including lagging and AIB were recorded in the soil matrix and at the surface within other parts of the site. These materials elsewhere on site pose a risk of fibre release and mobilisation during materials handling, in the absence of appropriate controls to mitigate potential releases at source (parts of the site other than the eastern fields area).	
	Migration of loose fibres to adjacent land during groundworks	 Human health Workers at the former Tilbury B Power Station and adjacent sewage treatment works; Members of the public including users of the coastal path. 	Low No asbestos has been encountered.	
	Inhalation of loose fibres, following completion	 Human health Future site users Workers at/visitors to the new port facilities, security staff. Railway maintenance workers; Workers at the electricity substation; Members of the public using public rights of way across the infrastructure corridor and the public footpath/cycle track along the infrastructure corridor. 	Low No asbestos has been encountered.	
	Migration of loose fibres to adjacent land following completion	 Human health Workers at the former Tilbury B Power Station and adjacent sewage treatment works; Members of the public including users of the coastal path. 		

Note: The risks and any mitigation measures required in relation to the infrastructure corridor, northeast lakes and RWE remediation areas are still to be confirmed following completion of further investigations.

6.3 A remedial strategy has been designed to break the identified source-pathwayreceptor linkages and render the site suitable for the proposed use. It should be noted that the proposed development will include the use of hardstanding across much of the site (Areas of soft landscaping not covered by hardstanding should be formed of clean soils and a membrane to form a cap to the underlying made ground). This will break potential pathways for the migration of asbestos and therefore the risk is considered to be Low. Table 6 shows the risk mitigation measures required in relation to the proposed surfacing. Areas of the site where capping would not be required (or needs additional testing to confirm) are indicated on drawing 20752-304-001 contained in Appendix 1. The predominant risk, therefore, will occur during groundworks and construction stages of the project where pathways remain open and ground is being disturbed. The risk to receptors during this stage is considered to be Medium and suitable precaution will be set out in the Remedial Strategy to minimise potential risk to construction workers as well as those working on adjacent land.

- 6.4 The physical removal of visible ACMs is considered to be non-licenced work. Where materials are found to contain a high proportion of visible ACMS or previously unidentified higher risk ACMs such as lagging which cannot be quickly removed then the works will become licenced.
- 6.5 The possibility of encountering previously undiscovered asbestos within the made ground is also acknowledged, and a method for dealing with this without stopping works has been put in place.

Proposed surfacing	Risk Characterisation	Mitigation required
Hardstanding	Low	None – a cap will already be in place as an integral part of the proposed development design so no additional mitigation measures are required in relation to asbestos.
Soft landscaping	Medium	Marker layer and 150 mm of capping.
Compacted Aggregate	Low/Medium	Marker layer and 150 mm of capping.

Table 6: Risk mitigation in relation to the proposed surfacing

SECTION 7 RECOMMENDATIONS FOR FURTHER WORKS

- 7.1 A suspected fragment of ACM was encountered close to MTP38. Additional excavations are therefore recommended along the bund.
- 7.2 Completion of site investigations in the RWE area and infrastructure corridor (see section 1.4).
- 7.3 Further investigation is recommended around the lake in the north east to augment the data to date (MHP11 and MHP12). This is designed to confirm that the area is free from asbestos and would not require targeted remediation/capping.

SECTION 8 MATERIALS RE-USE

- 8.1 Material excavated during the Site Preparation Works must be managed in accordance with a Materials Management Plan or similar. This must demonstrate a genuine requirement for the materials re-use. Furthermore, it must be demonstrated that the material can be processed safely. This section sets out the precaution for material re-use within the development in relation to asbestos. Where asbestos is not coincident with excavating, no further assessment or mitigation is required.
- 8.2 Excavated material will be sorted into the following categories:
 - *i.* Material containing a high proportion of ACM, or any visible pieces of highly friable ACM (such as AIB or lagging) should be segregated for off-site disposal. It would not be possible to reuse material classed as waste on site;
 - *ii.* Material containing occasional larger fragments of ACM should be disaggregated to allow removal of these fragments for off-site disposal. The remaining material can then be classed as category iii below;
 - iii. Material with a component of demolition/construction waste but containing no or only occasional small fragments of asbestos or other deleterious materials can be stockpiled separately for appropriate re-use on site. BS5930 (2015) states that the description of tertiary constituents should be in qualitative terms "and no definition of percentage should be given"; and
 - *iv.* Material comprised entirely of re-worked natural ground (containing no anthropogenic material) should be stockpiled separately for re-use on site.
- 8.3 Large fragments of other deleterious materials (such as, but not exclusively, wooden planks, concrete boulders or metal) are also unsuitable for retention in material intended for re-use on site and should be segregated for appropriate disposal, if found. Concrete or brick-and-cement boulders can, if not associated with ACM, be crushed for re-use on site.
- 8.4 It should be noted that the Merebrook investigation has indicated that significant concentrations of asbestos are unlikely to be encountered.
- 8.5 All excavations will require supervision by a suitably qualified and experienced banksman.
- 8.6 All material must be re-used in accordance with a Materials Management Plan and must be managed so as to prevent any potential risks to human health or the wider environment. Measures should comprise damping down of materials particularly during dry conditions and covering of any stockpiles which are going to be left *in-situ* for an extended period of time.
- 8.7 The location of all material containing asbestos will be recorded in the site Health and Safety file.

SECTION 9 REMEDIAL OBJECTIVES

- 9.1 Remedial objectives include the following:
 - *i.* To safeguard current site users, construction workers and future site users from the impacts of asbestos within soils and at the surface;
 - *ii.* To provide an environmentally sustainable and cost-effective remedial solution, avoiding the landfilling of excavated wastes as far as is practicable in line with the Landfill Directive and associated UK Regulations;
 - *iii.* To work in full compliance with the exemplary standards of Health, Safety and Environmental Compliance;
 - *iv.* To ensure the Employer is fully compliant as Waste Producer under the Duty of Care Requirements of the Environmental Protection Act 1990, and compliant with all waste pre-treatment and permitting requirements of the Environmental Permitting Regulations (England and Wales) 2011, which now incorporates the requirements of the Landfill Regulations 2005; and
 - *v.* To implement a robust Site Verification process seeking planning condition discharge and regulatory signoff.
- 9.2 With the implementation of the remedial strategy below, the risks set out in Table 5 can be reduced to low.

SECTION 10 REMEDIATION STRATEGY

10.1 MITIGATING RISKS TO CURRENT SITE USERS

10.1.1 Asbestos containing material at the site surface

- 10.1.1.1 A suitably qualified and experience asbestos operative will be required to inspect the site of the former Lytag Factory, MTP29 and MTP40 as asbestos fragments have previously be encountered at the surface in these areas. Any fragments identified during the inspection should be hand-picked and stored in a lockable skip prior to off-site disposal.
- 10.1.1.2 The area around MTP29 and MTP40 was heavily vegetated which will prevent asbestos fragments migrating to the surface during heavy rain.
- 10.1.1.3 Inspection in these areas should occur as soon as possible and can then be carried out on an *ad-hoc* basis.

10.1.2 Fragments of asbestos containing material at the site surface – Bare Made ground

10.1.2.1 Areas of bare ground where fragments were encountered (MTP57 and MHP8) should be inspected at regular intervals, depending upon works and weather

conditions, in particular subsequent to periods of heavy rain. Fragments of asbestos identified will be hand-picked and stored in a lockable skip prior to off-site disposal.

10.1.2.2 Verification of this would be through visual inspection and it represents a temporary measure pending excavation, capping or remediation.

10.1.3 Fragments of asbestos containing material at the site surface – Bund

10.1.3.1 Suspected ACM was encountered at one location close to MTP38, it was not possible to test the material. It should be noted that soil samples recovered from the bund did not encountered any asbestos. It is recommended that further investigation is carried out in this area.

10.2 **DURING THE CONSTRUCTION PHASE**

10.2.1 Asbestos containing material within the soil matrix – Bare Made ground

- 10.2.1.1 Areas of bare ground where fragments were encountered (MTP57 and MHP8) should be inspected at regular intervals, depending upon works and weather conditions, in particular subsequent to periods of heavy rain. Fragments of asbestos identified will be hand-picked and stored in a lockable skip prior to off-site disposal.
- 10.2.1.2 Verification of this would be through visual inspection and it represents a temporary measure pending excavation, capping or remediation.

10.2.2 Asbestos containing material at the Former Lytag Factory

- 10.2.2.1 Inspection and hand-picking should be undertaken prior to vegetation clearance to prevent the spread of asbestos by vehicle tracking.
- 10.2.2.2 The concrete hardstanding should be thoroughly inspected prior to breaking out the slab. Furthermore, an experienced banksman should inspect the concrete slab while it is being removed.

10.2.3 Made ground containing fragments of ACM

- 10.2.3.1 During the excavation of made ground, there is the potential to encounter soils containing multiple fragments of asbestos, but not at sufficient density to prevent reuse. In such instances, it will not be possible to remove each fragment in isolation.
- 10.2.3.2 The methodology for dealing with this material will involve the disaggregation and segregation of the material in accordance with the Materials Re-use protocol set out in Section 8 of this report. As specified, occasional small fragments of ACM will be acceptable in material intended for re-use on site, at depth beneath a capping layer. BS5930 (2015) states that the description of tertiary constituents should be in qualitative terms "and no definition of percentage should be given".
- 10.2.3.3 Subsequent validation of excavated areas would need to take place in accordance with the Verification Plan presented in Section 13. Reduced levels soils will be validated by visual inspection.

- 10.2.3.4 Deleterious materials within the made ground, such as metal, plastic or wood should be segregated for disposal, in accordance with a Site Waste Management Plan.
- 10.2.3.5 All material intended for reuse on site must be undertaken in accordance with and tracked *via* the Materials Management Plan.

10.2.4 Material left in Situ

- 10.2.4.1 Control measures will need to be in place where materials known to be contaminated by asbestos are to be left *in situ* (i.e. material below the development platform or beneath permanent car parks and access roads). This should include provision of hard standing such as concrete or tarmac, or a marker layer overlain by a minimum of 150 mm of capping material. These measures are particularly important to prevent the tracking or spreading of materials through vehicle movements.
- 10.2.4.2 This will include the provision of clean capping in soft landscaped areas and clean material in drain runs.
- 10.2.4.3 Material used as capping should be free from asbestos and compliant with the requirements of Atkins' chemical suitability criteria.
- 10.2.4.4 It is understood that the fields in the east of site have not previously been developed and no asbestos has been encountered to date. A cap will not be required in this area. Merebrook should be notified if conditions atypical to those found during the resent site investigation are encountered. The fields are indicated on drawing 20752-304-001 presented in Appendix 1.

10.2.5 Asbestos handling

10.2.5.1 Asbestos containing materials to be removed from site must be handled and stored in an appropriate manner; this should be either through the use of lockable skips, lined wagons or lined and sealed stockpiles.

SECTION 11 ASBESTOS CACHE PROCEDURES

- 11.1 To date asbestos has been found as discrete fibres and fragments and it is generally considered unlikely that significant amounts of asbestos containing materials will be encountered. Anecdotal evidence suggests that asbestos was buried at the former stockyard, investigations to date have not encountered a cache of buried ACM.
- 11.2 The following procedures have therefore been included as a precaution.
- 11.3 If the asbestos awareness trained banksman identifies a significant amount of suspected ACMs which do not normally require a licence to work with, such as cement sheet, at the excavation face, the banksman will carefully direct exploratory excavation to determine the extent of the material. Once exposed, the material may then be transferred to an on-site clearly labelled covered skip or lined and suitably labelled bulk bag prior to off-site disposal. The excavation may proceed to an alternate face until the suspected ACMs are transferred to the skip. It may be

necessary to stop the excavation so a suitably qualified person can access the situation and additional control measures (eg damping down/misting, RPE etc) as required. Environmental monitoring measures including personnel monitoring are detailed in Section 12.

- 11.4 If a banksman or other asbestos trained staff consider that suspected ACMs, such as pipe lagging or insulation board, have been uncovered during excavation, with further amounts identifiable within the excavation, an "*asbestos cache*" may be declared following consultation with the site supervisor and management.
- 11.5 Samples of the material should be collected, with the asbestos containing materials dampened and covered pending removal by a competent and licenced contractor (who will provide a method statement for the removal works). For notifiable material, this will be fourteen days subsequent to notification to the Health and Safety Executive (HSE). Notifiable asbestos will include significant quantities of degraded/friable or fibrous material (eg lagging) were the risk of fibre release is increased.
- 11.6 Management of the asbestos risk could include the re-introduction of the marker layer and capping.
- 11.7 The Contractor must provide Method Statements for the removal of asbestos containing materials.

SECTION 12 ENVIRONMENTAL MONITORING

12.1 INTRODUCTION

12.1.1 Environmental monitoring will be required for the duration of the Site Preparation Works and must be compliant with the Environmental Management Plans for the site. These should include:

12.2 **DUST**

- 12.1.1 The Site Manager or his/her representative is responsible for constant observation of dust generation. On-site roads with hard surfacing and the exit roads onto public highways are also to be regularly inspected for the build-up of soil. If excessive dust generation occurs, a water-based suppressant misting system is to be used in the affected area, to prevent the off-site migration of fugitive dust. Water bowsers are to be used to dampen down haul roads during dry weather. Wheel-washing facilities are to be provided at the site exit.
- 12.1.2 These measures are considered to be necessary and sufficient for the Site Preparation Works.

12.2 AIRBORNE ASBESTOS FIBRES

12.2.1 Air monitoring is to be carried out by an independent UKAS accredited specialist during excavation of asbestos-contaminated soils. Monitoring will be carried out for

the duration of works with asbestos impacted soils. Monitoring will include locations within the immediate work area, site personnel in the work area and boundary monitoring (as appropriate).

SECTION 13 VERIFICATION PLAN

- 13.1 Upon completion of the works as set out in this report, a Verification Report will be produced. This will provide sufficient detail to clearly demonstrate that the remedial objectives have been met and that any residual material is compliant. Compliance will be via visual inspection for visible fragments (this is considered sufficient as concentrations of asbestos (fibres/non-visible fragments) were less than 0.1%).
- 13.2 The Verification Report will contain the following:
 - *i.* Quantities of materials moved and their final destination (in accordance with a Materials Management Plan);
 - *ii.* Waste consignment notes (supported by a Site Waste Management Plan); and
 - *iii.* Photographic records.
 - *iv.* Laboratory certification for material used in capping.
 - *v.* Drawings showing locations of areas were impacted soils have been left *insitu*.
 - *vi.* Sample locations will be provided with x and y coordinates to enable importation into a GIS database.

Drawings

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APPENDIX 1







	Legend								
	MTPref	Merebrook Trial Pit Loc (MTP1 - MTP75)	ations						
	MHPref	Merebrook Hand Pit Lo (MHP1 - MHP16)	cations						
	TPref	Previous RPS Investiga Locations	ation Trial Pit						
	WSref	Previous RPS Investiga Sample Borehole Loca	ation Window tions						
		Previous RPS Investiga Percussive Borehole Lo	ation Cable						
		Previous RPS Investiga Window Sample Boreb	ation Hand-Held						
	WSref	Previous Structural Soi	I Investigation						
	WSref	Locations	ipie Borenole						
	O CPBref	Previous Structural Soi (2012/13) Cable Percus Locations	I Investigation ssive Borehole						
	O MWref	Previous Jacobs (2008 Borehole Locations) Cable Percussive						
	TPref	Previous Jacobs (2008) Trial Pit Locations						
	0	Previous Vertase FLI (2 Percussive Borehole Lo	2013/14) Cable ocations						
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	TPref	Previous Bureau Verita Locations	is (2008) Trial Pit						
	HDref	Previous Bureau Verita Trial Pit Locations	is (2008) Hand Dug						
	BHref	Previous Norwest Holst (2002) Borehole Locations Asbestos encountered							
		RWE area requiring inv Merebrook	restigation by						
	—	Site Boundary							
	•	Amosite							
	•	Anthophylite							
		Chrysotile							
	Notes'	Crocidolite							
	Shows all N	lerebrook locations with a	asbestos finds						
	highlighted.								
	illustrated.	its where aspestos is ider	ntified are also						
4 ^{2.36} 4 ^{2.31} 4 ^{2.77}	Suspected at B-BH1, E	asbestos containing mate 3-BH2 and close to MTP3	erial was encountered 88 (but not samples						
2.285 ,3.13 ,3.14 ,4.10 ,4.10 ,4	r were recove	ered)							
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3.34 ₄ 3.56 4 ^{3.51}	Borehole Locations a	and Asbestos Levels Updated	AUG 2017 B EMP NTD NTD						
3.40 ₄ 3.51 ₄ 3.41	Borehole Locations L	Jpdated	SOL 2017 A EMP NTD NTD						
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APPENDIX 2 • Exploratory Hole Logs

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							concrete gravel. Rare metal fragments. Commo	n		
	0.30 - 0.50	D		0.30			MADE GROUND: Fine black sand with rare co	ncrete	-	
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Wat Stril	Depth	Туре	Results	(m)	(m) Legend	Legend	Stratum Description			
	0.10 0.30						MADE GROUND: Coarse black sand and gravel. Gravel			_
	0.10-0.50						occasional fine clinker.	ngular innestonse with		-
										-
				0.40			End (of Pit at 0.400m		- 1
										-
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										-
										-
										4
										-
										-
										5 —
D = sma J = orga V = vola	all disturbed sample anic sample (amber atile sample (amber	(tub) glass jar) glass vial)		Stability		1	Remar	ks		1
B = bulk HSV = h PP = po PID = pl	bag sample hand shear vane (kF ocket penetrometer (hotoionisation detec	²a) kg.cm2) tor (ppm)								

	dom	ford Mills, Mill Lane, Ma 4 (0) 1773 829 988 e ca	atlock, Derbyshire, DE4 3RQ onsulting@merebrook.co.uk					TrialPit	TrialPit No		
VΔř	nerebrook		merebrook.co AN idom GRO	0.uk idom.com 0UP COMPANY				L PII LOG	MHP1	4	
offi	ces London	Ker	t Derby Ca	ardiff Ma	anchester	Stirling			Sheet 1	of 1	
Project	t	ſ	īlbury 2	Project No.		Co-ords: 565845	5.00 - 176336.00	Date	Date		
				20752			Level:		09/06/20 Scale	09/06/2017	
Locatio	on:		Tilbury				Dimensions (m):		1:25		
Equipn	nent:		Hand-dug				Depth		Logge	d	
л. e	Samples & In Situ Testing		Donth	Laval		0.20		A5			
Wate Strik	Depth	Туре	Results	(m) (m) Legend		Stratum Description					
	0.00 - 0.20	D,J				MADE GROUND. Dark brown slightly gravelly SAND.					
				0.20	0.20		and flint.				
								End of Plt at 0.200m		-	
										-	
										-	
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										4 —	
										-	
										=	
										-	
										-	
										5 —	
D = sma J = orga	all disturbed sample anic sample (amber g	(tub) plass jar)		Stability				Remarks			
v = vola B = bulk	aule sample (amber g k bag sample	jiass vial)									
PP = pc	ocket penetrometer (H	a) (g.cm2)									
= U = p	PID = photoionisation detector (ppm)										
	lom nerebrook	Cromfo t +44 (ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook.co. AN idom GROU	tlock, Der nsulting@ uk idom.c JP COMP	byshire, Dl)merebroo' com ANY	E4 3RQ k.co.uk	TRIAL PIT LOG		TrialPit I MHP1	No 5	
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offic	es London	Kent	Derby Ca	rdiff Ma	anchester	Stirling			Sheet 1	of 1	
Project		Till	bury 2		Project	No.	Co-ords: 565781.00 - 1757	24.00	Date		
Name:					2075	2	Level:		09/06/20	17	
Locatio	n:		Tilbury				Dimensions (m):		Scale 1:25		
Fauipm	ent:		Hand-dug				Depth		Logged	t	
						1	1.20		NTD		
Water Strike	Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratu	m Description			
	0.05 - 0.20	D					MADE GROUND: Dark g	rey silty sand with occa	isional ar flint	_	
	0.40 - 0.50	D		0.20			ADE GROUND: Mediu MADE GROUND: Mediu dark brown clayey sand fine to medium coarse su rare concrete and brick.	us surfacing. m brown to orange brow and gravel. Gravel is co ibrounded to subangula f Pit at 1 200m	vn and mmon ir flint,		
										2	
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = pt	Il disturbed sample nic sample (amber g tile sample (amber g bag sample and shear vane (kP cket penetrometer (l notoionisation detect	(tub) glass jar) glass vial) a) kg.cm2) tor (ppm)		Stability	L	<u> </u>	Remark	s		<u> </u>	

	dom merebrook	Cromf t +44	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook.co AN idom GROI	atlock, Der onsulting@ .uk idom.o UP COMP	byshire, D)merebroo com ANY	E4 3RQ k.co.uk		OG	TrialPit MHP1	No 6
offic	ces London	Kent	: Derby Ca	rdiff Ma	anchester	Stirling			Sheet 1	of 1
Project	t	Ti	ilbury 2		Project	No.	Co-ords: -		Date	
iname.					2075	2	Level:		08/06/20)17
Locatio	on:		Tilbury				Dimensions (m):		1:25	
Equipm	nent:		Hand-dug				Depth		Logge	d
50	Samr	oles & In Si	itu Testina				0.50		NID	
Wate Strike	Denth		Results	Depth (m)	Level (m)	Legend	Stratum Descri	otion		
-	0.00 - 0.50	D	recound				MADE GROUND: Brick and concr	ete gravel and		_
							cobbles with medium brown sand.			-
										=
										-
				0.50			End of Pit at 0.5	00m		_
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										4 -
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										-
										-
				<u></u>						5
D = sma $J = orga$ $V = vola$ $B = bulk$ $HSV = h$ $PP = po$ $PID = pl$	all disturbed sample anic sample (amber g atile sample (amber g bag sample hand shear vane (kP bcket penetrometer (h hotoionisation detect	(tub) glass jar) glass vial) a) kg.cm2) kg.cm2) kor (ppm)		Stability			Remarks			

	dom nerebrook	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook.co. AN idom GROU	e, Matlock, Derbyshire, DE4 3RQ e consulting@merebrook.co.uk k.co.uk idom.com ROUP COMPANY			TRIAL PIT LOG	TrialPit MHP2	TrialPit No MHP2	
offic	ces London	Kent	Derby Ca	rdiff Ma	anchester	Stirling		Sheet 1 o	of 1
Project		Ti	lbury 2		Project	t No.	Co-ords: 565749.00 - 176000.00	Date	
iname.					2075	52	Level:	08/06/20	17
Locatio	n:		Tilbury				Dimensions (m):	1:25	
Equipm	nent:		Hand-dug			-	Depth 0.25	Logged	t
Water Strike	Samp	les & In Si	itu Testing Results	Depth (m)	Level (m)	Legend	Stratum Description		
	0.05 - 0.15	DI					TOPSOIL. Dark brown gravelly SAND. San	d is fine to	-
	0.05 - 0.15 0.15 - 0.25	D,J D,J		0.25			MADE GROUND. Dark gravelly cobbly SAI fine to coarse. Gravel is fine to coarse, ang subangular concrete and bricks. End of Pit at 0.250m	VD. Sand is ular to	2
D = sma J = orga V = vola B = bulk HSV = h PP = poo PID = ph	Ill disturbed sample (inic sample (amber g tile sample (amber g bag sample and shear vane (kP cket penetrometer (k notoionisation detect	(tub) lass jar) lass vial) a) (g.cm2) or (ppm)		Stability		<u> </u>	Remarks		

	lom nerebrook	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook.co.	Matlock, Derbyshire, DE4 3RQ e consulting@merebrook.co.uk .co.uk idom.com ROUP COMPANY			TRIAL PIT LOG	TrialPit No MHP3		
offic	es London	Kent	AN Idom GROC Derby Car	JP COIVIE# rdiff Ma	ANY anchester	Stirling		Sheet 1 of	f 1
Project		т.	lhuny 2		Project	No.	Co-ords: 565701.00 - 176108.00	Date	
Name:					2075	52	Level:	08/06/2017	7
Locatio	n:		Tilbury				Dimensions (m):	Scale	
							Depth	Loaged	
Equipm	ient:		Hand-dug				0.60	NTD	
Water Strike	Samp Depth	Ies & In Sit	tu Testing Results	Depth (m)	Level (m)	Legend	Stratum Description		
	0.05 - 0.20	D					MADE GROUND: Dark grey silty clay with rare fir chalk gravel. Common fine rootlets.	ne	_
	0.50 - 0.60	D		0.25 0.50 0.60			MADE GROUND: Medium brown silty clay with o brown mottling and rare fine chalk gravel. Rare fi rootlets. MADE GROUND: Medium brown to dark brown s clay with occasional fine to medium coarse chalk rare brick gravel	range ine silty and	
				0.60			clay with occasional fine to medium coarse chalk rare brick gravel. End of Pit at 0.600m	and	1 2 3
D = sma J = orga V = vola B = bulk HSV = h PP = poo PID = ph	Il disturbed sample nic sample (amber g bag sample (amber g bag sample and shear vane (kP cket penetrometer (l notoionisation detect		Stability		<u> </u>	Remarks		5 —	

		Cromfo	ord Mills, Mill Lane, Ma	atlock, Der	bvshire, DF	E4 3RQ		TrialPit	No
	lom nerebrook	t +44	(0) 1773 829 988 e co merebrook.co. AN idom GROU	onsulting@ .uk idom.c UP COMP/	merebrook com ANY	(.co.uk	TRIAL PIT LOG	MHP	4
offic	es London	Kent	Derby Ca	ardiff Ma	inchester	Stirling		Sheet 1	of 1
Project		Til	lburv 2		Project	No.	Co-ords: 565895.00 - 175491.00	Date	
Name:					2075	2	Level:	09/06/20	017
Locatio	in:		Tilbury				Dimensions (m):	Scale	•
Fauinm			Hand-dug				Depth	Logge	d
Equipin		·			1		0.40	NTD	
Vater Strike	Samp	les & In Si		Depth (m)	Level	Legend	Stratum Description		
> 07	Depth 0.00 - 0.40	D	Results	,	,		MADE GROUND: Dark brown sand with comm	on fine to	<u> </u>
							medium coarse brick gravel, rare brick cobbles.	Rare	=
				0.40			End of Pit at 0.400m		
									-
									_ =
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									-
									5 —
D = sma J = orga	Ill disturbed sample ((tub) alass iar)		Stability			Remarks		
V = vola B = bulk	tile sample (amber g bag sample	lass vial)							
HSV = h PP = po	and shear vane (kPa cket penetrometer (k	a) (g.cm2)							
PID = pł	notoionisation detect	or (ppm)							

K	i not	Cromfo t +44 (ord Mills, Mill Lane, Ma (0) 1773 829 988 e cc	itlock, Derl	oyshire, DE merebrool	E4 3RQ k.co.uk			TrialPit I	No
νЦп	nerebrook		merebrook.co. AN idom GROl	uk idom.c JP COMP/	om ANY			LUG	MHP	5
offic	es London	Kent	Derby Ca	rdiff Ma		Stirling	C 565976.00 175504	N 00	Sheet 1 o	of 1
Project Name:		Till	bury 2		2075 ⁻	NO. ว	0-0105: 000010.00 - 110090	5.00	09/06/20	17
					2010.				Scale	/ 1 /
Location	n:		Libury				Dimensions (m):		1:25	
Equipm	ient:	1	Hand-dug			T	Depth 0.40		Logged NTD	d
Nater Strike			lu lesting	Depth (m)	Level (m)	Legend	Stratum	Description		
	0.00 - 0.40	D			• •		MADE GROUND: light bro	wn silty sand with occ	asional	
							fine to medium coarse brick flint gravel. Rare metal rein	k, bituminous surfacin Iforcing.	g and	-
	İ									-
	İ			0.40			End of P	Pit at 0.400m		-
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				ļ						5 -
	l disturbed sample ((tub)		Stability			Remarks			
J = orgai	nic sample (amber g tile sample (amber c	ilass jar) ilass vial)								
B = bulk HSV = h	bag sample and shear vane (kP;	a)								
PP = poo PID = ph	cket penetrometer (k notoionisation detect	kg.cm2) or (ppm)								

	kom nerebrook	Cromfo t +44 (rd Mills, Mill Lane, Ma 0) 1773 829 988 e cc merebrook.co	atlock, Derl onsulting@ .uk_idom.c	byshire, DE merebrool com	∃4 3RQ k.co.uk	TRIAL PI	T LOG	TrialPit	No 6
offic	es London	Kent	Derby <u>Ce</u>	ardiff <u>Ma</u>	anches <u>ter</u>	Stirling			Sheet 1	of 1
Project		Till			Project	No.	Co-ords: 565981.00 - 1760	181.00	Date	
Name:		The			2075	2	Level:		09/06/20)17
Locatio	n:		Tilbury				Dimensions (m):		Scale	,
<u> </u>							_ Depth		Logge	d
Equipm	lent:		Hand-dug		,		0.40		NTD	u
ater rike	Samp	les & In Sit	u Testing	Depth	Level	Leaend	Stratu	m Description		
ά ἕ	Depth	Туре	Results	(m)	(m)					
	0.00 - 0.40 0.10 - 0.40	D					MADE GROUND. Dains occasional fine to mediuu subagular flint, rare chall	rey silty clayey same wi m coarse, subrounded to k and coal gravel.	th o	
				0.40			End o	f Pit at 0.400m		
										3
				1						5 —
D = sma J = organ V = volat B = bulk HSV = h PP = por PID = pt	Il disturbed sample (nic sample (amber g tile sample (amber g bag sample and shear vane (kP cket penetrometer (l notoionisation detecl	(tub) Jlass jar) Jlass vial) a) kg.cm2) tor (ppm)		Stability	L	<u>.</u>	Remark	is		•

	dom, ,	Cromfo t +44 (ord Mills, Mill Lane, Ma (0) 1773 829 988 e co	tlock, Der	byshire, D)merebroo	E4 3RQ k.co.uk			TrialPit	No
VДг	nerebrook		AN idom GROU	JP COMP	ANY					, , ,
offic	London	Kent	Derby Ca	rdiff Ma	anchester	Stirling	On andre 505005.00 47	075.00	Sheet 1	of 1
Project Name:		Till	bury 2		2075	. INO. 2	C0-0105. 505925.00 - 170	075.00	09/06/20	17
					2015	2			Scale	, , ,
Locatio	n:		Libury				Dimensions (m):		1:25	
Equipm	nent:		Hand-dug				Depth 0.30		Logged	d
re e	Sam	oles & In Sit	tu Testing	Depth	Level				1.0	
Wat Stril	Depth	Туре	Results	(m)	(m)	Legend	Stra	tum Description		
	0.15 - 0.25	D,J					TOPSOIL. Dark brown rootlets. Sand is fine to rounded flint gravels no	clayey SAND with roots coarse. Rare fine, angul oted.	and ar to well	
				0.30			End	of Pit at 0.300m		
										-
										-
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										=
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										5
				Ctobilit			Derre	-ko		
D = sma $J = orga$ $V = vola$ $B = bulk$ $HSV = h$ $PP = po$ $PID = pl$	all disturbed sample inic sample (amber g title sample (amber g bag sample hand shear vane (kP cket penetrometer (hotoionisation detec	(tub) glass jar) glass vial) Pa) kg.cm2) tor (ppm)		Stability			Rema	rks		

	dom nerebrook	Crom t +44	ford Mills, Mill Lane, M (0) 1773 829 988 e c merebrook.cc	atlock, Der onsulting@ .uk idom.c	byshire, D merebroo com	E4 3RQ k.co.uk	TRIAL PIT LOG		TrialPit No MHP8	
offic	ces London	Ken	t Derby Ca	ardiff Ma	anchester	Stirling			Sheet 1	of 1
Project	t	т	ïlbury 2		Project	No.	Co-ords: 565801.00 - 1	76077.00	Date	
Name:					2075	62	Level:		09/06/20)17
Locatio	on:		Tilbury				Dimensions (m):		Scale	
Equipp	nont:		Hand dug				Depth		Logge	d
Equipit	Com						0.50		NTD	
Vater strike	Samp			Depth (m)	Level (m)	Legend	Sti	atum Description		
> 00	Depth	Туре	Results	(,	()		TOPSOIL Dark brow	n silty clayey sand with rar	e fine to	
	0.10 - 0.40	D		0.10			medium coarse brick	gravel.	ind with	=
							occasional fine to me	dium coarse, subrounded	to rare fine	-
	0.40	В					brick. Suspected ACN	1 at 0.4mbgl.		-
				0.50			× Er	d of Pit at 0.500m		
										-
										-
										-
										-
										2 —
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										-
										3 —
										-
										-
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										-
										-
										-
										-
										-
										5 —
D = sma J = orga V = vola B = bulk HSV = t PP = po PID = pl	all disturbed sample anic sample (amber g atile sample (amber g c bag sample hand shear vane (kP pcket penetrometer (hotoionisation detec	(tub) glass jar) glass vial) Pa) kg.cm2) tor (ppm)		Stability			Rem	arks		

	dom merebrook	Crom t +44	ford Mills, Mill Lane, M (0) 1773 829 988 e c merebrook.co AN idom GRO	atlock, Der onsulting@ .uk idom.c UP COMP	byshire, DE merebrook com ANY	E4 3RQ k.co.uk	TRIA	L PI	T LOG	TrialPit	No 9
offi	ces London	Ken	t Derby Ca	ardiff Ma	anchester	Stirling				Sheet 1	of 1
Projec	t	т	ïlbury 2		Project	No.	Co-ords: -			Date	
Name:			-		2075	2	Level:			09/06/20)17
Locatio	on:		Tilbury				Dimensions (m):			Scale 1:25	
Fauipr	ment [.]		Hand-dug				Depth			Logge	d
	Some						0.30			AS	
Vater Strike	Denth		Desulte	Depth (m)	Level (m)	Legend		Stratu	m Description		
> 07	Depth	Туре	Results	(,	()		TOPSOIL, Dark	brown ar	avelly SAND. Sand is f	ine to	
							coarse. Gravel i	is fine to r	nedium, subangular to		
				0.20			MADE GROUN	D. GRAV	ELS comprised of fine t	0	1 -
				0.00				End of	Pit at 0.300m	/	
											-
											-
											-
											2 —
											-
											-
											-
											-
											-
											3 —
											-
											4 -
											-
L										5 —	
D = sma J = orga V = vola B = bull	all disturbed sample anic sample (amber g atile sample (amber g k bag sample band sbear yang (kD	(tub) glass jar) glass vial)		Stability				Remark	S		
PP = pc PID = p	ocket penetrometer (I hotoionisation detect	kg.cm2) for (ppm)									

	dom merebrook	Cromfc t +44 (ord Mills, Mill Lane, Ma (0) 1773 829 988 e cc merebrook.co AN idom GRO	atlock, Dert onsulting@ .uk_idom.c	byshire, D merebroo com	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit No MTP1
offic	ces London	Kent	Derby Ca	ardiff Ma	inchester	Stirling		Sheet 1 of 1
Project	t	Til	bury 2		Project	t No.	Co-ords: 565978.00 - 176248.00	Date
Name:					2075	52	Level:	05/06/2017
Locatio	on:		Tilbury				Dimensions (m):	Scale
							Depth G	1:25
Equipn	nent:						3.10	AS
ter ike	Sam	ples & In Sit	tu Testing	Depth	Level	Logond	Stratum Depariation	
Stri	Depth	Туре	Results	(m)	(m)	Legena	Stratum Description	
	0.20	D		0.00			MADE GROUND. Loose black gravelly SAND. S fine to coarse. Gravel is fine to coarse, angular to rounded flint and coal. Some ash was encounter	and is
	1.00 - 1.10	D						1 -
	1.30 - 1.40	D		1.20			REWORKED NATURAL. Soft brown slightly silty sandy CLAY with the occasional fine to medium, subangular to subrounded chalk gravel. Sand is coarse.	slightly fine to
	2 70 - 2 80	D		1.70			Brown gravelly SAND with rootlets. Sand is medi coarse. Gravel is fine to medium, angular to well rounded brick, concrete and flint. Rare cobbles n REWORKED ALLUVIAL. Soft greenish grey mot black slightly gravelly CLAY. Gravel is fine to coa angular to well rounded brick. Occasional concre boulder.	um to oted. tled rse, 2
	2.70 2.00			2.80		<u> </u>	ALLUVIAL Soft greenish grey mottled black CLA	
						F	ALLOVIAL. Soli greenish grey motiled black CLA	
						F	-	3 -
D = sma	all disturbed sample	(tub)		3.10 Stability			End of Pit at 3.100m	4
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = pl	all disturbed sample anic sample (amber atile sample (amber atile sample band shear vane (kF bocket penetrometer (hotoionisation detec	(tub) glass jar) glass vial) ²a) kg.cm2) tor (ppm)		Stability			Remarks	

		Cromfo t +44 (ord Mills, Mill Lane, Ma (0) 1773 829 988 e cc merebrook co	atlock, Dertonsulting@	byshire, D merebroo	E4 3RQ k.co.uk		TrialPit No
	nerebrook		AN idom GRO	UP COMPA	ANY		IRIAL FILLUG	Sheet 1 of 1
offic	ces London	Kent	Derby Ca	ardiff Ma	nchester Project	Stirling	Co-ords: 565954.00 - 176162.00	Date
Name:		Till	bury 2		2075	52	Level:	05/06/2017
Locatio	n.		Tilburv				Dimensions (m):	Scale
			····,					1:25
Equipm	nent:		JCB 3CX		1		3.10	NTD
Water Strike	Sam Depth	oles & In Sit	tu Testing Results	Depth (m)	Level (m)	Legend	Stratum Description	
							Concrete	
	0.20 - 0.40	D		0.13			MADE GROUND: Dark grey sand and gravel. G fine to medium coarse sub angular limestone, occasional flint, rare concrete and brick. Rare m fragments. Geotextile at base.	Gravel is
				0.60			MADE GROUND: Coarse black sand with occar fine to medium coarse clinker gravel.	sional
				0.00			MADE GROUND: Medium brown gravelly sand is occasional fine to medium coarse flint, brick a	. Gravel and
	0.85 - 1.00	D		0.80			concrete. MADE GROUND: Coarse black gravelly sand. O occasional fine to medium coarse coal, rare fine medium coarse, subrounded flint.	Gravel is ∋ to 1 -
				1.40			MADE GROUND: Light brown and off white silty clay. Gravel is sub angular, fine to medium coar	y gravelly se chalk.
				1.80			PROBABLY REWORKED: Dark grey/bluey grey gravelly clay. Gravel is rare fine to medium coar and fine chalk.	v sity se flint 2 -
				3.10 Stability			End of Pit at 3.100m	4 -
D = sma $J = orga$ $V = vola$ $B = bulk$ $HSV = h$ $PP = po$ $PID = pl$	all disturbed sample inic sample (amber tile sample (amber bag sample and shear vane (kF cket penetrometer (notoionisation detec	(tub) glass jar) glass vial) 'a) kg.cm2) tor (ppm)		Stability			Reliains	

	dom, ,	Cromfo t +44 (ord Mills, Mill Lane, Ma (0) 1773 829 988 e cr	atlock, Derl	oyshire, D merebroo	E4 3RQ k.co.uk		TrialPit N	lo
VLIn	nerebrook		AN idom GRO	UP COMPA	om ANY		IRIAL FILLUG		
offic	ces London	Kent	Derby Ca	ardiff Ma	Project	Stirling	Co. orde: 565010.00 - 176235.00	Sheet 1 of	f 1
Project Name:		Till	bury 2		2075	52	l evel:	05/06/201	17
			Tilbury					Scale	
LUCauo	л.		Tilbury					1:25	
Equipm	nent:		JCB 3CX				3.40	NTD	
Vater strike	Sam	ples & In Sit	u Testing	Depth	Level	Legend	Stratum Description		
5 00	Depth	Туре	Results	(11)	(11)		Reinforced concrete		
	0.20 - 0.30	D		0.12			MADE GROUND: Medium brown and occasion	al fine to	-
				0.30			Ashy lenses at the base of the stratum.		-
	0.50 0.70						common sub angular chalk gravel and cobbles.	Rare	-
	0.50 - 0.70								-
				0.70			MADE GROUND: Dark brown and medium brow	wn silty	-
							Clay with occasional fine, sub angular chalk grav Occasional yellow brown chalky lenses.	vel.	-
							99		1 _
	1.10 - 1.25	D		1.10			MADE GROUND: Medium brown sandy clay with	th	-
				1.30			dark grey clay with fine chalk gravel. Rare rootle	ets.	-
							gravel and cobbles. Rare lenses of green brown	1 sandy	-
									-
							9993 1		-
							XXXX		-
							999		2 —
				2 20			××××××××××××××××××××××××××××××××××××××		-
				2.20		<u>x</u>	Dark grey silty CLAY with faint yellow brown mo	ttling.	-
							×		-
							-		-
									-
							~		-
						<u>×</u> ×	×		3 —
							X -		-
				3.30		××	Light arey and grange brown mottled silty CLAY	,	-
				3.40		×	Eight grey and orange brown noticed sity OE/A	·	-
									-
									-
									-
									4 —
									-
									-
									-
									-
									-
									-
									5 —
D = sma	all disturbed sample	(tub)		Stability			Remarks		
J = orga V = vola	inic sample (amber itile sample (amber	glass jar) glass vial)							
B = bulk HSV = h	pocket generation (kPa) = hand shear vane (kPa) pocket genetrometer (kg cm2)								
PID = pt	hotoionisation detec								

	dom nerebrook	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook.co	, Matlock, Derbyshire, DE4 3RQ e consulting@merebrook.co.uk <.co.uk idom.com ROUP COMPANY			TRIAL PIT LOG	TrialPit M	No 2	
offic	ces London	Kent	Derby Ca	ardiff Ma	nchester	Stirling		Sheet 1 d	of 1
Project	:	ті	lbury 2		Project	No.	Co-ords: 565839.00 - 176100.00	Date	
Name:					2075	52	Level:	05/06/20	17
Locatio	on:		Tilbury				Dimensions (m):	Scale	
Fauina	aanti						Depth	Logger	ł
Lquipi			JCB 30X			1	3.10	NTD	
Vater strike	Sam	ples & In Si		Depth (m)	Level	Legend	Stratum Description		
5 00	Depth	Туре	Results	0.01	()		Bituminous surfacing		1
				0.01			MADE GROUND: Dark brown to grey with occa	isional	-
	0.20 - 0.40	D					cobbles.		-
				0.40			MADE GROUND: Green grey silty clay with con	mmon	-
							fine to medium coarse, sub angular chalk grave	:	
									-
									-
	1 00 1 10			0.90			MADE GROUND: Grey sand with rare fine brick	(and	
	1.00 - 1.10						chaik gravel. Occasional fint cobbles.		-
									-
	1 40 - 1 50			1.30		216 ×	Black silty peaty CLAY with common organic inc	clusions.	-
	1.40 1.00					<u>x _ we</u> _			-
							×		-
				1.70		<u>×</u> ×	Dark grey silty CLAY, becoming blue grey with y	/ellow	-
						×	×		-
						×	*		2 —
						××	~		-
									-
							*		-
							×		-
						×	×		-
						××	× -		-
						× <u>×</u> ×	×		3 —
				3.10		<u> </u>	End of Pit at 3.100m		-
									-
									-
									-
									-
									4 —
									-
									-
									-
									-
									-
									-
							ļ		5 —
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) bulk bag sample V = hand shear vane (kPa) = pocket penetrometer (kg.cm2) = photoionisation detector (ppm)			Stability			Remarks Standing water at 2.3mbgl.		

	dom nerebrook	ord Mills, Mill Lane, Ma (0) 1773 829 988 e cc merebrook.co. AN idom GROI	Matlock, Derbyshire, DE4 3RQ e consulting@merebrook.co.uk .co.uk idom.com ROUP COMPANY Cordiff Manabastar Stidiog			TRIAL PIT LOG	TrialPit No MTP13		
offic	ces London	Kent	Derby Ca	rdiff Ma	inchester	Stirling		Sheet 1 c	of 1
Project		Til	burv 2		Project	t No.	Co-ords: 566020.00 - 176729.00	Date	
Name:			,		2075	52	Level:	06/06/20	17
Locatio	n:		Tilbury				Dimensions (m):	Scale 1.25	
Fauipr	ient:						Depth O	Logged	ł
	Some		tu Tooting				3.60	AS	
Nater Strike	Donth		Bosulte	Depth (m)	Level (m)	Legend	Stratum Description		
307	Deptil	туре	Results	()		동작품	Soft dark brown slightly gravelly sandy CLAY. San	nd is	_
	0.10 - 0.20	D					fine to coarse. Gravel is fine, well rounded flint.		_
				0.30				al in	-
						E	fine to coarse.	iu is	-
	0.50 - 0.60	D				E	-		-
						E	- <u>-</u>		-
							·		-
							·		_
							·		1
						E			
				4.40					-
				1.40			ALLUVIAL. Very soft turning soft grey CLAY.		_
									-
						F	·		-
						F			-
						E	-		2 —
						L- <u>-</u>	- <u>-</u>		-
						<u></u>	- <u>-</u>		-
							·		-
							·		_
						E			-
									-
									_
									3
						F	·		-
						F			-
						E			-
				3.60			End of Pit at 3.600m		-
									-
									-
									4 —
									-
									-
									-
									-
									5 —
D = sma J = orga V = vola B = bulk HSV = h PP = po	small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) bulk bag sample / = hand shear vane (kPa) = pocket penetrometer (kg.cm2) = photoinisation detector (ppm)						Remarks		
PID = pl	notoionisation detec								

	Jom nerebrook	Cromfo t +44 (rd Mills, Mill Lane, Ma 0) 1773 829 988 e co merebrook.co.	itlock, Derlonsulting@ .uk_idom.c	byshire, D)merebroo com	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit No MTP14	
offic	ces London	Kent	Derby Ca	ardiff Ma	anchester	Stirling		Sheet 1 of 1	Í
Project		Till	hury 2		Project	t No.	Co-ords: 565993.00 - 176428.00	Date	-
Name:					2075	52	Level:	06/06/2017	
Locatio	n:		Tilbury				Dimensions (m):	Scale	
							Depth	Logged	
Equipm	ient:		JCB 3CX				3.00	NTD	
Water Strike	Samp Depth	oles & In Sit	u Testing Results	Depth (m)	Level (m)	Legend	Stratum Description		
	0.05 - 0.30	D					MADE GROUND: Light brown sand with occasic to medium coarse flint and concrete, rare brick g and concrete cobbles. Geo-grid and geotextile 0 3mbd	onal fine Jravel at	
				0.30 0.80			MADE GROUND: Medium brown and orange br slightly sandy clay. Light grey silty CLAY.	own	
	1.20 - 1.30	D		1.20 1.30		×	Black silty peaty CLAY with common organic inc	lusions.	 - - - -
							Dark grey CLAY with fine, sub angular chalk gra	vel.	
	2.20	В		2.00			Soft bluey grey silty sandy CLAY	2	<u>}</u>
				3.00			End of Pit at 3.000m	3	3 — - - - - - -
								4	- - - - - - - - - - - - - - - - - - -
								F	- - - - 5 —
							Bewerke		
D = sma $J = orga$ $V = vola$ $B = bulk$ $HSV = h$ $PP = po$ $PID = pl$	= small disturbed sample (tub) organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample V = hand shear vane (kPa) = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)						Remarks		

	lom nerebrook	Cromfo t +44 (rd Mills, Mill Lane, Ma 0) 1773 829 988 e cc merebrook.co.	atlock, Der onsulting@ .uk idom.c	byshire, D)merebroo com	E4 3RQ k.co.uk		TrialPit No MTP15	
offic		Kent	AN idom GROU		ANY	Stirling	SI SI	heet 1 of 1	
Proiect	es London	Nent			Project	t No.	Co-ords: 565576.00 - 176398.00	Date	
Name:		1111	oury 2		2075	52	Level:	06/06/2017	
Locatio	n:		Tilbury				Dimensions (m):	Scale	
			,				00	1:25	
Equipm	ient:				1		3.90	AS	
ater trike	Sam	ples & In Sit	u Testing	Depth	Level	Legend	Stratum Description		
≥ ∞	Depth	Туре	Results	(m)	(m)				
	0.10 - 0.20	D					Sand is fine to coarse. Gravel is fine, subangular to w rounded brick and lytag.	ell	
	0.40 - 0.50	D		2.40			MADE GROUND. Dense grey gravelly SAND. Sand is fine to coarse. Gravel is fine to coarse, well rounded lytag. Water content increases. ALLUVIAL. Soft greenish grey mottled black and brow CLAY. Occasional wood fragments. Water content increases. End of Pit at 3.900m	s 1 2 wn 3 4	
							Remarks		
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	= small disturbed sample (tub) = organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample SV = hand shear vane (kPa) P = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)								

	kom	Cromfo t +44 (rd Mills, Mill Lane, Ma 0) 1773 829 988 e ca merebrook.co	atlock, Dert onsulting@ o.uk_idom.c	oyshire, Di merebroo	E4 3RQ k.co.uk		TrialPit I	No 6
			AN idom GRO	UP COMP/	ANY	0.11 11		Sheet 1 (of 1
Offic	es London	Kent	Derby Ca	ardiff Ma	nchester Project	Stirling t No.	Co-ords: 565598.00 - 176423.00	Date	
Name:		Tilb	oury 2		2075	52	Level:	06/06/20	17
Locatio			Tilbury				Dimensions (m):	Scale	
							Denth G	1:25	4
Equipm	ient:				·		3.50	AS	·
/ater trike	Samp	oles & In Site	u Testing	Depth	Level	Legend	Stratum Description		
≤ ú	Depth	Туре	Results	(111)	(11)		MADE GROUND Loose dark brown gravelly SA	ND	
	0.10 - 0.20	D					Sand is fine to coarse. Gravel is fine, subangular rounded brick, flint and lytag.	to well	
	0.50 - 0.60	D		0.30			MADE GROUND. Dense grey gravelly SAND. Sa fine to coarse. Gravel is fine to medium, angular rounded flint, lytag and ash.	and is to well	
							Cable and geotextile at 0.90m.		1
				1.70			Soft brown slightly gravelly sandy CLAY with occ rootlets. Sand is medium to coarse. Gravel is fine medium, subangular to subrounded brick. Occas reddish oxidation spots were noted.	asional e to ional	2 —
				2.40			ALLUVIAL. Soft greenish grey CLAY.		
									3
				3.50			End of Pit at 3.500m		4 -
									-
									-
									5 —
D = smal J = orgar V = volat B = bulk HSV = h PP = por PID = ph	Il disturbed sample nic sample (amber g tile sample (amber g bag sample and shear vane (kP cket penetrometer (totoionisation detec	(tub) glass jar) glass vial) 2a) kg.cm2) ttor (ppm)		Stability			Remarks		

	lom nerebrook	Cromfo t +44	ord Mills, Mill Lane, Ma (0) 1773 829 988 e cc merebrook.co. AN idom GROI	atlock, Derlonsulting@ .uk idom.c JP COMP/	byshire, D merebroo com ANY	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit No MTP17
offic	es London	Kent	Derby Ca	rdiff Ma	anchester	Stirling		Sheet 1 of 1
Project		Til	bury 2		Project	t No.	Co-ords: 565647.00 - 176522.00	Date
Name:					2075	52	Level:	06/06/2017
Locatio	n:		Tilbury				Dimensions (m):	1:25
Faujor	nent:						Depth O	Logged
	Somr	loo 9 In Si	tu Tooting				4.00	AS
Vater	Denth		Desulte	Depth (m)	Level (m)	Legend	Stratum Description	
307	Deptil	туре	Results	()			MADE GROUND. Loose blackish gravelly SAN	D. Sand
	0.20 - 0.30	D		0.50			is medium to coarse. Gravel is fine to medium, subangular to well rounded flint and lytag. MADE GROUND. Loose orangish yellow slightly gravelly SAND. Sand is medium to coarse. Grav	y clayey
	0.00 - 0.70			1.50			gravely SAND. Sand is medium to coarse. Grav to medium, angular to subangular flint.	1
							ALLUVIAL. Soft greeninh grey mottled black and CLAY.	1 brown
				2.70		ઓહ એહિ એહિ ૬ એદિ એદિ એદિ એદિ એદિ એદિ ૬ એદિ એદિ એદિ ૬ એદિ એદિ એદિ	PEAT. Soft brown silty SAND with wood fragmer Water associated to this strata.	īts. 3 —
				3.10			ALLUVIAL. Soft greenish grey mottled black and CLAY.	J brown
				4.00			End of Pit at 4.000m	4
D = sma	small disturbed sample (tub)					-	Remarks	i
J = orga V = vola B = bulk HSV = h PP = po PID = ph	small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) bulk bag sample = hand shear vane (kPa) = pocket penetrometer (kg.cm2) = photoionisation detector (ppm)							

	dom nerebrook	Cromfo t +44	ord Mills, Mill Lane, Ma (0) 1773 829 988 e cc merebrook.co.	itlock, Der onsulting@ uk_idom.c	byshire, D merebroo com	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit No MTP18
offic	ces London	Kent	Derby Ca	rdiff Ma	anchester	Stirling		Sheet 1 of 1
Project	t	ті	lbury 2		Projec	t No.	Co-ords: 565739.00 - 176636.00	Date
Name:					2075	52	Level:	06/06/2017
Locatio	on:		Tilbury				Dimensions (m):	Scale
							 Depth	Logged
Equipn	nent:				1		3.30	NTD
Water Strike	Sam Depth	ples & In Si Type	tu Testing Results	Depth (m)	Level (m)	Legend	Stratum Description	
							MADE GROUND: Railway sleepers and dark gr	ey sandy
	0.15 - 0.40	D		0.15			MADE GROUND: Coarse black sand with comn	non fine
							to medium coarse clinker gravel.	-
				0.40			MADE GROUND: Medium brown and orange br	rown -
							sand and gravel. Gravel is fine to medium coars subrounded to sub angular flint.	se,
				0.65 0.70			MADE GROUND: Dark grey clayey sand/sandy	clay -
	0.80 - 1.00	D					angular flint and rare brick gravel.	
							MADE GROUND: Orange brown sand and grav Gravel is fine to medium coarse, subrounded flir	vel nt. 1
	1 25 - 1 40			1 25				
	1.20 1.10			1.10			MADE GROUND: Coarse black sand with comn to medium coarse clinker gravel.	non fine
				1.40			Stiff dark grey CLAY.	-
]	
								-
						<u> </u>		-
						<u> </u>	_	2 -
						F	_	-
						F	_	-
						E	-	-
				2.50		<u> </u>	Firm bluev arev silty CLAY/clavev silt	
						<u>x</u>		-
						×	× 1	
						<u>xx</u>	× T	-
						××	× 1	3 -
				3 30		××	×	
				0.00			End of Pit at 3.300m	-
								-
								-
								-
								4
								-
								-
								-
								-
								-
								-
								5 —
D = sma J = orga V = vola	all disturbed sample anic sample (amber atile sample (amber	(tub) glass jar) glass vial)		Stability			Remarks Slight water ingress from 2.5mb	gl.
B = bulk HSV = h	bag sample	Pa)						
PP = po PID = pl	ocket penetrometer (hotoionisation detec	kg.cm2) tor (ppm)						

	Jom	Cromfo t +44 (ord Mills, Mill Lane, Ma 0) 1773 829 988 e cc merebrook.co	atlock, Derl onsulting@ .uk idom.c	byshire, D merebroo	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit No MTP19	0
offic		Kont	AN idom GROU		ANY	Ctirling		Sheet 1 of	i 1
Project	es London		Deny Ga		Project	t No.	Co-ords: 565824.00 - 176710.00	Date	
Name:		Tilb	oury 2		2075	52	Level:	06/06/2017	7
I ocatio	nn.		Tilbury				Dimensions (m):	Scale	
							Donth	1:25	
Equipm	ient:		JCB 3CX				2.90	NTD	
ater	Sam	ples & In Site	u Testing	Depth	Level	Legend	Stratum Description		
Št ≷	Depth	Туре	Results	(m)	(m)				
	0.10 - 0.30	D					MADE GROUND: Coarse black sand with comm to medium coarse clinker gravel.	non fine	-
									_
				0.35			MADE GROUND: Light brown to orange brown	gravelly	-
	0.50 - 0.70	D					sand. Gravel is fine to medium coarse, subround sub angular flint. Rare flint cobbles.	ded to	-
									_
				0.80				· ·	-
				0.90			MADE GROUND: Coarse black sand with occas fine to medium coarse clinker gravel.	sional	-
	1.00 - 1.20	D					MADE GROUND: Dark brown to red brown silty	clay.	1 _
									-
				1.30			MADE GROUND: Soft to firm light grey and yell	0.W	-
	1.40 - 1.60	D					brown mottled clay with rare ashy inclusions, fin	e brick	-
							graver and ener magnesite.		-
									-
									_
				1.90			Stiff bluey grey and dark grey silty CLAY.		2 —
							×		
									_
							× -		-
						<u>x </u>	× -		-
						<u>x</u> <u> </u>	× 1		-
							*		-
				2.90		××	End of Pit at 2.900m		-
									3 –
									-
									-
									-
									-
									-
									-
									4 —
									-
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									-
									-
	I								5 —
D = sma J = organ V = volat B = bulk HSV = h PP = por PID = pt	small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) bulk bag sample / = hand shear vane (kPa) = pocket penetrometer (kg.cm2) = photoionisation detector (ppm)			Stability			Remarks		

	dom nerebrook	Cromfo t +44 (rd Mills, Mill Lane, Ma 0) 1773 829 988 e co merebrook.co AN idom GRO	atlock, Derl onsulting@ .uk idom.c	byshire, D merebroo	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit No MTP2
offic	ces London	Kent	Derby Ca	ardiff Ma	inchester	Stirling		Sheet 1 of 1
Project		Till	nurv 2		Project	t No.	Co-ords: 565965.00 - 176278.00	Date
Name:			501 y 2		2075	52	Level:	05/06/2017
Locatio	in:		Tilbury				Dimensions (m):	Scale
F acility							Depth O	Logged
							3.40	AS
Water Strike	Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	
	0.10 - 0.20	D					MADE GROUND. Loose greyish brown gravelly S Sand is fine to coarse. Gravel is fine to medium, subangular to well rounded flint.	AND
	0.40 - 0.50	D		0.35			MADE GROUND. Brown sandy cobbly GRAVEL. is fine to coarse. Gravel is fine to coarse brick and concrete with the occasional tarmac fragment.	Sand
—	0.70 - 0.80	D		0.60			MADE GROUND. Brown gravelly SAND. Sand is medium to coarse. Gravel is fine to medium, well rounded flint. Black plastic net at 0.60m.	
	1.40 - 1.50	D		1.20			MADE GROUND. Brown sandy gravelly CLAY wit some black ash. Sand is fine to coarse. Gravel is medium, subrounded to well rounded flint. Brick gravels noted.	h
				1.70			ALLUVIAL. Soft to stiff greenish grey mottled blac CLAY. Occasional gravel content was noted at the the strata, and comprised of fine angular to well ro flint gravel.	k top of bunded 2
V				3.40			Peat peat layers, comprised of brown silty SAND with wood fragments. End of Pit at 3.400m	3
								4
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) bulk bag sample v = hand shear vane (kPa) = pocket penetrometer (kg.cm2) = photoionisation detector (ppm)			Stability	1	1	Remarks	

	-	Cromfo	ord Mills, Mill Lane, Ma	tlock, Derl	oyshire, D	E4 3RQ		TrialPit N	lo
	lom nerebrook	t +44 (0) 1773 829 988 e co merebrook.co. AN idom GROU	uk idom.c	merebroo om ANY	k.co.uk	TRIAL PIT LOG	MTP20)
offic	es London	Kent	Derby Ca	rdiff Ma	nchester	Stirling		Sheet 1 of	f1
Project		Till	bury 2		Project	t No.	Co-ords: 565848.00 - 176604.00	Date	
Name:			-		2075	52	Level:	06/06/201	17
Locatio	n:		Tilbury				Dimensions (m):	Scale 1:25	
Fauinm	ent [.]						Depth O	Logged	
Equipin			Tooting				4.20	AS	
Water Strike	Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description		
							Dark brown gravelly SAND with rootlets. Sand is medium to coarse. Gravel is fine to medium, and	s gular to	_
				0.20			subrounded flint. MADE GROUND, Loose dark brown to brown g	iravelly	-
	0.30 - 0.40	D					SAND. Sand is fine to coarse. Gravel is fine to r	nedium,	-
							coal.	unare	_
							3		-
				0.70			MADE GROUND. Loose greyish brown gravelly	/ SAND.	_
	0.80 - 0.90	D					Sand is fine to medium. Gravel is fine, subround well rounded lytag.	led to	-
									1 —
									-
							3		_
				1.40			Soft brownish grey CLAY		_
									_
							-		-
							-		-
							-		-
							-		2 —
						F	-		-
						E	-		-
							-		_
									-
									-
						F	_		_
				3.00					3 —
						ા આદ આદ આદ આદ આદ	Water associated to this strata.	nts.	-
				3.20			ALLUVIAL. Soft greenish grey CLAY.		_
							-		-
							-		_
						E-I-I	-		_
						F	-		-
						E	-		_
						E			4 —
				4 20			-		-
				4.20			End of Pit at 4.200m		-
									-
									-
									_
									-
									_
									5 —
D = sma J = organ V = volat B = bulk HSV = h PP = poo	small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) bulk bag sample V = hand shear vane (kPa) = pocket penetrometer (kg.cm2) = photoionisation detector (ppm)						Remarks		

	Cromford Mills, Mill Lane, t +44 (0) 1773 829 988 e merebrook AN idom GR			itlock, Derl insulting@ uk_idom.c	byshire, D)merebroo com	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit No MTP21	C
offic	es London	Kent	D <u>erby</u> Ca	rdiff <u>M</u> a	anch <u>ester</u>	S <u>tirling</u>		Sheet 1 of	1
Project			hury 2		Project	t No.	Co-ords: 565825.00 - 176502.00	Date	
Name:					2075	52	Level:	06/06/2017	7
Locatio	n:		Tilbury				Dimensions (m):	Scale	
Equipr	vont:						_ Depth	Logged	
	Somr	-loo 9 In Sit	to Tasting				3.30	NTD	
Water Strike	Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description		
D=sma	0.10 - 0.40 0.80 - 1.20	D		1.20 1.40 3.05 3.30			Dark grey CLAY with common lenses of peat. C fine rootlets. Stiff light grey and medium brown mottled CLAY of peat from 3.0mbgl. Stiff bluey grey silty CLAY. End of Pit at 3.300m	ommon , lenses	1 2 3
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = pł	Il disturbed sample nic sample (amber g tile sample (amber g bag sample and shear vane (kP cket penetrometer (l notoionisation detect		Stability			Remarks Slight water ingress from 2.3mb	gl.		

		Cromfo	ord Mills, Mill Lane, Ma	atlock, Derl	byshire, D	E4 3RQ		TrialPit I	No
	lom nerebrook	t +44 i	0) 1773 829 988 e co merebrook.co AN idom GRO	onsulting@ .uk idom.c UP COMP/	merebroo om ANY	k.co.uk	TRIAL PIT LOG	MTP2	2
offic	es London	Kent	Derby Ca	ardiff Ma	inchester	Stirling		Sheet 1 of	of 1
Project		Til	bury 2		Project	t No.	Co-ords: 565823.00 - 176420.00	Date	
iname.					2075	52	Level:	06/06/20	17
Locatio	n:		Tilbury				Dimensions (m):	1:25	
Equipm	nent:						Depth O	Logged	d
50	Sam	oles & In Si	tu Testing				3.50	AS	
Wate Strike	Depth	Туре	Results	Depth (m)	Level (m)	Legend	Stratum Description		_
				0.10		******	Dark brown gravelly SAND with rootlets. Sand i medium to coarse. Gravel is fine to medium, ar	is igular to ,	_
							Subrounded flint. MADE GROUND. Dense grevish slightly claves	gravelly	
	0.30 - 0.40	D					SAND. Sand is fine to coarse. Gravel is fine to	coarse,	-
							i ounioù ijtug.		
							3		
	0.80 0.00								-
	0.00 - 0.90						3		-
							3		1 -
							3		-
									-
							8		-
									-
				1.80			ALLUVIAL. Soft greenish grey CLAY.		-
]		2
						F	_		
						F	_		-
						E- <u>-</u>	-		-
						L- <u>-</u>	-		-
							-		=
				2.80			DEAT. Soft brown silty SAND with wood frogme		
						یاری عاری میاری منابق منابق ما بارد میارد میارد	Sand is fine to coarse. Water associated to this	strata.	
				3.00			ALLUVIAL. Soft greenish grey mottled brown sl	lity sandy	3 -
									=
									-
				3 50		×			
				0.00			End of Pit at 3.500m		-
									-
									4 —
									-
									-
									-
									5 —
D = ema	Ill disturbed sample	(tub)		Stability			Remarks		
J = orga V = vola B = bulk	nic sample (amber tile sample (amber bag sample	glass jar) glass vial)							
PP = po	iaria snear vane (kF cket penetrometer (potoionisation dotas	ra) kg.cm2) tor (ppm)							
pi		(ppiii)							

	dom nerebrook	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook.co AN idom GRO	atlock, Derl onsulting@ .uk idom.c UP COMP	byshire, DI)merebrool com ANY	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit M	No 3	
offic	ces London	Kent	Derby Ca	ardiff Ma	anchester	Stirling		Sheet 1 c	of 1
Project Name:	•	Till	bury 2		Project	No.	Co-ords: 565840.00 - 176415.00	Date	47
					2015	-2		Scale	17
Locatio)n:		Tilbury				Dimensions (m):	1:25	
Equipm	nent:		JCB 3CX				Depth	Logged NTD	ł
re ê	Samp	oles & In Sit	tu Testing	Denth	Level		1.00		
Wat Stril	Depth	Туре	Results	(m)	(m)	Legend	Stratum Description		
	0.10 - 0.50	D					MADE GROUND: Grey sand with common round lytag gravel, plastic and rubber flexible pipes at 0	ded).4mbgl.	
	1.20 - 1.30		1.20 1.30 1.50			MADE GROUND: Light grey sand and rare round lytag gravel. Rare rootlets. MADE GROUND: Railway sleepers, metal track dark grey sandy limestone gravel. End of Pit at 1.500m	ded and	2	
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = pl	all disturbed sample inic sample (amber g title sample (amber g bag sample and shear vane (kP icket penetrometer (I hotoionisation detect	(tub) glass jar) glass vial) 'a) kg.cm2) tor (ppm)		Stability	<u></u>		Remarks Within bunded material		

	dom	Cromfo t +44 (ord Mills, Mill Lane, Ma (0) 1773 829 988 e co	itlock, Der	byshire, D merebroo	E4 3RQ k.co.uk		TrialPit N	No
VЦг	nerebrook		AN idom GROL	JP COMP	om ANY				4
offic	ces London	Kent	Derby Ca	rdiff Ma	Inchester Project	Stirling	Co. orde: 565793.00 - 176393.00	Date	1 10
Project Name:		Till	bury 2		2075	52	Level:	06/06/20	17
	· · ·		Tilbury	I			Dimensions (m): 2.50	Scale	
	····.							1:25	
Equipm	nent:						3.80	AS	1
ater trike	Sam	ples & In Sit	tu Testing	Depth	Level	Legend	Stratum Description		
≥∞	Depth	Туре	Results	(m)	(111)		Dark brown gravely SAND with rootlets Sand is		·
	0.10 - 0.20	D					medium to coarse. Gravel is fine to medium, angu	ılar to	
	0.30 - 0.40	D		0.20			MADE GROUND. Dense grey very gravelly SANE). all	-
							rounded lytag.	511	
							XXX		
							20 20 20		
							20 20 20		-
									1 -
							XX XX		-
							Plastic nina at 1.30m		
									-
							N XX		-
							20 20 20		
				1 00			S		-
				1.90		<u>xx</u>	ALLUVIAL. Very soft turning soft greenish grey mo brown CLAY. Occasional peat lenses and wood	ottled	2 —
						<u>xx</u>	x fragments noted.		-
						216 × ×	× T		-
						NG × NG			
						× <u></u> ×	- 		-
						<u>xx</u>	 		
						<u>xx</u>			-
						<u>x _ vic</u>	× T		3 —
						<u>xk</u>			-
							a J		-
						XX	- 		-
						<u>xx</u>	 		-
						<u>xx</u>	×		-
				3.80		500% ×	End of Pit at 3.800m		-
									4 -
									-
									-
									-
									-
									5 —
D = sma	all disturbed sample	(tub)	:	Stability			Remarks	I	L
J = orga V = vola	nic sample (amber g tile sample (amber g	glass jar) glass vial)							
B = bulk	: bag sample and shear vane (kP	a)							
PID = pt	notoionisation detec	tor (ppm)							

	dom,	Cromfore t +44 (0	d Mills, Mill Lane, Ma)) 1773 829 988 e co	atlock, Derl	byshire, D merebroo	E4 3RQ k.co.uk		TLOC	TrialPit I	No
VLIN	nerebrook		AN idom GROU	UP COMP	;om ANY			LUG		5
offic	London	Kent	Derby Ca	rdiff Ma	Inchester Project	Stirling	Co-ords: 565859.00 - 1764	37 00	Date	1 10
Project Name:		Tilbu	ury 2		2075	52	Level:	57.00	06/06/20)17
	in.		Tilbury	I			Dimensions (m):		Scale	
LUGuis	, in the second se								1:25	
Equipm	nent:		JCB 3CX		,		3.00		NTD	1
Water Strike	Samı Depth	ples & In Situ	I Testing	Depth (m)	Level (m)	Legend	Stratu	m Description		
	0.10 - 0.20	D					TOPSOIL: Dark brown to common fine rootlets.	medium brown silty cla	ay with	
	2.30	D		0.25 1.80 2.20 2.40			Light brown sandy clay S Light brown sandy clay S Soft dark grey to bluey g Dark brown peaty CLAY strong sulphur odour. Soft bluey grey silty CLA	ILT/silty clay.	naterial	2
				3.00			End o	^r Pit at 3.000m		4
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	all disturbed sample inic sample (amber title sample (amber bag sample hand shear vane (kF cket penetrometer (notoionisation detec	(tub) glass jar) glass vial) ²a) kg.cm2) ttor (ppm)		Stability			Remark Slight wa	s ter ingress from 1.7mbg	gl.	

	dom nerebrook	Cromfor t +44 ((rd Mills, Mill Lane, Ma 0) 1773 829 988 e co merebrook.co AN idom GROI	atlock, Dert onsulting@ .uk idom.c UP COMPA	oyshire, D merebroo om ANY	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit MTP2	No 6
offic	ces London	Kent	Derby Ca	ardiff Ma	nchester	Stirling		Sheet 1 o	of 1
Project	t	Tilb	ury 2		Project	t No.	Co-ords: 565643.00 - 175992.00	Date	
iname.			-		2075	52	Level:	07/06/20	17
Locatio	on:		Tilbury				Dimensions (m):	Scale 1:25	
Fauipr	nent:						Depth c	Logged	ł
	Som	nlaa 8 In Situ	Tooting				3.50	AS	
Vater Strike	Donth		Beculto	Depth (m)	Level (m)	Legend	Stratum Description		
200	Depth	туре	Results	. ,			Dark brown clavey fine to medium SAND.		_
	0.20 - 0.30	D		0.20			MADE GROUND. Soft brown sandy gravelly CL Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded chalk, rare flint and brick. Band of black ash and gravel. Gravel is angular to subround to medium flint ash and coal.	AY. led fine	
	0.60 - 0.70	D							- - - - - - - - - - - - - - - - - - -
	1.20 - 1.30	D		4.00			Band of black ash and gravel. Gravel is angular to subround to medium flint, ash and coal.	led fine	
				1.60			Black sandy CLAY. Sand is fine to coarse.		-
▼				2.00			ALLUVIAL. Soft greenish grey mottled brown CL Occasional peat lenses and wood fragments not	.AY. .ed.	2
				3.50		× <u></u>	Find of Pit at 3 500m		-
									-
									4
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = pl	all disturbed sample anic sample (amber atile sample (amber c bag sample nand shear vane (kF ocket penetrometer (hotoionisation detec	(tub) glass jar) glass vial) Pa) kg.cm2) tor (ppm)		Stability			Remarks		

	dom nerebrook	Cromfo t +44 (rd Mills, Mill Lane, Ma 0) 1773 829 988 e co merebrook.co AN idom GRO	atlock, Derl onsulting@ .uk idom.c UP COMP/	oyshire, D merebroo om ANY	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit N MTP27	lo
offic	London	Kent	Derby Ca	ardiff Ma	inchester	Stirling		Sheet 1 o	f1
Project		Tilk	oury 2		Project	t No.	Co-ords: 565663.00 - 175882.00	Date	
iname.					2075	52	Level:	07/06/201	17
Locatio	n:		Tilbury				Dimensions (m):	1:25	
Equipm	nent:						Depth Ö	Logged	
50	Sam	ples & In Sit	u Testina				3.50	AS	
Wate Strike	Depth	Туре	Results	Depth (m)	Level (m)	Legend	Stratum Description		
	0.10 - 0.20	D		0.10			Dark brown clayey fine to medium SAND. MADE GROUND. Soft brown sandy gravelly CL Sand is fine to coarse. Gravel is fine to coarse.	AY.	-
	0.30 - 0.40	D					subangular to rounded chalk and ash.		-
							Brown CLAY with orangish-red medium sand size mottles.		-
									-
									1 —
				1.20			ALLUVIAL. Soft turning stiff grey mottled brown Occasional peat lenses and wood fragments no	CLAY. ted.	-
						216 <u>× 316 ×</u> 216 <u>× 316 ×</u>			-
▼									-
						<u>xx</u>	x 		2 —
						<u>xx</u> 216 <u>x716</u>	×		-
						<u>×</u>	x 		-
						NG <u>× NG</u>	×		-
						NG <u>× NG</u>	×		
							- - -		3 —
						216 × 316			-
				3.50		× \$112 ,	End of Pit at 3.500m		-
									-
									4 —
									-
									-
									-
									5 —
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	all disturbed sample inic sample (amber tile sample (amber bag sample and shear vane (kF cket penetrometer (notoionisation detec	(tub) glass jar) glass vial) ²a) kg.cm2) tor (ppm)		Stability	1		Remarks		

		Cromfo t +44 (ord Mills, Mill Lane, Ma (0) 1773 829 988 e cc	atlock, Derl	byshire, D merebroo	E4 3RQ k.co.uk		TrialPit No)
VZIñ	nerebrook		merebrook.co. AN idom GROI	uk idom.c	om ANY		TRIAL PIT LOG	MTP28	
offic	es London	Kent	Derby Ca	irdiff Ma	anchester	Stirling		Sheet 1 of	1
Project Name:		Till	bury 2		Project	t No.	Co-ords: 565666.00 - 175811.00	Date	7
					2010	02	2.70	Scale	
Locatio	ın:		Hibury				Dimensions (m):	1:25	
Equipm	ient:						4.00	Logged AS	
Nater Strike	Samp	bles & In Sit	tu Testing	Depth (m)	Level (m)	Legend	Stratum Description		-
~~~	Берш	Туре	Results				Dark brown clayey fine to medium SAND.		
	0.20 - 0.30	D		0.10			MADE GROUND. Brown and black gravelly SAI Gravel is fine to medium, angular to subrounded	ND. d flint,	-
							brick and ash.		-
							8		_
	0.60 - 0.70	D					8		_
									-
				1.00			ALLUVIAL. Soft turning stiff grey mottled brown Occasional peat lenses and wood fragments no	CLAY. ted.	1 -
						<u> </u>	×		_
							- 		-
						<u>xx</u>	×		_
						<u>×</u>	×		-
						<u> </u>	×		-
							×		
						× <u>- nr</u>	×		2
						<u>xx</u>	×		_
						<u>xx</u>	×		_
						<u> </u>	×		_
						<u> </u>	× ,		-
						× <u>- nr</u>	×		-
						<u> </u>	×		3 —
						<u>x</u>	×		-
						NG × ×	× -		-
						216 × ×	× ,		-
									-
				3.70		2112 × 2112 211	PEAT Soft brown silty SAND with wood fragme	nts	-
						્ય સાંદ સાંદ સાંદ સાંદ સાં દ સાંદ સાંદ	Sand is fine to coarse.	10.	-
				4.00		ોદ ોદ ો	End of Pit at 4.000m		4 —
									-
									-
									-
									-
									_
									-
									5 —
D = sma	all disturbed sample	(tub)	,	Stability	<u> </u>		Remarks	I	
V = vola B = bulk	itile sample (amber ( bag sample)	glass vial)							
HSV = h PP = po	and shear vane (kP cket penetrometer (	'a) kg.cm2)							
PID = pł	notoionisation detect	tor (ppm)							

	<b>kom</b> nerebrook	Cromfo t +44 (	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook.co.	itlock, Der nsulting@ uk idom.c	byshire, Dl )merebroo com	E4 3RQ k.co.uk		TrialPit MTP2	No 29
		Kont	AN idom GROL		ANY	Ctirling		Sheet 1	of 1
Project	es Lunuun				Project	No.	Co-ords: 565712.00 - 175702.00	Date	
Name:		liik	bury 2		2075	52	Level:	07/06/20	)17
Locatio	n:		Tilbury				Dimensions (m):	Scale	ţ
							Depth C	1:25 Logge	d
Equipm	ient:		T				3.60	AS	
Vater strike	Samp	oles & In Sit	u Testing	Depth	Level	Legend	Stratum Description		
500	Deptn	Гуре	Results	(''')			Dark brown clavev fine to medium SAND.		1
	0.10 - 0.20 0.70 - 0.80	D		0.10			Dark brown clayey fine to medium SAND.         MADE GROUND. Brown slightly clayey gravely         Sand is medium to coarse. Gravel is fine to medius         subangular to well rounded fiint.         Band of grey ash with chaik coarse sand and fine gravel.         ALLUVIAL. Soft turning stiff grey mottled black a brown CLAY. Occasional peat lenses and wood fragments noted.         Rest of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the seco	r SAND. Jium,	
									5 —
D = sma J = orga V = vola: B = bulk HSV = h PP = po PID = pt	Il disturbed sample nic sample (amber g tile sample (amber g bag sample and shear vane (kP cket penetrometer ( notoionisation detec	(tub) glass jar) glass vial) 2a) kg.cm2) tor (ppm)		Stability	<u> </u>	<u> </u>	Remarks		

	<b>om</b> nerebrook	Cromfo t +44 (	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook.co.	e, Matlock, Derbyshire, DE4 3RQ e consulting@merebrook.co.uk ok.co.uk idom.com GROUP COMPANY			TRIAL PIT LOG	TrialPit I	No 3
office	es London	Kent	Derby Ca	JP COIVIE	ANY Anchester	Stirling		Sheet 1	of 1
Project	<u>, , , , , , , , , , , , , , , , , , , </u>			<u></u>	Project	: No.	Co-ords: 565929.00 - 176382.00	Date	
Name:		111	bury 2		2075	2	Level:	05/06/20	)17
Locatior			Tilbury	I			Dimensions (m): 2.70	Scale	
			<b>,</b>					1:25	-1
Equipme	ent:						2.90	AS	a
_ ike _	Samp	oles & In Sit	tu Testing	Depth	Level		Stratum Description	_	_
Str	Depth	Туре	Results	(m)	(m)	Legena	Stratum Description		
							MADE GROUND. Loose greyish brown gravelly Sand is fine to medium. Gravel is fine, angular to	SAND.	
	0.20 - 0.30	D					subrounded flint and brick.	,	
	0.40 - 0.50	D					d M M M		-
				0.60				Condia	
							fine to coarse. Gravel is fine to medium, angular	Sano is to	
							subrounded chalk and flint.		
	0.90 - 1.00								
							a X X X		
				1.30			ALLUVIAL. Soft greenish grey mottled black CL/	AY.	
						<u> </u>	]		
						F			
						F			
						F			
						F			2 —
						F_=	4		
						F	-		-
						E- <u>-</u>	-		-
						E- <u>-</u>	Peat lenses becoming a peat layer, comprised of brown silty	V	_
						L	SAND with wood fragments.		
						<u> </u>	-		
				2.90		<u> </u>	End of Pit at 2 900m		
									3 -
									=
									-
									-
									4 -
									-
									-
									-
									-
									5 —
D = small J = organ V = volati B = bulk t HSV = ha PP = poc	l disturbed sample iic sample (amber g le sample (amber g bag sample and shear vane (kP iket penetrometer (	(tub) glass jar) glass vial) 'a) kg.cm2)		Stability			Remarks		

	<b>dom</b> nerebrook	Cromfo t +44	ord Mills, Mill Lane, Ma (0) 1773 829 988 e ca merebrook.co AN idom GRO	atlock, Derl onsulting@ .uk idom.c UP COMP/	byshire, D merebroo om ANY	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit M	No 0
offic	ces London	Kent	Derby Ca	ardiff Ma	inchester	Stirling		Sheet 1 c	of 1
Project		Til	bury 2		Project	No.	Co-ords: 565734.00 - 175743.00	Date	47
					2075	02	Level: 3.40	07/06/20 Scale	17
Locatio	on:		Tilbury				Dimensions (m):	1:25	
Equipm	nent:						Depth O	Logged	ł
50	Sam	oles & In Si	tu Testing				1.30	AS	
Wate Strike	Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description		
		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					Dark brown clayey SAND with rootlets. Sand is fi	ine to	_
	0.10 - 0.20	D		0.10			medium. MADE GROUND. Soft brown slightly gravelly sa	ndy	
	0.30 - 0.40	D					CLAY. Sand is grey medium to coarse. Gravel is subrounded fine ash	fine,	-
									-
				0.50			Wood, timber and some clak fine gravel. REWORKED ALLUVIAL. Soft brown sandy CLA	Y. Sand	
						L- <u>-</u>	is fine to coarse.		-
						<b></b>	-		-
						<b></b>	-		
						<b></b>	-		1
						<b></b>	-		-
				1.30			End of Pit at 1.300m		
									-
									-
									-
									2 —
									-
									-
									-
									-
									3 —
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									-
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									4 -
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									-
							5		
l		Stability			Domarke				
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	all disturbed sample inic sample (amber itile sample (amber s bag sample nand shear vane (kF icket penetrometer ( hotoionisation detec		Stability			Kemarks			

	<b>dom</b> nerebrook	Cromfor t +44 (C	d Mills, Mill Lane, Ma )) 1773 829 988 e co merebrook.co. AN idom GROI	atlock, Dert onsulting@ .uk idom.c UP COMP/	byshire, Dl merebrool com ANY	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit I MTP3	No 1
Droject	London	Kent	Derby Ca	rdiff Ma	nchester Project	Stirling t No.	Co-ords: 565661.00 - 176460.00	Date	01 1
Name:		Tilb	ury 2		2075	52	Level:	07/06/20	)17
	nn.		Tilbury				Dimensions (m) [.] 2.30	Scale	
	<i>.</i>		···,					1:25	<u>ہ</u>
Equipm	nent:		T				3.50	AS	1
ater trike	Sam	ples & In Situ	J Testing	Depth	Level	Legend	Stratum Description		
≥ છ	Depth	Туре	Results	(m)	(m)				<del>,</del>
				0.01			MADE GROUND. Loose black and grey clayey fir SAND. Sand is fine to coarse.	ne	1
	1.20 - 1.30	D		1.20			Black sandy CLAY. Sand is fine to coarse.		
<ul> <li>▼</li> </ul>				1.50			ALLUVIAL. Grey mottled black sandy CLAY with occasional peat and sand lenses and wood fragm noted. Sand is fine to coarse.	nents	2
									4
D = sma J = orga V = vola B = bulk HSV = t PP = po PID = pl	all disturbed sample inic sample (amber itile sample (amber s bag sample hand shear vane (kF cket penetrometer ( hotoionisation detec	(tub) glass jar) glass vial) ² a) (kg.cm2) ctor (ppm)		Stability			Remarks		

	<b>bon</b>	Cromfo t +44	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook.co.i	tlock, Derl nsulting@ uk_idom.c	byshire, D merebroo	E4 3RQ k.co.uk		alPit No
		K I	AN idom GROU	JP COMP	ANY		She	et 1 of 1
Project	es London	Kent	Derby Ca		Project	No.	Co-ords: 565733.00 - 176456.00	Date
Name:		Til	bury 2		2075	2	Level: 07/	/06/2017
Locatio	n.		Tilbury	I			Dimensions (m): 2.50	Scale
			Theory					1:25
Equipm	nent:						3.90	AS
ike	Samp	oles & In Si	tu Testing	Depth	Level	Logond	Stratum Decoription	
Str	Depth	Туре	Results	(m)	(m)		MADE CROLIND Concrete with lates	
				0.15			MADE OROUND, Dense block fire OAND, Ormanical	
	0.20 - 0.30	D					and ash was noted at the top of the formation.	-
							HC smell.	
	0.50 - 0.60	D						
	1.00 - 1.10	D		1.00			Soft black sandy CLAY with rootlets. Sand is fine to	1 -
				4.40				-
				1.40		ala <u>×</u> ala	ALLUVIAL. Greenish grey CLAY with occasional sand and peat lenses.	-
						<u>×</u> ale		
						<u>×</u>		-
						<u>×</u>		-
						<u>×</u>	-	2 —
						× <u></u>		-
						<u>x</u>		-
	2.40 - 2.50	D				<u>ale × ×</u>		
						<u> </u>		-
						×	<	-
								-
						ala <u>~ ×</u>		3
						<u>×</u>		
						×X	<	-
						<u>x</u>		
						ale <u>× ×</u>		-
						<u> </u>		-
				3.90			End of Pit at 3.900m	
								4 —
								-
								-
								-
								-
								5 —
D = sma	Ill disturbed sample	(tub)		Stability		1	Remarks	I
J = orga V = vola	nic sample (amber of tile sample (amber of the sample (amber of the sample (amber of the sample sa	glass jar) glass vial)		,				
B = bulk HSV = h	bag sample and shear vane (kP	°a)						
PP = po PID = pt	cket penetrometer (I notoionisation detect	kg.cm2) tor (ppm)						
	<b>lom</b> nerebrook	Cromfo t +44	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook.co	atlock, Dert onsulting@ .uk idom.c	byshire, Di merebrool	E4 3RQ k.co.uk	TrialPit No.	C
-------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------	-------------------------------------------------------------------	------------------------------------------	--------------------------	-----------------------------------------------------------------------------	---------------------------------------------------------------------------	---
offic	es London	Kent	Derby Ca	ardiff Ma	ANY Inchester	Stirling	Sheet 1 of	1
Project		Ti			Project	No.	Co-ords: 565738.00 - 176398.00 Date	
Name:					2075	52	Level: 07/06/2017	7
Locatio	n:		Tilbury				Dimensions (m): 2.50 Scale	
Fauipr							Depth O	
Equipin	1erit.	·	·· ··		<b></b>	1	3.50 AS	
Water Strike	Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	
				0.01			MADE GROUND. Concrete. MADE GROUND. Grey SAND. Sand is fine to coarse.	
	0.60 - 0.80	D						
	1.20 - 1.30	D		1.20			Soft grey sandy CLAY. Sand is fine to coarse.	
•	3.30 - 3.40	D		1.40			ALLUVIAL. Greenish grey CLAY with occasional sand and peat lenses.	2
				3.60		ka silka silka silka silka ka silka silka <u>silka silka silka</u>	End of Pit at 3.500m	4
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	= small disturbed sample (tub) = organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample SV = hand shear vane (kPa) P = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)						Remarks	

	<b>bom</b> Derebrook	Cromfo t +44 (	rd Mills, Mill Lane, Ma 0) 1773 829 988 e cc merebrook.co.	atlock, Derlonsulting@ .uk idom.c	byshire, Dl merebrool	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit I	No 4
offic		Kont	AN idom GROU		ANY	Chirling		Sheet 1	of 1
Project	es Lunuun	Rent	Delby Ga		Project	No.	Co-ords: 565746.00 - 176367.00	Date	
Name:		Tilk	oury 2		2075	2	Level:	07/06/201	
I ocatio	n.		Tilbury	I			Dimensions (m): 2.70 Sca		
			···,					1:25	4
Equipm	ient:		T		-		3.60	AS	3
ater	Samp	oles & In Sit	u Testing	Depth	Level	Legend	Stratum Description		
Str	Depth	Туре	Results	(m)	(m)	Logone			
	■			0.60			MADE GROUND. Loose to dense black SAND v lytag. Sand is fine to coarse. MADE GROUND. Dense greyish black clayey fir SAND. Sand is fine to coarse. REWORKED ALLUVIAL. Soft greyish black sand with rootlets.Sand is fine to coarse. ALLUVIAL. Greenish grey mottled brown and bla CLAY with occasional sand and peat lenses.	vith	
D = sma J = orga V = vola B = bulk HSV = h PP = poo PID = ph	= small disturbed sample (tub) = organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample SV = hand shear vane (kPa) = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)			Stability	1	1	Remarks		1

AN idom GROUP COMPANY     St       offices     London     Kent     Derby     Cardiff     Manchester     Stirling     St       Project     Project No.     Co-ords:     565659.00 - 176381.00     An and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an and an an an and an an an and an an an an an an an an an an an an an	beet 1 of 1 Date 07/06/2017
Project         Project No.         Co-ords:         565659.00 - 176381.00           Name:         1ilbury 2         20752         Level:         0	Date 07/06/2017
Name: 111bury 2 20752 Level: 0	07/06/2017
Location: Tilbury Dimensions (m):	Scale
Denth	1:25
Equipment: JCB 3CX 3.20	NTD
Samples & In Situ Testing     Depth     Level       Depth     Type     Results     (m)	
0.07 Bituminous surfacing	
MADE GROUND: Compacted dark grey silty sand.	-
0.30 MADE GROUND: Compacted light grey silty sand with	:h –
0.40 - 0.50 D rare fine chalk gravel.	-
	-
	-
	-
	-
1 10 - 1 20 D 1 10	1
Black peaty CLAY with orange mottling and a slightly	-
Firm bluey grey and black mottled CLAY.	-
	=
Firm bluey grey CLAY with yellow brown mottling and	-
	-
	-
	2
	-
	ittling and
	-
	-
	-
	-
	-
	3 -
	-
3.20 End of Pit at 3.200m	
	-
	-
	-
	-
	-
	4 -
	-
	-
	-
	-
	-
	-
	-
	5 —
D = small disturbed sample (tub) Stability Remarks	I
J = organic sample (amber glass jar) V = volatile sample (amber glass vial)	
B = bulk bag sample HSV = hand shear vane (kPa)	
PP = pocket penetrometer (kg.cm2) PID = photoionisation detector (ppm)	

	<b>lom</b> nerebrook	Cromfo t +44 (	ord Mills, Mill Lane, Ma (0) 1773 829 988 e cc merebrook.co	atlock, Derlonsulting@	byshire, Di merebroo	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit I	No 6	
offic		Kent	AN idom GROU Derby Ca	JP COMP/ ardiff Ma	ANY	Stirling		Sheet 1	of 1	
Project					Project	No.	Co-ords: 565699.00 - 176414.00	Date		
Name:		111	bury 2		2075	12	Level:	07/06/201		
Locatio	in:		Tilbury				Dimensions (m):	n): Scale		
-								1:25		
Equipm	ient:		JCB 3CX				3.40 NT		u	
Water Strike	Samp Depth	oles & In Sit	tu Testing Results	Depth (m)	Level (m)	Legend	Stratum Description			
				0.08			Concrete			
	0.20 - 0.40	D		0.20			fragment at 1.5mbg.	vvood		
							MADE GROUND: Dark grey silty sand. Rare ro and wire fragments.	otlets		
							3			
									1 -	
	1.20 - 1.50	D		1.20			Soft to firm dark blue CLAY with peaty lenses			
						216 × ×				
				1 50		<u>xx</u>			_	
				1.00			Stiff bluey grey/light grey silty CLAY.		] =	
							4			
							*		=	
							-		2	
									-	
							×			
							×			
							×			
						××	× -			
				3.00			Stiff bluey arey/light arey silty CLAY with lenses	of dark	3 -	
						<u>×</u>	brown peat with common organic material and	a strong		
						NG × ×				
				3.40		× <u></u> <u></u>	Find of Pit at 3 400m			
									-	
									-	
									4 -	
									-	
									=	
									-	
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = pt	= small disturbed sample (tub) • organic sample (amber glass jar) • volatile sample (amber glass vial) = bulk bag sample V = hand shear vane (kPa) = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)			Stability			Remarks Rapid water ingress from 2.4ml	ogl.		

	<b>dom</b> nerebrook	ord Mills, Mill Lane, Ma (0) 1773 829 988 e cc merebrook.co.	Aatlock, Derbyshire, DE4 3RQ consulting@merebrook.co.uk :o.uk idom.com OUP COMPANY			TRIAL PIT LOG	TrialPit No MTP37		
offi	ces London	Kent	Derby Ca	rdiff Ma	nchester	Stirling		Sheet 1 of	of 1
Project	t	ті	lbury 2		Project	t No.	Co-ords: 565720.00 - 176494.00	Date	
Name:					2075	52	Level:	07/06/201	17
Locatio	on:		Tilbury				Dimensions (m):	n): Scale	
Fauina							 Depth	Logged	
Equipri			JCB 3CX				3.10	NTD	
Water Strike	Sam Depth	ples & In S	Results	Depth (m)	Level (m)	Legend	Stratum Description		
	0.05 - 0.10	D		0.12			MADE GROUND: Dark grey to dark brown silty with common rounded lytag gravel.	sand	_
				0.12			MADE GROUND: Light grey silty sand with occa	asional	-
	0.30 - 0.60	D		0.25			MADE GROUND: Compacted dark bluey grey s	silty	-
							sanu.		_
				0.60			REWORKED: Soft light grey and yellow brown of	clay with	-
	0.70 - 0.80	D					rare black mottling and rare lytag gravel.	ay with	-
									-
									1 —
				1.10			Stiff dark grey silty CLAY with rare yellow brown		-
							mottling.		-
						×	×		-
						<u>×</u>	×		_
						<u>×                                    </u>	× 1		-
						××	*		_
							× ]		_
						×			2 —
							- 		-
							×		-
							- -		-
							×		-
							~		_
						×_×_×	×		-
				3.00		<u>×                                    </u>	Soft black silty CLAY		3 —
				3.10		<u> </u>	End of Pit at 3.100m		_
									-
									-
									_
									_
									-
									4 —
									-
									-
									_
									-
									-
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									5 —
				Stahility			Bomarke		-
D = sma J = orga V = vola B = bulk HSV = H PP = pc PID = p	= small disturbed sample (tub) = organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample SV = hand shear vane (kPa) P = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)		JIADIIITY			Slight water ingress from 2.1mb	gl.		

	<b>dom</b> merebrook	rd Mills, Mill Lane, Ma 0) 1773 829 988 e co merebrook.co. AN idom GROI	atlock, Derl onsulting@ .uk_idom.c UP COMP/	byshire, Dl merebroo com ANY	E4 3RQ k.co.uk	TrialPit N TRIAL PIT LOG	√o B	
offic	ces London	Kent	Derby Ca	ardiff Ma	Inchester	Stirling	Sheet 1 o	of 1
Project Name:	t	Tilb	ury 2		2075	1 NO. 52	LO-OFUS: 565835.00 - 176491.00 Date I evel: 07/06/201	17
Lacatio			Tilbuny				2.50 Scale	
LOCauc	on:		Thoury				Dimensions (m): 	
Equipm	nent:						Depth         O         Loggea           3.30         AS	
ike ike	Sam	oles & In Situ	J Testing	Depth	Level		Stratum Description	
Str	Depth	Туре	Results	(m)	(m)	Leyena		
	● 0.40 - 0.50 D D D D D D D D D D D D D D D D D D D						MADE GROUND. Dense slightly gravelly SAND with lytag. Sand is fine to coarse. Lytag content increases in depth. MADE GROUND. Loose to dense black gravelly SAND with rootlets. Sand is fine to coarse. Gravel is fine, subrounded ash and rare film. ALLUVIAL. Greenish grey mottled brown and black CLAY with occasional sand and peat lenses.	2 4
								5 —
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = pl	= small disturbed sample (tub) : organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample W = hand shear vane (kPa) = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)			Stability			Remarks	

	Cromford Mills, Mill Lane, t +44 (0) 1773 829 988 a merebrook			atlock, Derlonsulting@	byshire, D merebroo	E4 3RQ k.co.uk		TrialPit No	
VZr	nerebrook		merebrook.co AN idom GRO	.uk idom.c UP COMP/	om Any		TRIAL PIT LOG	MTP39	
offic	London	Kent	Derby Ca	ardiff Ma	nchester Broice	Stirling	Co. ordo: 565650.00, 176365.00	Sheet 1 of 1	
Project Name:		Til	bury 2		2075	52	Level:	07/06/2017	
Locatio			Tilbury			-	Dimensions (m):	Scale	
Localic	nı.		Thoury				Donth	1:25	
Equipm	nent:		JCB 3CX		1		3.40	NTD	
Vater Strike	Samp	ples & In Si	tu Testing	Depth (m)	Level (m)	Legend	Stratum Description		
> 07		Туре	Results				MADE GROUND: Black silty sand with rare fine	to	
	0.10-0.20			0.20			MADE GROUND: Light silty sand with occasion	al	_
				0.30			rounded lytag gravel. MADE GROUND: Compacted bluev grev silty sa	and	-
	0.45 - 0.60	D					recovered as sand and sub angular gravel. Rare brown silty clay lenses.	e silty	_
	0.60 - 0.70	D							_
									_
				1.00					_
			1.00		<u>xx</u>	Soft to firm light grey/medium brown CLAY with of peat.	lenses	_	
						3/6 × <u>3/6</u>	-		_
							×		_
				1.00		<u>xx</u>	× 		_
				1.00			<ul> <li>Stiff bluey grey CLAY with yellow brown mottling</li> </ul>	J.	_
									_
							-	2	_
							-		_
							-		_
							-		_
				2.60		×	Soft to firm dark bluev grav silty CLAV		-
						xx			_
						<u>×</u> ×	× -		-
						× <u>×</u> ×		3	_
							*		_
				2.40		xx	×		_
				3.40			End of Pit at 3.400m		_
									_
									_
									_
								4	-
									_
									_
									-
									_
									_
								5	_
D = sma J = orga V = vola B = bulk HSV = h PP = po	= small disturbed sample (tub) = organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample SV = hand shear vane (kPa) P = pocket penetrometer (kg.cm2) D = potenteriordion detector (opm)			Stability	1	1	Remarks Slight water ingress from 2.1mbg	gl.	
PID = pl	notoionisation detec	tor (ppm)							

		Cromfor t +44 ((	rd Mills, Mill Lane, Ma 0) 1773 829 988 e co	itlock, Dert	byshire, D merebroo	E4 3RQ k.co.uk		)
ГИЛ	nerebrook		AN idom GROL	JP COMP/	ANY		INIAL FILLOG	4
offic	London	Kent	Derby Ca	rdiff Ma	nchester Project	Stirling t No	Sneet 1 of Co-ords: 565930.00 - 176382.00 Date	1
Project Name:		Tilb	ury 2		2075	52	Level: 05/06/2017	
Locatio	<b></b>		Tilburg			-	2.70 Scale	
Localio	41. 		Tilbury				1:25	
Equipm	nent:						Depth         O         Log           3.40         A	
ike	Sam	oles & In Situ	J Testing	Depth	Level	Logond	Stratum Description	
Str	Depth	Туре	Results	(m)	(m)	- Legend	MADE GROUND. Loose grevish brown gravelly SAND.	
	0.10 - 0.20	D		0.30			Sand is fine to medium. Gravel is fine, angular to subrounded flint and brick.	-
	0.50 - 0.60	D		0.30			MADE GROUND. Brown sandy gravelly CLAY with some black ash. Sand is fine to coarse. Gravel is fine to medium, subrounded to well rounded flint.	
	1.10 - 1.30	D		1.00			MADE GROUND. Loose brown gravelly SAND. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded chalk and flint.	1
				1.30 2.90 3.40			ALLUVIAL. Soft greenish grey mottled black CLAY.          ALLUVIAL. Soft greenish grey mottled black sandy         CLAY. Sand is fine to coarse.         Peat lenses becoming a peat layer, comprised of brown silty         SAND with wood fragments.	2
				Stability			Remarks	4
D = sma J = orga V = vola B = bulk HSV = h PID = pro	small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) bulk bag sample / = hand shear vane (kPa) = pocket penetrometer (kg.cm2) = photoionisation detector (ppm)			Stability			Kemarks	

	<b>dom</b>	Cromfor t +44 (0	rd Mills, Mill Lane, Ma 0) 1773 829 988 e co merebrook.co.	atlock, Derl onsulting@ .uk idom.c	oyshire, D merebroo om	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit I	No 10
		Kaal	AN idom GRO	JP COMP	ANY			Sheet 1	of 1
Project	ces London	Kent	Derby Ca		Project	t No.	Co-ords: 565720.00 - 176302.00	Date	
Name:		Tilb	oury 2		2075	52	Level: 07/06/		)17
Locatio	n:		Tilbury				Dimensions (m): Scale		
							Dopth	1:25	
Equipm	nent:		JCB 3CX				3.40	NTD	J
Vater strike	Sam	ples & In Situ	u Testing	Depth (m)	Level	Legend	Stratum Description		
5 00	Depth	Туре	Results	()	()		MADE GROUND: Coarse dark grey silty sand v	vith	-
	0.10 - 0.30	D					occasional fine to medium coarse subrounded or gravel, and rare coal fragments. Rare fragments electrical wire and wood	linker s of	
				0.30			MADE GROUND: Compacted light grey silty sa	nd	
							occasional rounded lytag gravel at the base of t	he	-
	0.60 - 0.80	D		0.65			stratum.		
				0.00			MADE GROUND: Dark grey to black silty peaty rare brick cobbles and occasional fine rootlets.	clay with	
				0.85			Thickness variable. Stiff light grey and light brown mottled CLAY		1 -
						E	-		1 -
							-		
							-		-
							-		-
							-		-
									-
				1.90		NG × NG	Stiff bluey grey CLAY with medium brown mottli	ng and	2 -
						<u>ala</u>	× ×		
									-
							×		-
						×	×		-
						x_ <u>x</u>	× 1		-
						<u>alc × × ×</u>	Ţ		-
						NG ×	X		-
							-		3 -
							×		
						316 <u>× 316</u>	×		-
				3.40		-1	End of Pit at 3.400m		-
									-
									-
									-
									4 -
									-
									-
									-
									-
									5 -
				O4-1-11-1			 		5
D = sma J = orga V = vola B = bulk HSV = h PP = po	all disturbed sample inic sample (amber title sample (amber bag sample and shear vane (kF cket penetrometer ( aptoionization detection	(tub) glass jar) glass vial) Pa) kg.cm2) tor (ppm)		Stability			Remarks		

	<b>dom</b>	Cromfo t +44	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook.co	atlock, Der onsulting@	rbyshire, D Ømerebroo com	E4 3RQ k.co.uk		TrialPit N	√0 1
		K I	AN idom GRO	UP COMF	PANY	01111		Sheet 1 of 1	
Offic	ces London	Kent	Derby Ca	ardiff M	anchester Proiect	Stirling	Co-ords: 565793.00 - 176275.00	75.00 Date	
Name:		Til	bury 2		2075	52	Level:	07/06/201	17
Locatio	n.		Tilbury				mensions (m): Scale		
			Thoday					1:25	
Equipm	nent:		JCB 3CX				3.00	Logged NTD	
ike r	Samp	oles & In Si	tu Testing	Depth	Level	Logond	Stratum Description		
Str	Depth	Туре	Results	(m)	(m)	Legenu	Stratum Description		
	Samples & In Situ Testing           Depth         Type         Results           0.10 - 0.30         D         Image: Depth state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state state						MADE GROUND: Coarse black silty sand with occasional fine to medium coarse clinker and ra brick, rounded lytag gravel. Rare wood fragmen lenses of lytag gravel at the base of the stratum         MADE GROUND: Light grey silty sand with occarounded lytag gravel.         MADE GROUND: Firm grey to bluey grey clay v yellow brown mottling. Cylindrical concrete boult (0.5-0.4m) at 1.6-2.0mbgl (probable fence post)         Stiff bluey grey CLAY with medium brown mottling         End of Pit at 3.000m	re fine ts, asional with rare der	
									5
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) bulk bag sample V = hand shear vane (kPa) = pocket penetrometer (kg.cm2) = photoionisation detector (ppm)			Stability	,		Remarks		

[								TrialDit No.	
	<b>bm</b> nerebrook	t +44	(0) 1773 829 988 e c merebrook.co	atlock, Der onsulting@ .uk idom.c	byshire, D )merebroo com	E4 3RQ k.co.uk	TRIAL PIT LOG	MTP42	
offic		Kent	AN Idom GRO	UP COMP. ardiff Ma	ANY	Stirling		Sheet 1 of 1	
Project	London				Project	t No.	Co-ords: 565743.00 - 175661.00	Date	
Name:		Til	lbury 2		2075	52	Level:	07/06/2017	
Locatio	n:		Tilbury				Dimensions (m):		
			, <b>,</b>				1:25		
Equipm	nent:		JCB 3CX				2.40	NTD	
Water Strike	Samı Depth	ples & In Si Type	tu Testing Results	Depth (m)	Level (m)	Legend	Stratum Description		
	0.05 0.15			0.02			MADE GROUND: Dark brown silty sand.		
	0.03 - 0.13			0.20			MADE GROUND: Light brown sand with occasi to medium coarse flint and brick gravel. Occasion	onal fine	
							<ul> <li>concrete and brick cobbles.</li> <li>MADE GROUND: Coarse dark grey sand with r</li> </ul>	are fine	
				0.40			to medium coarse flint and brick gravel. Rare co cobbles.	oncrete	
				0.60			MADE GROUND: Orange brown sandy clay wit	h .	
				0.00			0.45mbgl.		
							mottling. Occasional fine to medium coarse con	crete	
	1 00 - 1 30			0.90			MADE GROUND: Dark grey to bluey grey clay	with 1 –	
	1.00 1.00						black mottling. Concrete obstruction a 1.3mbgl around) and possible land drain at 1.1mbgl.	(dug	
				1 40					
							Soft dark grey/blue grey silty CLAY.	-	
						<u> </u>	×	-	
						<u>×</u>	×		
						<u>×                                    </u>	× 1		
						× <u> </u>	*	2 -	
						××	× 1		
							× ]		
				2.40		<u>×</u> ×	End of Pit at 2.400m		
								3 -	
								-	
								4 -	
								-	
				04.4 11 11 11					
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = pt	small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) bulk bag sample V = hand shear vane (kPa) = pocket penetrometer (kg.cm2) = photoionisation detector (ppm)		Stability			<b>Remarks</b> Slight water ingress from 1.4mb land drain.	gl, possibly from a		

	Cromford Mills, Mill Land t +44 (0) 1773 829 988			itlock, Derl	byshire, DI	E4 3RQ		TrialPit N	No
	nerebrook	المحلف را ا	merebrook.co. AN idom GROI	uk idom.c	om ANY	K.CU.uk	TRIAL PIT LOG	MTP4:	3
offic	ces London	Kent	Derby Ca	rdiff Ma	inchester	Stirling		Sheet 1 c	of 1
Project Name:	:	Til	lbury 2		Project	No.	Co-ords: 565718.00 - 175600.00	Date	17
	-		Tilbung		2010	2	2.60 Scale		
Locauc	on:		l libur y				Dimensions (m):	1:25	
Equipm	nent:				,	-	4.00	AS	1
/ater trike	Samp	oles & In Si	tu Testing	Depth	Level	Legend	Stratum Description		
≤ w	Depth	Туре	Results	(11)	(11)		MADE GROUND. Brown gravelly cobbly SAND.	. Sand is	
	0.10 - 0.25	D					medium to coarse. Gravel and cobbles are fine t coarse, angular to subrounded flint, concrete an Some rebar and metal fragment.	io d bricks.	
	0.40 - 0.50 0.40 - 0.60	D							
	1.00 - 1.10	D		0.90			Loose brownish grey gravelly SAND. Sand is fin coarse. Gravel is fine to medium, subangular to	ie to	- - - - - - -
	1.00 - 1.50 D			1.20			subrounded flint. ALLUVIAL. Soft greenish grey mottled brown sill Rare peat lenses noted.	ty CLAY.	
									2
							-		
							-		3 -
				4.00			End of Pit at 4.000m		4
									5 —
D = sma J = orga	= small disturbed sample (tub) organic sample (amber glass jar)		Stability			Remarks			
v = vola B = bulk HSV = h PP = po PID = pl	= volatile sample (amber glass via) = volatile sample = bulk bag sample SV = hand shear vane (kPa) > = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)								

	Cromford Mills, Mill Lane t +44 (0) 1773 829 988				byshire, D )merebroo	E4 3RQ k.co.uk		TrialPit	No
VД'n	nerebrook		merebrook.co AN idom GRC	o.uk idom.c OUP COMP/	;om ANY		TRIAL PIT LOG	MTP4	4
offic	London	Kent	Derby C	ardiff Ma	inchester	Stirling		Sheet 1	of 1
Project Name:		Ti	ibury 2		Project	t No.	Co-ords: 565746.00 - 175580.00	Date	17
					2075	02	2 20	U8/06/20 Scale	)17 
Locatio	n:		Tilbury				Dimensions (m):	1:25	
Equipm	nent:						Depth O	Logged	d
л e	Sam	oles & In Si	itu Testing	Dopth	Lovel		1.40	A3	
Strik	Depth	Туре	Results	(m)	(m)	Legend	Stratum Description	Sand in	1
	Samples & In Situ Testing           Depth         Type         Results           0.30 - 0.40         D			0.70			MADE GROUND. Loose brown gravelly SAND. fine to coarse. Gravel is fine to medium, angula subrounded chalk, brick , concrete and flint. Metal encountered at 0.50m REWORKED ALLUVIAL. Soft grey mottled brow slightly sandy CLAY. Sand is fine to coarse chal brick. End of Pit at 1.400m	Sand is r to vn k and	
									5 -
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = pt	= small disturbed sample (tub) = organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample SV = hand shear vane (kPa) P = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)						Remarks		

	<b>kom</b> nerebrook	Cromfo t +44 (	rd Mills, Mill Lane, M 0) 1773 829 988 e d merebrook.c	1atlock, Der consulting@ o.uk idom.c	byshire, D )merebroo com	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit N	√0 5
offic		Kent	AN idom GRC	)UP COMP	ANY	Stirling		Sheet 1 c	of 1
Proiect	es London	Non			Project	t No.	Co-ords: 565748.00 - 175547.00	Date	
Name:		1110	oury 2		2075	52	Level:	08/06/201	17
Locatio	n:		Tilbury	<u>.</u>			Dimensions (m):	Scale	
	- 4						- 09 Depth 00	Logged	1
Equipm	ent:			<del></del>	1		4.00	AS	
Vater	Samp			Depth	Level	Legend	Stratum Description		
> 07	Depth	Туре	Results		,		MADE GROUND. Loose grevish brown gravelly S/	AND.	
	0.20 - 0.30	D					Sand is fine to medium. Gravel is fine to medium, angular to subrounded flint, brick and concrete. Vegetal soil noted. Comprised of brown gravelly SAND with rootlets. Gravel is subangular to subrounded fine flint.		
				0.40			MADE GROUND. Soft dark brown sandy CLAY with	th	-
							readish orange oxidation stains, Sand is line to coo	arse.	-
				0.70			Yellowish brown gravelly cobbly SAND. Sand is fin	ne to	-
	0.80 - 0.90						coarse. Gravels and cobbles are tine to coarse, an to subangular bricks, concrete, flint and tarmac. Rebar, wood and bricks encountered.	ıgular	- - 1 -
				1.20			ALLENIAL Soft turning stiff greenish grey mottled	brown	-
							silty CLAY. Peat lenses were noted from 3.40 m bg	gl to	- - 
						<u>xx</u>			- -   -
						<u>xx</u>	- 		- -   -
	1.70 - 2.10	D					-		- -   -
						MC × ×	4		- - 
						<u> </u>			2 -
						<u>X _ 710</u> <u>X _ 710</u> <u>X _ 710</u>			-
						<u></u>			
						<u>x</u>			
						MC × ×	4		
						NG ×			
						NG <u>× MG</u>	4		
						<u></u>	- 		ۍ ا
						<u>x</u>			- -
						<u></u>	4		- - 
						NG ×			- 
						<u></u>	4		- - 
						NG × NG	- «		- - -
				4.00		<u> </u>			
				4.00			End of Pit at 4.000m		4
									.
									5 -
				<u>Stability</u>			Bewerke		
D = smal J = orgar V = volat B = bulk HSV = $h_i$ PP = poc PID = ph	Il disturbed sample nic sample (amber g tile sample (amber g bag sample and shear vane (kP cket penetrometer (l totoionisation detec	(tub) glass jar) glass vial) 'a) kg.cm2) tor (ppm)		Stability			Remarks		

		Cromfo	rd Mills Mill I ane Ma	atlock Derl	ovshire D	F4 3RQ		TrialPit No
	<b>lom</b> nerebrook	t +44 (	0) 1773 829 988 e co merebrook.co AN idom GRO	uk idom.c UP COMP/	merebroo om ANY	k.co.uk	TRIAL PIT LOG	MTP46
offic	es London	Kent	Derby Ca	ardiff Ma	inchester	Stirling		Sheet 1 of 1
Project		Till	oury 2		Project	t No.	Co-ords: 565751.00 - 175501.00	Date
iname.			-		2075	52	Level:	08/06/2017
Locatio	n:		Tilbury				Dimensions (m):	1:25
Equipm	nent:						Depth O	Logged
	Sam	nles & In Sit	u Testina				3.50	AS
Wate Strike	Depth	Туре	Results	Depth (m)	Level (m)	Legend	Stratum Description	
D = sma	0.20 - 0.30 0.50 - 0.60	D D		0.50 0.70 1.00 1.30 3.50			MADE GROUND. Lose greyish brown gravelly         Sand is fine to medium, Gravelli s fine to medium angular to subrounded flint, brick and concrete. rebar and metal fragments.         Plastic net and textile at 0.40m.         Loose black gravelly SAND. Sand is fine ash. G fine to coarse, subrounded flint. One flint boulde         Yellowish gravelly medium to coarse SAND. Sand to coarse. Gravel is fine to medium, subangular subrounded flint.         Soft black CLAY.         ALLUVIAL. Soft turning stiff greenish grey mottli and black silty CLAY. Peat lenses noted from 3. to the end of the pit.         End of Pit at 3.500m	SAND. n, Some ravel is rr. nd is fine to 1 ed brown 40 m bgl 3 
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	= small disturbed sample (tub) = organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample SV = hand shear vane (kPa) P = pocket penetrometer (kg.cm2) ID = photoionisation detector (ppm)						Remarks	

		Cromfo t +44 (	ord Mills, Mill Lane, Ma	atlock, Dert	oyshire, D	E4 3RQ		TrialPit Nc	2
VZIñ	nerebrook		merebrook.co. AN idom GROU	uk idom.c JP COMPA	om		TRIAL PIT LOG	MTP47	
offic	London	Kent	Derby Ca	rdiff Ma	nchester	Stirling		Sheet 1 of	1
Project Name:		Till	bury 2		Project	t NO.	Co-ords: 565806.00 - 175795.00	Date	7
					2073	)2		Scale	
Locatio	n:		Tilbury				Dimensions (m):	1:25	
Equipm	nent:		JCB 3CX				Depth	Logged NTD	
ke r	Sam	ples & In Sit	u Testing	Depth	Level				
Stri	Depth	Туре	Results	(m)	(m)		Stratum Description		
	0.10 - 0.25	D		0.05			occasional fine to medium coarse coal fragmen	ts.	-
				0.30			fine to medium coarse brick gravel and occasio	nal brick	_
	0.40 - 0.60	D		0.00			MADE GROUND: Grey silty clay with common	fine to	-
				0.60			medium coarse chaik gravei.		-
				0.00			MADE GROUND: Compacted dark grey silty cla black mottling. Rare fine to medium coarse bric	ay with k gravel	-
							and metal fragments.		-
	1.00 - 1.50	D							1 —
							9		-
							3		_
									-
							3		-
							3		_
									=
				1.90			Stiff grey CLAY with black mottling.		2 —
							-		-
						[- <u>-</u>	-		_
				2.40			Stiff light brown to light grey CLAY with black m	ottling.	-
									-
							]		-
						F	_		_
						E	-		3 —
						E-I-I	-		_
				3.20			End of Pit at 3.200m		-
									-
									-
									-
									-
									4 —
									_
									-
									-
									-
									-
									-
									5 —
D = sma	= small disturbed sample (tub)						Remarks		
J = orga V = vola	= organic sample (amber glass jar) = volatile sample (amber glass vial)								
B = bulk HSV = h	bag sample and shear vane (kF	Pa)							
PP = po PID = pl	скет penetrometer ( notoionisation detec								

	dom	Cromfo t +44	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co	atlock, Derl onsulting@	oyshire, D merebroo	E4 3RQ k.co.uk		TrialPit No	
VΔr	nerebrook		merebrook.co AN idom GRO	.uk idom.c UP COMP/	om ANY		TRIAL PIT LOG	MTP48	
offic	ces London	Kent	Derby Ca	ardiff Ma	Project	Stirling	Co.ords: 565884.00 - 175984.00	Sheet 1 of 1	
Name:	t	Til	bury 2		2075	52	Level:	08/06/2017	
Locatio	on:		Tilbury				Dimensions (m):	Scale	
-							Depth	1:25 Logged	
Equipri	neni.						2.80	NTD	
Water Strike	Denth		Results	Depth (m)	Level (m)	Legend	Stratum Description		
	0.00 - 0.05	D	rteouno	0.05			MADE GROUND: Black silty sand of coal with		
				0.05			ADE GROUND: Compacted coarse light grey	ts/ sand	_
	0.25 - 0.50	D		0.22			MADE GROUND: Dark grey silty sand.		_
				0.50			MADE CROLIND: Medium brown cand, with oc	casional	_
							fine to medium coarse brick and concrete grave	el. Rare	_
				0.80			MADE CROLIND: Dark grow oith cond		_
				0.90			MADE GROUND: Dark grey siny sand. MADE GROUND: Subrounded to sub angular fl	lint	_
							cobbles and rare brick cobbles. Rare pockets o grey silty clay with rare brick.	f dark 1	_
							8		_
									_
	1.50 - 2.00	D					8		_
									_
									_
								2	_
								2	_
							3		_
				2.40			Stiff light grey and dark grey mottled CLAY		_
									-
							-		_
				2.80			End of Pit at 2.800m		_
								3	_
									_
									-
									-
									_
									_
									_
								4	_
									_
									_
									_
									_
									_
									_
								5	_
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = pl	= small disturbed sample (tub) = organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample SV = hand shear vane (kPa) P = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)			Stability Sides of th	e trench v	vere unstab	Remarks Standing water at 1.0mbgl with	a slight sheen.	

	im, not	Cromfo t +44 (	rd Mills, Mill Lane, Ma 0) 1773 829 988 e cc	atlock, Dert	oyshire, D merebroo	E4 3RQ k.co.uk			TrialPit No
VZIñ	nerebrook		merebrook.co. AN idom GROI	uk idom.c JP COMP/	om ANY			I LOG	MTP49
offic	London	Kent	Derby Ca	rdiff Ma	nchester	Stirling	0	40.00	Sheet 1 of 1
Project Name:		Tilk	oury 2		Project	: NO.	Co-ords: 565951.00 - 1759	16.00	Date
					2075	12			Scale
Locatio	n:		libury				Dimensions (m):		1:25
Equipm	nent:		JCB 3CX				Depth 3.20		Logged NTD
Water Strike	Samı Depth	oles & In Sit	u Testing Results	Depth (m)	Level (m)	Legend	Stratu	m Description	
	0.05 0.15	1,000		0.05			MADE GROUND: Dark g	grey sand with rare roots	s and
	0.05 - 0.15 0.20 - 0.40 1.10 - 1.20 1.40 - 1.50	D D		0.05 0.15 0.90 1.10 1.20 1.60 1.90 3.00 3.20			MADE GROUND: Dark g rootlets. MADE GROUND: Mediu with fine to medium coar- brick cobbles and whole MADE GROUND: Soft m sand/sandy clay with occ with rare fine to medium MADE GROUND: Dark g MADE GROUND: Black medium coarse clinker g MADE GROUND: Mediu with common fine brick g coarse concrete and occ brick cobbles and whole wood and slate fragment MADE GROUND: Coars MADE GROUND: Coars MADE GROUND: Soft of medium coarse sub angu size flint nodules.	m brown and reddy bro se brick gravel. Occasic bricks. ledium brown/light brow asional fine chalk grave grey silty clayey sand/sa coarse flint gravel. ashy sand with common ravel. m brown and dark brow gravel, rare fine to mediu asional clinker gravel. C bricks within the to 0.15 s. e black sand and grave ff white chalk with fine to alar chalk gravel. Rare to an occasional fine relict ro f Pit at 3.200m	s and win sand onal in clayey el. indy clay n fine to in sand im common im. Rare I of coal. coolder 2 -
D = sma J = orga V = vola B = bulk HSV = r PP = po PID = pt	III disturbed sample nic sample (amber tile sample (amber bag sample land shear vane (kP cket penetrometer ( notoionisation detec		Stability			Remark Slight wa	<b>S</b> ter ingress from 2.4mbg	4 - 5 - gl.	

	<b>lom</b> nerebrook	Cromfo t +44	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook.co	Matlock, Derbyshire, DE4 3RQ consulting@merebrook.co.uk co.uk idom.com OUR COMPANY			TRIAL PIT LOG	TrialPit N MTP5	lo
offic	ces London	Kent	Derby Ca	ardiff Ma	anchester	Stirling		Sheet 1 of	f 1
Project		ті	bury 2		Project	t No.	Co-ords: 565922.00 - 176140.00	Date	
Name:					2075	52	Level:	06/06/201	7
Locatio	n:		Tilbury				Dimensions (m):	Scale	
Fauinm	anti						Depth O	Logged	
					1		3.30	AS	
Water Strike	Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description		
				0.35			MADE GROUND. Loose grey gravelly SAND. Sa fine to coarse. Gravel is fine to medium, subang well rounded flint, concrete and brick.	and is jular to	
	0.40 - 0.50	D					fine to coarse. Gravel is fine, angular to subroun and coal.	ded flint	-
	0.60 - 0.70	D		0.70			Thin layer comprised of brick, concrete and chalk angular to subangular fine to coarse GRAVELS. Occasional brick cobb MADE GROUND. Brown clayey gravelly SAND. is fine to medium, angular to subrounded flint, ch brick.	le. Gravel halk and	- - - - - - - - - - - - - - - - - - -
				1.30			REWORKED ALLUVIAL. Soft greenish grey mot black CLAY. Occasional lenses of fine to medium Some sand lenses affected by hydrocarbons.	tled n sand.	2
				2.30		× ×         	ALLUVIAL. Soft turning stiff greenish grey mottle CLAY. Rare gravel content comprised of fine ang gravel.	d black jular flint	
				3.00		<u> </u>	-		3 —
							End of Pit at 3.300m		
									4
									5 —
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	all disturbed sample inic sample (amber g tille sample (amber g bag sample and shear vane (kP cket penetrometer (I notoionisation detect	(tub) glass jar) glass vial) 'a) kg.cm2) tor (ppm)		Stability			Remarks	I	

	dom,	Cromfo t +44 (	ord Mills, Mill Lane, Ma (0) 1773 829 988 e ca	atlock, Derl onsulting@	oyshire, D merebroo	E4 3RQ k.co.uk		TrialPit N	No
VДř	nerebrook		merebrook.co AN idom GRO	.uk idom.c UP COMPA	om ANY		TRIAL PIT LOG	MTP50	D
offic	ces London	Kent	Derby Ca	ardiff Ma	nchester	Stirling		Sheet 1 o	of 1
Project Name:	t	Till	bury 2		Project	No.	Co-ords: 565967.00 - 175841.00	Date	4 7
					2075	2	2 50	Scale	
Locatio	on:		Tilbury				Dimensions (m):	1:25	
Equipm	nent:						Depth Ö	Logged	
re e	Sam	oles & In Sit	tu Testing	Depth	l evel			////	
Wat Stril	Depth	Туре	Results	(m)	(m)	Legend	Stratum Description		
	<ul> <li>0.20 - 0.30</li> <li>D</li> <li>0.90 - 1.00</li> <li>D</li> </ul>						MADE GROUND. Dense black and grey fine SAT ash. Sand is fine to coarse. MADE GROUND. Brickworks and concrete. Concrete wall running in diagonal in one of the pit walls. MADE GROUND. Grey SAND with some black a occasional flint gravel. Sand is fine to coarse. Brownish grey gravelly CLAY. Gravels are fine to subangular to subrounded flint gravels. Concrete slab found at 1.80. Fragments of cast iton pipe. Wa ingress. End of Pit at 2.200m	ash and	
D = sma J = orga V = vola	all disturbed sample anic sample (amber g atile sample (amber g	(tub) glass jar) glass vial)		Stability			Remarks		5 —
B = bulk HSV = h PP = po PID = pl	and sample nand shear vane (kP ocket penetrometer ( hotoionisation detec								

	<b>dom</b> nerebrook	Cromfor t +44 (0	rd Mills, Mill Lane, Ma 0) 1773 829 988 e ca merebrook.co AN idom GRO	Matlock, Derbyshire, DE4 3RQ consulting@merebrook.co.uk co.uk idom.com OUP COMPANY			TRIAL PIT LOG	TrialPit No MTP51	
offic	ces London	Kent	Derby Ca	ardiff Ma	inchester	Stirling		Sheet 1 of 1	
Project		Tilb	urv 2		Project	t No.	Co-ords: 565833.00 - 175801.00	Date	
Name:					2075	52	Level:	08/06/2017	
Locatio	n:		Tilbury				Dimensions (m):	Scale	
Faultan	anti						Depth O	Logged	
							2.00	AS	
Water Strike	Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description		
	0.30 - 0.40	D					MADE GROUND. Black slightly clayey gravelly Sand is fine to medium. Gravel is fine to coarse, to subrounded concrete, brick and flint. Occasio cobbles.	SAND. angular nal	
	0.80 - 0.90	D		0.70			MADE GROUND. Greenish brown and orangish clayey SAND AND GRAVEL. Sand is fine to coa Gravel is fine to medium, angular to subrounded	brown rse. I flint. 1 -	
▾	1.30 - 1.40 D			1.20			MADE GROUND. Dense black SAND AND GRA Sand is fine to coarse. Gravel is fine to medium subangular to subrounded flint, brick, ash and m metal. Water ingress. Pit abandoned at 2.00 due to the water.	WEL.	
				1.70			ALLUVIAL. Soft greenish grey silty CLAY with s rootlets.	ome	
				2.00			End of Pit at 2 000m	2 -	
								3 -	
D = sma	= small disturbed sample (tub)						Remarks		
J = orga V = vola B = bulk HSV = h PP = po PID = ph	= small disturbed sample (tub) = organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample SV = hand shear vane (kPa) P = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)								

		Cromfc t +44 (	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook co	Matlock, Derbyshire, DE4 3RQ consulting@merebrook.co.uk co.uk idom.com				TrialPit No	
	nelebiook		AN idom GRO	UP COMP/	ANY		INAL FIT LOG	Shoot 1 of 1	
offic	ces London	Kent	Derby Ca	ardiff Ma	Project	Stirling t No	Co-ords: 565800.00 - 175801.00	Date	
Name:		Till	bury 2		2075	52	Level:	08/06/2017	
			<b>T</b> ile			-	2.50	Scale	
Locatio	n.		Tibury					1:25	
Equipm	nent:						3.20	Logged AS	
ke r	Sam	oles & In Sit	tu Testing	Depth	Level				
Stri	Depth	Туре	Results	(m)	(m)	Legend			
	0.30 - 0.40		0.80			MADE GROUND. Greenish brown mottled orang brown clayey SAND AND GRAVEL. Sand is fine coarse. Gravel is fine to medium, angular to subr brick, concrete and fiint. Black sand and ash with concrete, fiint and coal angular to rounded fine gravel. MADE GROUND. Black SAND AND GRAVEL. S fine ash. Gravel is fine, subangular to rounded br flint. ALLUVIAL. Soft to stiff greenish grey mottled bro black silty CLAY. End of Pit at 3.200m	and is rick and 1		
								5	
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	Il disturbed sample nic sample (amber tile sample (amber bag sample and shear vane (kF cket penetrometer ( notoionisation detec	(tub) glass jar) glass vial) Pa) kg.cm2) tor (ppm)		Stability	<u> </u>	_1	Remarks		

	<b>lom</b> herebrook	Cromfor t +44 ((	rd Mills, Mill Lane, Ma 0) 1773 829 988 e cc merebrook.co. AN idom GROI	Matlock, Derbyshire, DE4 3RQ consulting@merebrook.co.uk co.uk idom.com COUP COMPANY			TRIAL PIT LOG		No 3
offic	es London	Kent	Derby Ca	ardiff Ma	Inchester	Stirling		Sheet 1 c	of 1
Project		Tilb	oury 2		Project	No.	Co-ords: 565781.00 - 175743.00	Date	
Name.					2075	2	Level:	08/06/20	17
Location	n:		Tilbury				Dimensions (m):	1:25	
Fauipm	ent [.]						් <u>ග</u> Depth ට	Logged	ł
<u>-</u> ч~		-lac 9 la Situ	Tasting			<del></del>	3.70	AS	
Water Strike	Depth	Туре	Results	Depth (m)	Level (m)	Legend	Stratum Description		
	0.50 - 0.60	D		0.40			MADE GROUND. Reinforced concrete. MADE GROUND. Black SAND AND GRAVEL. Sa fine to coarse. Gravel is fine to medium angular t subrounded flint.	and is io	
	0.90	D		1.00			ALLUVIAL. Soft turning stiff greenish grey mottled silty CLAY. Peat lenses observed from 3.30 m bgl end of the pit.	t black to the	
D = smal J = orgar V = volat B = bulk HSV = h PP = poc PID = ph	Il disturbed sample ( nic sample (amber c tile sample (amber c bag sample and shear vane (kP cket penetrometer (l ototonisation detect	(tub) glass jar) glass vial) 'a) kg.cm2) tor (ppm)		Stability	L		Remarks		5 —

	dom, ,	Cromfo t +44 (	rd Mills, Mill Lane, Ma 0) 1773 829 988 e co	atlock, Der onsulting@	byshire, DI merebrool	E4 3RQ k.co.uk		TrialPit No
VДř	nerebrook		merebrook.co AN idom GRO	uk idom.c	om ANY		TRIAL PIT LOG	MTP54
offic	London	Kent	Derby Ca	ardiff Ma	nchester	Stirling	0. and	Sheet 1 of 1
Project Name:		Till	oury 2		Project	NO. 2	Co-ords: 565767.00 - 175960.00	Date 08/06/2017
Loootio			Tilburg		2010			Scale
Lucatio	nı.		Tibury					1:25
Equipm	nent:		JCB 3CX			-	3.50	Logged NTD
Water Strike	Sam Depth	ples & In Sit	u Testing Results	Depth (m)	Level (m)	Legend	Stratum Description	
	0.10 - 0.20	D					MADE GROUND: Dark brown silty sandy clay v occasional fine to medium coarse flint and brick	vith
	0.30 - 0.50	D		0.20 0.60 0.70			MADE GROUND: Orange brown sand and com to medium coarse subrounded flint gravel. Occa brick cobbles and concrete boulders. Rare woo metal fragments. Plastic drain at 0.5mbgl. MADE GROUND: Orange brown sand. MADE GROUND: Coarse black ashy sand with occasional fine to medium coarse clinker grave	mon fine asional d and
				0.90			MADE GROUND: Medium brown sand with occ	asional
				1.10			Stiff dark grey silty CLAY with rare black peaty l	enses.
				2.70			Soft to firm bluey grey CLAY.	2
				3.50			End of Pit at 3.500m	4
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) bulk bag sample V = hand shear vane (kPa) = pocket penetrometer (kg.cm2) ) = photoionisation detector (ppm)		Stability			<b>Remarks</b> Slight water ingress from 2.1mb the base of the trench.	gl, standing water at	

	<b>dom</b>	Cromfe t +44	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook.co.	tlock, Dert nsulting@ uk idom.c	oyshire, D merebroo	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit No	
		Kant	AN idom GROL		ANY	Otialia a		Sheet 1 of 1	
Offic	ces London	Kent	Derby Ca	rdiff Ma	Project	Stirling	Co-ords: 565765.00 - 175993.00	Date	_
Name:		Ti	lbury 2		2075	52	Level:	08/06/2017	
						-		Scale	-
Locatio	n:		libury				Dimensions (m):	1:25	
Equipm	nent:		JCB 3CX		1		Depth 3.40	Logged NTD	
Water Strike	Samı Depth	ples & In Si	itu Testing Results	Depth (m)	Level (m)	Legend	Stratum Description		
-	0.00 - 0.08	D					MADE GROUND: Dark grey sand and sub angula	ar	
				0.08			MADE GROUND: Coarse reddy brown sand and		_
				0.20			medium coarse sub angular limestone gravel.	/	_
	0.45 0.65			0.45			Gravel is fine to medium coarse subrounded to su	Ib	-
	0.45 - 0.05			0.45			MADE GROUND: Dark brown sand and gravel. G	iravel	_
							is fine to medium coarse subrounded to sub angu flint. Rare concrete boulders and metal reinforcing	lar a.	_
									_
				0.90			MADE GROUND: Coarse black sand with commo	on fine	-
							to medium coarse clinker gravel.	1	_
	4 00 4 00			1.10			MADE GROUND: Green brown sand.		_
	1.20 - 1.30			1.20		××	REWORKED: Dark grey peaty clay with rare fine l	brick	-
						× <u></u>	Stiff dark grey CLAY with rare dark grey silty peat	/	_
						× <u></u>			_
						× <u></u>	× -		_
				1.80		×			_
						L	Stiff bluey grey CLAY.		_
						E-I-I	-	2	_
						E-I-I	-		_
						E-I-I	-		_
						E-I-I	-		_
						E-I-I	-		_
						E-I-I			_
				2 80					-
				2.00		×	<ul> <li>Stiff light grey silty CLAY.</li> </ul>		_
						××	*	3	_
						××	*		_
						××			-
				3.40		×	End of Dit at 2 400m		_
							End of Pit at 5.400m		_
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						1	Remarks	I	
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	= small disturbed sample (tub) = organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample SV = hand shear vane (kPa) > = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)			Cabinty					

All land GROUP COMPANY       Sheet         offices       London       Kent       Dety       Cardini       Manchester       Stilling       Co-ords:       565813.00 - 175822.00       Dar         htmm:       Titbury 2       20752       Level:       08064       Co-ords:       565813.00 - 175822.00       Dar         Location:       Titbury 2       20752       Level:       08064       Co-ords:       565813.00 - 175822.00       Dar         Equipment:       JCB 30X       Dimensions (m):	TrialPit No	
Ordes     Dodo     Tellury 2     Project No. 20752     Condition of the second path     Condition of the second path     Condition of the second path       Location:     Titbury 2     Iter of the second path     Iter of the second path     Depth     Second path     Second p	of 1	
Name: Tilbury 2 20752 Level: 08060 Location: Tilbury 2 Depth Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter Scatter		
Location:     Tibury     Dimensions (m):     12       Equipment:     JCB 3CX     Depth     Image: Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second Second	)17	
Equipment:     JCB 3CX     Depth     12 Log: NT       8 28     Samples & In Situ Testing     Depth     Level (m)     Level (m)     Level (m)     MADE GROUND: Backstiption       8 26     0.05 - 0.15     D     0.02     MADE GROUND: Backstiption     MADE GROUND: Backstiption (Grave Is fine to medium coarse, subconded finit. Rare coarding ravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. Grave Is fine to medium coarse, subconded finit. Rare coard gravel. The	1	
Equipment:     JCB 3CX     Depth     Center of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s		
Stamples         Samples & In:Silu Testing         Depth (m)         Level (m)         Level (m)         Level (m)         Level (m)         Level (m)         Stratum Description           0.05 - 0.15         D         0.02         0.02         MADE GROUND: Black sily clay with rare fine to medium coarse finit prevel Rare rootels. MADE GROUND: Medium brown to dark brown sand and gravel. Grave is fine to medium coarse. subrounded finit. Nare rootels.           0.50 - 0.70         D         0.50         0.50         0.70         D         0.50         0.70         D         0.50         0.70         D         0.70         MADE GROUND: Medium brown to dark brown sand and gravel. Grave is fine to medium coarse. subrounded finit. Nare rootels. Grave is fine to medium coarse. subrounded finit. Nare rootels.           0.80 - 1.00         D         0.70         0         0.70         MADE GROUND. Carse black sand with medium coarse clinker and rare coal gravel.           MADE GROUND. Carse black sand with medium coarse clinker and rare coal gravel.         1.40         1.40         MaDE GROUND. Carse black sand with medium coarse clinker and rare coal gravel.           MADE GROUND. Carse black sand with medium coarse clinker and rare coal gravel.         Stift bluey grey to dark grey sily CLAV with occasional black peaty lenses and streaking.           MaDE GROUND. Carse black sand with medium coarse clinker and rare coal gravel.         Stift bluey grey to dark grey sily CLAV with occasional black peaty lenses and streaking.	<u> </u>	
0.05 - 0.15     D     0.02     MADE GROUND: Carear bian coldets.       0.05 - 0.70     D     0.35       0.50 - 0.70     D     0.50       0.80 - 1.00     D       1.40     MADE GROUND: Carear bian coldets.       MADE GROUND: Carear bian coldets.     MADE GROUND: Carear bian coldets.       MADE GROUND: Carear bian coldets.     MADE GROUND: Carear bian coldets.       MADE GROUND: Carear bian coldets.     MADE GROUND: Carear bian coldets.       MADE GROUND: Carear bian coldets.     MADE GROUND: Carear bian coldets.       MADE GROUND: Carear bian coldets.     MADE GROUND: Carear bian coldets.       MADE GROUND: Carear bian coldets.     MADE GROUND: Carear bian coldets.       MADE GROUND: Carear bian coldets.     MADE GROUND: Carear bian coldets.       MADE GROUND: Carear bian coldets.     MADE GROUND: Carear bian coldets.       MADE GROUND: Carear bian coldets.     MADE GROUND: Carear bian coldets.       MADE GROUND: Carear bian coldets.     MADE GROUND: Carear bian coldets.       MADE GROUND: Carear bian coldets.     MADE GROUND: Carear bian coldets.       MADE GROUND: Carear bian coldets.     MADE GROUND: Carear bian coldets.       MADE GROUND: Carear bian coldets.     MADE GROUND: Carear bian coldets.       Mater and rare coal gravel.     Mater and rare coal gravel.       Mater and rare coal gravel.     Mater and rare coal gravel.       Mater and rare co		
0.50 - 0.70     D     0.35       0.50 - 0.70     D     0.50       0.60 - 1.00     D     0.50       0.80 - 1.00     D     0.70       1.40     MADE GROUND. Weilum brown to dark brown sand and gravel. Gravel is fine to medium coarse, subrounded fint. Rare concrete cobles from 0.50 molul.       0.80 - 1.00     D       0.80 - 1.00     D       1.40     MADE GROUND. Weilum brown to dark brown sand and gravel. Gravel is fine to medium coarse, subrounded fint. Rare concrete cobles from 0.50 molul.       MADE GROUND. Coarse black sand with medium coarse clinker and rare coal gravel.       1.40       1.40       1.40       1.40       1.40       1.40       1.40       1.40       1.40       1.40       1.40       1.40       1.40       1.40       1.40       1.40       1.40       1.40       1.40       1.41       1.40       1.40       1.41       1.40       1.41       1.40       1.41       1.41       1.42       1.43       1.44       1.44       1.45       1.45       1.46 <td>-</td>	-	
0.50 - 0.70     D     0.35       0.50 - 0.70     D     0.50       0.80 - 1.00     D     0.70       1.40     Image: Constraint of the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second sec	-	
0.50 - 0.70     D     0.50       0.60 - 0.70     D     0.50       0.80 - 1.00     D     0.70       0.80 - 1.00     D     0.70       1.40     Image: Subcoluble state sta		
0.30*0.70     D       0.80 - 1.00     D       0.80 - 1.00     D       1.40     Image: Construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construction of the construle of the construction of the cons	-	
0.80 - 1.00     D       1.40     Image: Constraint of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the	1 =	
0.80 - 1.00     D       1.40       1.40       MADE GROUND: Coarse black sand with medium coarse clinker and rare coal gravel.       1.40       Max To the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of		
1.40     Max and a streaking.       1.40     Max and a streaking.       1.40     Max and a streaking.       Max and a streaking.     Stiff bluey grey to dark grey slity CLAY with occasional block peaty lenses and streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a streaking.     Max and a streaking.       Max and a strea	-	
1.40     Stiff bluey grey to dark grey silty CLAY with occasional black peaty lenses and streaking.       No.     Total	1 -	
1.40     Manuary and a streaking.       1.40     Manuary and a streaking.       Manuary and a streaking.     Stiff bluey grey to dark grey silty CLAY with occasional black peaty lenses and streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       Manuary and a streaking.     Manuary and a streaking.       M	-	
1.40     No	-	
$\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ Sub black peakly lenses and streaking. $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots \times M_{c}}$ $\frac{M_{c} \times \dots \times M_{c}}{M_{c} \times \dots $	-	
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3.00 $ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c}$	2 -	
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Stability     Remarks		
D = small disturbed sample (tub)     Vestination       J = organic sample (amber glass jar)     Water ingress from 1.1mbgl.       V = volatile sample (amber glass vial)     Water ingress from 1.1mbgl.       B = bulk bag sample     HSV = hand shear vane (kPa)       PP = pocket penetrometer (kg.cm2)     PD = entormeter (kg.cm2)		

	łow	Cromfo t +44 (	rd Mills, Mill Lane, Ma 0) 1773 829 988 e co	atlock, Derl	oyshire, D	E4 3RQ k.co.uk		TrialPit No	
VZI h	nerebrook		merebrook.co. AN idom GROU	uk idom.c	om ANY		TRIAL PIT LOG	MTP57	
offic	ces London	Kent	Derby Ca	rdiff Ma	inchester	Stirling		Sheet 1 of 1	
Project Name:		Tilk	oury 2		Project	t No.	Co-ords: 565805.00 - 176022.00	Date	
			<b>T</b> ''		2070			Scale	
Locatio	on:		Tilbury				Dimensions (m):	1:25	
Equipm	nent:		JCB 3CX				3.00	Logged NTD	
Water Strike	Sam Depth	ples & In Sit	u Testing Results	Depth (m)	Level (m)	Legend	Stratum Description		
	0.40.0.40	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		0.06			TOPSOIL: Dark grey silty sand with occasional	fine to	
	0.10 - 0.40 0.50 0.60 - 0.80	B		0.60			MADE GROUND: Orange brown sand and grav becoming medium brown with depth. Gravel is 1 medium coarse, subrounded to sub angular film concrete cobbles and pottery fragments. A fragr suspected ACM was encountered at 0.5mbgl.	i <u>gravel.</u> 'el, ine to t. Rare nent of	
							MADE GROUND: Coarse ashy sand with comn to medium coarse clinker gravel.	ion fine	
				0.80			MADE GROUND: Coarse orange brown sand w fine to medium coarse, subrounded to sub angu gravel.	vith rare Jar flint	
				1.10			MADE GROUND: Dark grey sand with rare fine medium coarse, sub angular chalk gravel and occasional cobbles.	to	
D = sma J = orqa	all disturbed sample nic sample (amber	(tub) glass jar)		1.50 3.00 Stability			End of Pit at 3.000m		
J = orga V = vola B = bulk HSV = h PP = po PID = ph	small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) bulk bag sample V = hand shear vane (kPa) = pocket penetrometer (kg.cm2) 0 = photoionisation detector (ppm)								

	<b>n</b> robrook	Cromfo t +44 (	rd Mills, Mill Lane, Ma 0) 1773 829 988 e co merebrook.co	atlock, Derl onsulting@ بناھ idom.c	oyshire, Di merebrool om	E4 3RQ k.co.uk	TRIAL PITLOG	TrialPit No	
	EDIOOK		AN idom GRO	UP COMP/	ANY			Sheet 1 (	of 1
Offices	London	Kent	Derby Ca	arditt Ivia	nchester Proiect	Stirling No.	Co-ords: 565765.00 - 175994.00	Date	51.1
Name:		Tilb	oury 2		2075	52	Level:	08/06/20	17
Location:			Tilbury	I			Dimensions (m): 2.00	Scale	
			Thoury					1:25	
Equipment:							3.00	AS	d 
ike	Sampl	es & In Sit	u Testing	Depth	Level	Legend	Stratum Description		
Str.	Depth	Туре	Results	(m)	(m)		MADE GROUND. Concrete slab beneath mediur	m to	_
				0.20			coarse rounded flint GRAVEL.		
				0.20			MADE GROUND. Yellowish and orangish brown gravelly SAND. Sand is medium to coarse. Grave to medium, subangular to rounded flint.	clayey el is fine	
				0.70				1 Cond	
							is medium to coarse. Gravel is fine to coarse sub to rounded flint, ash and melted metal.	bangular	1
				1.40			ALLUVIAL. Soft greenish grey mottled black silty	CLAY.	
									-
									-
					$X \rightarrow X$			2 —	
						$\left  \frac{x}{x} - \frac{x}{x} \right $			
						$X \rightarrow X$			-
									-
							- - -		-
				3.00		$\times \xrightarrow{\times} \rightarrow$	End of Pit at 3.000m		3 —
									-
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									4 —
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									-
									-
									5 —
D = small distr J = organic sa V = volatile sa B = bulk bag s HSV = hand s PP = pocket p	= small disturbed sample (tub) = organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample SV = hand shear vane (kPa) P = pocket penetrometer (kg.cm2) D = photoionisation detector (kom)			Stability			Remarks		

	dom	Cromfo	ord Mills, Mill Lane, Ma	atlock, Derl	oyshire, D	E4 3RQ		TrialPit No	0
VZI	nerebrook		merebrook.co. AN idom GRO	uk idom.c	om ANY	1.00.uk	TRIAL PIT LOG	MTP59	
offic	ces London	Kent	Derby Ca	rdiff Ma	inchester	Stirling		Sheet 1 of	1
Project Name:	t	Til	bury 2		Project	No.	Co-ords: 565642.00 - 176086.00	Date	
					2075	02		Scale	/
Locatio	on:		Tilbury				Dimensions (m):	1:25	
Equipn	nent:		JCB 3CX				2.80	Logged NTD	
ter ke	Sam	ples & In Si	tu Testing	Depth	Level				
Wat Stri	Depth	Туре	Results	(m)	(m)	Legend	Stratum Description		
	0.00 - 0.15	D					TOPSOIL: Dark grey silty sand with rare fine to coarse, subrounded to sub angular flint gravel.	medium	_
	0.20 - 0.30	D		0.15			Occasional rootlets and rare glass fragments. MADE GROUND: Light brown sand with occasi	onal fine	-
				0.30			to medium coarse flint and rare clinker gravel. F	Rare	-
							MADE GROUND: Compacted coarse dark grey	sand.	_
									-
				0.75			MADE GROUND: Friable dark grey silty clay wi	th	-
							occasional rootlets.		-
							3		1 —
	1.20 - 1.40	D		1.20			MADE GROUND: Firm dark grey silty clay with		-
							occasional fine to medium coarse, subrounded	to sub	-
				1.40			MADE GROUND: Reinforced concrete cobbles	and	_
									-
				1.80			3		-
	1.85 - 2.00	D		1.00			MADE GROUND: Light grey silty sand with rare medium coarse, subrounded to sub angular flint	fine to t gravel.	_
							3		2 —
	2.20 - 2.50	D		2.20					-
							MADE GROUND: Medium brown and orange b clay with rare fine to medium coarse flint, brick a	rown and chalk	-
							gravel. Concrete protruded into the trench at 2.4 Inclusions of wood from 2.7mbgl.	imbgl.	-
									-
							3		_
									-
									3 —
							9		-
									-
							9		-
									-
									-
				3.80			End of Pit at 3.800m		-
									4 —
									-
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									5 —
D = sm	l disturbed sample	(tub)		Stability		1	Remarks		
J = orga V = vola	anic sample (amber atile sample (amber	glass jar) glass vial)		-					
B = bulk HSV = h	k bag sample nand shear vane (kP	Pa)							
PID = p	= hand shear vane (kPa) pocket penetrometer (kg.cm2) = photoionisation detector (ppm)								

	dom	Cromfor t +44 (	rd Mills, Mill Lane, Ma 0) 1773 829 988 e cc merebrook co	atlock, Derlonsulting@	byshire, D )merebroo	E4 3RQ k.co.uk		TrialPit	No
	Nelediook		AN idom GROU	UP COMP	ANY			Sheet 1	• ~f 1
offic	ces London	Kent	Derby Ca	ardiff Ma	inchester Project	Stirling t No	Co-ords: 566025.00 - 176269.00	Date	
Name:	t	Tilb	oury 2		2075	52	Level:	06/06/20	)17
Locatic	on:		Tilbury	l			Dimensions (m): 2.70	Scale	;
	л		Thoury					1:25	
Equipm	nent:		т				3.60	AS	a
ater rike	Sample	s & In Situ	u Testing	Depth	Level	Leaend	Stratum Description		
Si	Depth	Туре	Results	(m)	(m)				
				0.30			Soft brown slightly sandy CLAY. Sand is fine to	coarse.	
				1.50			ALLUVIAL. Soft greenish grey mottled black CL the occasional peat lenses and wood fragments fine sand lenses were also observed.	AY with S. Rare	2
				3.60		×	End of Pit at 3.600m		4
D = smaJ = orgaV = volaB = bulkHSV = hPP = pcPID = p	= small disturbed sample (tub) = organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample SV = hand shear vane (kPa) P = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)			SIADIIITY			Remarks		

	<b>dom</b> nerebrook	Cromfo t +44 (	rd Mills, Mill Lane, Ma 0) 1773 829 988 e ci merebrook.co AN idom GRO	Matlock, Derbyshire, DE4 3RQ e consulting@merebrook.co.uk .co.uk idom.com ROUP COMPANY			TRIAL PIT LOG	TrialPit No MTP60	
offic	ces London	Kent	Derby Ca	ardiff Ma	nchester	Stirling		Sheet 1 o	of 1
Project		Tilk	oury 2		Project	t No.	Co-ords: 565784.00 - 175784.00	Date	
Name:			,		2075	52	Level:	09/06/20	17
Locatio	n:		Tilbury				Dimensions (m):	Scale	
Fauina	anti						Depth O	Logged	d
Lquipi							3.40	AS	
Water Strike	Depth	Type	u lesting Results	Depth (m)	Level (m)	Legend	Stratum Description		
	0.30 - 0.40 0.60 - 0.70	D		0.03 0.50 1.00 3.40			MADE GROUND. Tarmac and reinforced concre MADE GROUND. Brown slightly clayey sandy C with concrete cobbles and rare concrete boulder is fine to coarse. Gravel is fine to coarse, angula subrounded flint and brick. One glass bottle and fragments noted. MADE GROUND. Black gravely SAND. Sand is medium to coarse. Gravel is fine to medium, sub to rounded flint and chalk. ALLUVIAL. Stiff greenish grey silty CLAY becom softer in depth. End of Pit at 3.400m	ete GRAVEL so and ar to timber boangular ning	2
									5
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	<ul> <li>= small disturbed sample (tub) organic sample (amber glass jar)</li> <li>= volatile sample (amber glass vial)</li> <li>= bulk bag sample</li> <li>V = hand shear vane (kPa)</li> <li>= pocket penetrometer (kg.cm2)</li> <li>D = photoionisation detector (ppm)</li> </ul>					<u> </u>	Remarks		

		Cromfor t +44 (C	d Mills, Mill Lane, Ma ) 1773 829 988 e co merebrook co	atlock, Dert	oyshire, D merebroo	E4 3RQ k.co.uk		TrialPit No	
	nelebiook		AN idom GRO		ANY		INAL FIT LOG	Shoot 1 o	.f 1
offic	ces London	Kent	Derby Ca	rdiff Ma	nchester Project	Stirling	Co-ords: 565859.00 - 175633.00	Date	<u>л і</u>
Name:		Tilb	ury 2		2075	52	Level:	09/06/2017	
			Tillering				2.60	Scale	e
Locatio	n.		Tilbury					1:25	
Equipm	nent:						3.50	Logged AS	I
ke r	Samp	oles & In Situ	ı Testing	Depth	Level				
Stri	Depth	Туре	Results	(m)	(m)		Stratum Description	Sand is	
×	0.20 - 0.30	D		0.50 0.80 1.30			MADE GROUND. Orangish brown gravelly SAN is fine to coarse. Gravel is fine to coarse, angula subrounded flint and concrete. Brown sandy GRAVEL. Sand is fine to coarse. G fine to medium, subangular to well rounded flint ALLUVIAL. Soft greenish grey mottled black silty	D. Sand r to Gravel is	1
				3 50					2
				3.50			End of Pit at 3.500m		4
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	= small disturbed sample (tub) = organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample SV = hand shear vane (kPa) > = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)						Remarks		

	<b>dom</b> nerebrook	Cromfo t +44 (	rd Mills, Mill Lane, Ma (0) 1773 829 988 e cc merebrook.co AN idom GRO	atlock, Derl onsulting@ .uk idom.c UP COMP	byshire, DE )merebrool :om ANY	E4 3RQ k.co.uk	TRIAL PIT LO	G	TrialPit No MTP62	
offic	ces London	Kent	Derby Ca	ardiff Me	anchester	Stirling			Sheet 1	of 1
Project	:	— Till	bury 2		Project	No.	Co-ords: 565858.00 - 175601.00		Date	
Name:					2075	2	Level:		09/06/2017	
Locatio	m:		Tilbury				Dimensions (m):	<b>)</b>	Scale 1:25 Logged	
inm	1.						Depth o			
Equipin					<del>,                                    </del>	<del></del>	0.15		AS	
ater trike	Samp	bles & In Sit	u Testing	Depth	Level	Legend	Stratum Descriptio	n		
≤v	Depth	Туре	Results	(11)				an aroually		1
	0.05 - 0.15	D		0.15			with rootlets. Sand is medium to coar	se. Gravel i	is fine,	
							gravel.	k and conc	Tele	
				l			End of Pit at 0.150n	1		-
				1						-
				1						-
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										-
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										-
				 						5 -
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	= small disturbed sample (tub) = organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample SV = hand shear vane (kPa) P = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)			Stability			Remarks			

	<b>dom</b> merebrook	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook.co.	itlock, Der onsulting@ uk idom.c	byshire, Di )merebrool com	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit No MTP63			
offic		Kont	AN idom GROU		ANY	Stirling		Sheet 1	of 1	
Project	ces London	Kent	Derby Ca		Project	No.	Co-ords: 565904.00 - 175517.00	Date	••••	
Name:	L	Til	bury 2		2075	52	Level:	09/06/20	)17	
Loootia			Tilburg				2.20	Scale	Scale	
Locatio	on:		Tilbury				Dimensions (m):	1:25	1:25	
Equipm	nent:						Depth O	Logged	d	
50	Sam	oles & In Si	tu Testing	Durth			0.00	A3		
Wate Strik	Depth	Туре	Results	Depth (m)	(m)	Legend	Stratum Description			
		_					MADE GROUND. Greyish brown gravelly SAN	ID. Sand	-	
	0.10 - 0.20	D					is medium to coarse. Gravel is fine to coarse, subrounded concrete, brick and flint.	angular to	-	
				0.35			End of Pit at 0.350m		1 -	
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						1			_	
									=	
									_	
									5 —	
				Stabilitv			Remarks			
D = sma $J = orga$ $V = vola$ $B = bulk$ $HSV = h$ $PP = po$	= small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) bulk bag sample V = hand shear vane (kPa) = pocket penetrometer (kg.cm2)		y							
PID = pl	notoionisation detec									

	<b>kom</b> nerebrook	ord Mills, Mill Lane, Ma (0) 1773 829 988 e cc merebrook.co.	atlock, Der onsulting@ .uk_idom.c	byshire, D )merebroo com	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit N MTP64	lo 4		
offic		Kont	AN idom GROU	JP COMP/	ANY	Stirling		Sheet 1 o	of 1	
Project	London	Kent			Project	No.	Co-ords: 565904.00 - 175473.00	Date		
Name:		Til	bury 2		2075	2	Level:	09/06/201	09/06/2017	
Locatio	n:		Tilbury				Dimensions (m): 2.30	Scale		
Locatio								1:25		
Equipm	ient:						1.50	Logged AS		
re ek	Samp	oles & In Si	tu Testing	Depth	Level					
Stri	Depth	Туре	Results	(m)	(m)		Stratum Description	v SAND.		
	0.90 - 1.00	D		0.70			MADE GROUND. Yellowish brown clayey sandy GRAVEL. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded flint.	/ JAND. angular n.	1	
									5 —	
D = sma J = orgal V = volat B = bulk HSV = h PP = poo PID = ph	= small disturbed sample (tub) = organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample SV = hand shear vane (kPa) P = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)			Stability	<u> </u>	<u> </u>	Remarks		5	

	<b>bom</b> nerebrook	ord Mills, Mill Lane, Ma 0) 1773 829 988 e co merebrook.co. AN idom GROU	atlock, Der onsulting@ .uk idom.c JP COMP	byshire, D merebroo com ANY	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit No MTP65 Sheet 1 of		
offic	London	Kent	Derby Ca	rdiff Ma	anchester	Stirling		Sheet 1 o	of 1
Project		Till	bury 2		Project	t No.	Co-ords: 565916.00 - 175411.00	Date	. –
					2075	52	Level: 2 30	09/06/201 Scale	17
Locatio	n:		Tilbury				Dimensions (m):	1:25	
Equipm	nent:						Depth C Logg		
۲e	Sam	ples & In Sit	u Testing	Death	Loval		2.00	AS	
Strik	Depth	Туре	Results	(m)	(m)	Legend	Stratum Description		
	0.10 - 0.20	D					MADE GROUND. Yellowish brown gravelly SAN is fine to coarse. Gravel is fine to medium, angu rounded flint, brick and concrete. Occasional bri concrete cobble.	ID. Sand lar to ck and	
	0.40 - 0.50	D							-
	0.60 - 0.80	D		0.65			MADE GROUND. Soft brown CLAY with layers and flint gravel.	of ash	- - - - - - - - - - - - - - - - - - -
				1.20			Soft greenish grey mottled black silty CLAY.		2
D = sma	all disturbed sample	(tub)		2.80 Stability			End of Pit at 2.800m		4
J = orga V = vola B = bulk HSV = h PP = po PID = ph	= small disturbed sample (tub) e organic sample (amber glass jar) = volatile sample (amber glass vial) = bulk bag sample = V = hand shear vane (kPa) = pocket penetrometer (kg.cm2) D = photoionisation detector (ppm)			,					
	Cromford Mills, Mill Lane, t +44 (0) 1773 829 988 e merebrook AN idom G			Matlock, Derbyshire, DE4 3RQ consulting@merebrook.co.uk co.uk idom.com OUP COMPANY			TRIAL PIT LOG	TrialPit No MTP66	
--------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------	---------------------	-----------	---------------------------------------------------------------------------------------------	----------	----------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------	---------------------------------------------------------------------------------------------
offic	London	Kent	Derby Ca	rdiff Ma	nchester	Stirling		Sheet 1 o	of 1
Project Name:		Tilb	ury 2		Projec	t NO.	Co-ords: 565861.00 - 175395.00	Date	17
					2010	)2	2.60	Scale	.,
Locatio	n:		Tilbury				Dimensions (m):	1:25	
Equipm	nent:						Depth O	Logged	
гə	Sam	oles & In Situ	I Testing	Denth	ا مربعا		0.00	7.0	
Stril	Depth	Туре	Results	(m)	(m)	Legend	Stratum Description		
	0.20 - 0.30	D		0.50			MADE GROUND. Grey SAND AND GRAVEL. S fine to coarse. Gravel is fine to coarse, angular t subrounded brick and concrete. Occasional bric cobble. Rare boulder. Some rebar noted. MADE GROUND. Orangish brown gravelly SAN	and is o k D. Sand	
	0.60 - 0.70	D					is medium to coarse. Gravel is fine to medium, a to subrounded flint.	angular	- - - - - - - - - - - - - - - - - - -
				1.20			ALLUVIAL. Soft greenish grey mottled black and	d brown	-
				3.80			End of Pit at 3.800m		2
D = sma J = orga	all disturbed sample nic sample (amber )	(tub) glass jar)		Stability			Remarks		4
J = orga V = vola B = bulk HSV = h PP = po PID = pt	nic sample (amber tile sample (amber bag sample nand shear vane (kF cket penetrometer ( notoionisation detec								

	<b>dom</b> nerebrook	rd Mills, Mill Lane, Ma 0) 1773 829 988 e co merebrook.co AN idom GRO	atlock, Dert onsulting@ .uk idom.c UP COMP/	byshire, D merebroo com ANY	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit No MTP67b		
offic	ces London	Kent	Derby Ca	ardiff Ma	Inchester	Stirling		Sheet 1	of 1
Project	[	Till	ourv 2		Project	t No.	Co-ords: 565854.00 - 175428.00	Date	
Name:					2075	52	Level:	09/06/20	)17
Locatio	on:		Tilbury				Dimensions (m):	Scale	:
							Pepth C	1:25	
Equipm	ient:						0.85	AS	<u> </u>
Water Strike	Samp Depth	oles & In Sit	u Testing Results	Depth (m)	Level (m)	Legend	Stratum Description		
	Samples & In Stu Testing           Depth         Type         Results           0.20 - 0.30         D			0.85			MADE GROUND. Crushed material comprised of brownish sandy cobbley GRAVEL. Sand is media coarse. Gravel is fine to coarse, angular to subro brick flint and concrete. Atternation of tarmac-yellowish clayey SAND-tarmac. End of Pit at 0.850m	if um to junded	
							Democio		5 -
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = ph	all disturbed sample inic sample (amber g itile sample (amber g bag sample nand shear vane (kP icket penetrometer (h hotoionisation detec		Stability			Remarks			

	<b>kom</b> nerebrook	rd Mills, Mill Lane, Ma 0) 1773 829 988 e co merebrook.co AN idom GRO	Matlock, Derbyshire, DE4 3RQ consulting@merebrook.co.uk co.uk idom.com 20UP COMPANY			TRIAL PIT LOG	TrialPit No MTP68		
offic	es London	Kent	Derby Ca	ardiff Ma	nchester	Stirling		Sheet 1 o	of 1
Project		Tilb	oury 2		Project	: No.	Co-ords: 565757.00 - 175422.00	Date	
Name.					2075	2	Level: 2.50	09/06/20	17
Locatio	n:		Tilbury				Dimensions (m):	1:25	
Equipm	ient:							Logged	ł
۲ø	Sam	ples & In Situ	u Testing	Donth	Lovel		3.50	A0	
Strik	Depth	Туре	Results	(m)	(m)	Legend	Stratum Description		
	0.10 - 0.20 0.40 - 0.50	D		0.01			MADE GROUND. Pavement. MADE GROUND. Greyish brown gravelly SAND is fine to coarse. Gravel is fine to coarse, subang rounded flint, concrete and brick.	. Sand jular to	
	0.80 - 0.90	D		0.80 0.80			MADE GROUND. Grey fine, subangular to round GRAVELS impregned in hydrocarbons. ALLUVIAL. Soft greenish grey mottled black silty Peat lenses with observed from 2.70 m bgl to the the pit.	led flint CLAY. end of	
D = smal J = orgar V = volat B = bulk HSV = ha PP = poc PID = ph	Il disturbed sample nic sample (amber g tile sample (amber g bag sample and shear vane (kP cket penetrometer ( totoionisation detec		Stability			Remarks			

	<b>kom</b> nerebrook	Cromfo t +44 (	rd Mills, Mill Lane, Ma 0) 1773 829 988 e cr merebrook.co AN idom GRO	atlock, Derb onsulting@r .uk idom.cr UP COMP4	yshire, D merebroo om ANY	E4 3RQ ık.co.uk	TRIAL PIT LOG	TrialPit I MTP6	No ;9
offic	ces London	Kent	Derby Ca	ardiff Mar	nchester	Stirling		Sheet 1	of 1
Project		Tilb	oury 2		Project	t No.	Co-ords: 565761.00 - 175376.00	Date	
INGING.					2075	52	Level: 2 20	09/06/20 Scale	)17
Locatio	n:		Tilbury				Dimensions (m):	1:25	
Equipm	nent:						Depth O	Logged	d
- · ·	Samr	nles & In Situ	u Testing				3.60	AS	
Vate Strike	Depth	Туре	Results	Depth (m)	Level (m)	Legend	Stratum Description		
	0.20 - 0.30	D		0.01			MADE GROUND. Yellowish gravelly SAND. Sar medium to coarse. Gravel is fine, subangular to rounded flint. One concrete boulder.	ıd is	
				2.00			ALLUVIAL. Soft greenish grey silty CLAY.		3
				3.60			End of Pit at 3.600m		
									4
D = sma J = orga V = vola B = bulk HSV = h PID = pr	III disturbed sample nic sample (amber g tile sample (amber g bag sample land shear vane (kP cket penetrometer (l notoionisation detect		Stability			Remarks		<u>1</u>	

	<b>bom</b> nerebrook	Cromfo t +44 (	rd Mills, Mill Lane, Ma 0) 1773 829 988 e cr merebrook.co AN idom GRO	atlock, Derk onsulting@ o.uk idom.c OUP COMP/	oyshire, D merebroo om ANY	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit N MTP7	No
offic	ces London	Kent	Derby Ca	ardiff Ma	nchester	Stirling		Sheet 1 c	of 1
Project		Tilb	oury 2		Project	t No.	Co-ords: 566097.00 - 176451.00	Date	· _
Incino.					2075	52	Level:	06/06/20 Scale	17
Locatio	n:		Tilbury				Dimensions (m):	1:25	
Equipm	nent:							Logged	ł
<u>ب</u> و	Samp	oles & In Site	u Testing	Durth	1		3.30	A5	
Wate Strik	Depth	Туре	Results	(m)	(m)	Legend	Stratum Description		
	0.20 - 0.30 1.30 - 1.40	D	Results	0.40			Soft dark brown slightly gravelly sandy CLAY. Sand fine to coarse. Gravel is fine, well rounded flint. Soft brown slightly sandy CLAY. Sand is fine to coard and wood fragments. Thin peel layer comprised of brown sity SAND with wood fragments. End of Pit at 3.300m	arse.	2
									5 —
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = pt	all disturbed sample inic sample (amber g tile sample (amber g bag sample and shear vane (kP cket penetrometer (h notoionisation detect		Stability	<u> </u>	1	Remarks		<u> </u>	

		Cromfo t +44 (	rd Mills, Mill Lane, Ma 0) 1773 829 988 e co	itlock, Dert	byshire, Di	E4 3RQ k.co.uk		TrialPit	No
ИДП	Nelediook		AN idom GROL	JP COMPA	ANY		IRIAL FILLUG	Shoet 1	• •f 1
offic	ces London	Kent	Derby Ca	rdiff Ma	nchester Project	Stirling	Co-ords: 565761.00 - 175465.00	Date	
Name:		Tilk	oury 2		2075	52	Level:	09/06/20	)17
	.m.		Tilbury	I			Dimensions (m): 2.60	Scale	;
LUGANG	····							1:25	-1
Equipm	nent:						4.00	AS	a
ater rike	Sam	ples & In Sit	u Testing	Depth	Level	leaend	Stratum Description		
S Ω	Depth	Туре	Results	(m)	(m)				
				0.10			MADE GROUND. Tarmac. MADE GROUND. Greyish gravelly SAND. Sanc	t is fine	
	0 30 - 0 40	ח					to coarse. Gravel is fine to coarse, angular to subrounded flint, concrete, bricks and tarmac.		
	0.00 - 0.50								
				2.02					
	0.70 - 0.80	D		0.60			Orangish brown gravellly SAND. Sand is fine to Gravel is fine to coarse, angular to subrounded	coarse. flint.	1 3
									' -
				1.20		×	ALLUVIAL. Soft turning very soft greenish grey	silty	
							CLAY. Occasional peat lenses from 3.5 m bgi.		
							×		
						× × ×			
						$\left  \frac{\mathbf{x} - \mathbf{x}}{\mathbf{x}} \right $			
						× × ×	4		2 -
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						$\mathbf{x}$			3 -
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						× × ×			
						$\left  \frac{x}{x} - \frac{x}{x} - \frac{x}{x} \right $			
						× × ×			
				4.00		X	End of Pit at 4.000m		4 -
									-
									-
									5 -
D = sma	small disturbed sample (tub)			Stability			Remarks		<u> </u>
J = orga V = vola	nic sample (amber g tile sample (amber g								
	and shear vane (kP								
PID = pł	notoionisation detec								

	<b>dom</b> merebrook	ord Mills, Mill Lane, Ma (0) 1773 829 988 e co merebrook.co	atlock, Der onsulting@ .uk idom.c	byshire, D merebroo com	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit M	No 2	
		Kont	AN idom GRO		ANY	Ctipling		Sheet 1 c	of 1
Project	ces London	Kent	Derby Ca		Project	No.	Co-ords: 565866.00 - 175483.00	Date	
Name:	L	Til	lbury 2		2075	2	Level:	09/06/20	17
Locatio	<u>.</u>		Tilbuny				Dimensions (m):	Scale	
	л.		Thoury					1:25	
Equipn	nent:		JCB 3CX				0.55	Logged NTD	1
ter ke	Sam	ples & In Si	itu Testing	Depth	Level				
Wat Stri	Depth	Туре	Results	(m)	(m)	Legend	Stratum Description		
	0.00 - 0.20	D					MADE GROUND: Light brown sand with commo	on fine to	_
							fragments, plastic sheeting and fragments of pla	astic	-
							tubing. Concrete boulders from 0.2mbgi		-
				0.50					-
				0.50			Concrete slab		-
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D = sma $J = orga$ $V = vola$ $B = bull$ $HSV = I$ $PP = pc$ $PID = p$	small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) bulk bag sample V = hand shear vane (kPa) = pocket penetrometer (kg.cm2) = photoionisation detector (ppm)						Remarks Hole aborted		

	Cromford Mills, Mill Lane, t +44 (0) 1773 829 988 e merebrook				byshire, Dl merebrool	E4 3RQ k.co.uk		TrialPit No	
VΔř	nerebrook		merebrook.co AN idom GRO	uk idom.o	om ANY		IRIAL PIT LOG	MTP73	
offi	ces London	Kent	t Derby Ca	ardiff Ma	anchester	Stirling		Sheet 1 of 1	l
Project Name:	t	Ti	ilbury 2		Project	NO.	Co-ords: 565832.00 - 175514.00	Date	
			<b>T</b>		2075	2		Scale	
Locatio	on:		Tilbury				Dimensions (m):	1:25	
Equipn	nent:		JCB 3CX				0.80	Logged NTD	
ter ke	Samp	oles & In S	itu Testing	Depth	Level	Lawred	Charlens Description		
Stri	Depth	Туре	Results	(m)	(m)	Legend	Stratum Description		
	0.10 - 0.30	D					MADE GROUND: Light brown sand, gravel and Gravel is fine to medium coarse, subrounded to	cobbles. sub	_
							angular brick and concrete with common cobble brick and concrete. Rare inclusions of metal reir	es of Inforcing	-
							and wood fragments.		-
									_
									-
				0.80					-
				0.00			End of Pit at 0.800m		_
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								5	5 —
D = sma	small disturbed sample (tub)			Stability	•		Remarks	I	
J = orga V = vola	mall disturbed sample (tub) ganic sample (amber glass jar) olatile sample (amber glass vial)						Hole aborted. The trench appeal concrete service run that had be	red to be within a en backfilled with	1
	atile sample (amber glass vial) Ik bag sample hand shear vane (kPa)						crush. Standing water from 0.2n	nbgl.	
PID = p	- hand shear vane (kPa) boocket penetrometer (kg.cm2) photoionisation detector (ppm)								

	Z merebrook				byshire, Di merebrool	E4 3RQ k.co.uk	TRIAL PIT LOG		TrialPit No MTP74	
offi		Kent	AN idom GRO	UP COMP	ANY	Stirling			Sheet 1	of 1
Project	t	Rem	<u>. Derby Ca</u>		Project	No.	Co-ords: 565788.00 - 1755	560.00	Date	
Name:		I	libury 2		2075	2	Level:		09/06/2017	
Locatio	on:		Tilbury				Dimensions (m):	[]	Scale	•
							 Denth		1:25	d
Equipr	nent:		JCB 3CX		1		0.30		NTD	u
Water Strike	Samp Depth	oles & In S Type	itu Testing Results	Depth (m)	Level (m)	Legend	Stratu	um Description		
							Reinforced concrete			
				0.30			End c	of Pit at 0.300m		
										5 —
D = sma $J = orga$ $V = vola$ $B = bull$ $HSV = I$ $PP = pc$ $PID = p$	small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) oulk bag sample ' = hand shear vane (kPa) • pocket penetrometer (kg.cm2) = photoionisation detector (ppm)			Stability			Remari Hole abo	<b>(S</b> orted.		<u> </u>

	Z merebrook			atlock, Derl onsulting@	oyshire, D merebroo	E4 3RQ k.co.uk	TRIAL PIT LOG		TrialPit No	
	nelebiook		AN idom GRO		ANY			LUG	Shoot 1	of 1
offic	es London	Kent	Derby Ca	ardiff Ma	nchester Project	Stirling	Co-ords: 565828.00 - 175513.00	)	Date	
Name:		Tilb	oury 2		2075	52	Level:	5	09/06/20	17
Locatio	n.		Tilbury				Dimensions (m):		Scale	
Localio	····		Tibury						1:25	
Equipm	nent:		JCB 3CX				1.00		Logged NTD	d
ike	Samp	oles & In Sit	u Testing	Depth	Level	Logond	Stratum D	acription		
Str	Depth	Туре	Results	(m)	(m)			sand gravel and	cobbles	1
	Samples & In Situ Testing       Depth     Type       0.10 - 0.50     D			1.00			Gravel is fine to medium coar angular brick and concrete, o cobbles of brick and concrete Rare inclusions of metal reinf 0.8mbgl and 30mm metal rein End of Pit a	se, subrounded to ccasional flint with . Rare concrete bo orcing. Sheet piling forcing.	sub common ulders. ; from	
										5 —
D = sma J = orga V = vola B = bulk HSV = h PP = po PID = pt	small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) bulk bag sample = hand shear vane (kPa) = pocket penetrometer (kg.cm2) = photoionisation detector (ppm)			Stability		<u> </u>	Remarks Hole aborted			

	dom, ,	ord Mills, Mill Lane, Ma 0) 1773 829 988 e co	Matlock, Derbyshire, DE4 3RQ consulting@merebrook.co.uk co.uk_idom.com					TrialPit	No	
VLIn	nerebrook		Merebrook.co	UP COMP	om ANY		IKIA			3
offic	ces London	Kent	Derby Ca	ardiff Ma	nchester Project	Stirling	Co. orde: 5660241	00 176533 00	Sheet 1 o	of 1
Project Name:		Till	bury 2		2075	110. 52	Level:	00 - 170333.00	06/06/20	)17
Locatic	.n.		Tilbury			-	Dimonsions (m):		Scale	
LUGaus	MI.		Пюлу						1:25	.1
Equipm	nent:		JCB 3CX				3.20		NTD	3
<i>N</i> ater Strike	Samp	oles & In Sit	u Testing	Depth (m)	Level (m)	Legend		Stratum Description		
-	0 10 - 0.30	D					MADE GROUN	ID: Dark brown sandy clay with r	are fine	_
	0.00 0.40			0.00			rootlets.			
	0.30 - 0.40			0.30			Medium brown fine, sub angula	and light grey mottled CLAY with ar ironstone gravel.	n rare	
				0.50		<u> </u>	Stiff light grey a	and yellow brown mottled CLAY.		
						E	-			
							-			
						⊨ <u> </u>	-			1 -
						E	-			
						<u> </u>	-			
										_
				1.60			Black silty peat	y CLAY with common organic inc	clusions.	-
				1.80						
				1.00		$x \xrightarrow{\times} x$	Stiff bluey grey	sandy clayey SILT/silty clay		-
										2 -
										-
							- -			-
							< -			-
										-
										-
							<			
										3 -
				3.20				End of Pit at 3.200m		
										-
										-
										4 -
										-
										-
										5 —
D = sma J = orga V = vola B = bulk HSV = t PP = pc	small disturbed sample (tub) organic sample (amber glass jar) volatile sample (amber glass vial) bulk bag sample / = hand shear vane (kPa) = pocket penetrometer (kg.cm2) = photoionisation detector (ppm)						1	Remarks Rapid water ingress from 1.3mb	ıgl.	<u> </u>

	<b>Jom</b> nerebrook	Cromfo t +44 (*	rd Mills, Mill Lane, Ma 0) 1773 829 988 e cc merebrook.co AN idom GRO	atlock, Derl onsulting@ .uk idom.c	oyshire, Di merebroo com ∆NY	E4 3RQ k.co.uk	TRIAL PIT LOG	TrialPit N MTP9	No )
offic	ces London	Kent	Derby Ca	ar <u>diff Ma</u>	inchester	Stirling		Sheet 1 c	of 1
Project			hury 2		Project	i No.	Co-ords: 566034.00 - 176597.00	Date	
Name:					2075	52	Level:	06/06/20	17
Locatio	in:		Tilbury				Dimensions (m):	Scale	
Fauipr							Depth O	Logged	ł
Equipin					<del></del>		3.50	AS	
Water Strike	Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description		
Str. Str.	Depth 0.10 - 0.20	D	Results	(m) 0.30 1.20 1.50	(m)		Soft dark brown slightly gravelly sandy CLAY. Safine to coarse. Gravel is fine, well rounded flint.         Soft brown slightly sandy CLAY. Sand is fine to coarse. Water associated to this         PEAT. Soft brown silty SAND with wood fragment Sand is fine to coarse. Water associated to this         ALLUVIAL. Very soft turning soft grey CLAY with occasional peat lenses and wood fragments.         End of Pit at 3.500m	and is coarse.	
D = sma	all disturbed sample	(tub)		Stability			Remarks		5
J = orga V = vola B = bulk HSV = h PP = po PID = ph	nic sample (amber g tile sample (amber g bag sample and shear vane (kP cket penetrometer (k notoionisation detect								

APPENDIX 3 • Laboratory Certificates



Nathan Dellow Merebrook First Floor 1 Leonard Place Westerham Road Keston BR2 6HQ

**t:** 01689 889980

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e: ndellow@merebrook.co.uk

# Analytical Report Number : 17-51321

Project / Site name:	Tilbury 2, Tilbury	Samples received on:	12/06/2017
Your job number:	20752	Samples instructed on:	14/06/2017
Your order number:	17-S14-FDO-LABS	Analysis completed by:	21/06/2017
Report Issue Number:	1	Report issued on:	21/06/2017
Samples Analysed:	56 soil samples - 4 bulk samples		



Dr Claire Stone Quality Manager For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.





Croxley Green Business Park, Watford, Herts, WD18 8YS t: 01923 225404

7 Woodshots Meadow,

i2 Analytical Ltd.

**f:** 01923 225404 **f:** 01923 237404 **e:** reception@i2analytical.com





Lab Sample Number				765728	765729	765730	765731	765732
Sample Reference				MTP10	MTP11	MTP11	MTP12	MTP14
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.85-1.00	0.20-0.30	0.50-0.70	0.20-0.40	0.05-0.30
Date Sampled				05/06/2017	05/06/2017	05/06/2017	05/06/2017	06/06/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	-	Chrysotile & Amosite	-	Chrysotile & Amosite	-
Asbestos in Soil	Туре	N/A	ISO 17025	Not-detected	Detected	Not-detected	Detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	0.001	-	< 0.001	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	0.001	-	< 0.001	-





				765700	765704	765705	765706	765707
Lab Sample Number				/65/33	/65/34	/65/35	/65/36	/65/3/
Sample Reference				MTP8	MTP18	MTP19	MTP19	MTP21
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)				0.10-0.30	1.25-1.40	0.10-0.30	0.50-0.70	0.80-1.20
Date Sampled		06/06/2017	06/06/2017	06/06/2017	06/06/2017	06/06/2017		
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	-	Amosite	Chrysotile & Amosite	-	-
Asbestos in Soil	Туре	N/A	ISO 17025	Not-detected	Detected	Detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	< 0.001	< 0.001	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	< 0.001	< 0.001	-	-





Lab Canada Number				7(5720	7(5720	765740	765741	765740
Lab Sample Number				/05/38	/05/39	/65/40	/05/41	/05/42
Sample Reference		MTP23	MTP23	MTP25	MTP31	MTP36		
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10-0.50	1.20-1.30	0.10-0.20	0.10-0.40	0.20-0.40
Date Sampled				06/06/2017	06/06/2017	06/06/2017	07/06/2017	07/06/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Туре	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-





Lah Camala Number				765744	765746	765747	765740	765740
				703744	703740	/03/4/	703740	703749
Sample Reference		MTP35	MTP37	MTP39	MTP39	MTP40		
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	1.10-1.20	0.05-0.10	0.10-0.20	0.60-0.70	0.60-0.80			
Date Sampled				07/06/2017	07/06/2017	07/06/2017	07/06/2017	07/06/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	-	-	Chrysotile	-	Amosite
Asbestos in Soil	Туре	N/A	ISO 17025	Not-detected	Not-detected	Detected	Not-detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	< 0.001	-	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	< 0.001	-	< 0.001





Lab Sample Number				765750	765751	765752	765753	765754
Sample Reference				MTP41	MTP42	MTP42	MTP47	MTP47
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10-0.30	0.05-0.15	1.00-1.30	0.40-0.60	1.00-1.50
Date Sampled				07/06/2017	07/06/2017	07/06/2017	08/06/2017	08/06/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Accreditation Status (Soil Analysis)								
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	-	Chrysotile & Amosite	-	-	Chrysotile & Amosite
Asbestos in Soil	Туре	N/A	ISO 17025	Not-detected	Detected	Not-detected	Not-detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	0.001	-	-	0.026
Asbestos Quantification Total	%	0.001	ISO 17025	-	0.001	-	-	0.026





l ah Sample Number				765755	765756	765757	765758	765759
Sample Reference				MTP48	MTP48	MTP49	MTP49	MTP54
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)				0.00-0.05	0.25-0.50	0.05-0.15	1.10-1.20	0.10-0.20
Date Sampled				08/06/2017	08/06/2017	08/06/2017	08/06/2017	08/06/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	-	-	-	-	Chrysotile
Asbestos in Soil	Туре	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	< 0.001





Lab Sample Number		765760	765761	765762	765763	765764		
Sample Reference		MTP54	MTP56	MTP56	MTP55	MTP57		
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30-0.50	0.05-0.15	0.80-1.00	0.45-0.65	0.10-0.40
Date Sampled				08/06/2017	08/06/2017	08/06/2017	08/06/2017	08/06/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	Chrysotile	-	-	-	-
Asbestos in Soil	Туре	N/A	ISO 17025	Detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	0.004	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	0.004	-	-	-	-





I ah Sample Number				765766	765767	765768	765760	765770
Sample Reference				MTP57	MHP1	MHP3	MTP73	MTP75
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)				0.60-0.80	None Supplied	0.05	0.10-0.30	0.10-0.50
Date Sampled				08/06/2017	08/06/2017	08/06/2017	09/06/2017	09/06/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	-	-	-	Chrysotile & Amosite	Chrysotile & Amosite
Asbestos in Soil	Туре	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	< 0.001	0.069
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	< 0.001	0.069





Lab Cample Number				765771	765770	765772	765775	765776
Lab Sample Number				/65//1	/65//2	/65//3	/65//5	/65//6
Sample Reference		MTP72	MHP6	MHP8	MHP10	MHP10		
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)				0.00-0.20	0.00-0.40	0.10-0.40	0.10-0.20	0.30-0.50
Date Sampled				09/06/2017	09/06/2017	09/06/2017	09/06/2017	09/06/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	Chrysotile & Amosite	Amosite	Chrysotile & Amosite	Chrysotile & Amosite	Chrysotile & Amosite
Asbestos in Soil	Туре	N/A	ISO 17025	Detected	Detected	Detected	Detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	< 0.001	< 0.001	< 0.001	0.002	0.003
Asbestos Quantification Total	%	0.001	ISO 17025	< 0.001	< 0.001	< 0.001	0.002	0.003





Lab Canada Namekan				765777	765770	765770	765700	765701
Lab Sample Number				/65///	/65//8	/65//9	/65/80	/65/81
Sample Reference		MHP11	MHP13	MHP15	MHP15	MHP4		
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.05-0.20	0.10-0.30	0.05-0.20	0.40-0.50	0.00-0.40
Date Sampled				09/06/2017	09/06/2017	09/06/2017	09/06/2017	09/06/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	-	Amosite	Amosite	Chrysotile & Amosite	Chrysotile & Amosite
Asbestos in Soil	Туре	N/A	ISO 17025	Not-detected	Detected	Detected	Detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	< 0.001	< 0.001	< 0.001	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	-	< 0.001	< 0.001	< 0.001	< 0.001





Lab Sample Number				/65/82	/65/83	/65/84	/65/85	/65/86
Sample Reference				MHP5	MTP58	MTP58	MHP16	MTP6
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.40	0.80-0.90	0.30-0.40	0.00-0.50	0.10-0.20			
Date Sampled		09/06/2017	08/06/2017	08/06/2017	09/06/2017	05/06/2017		
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	Chrysotile	-	-	Amosite	-
Asbestos in Soil	Туре	N/A	ISO 17025	Detected	Not-detected	Not-detected	Detected	Not-detected
Asbestos Quantification (Stage 2) % 0.001 ISO 17025			0.002	-	-	< 0.001	-	
Asbestos Quantification Total	%	0.001	ISO 17025	0.002	-	-	< 0.001	-





					-	-	
Lab Sample Number				765787			
Sample Reference				MTP6			
Sample Number				None Supplied			
Depth (m)	0.40-0.50						
Date Sampled				05/06/2017			
Time Taken				None Supplied			
Analytical Parameter (Soil Analysis)							
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	-			
Asbestos in Soil	Туре	N/A	ISO 17025	Not-detected			
Asbestos Quantification (Stage 2) % 0.001 ISO 17025				-			
Asbestos Quantification Total	%	0.001	ISO 17025	-			





Analytical Report Number:17-51321Project / Site name:Tilbury 2, TilburyYour Order No:17-S14-FDO-LABS

# **Certificate of Analysis - Asbestos Quantification**

## **Methods:**

## **Qualitative Analysis**

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

## **Quantitative Analysis**

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
765729	MTP11	0.20-0.30	199	Loose Fibres	Chrysotile & Amosite	0.001	0.001
765731	MTP12	0.20-0.40	200	Loose Fibres & Sheeting/Board Debris	Chrysotile & Amosite	< 0.001	< 0.001
765734	MTP18	1.25-1.40	248	Loose Fibres	Amosite	< 0.001	< 0.001
765735	MTP19	0.10-0.30	185	Loose Fibres	Chrysotile & Amosite	< 0.001	< 0.001
765747	MTP39	0.10-0.20	195	Loose Fibres	Chrysotile	< 0.001	< 0.001
765749	MTP40	0.60-0.80	114	Loose Fibres Amosite		< 0.001	< 0.001
765751	MTP42	0.05-0.15	239	Sheeting/Board Debris	eting/Board Debris Chrysotile & Amosite		0.001
765754	MTP47	1.00-1.50	175	Loose Fibres & Loose Fibrous Debris	Fibres & Loose Fibrous Debris Chrysotile & Amosite		0.026
765759	MTP54	0.10-0.20	225	Loose Fibres	Chrysotile	< 0.001	< 0.001
765760	MTP54	0.30-0.50	274	Loose Fibres & Hard/Cement Type Material & Loose Fibrous Debris	Chrysotile	0.004	0.004
765769	MTP73	0.10-0.30	203	Loose Fibres	Chrysotile & Amosite	< 0.001	< 0.001
765770	MTP75	0.10-0.50	171	Loose Fibres & Hard/Cement Type Material	Chrysotile & Amosite	0.069	0.069
765771	MTP72	0.00-0.20	235	Loose Fibres	Chrysotile & Amosite	< 0.001	< 0.001
765772	MHP6	0.00-0.40	197	Loose Fibres	Amosite	< 0.001	< 0.001
765773	MHP8	0.10-0.40	203	Loose Fibres	Chrysotile & Amosite	< 0.001	< 0.001
765775	MHP10	0.10-0.20	165	Loose Fibres	Chrysotile & Amosite	0.002	0.002

Both Qualitative and Quantitative Analyses are UKAS accredited.

Iss No 17-51321-1 Tilbury 2, Tilbury 20752

This certificate should not be reproduced, except in full, without the express permission of the laboratory. The results included within the report are representative of the samples submitted for analysis.





Analytical Report Number:17-51321Project / Site name:Tilbury 2, TilburyYour Order No:17-S14-FDO-LABS

# **Certificate of Analysis - Asbestos Quantification**

## **Methods:**

## **Qualitative Analysis**

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

## **Quantitative Analysis**

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
765776	MHP10	0.30-0.50	127	Loose Fibres & Loose Fibrous Debris	Chrysotile & Amosite	0.003	0.003
765778	MHP13	0.10-0.30	238	Loose Fibres	Amosite	< 0.001	< 0.001
765779	MHP15	0.05-0.20	189	Loose Fibres	Amosite	< 0.001	< 0.001
765780	MHP15	0.40-0.50	274	Loose Fibres	Chrysotile & Amosite	< 0.001	< 0.001

Both Qualitative and Quantitative Analyses are UKAS accredited.





Analytical Report Number:17-51321Project / Site name:Tilbury 2, TilburyYour Order No:17-S14-FDO-LABS

# **Certificate of Analysis - Asbestos Quantification**

## **Methods:**

## **Qualitative Analysis**

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

## **Quantitative Analysis**

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
765781	MHP4	0.00-0.40	212	Loose Fibrous Debris & Loose Fibres	Chrysotile & Amosite	< 0.001	< 0.001
765782	MHP5	0.00-0.40	140	Loose Fibrous Debris	Chrysotile	0.002	0.002
765785	MHP16	0.00-0.50	173	Loose Fibres	Amosite	< 0.001	< 0.001

Both Qualitative and Quantitative Analyses are UKAS accredited.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.





Project / Site name: Tilbury 2, Tilbury

Lab Sample Number				765743	765745	765765	765774	
Sample Reference				SS1	SS2	MTP57	MHP8	
Sample Number			None Supplied	None Supplied	None Supplied	None Supplied		
Depth (m)			None Supplied	None Supplied	0.50	0.40		
Date Sampled			07/06/2017	07/06/2017	08/06/2017	09/06/2017		
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Bulk Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos Identification Name	Туре	N/A	ISO 17025	Chrysotile- Hard/Cement Type Material	Chrysotile- Hard/Cement Type Material	Chrysotile- Insulation board/tile	Chrysotile- Insulation Board/Tile	





Project / Site name: Tilbury 2, Tilbury

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in ouse method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom. For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland. Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.



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# Analytical Report Number : 17-51313

Project / Site name:	Tilbury 2, Tilbury	Samples received on:	13/06/2017
Your job number:	20752	Samples instructed on:	13/06/2017
Your order number:	17-S14-FDO-LABS	Analysis completed by:	21/06/2017
Report Issue Number:	1	Report issued on:	21/06/2017
Samples Analysed:	68 soil samples - 2 bulk samples		



Dr Irma Doyle Senior Account Manager For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	<ul> <li>4 weeks from reporting</li> </ul>
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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This certificate should not be reproduced, except in full, without the express permission of the laboratory. The results included within the report are representative of the samples submitted for analysis.



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Lab Sample Number				765612	765613	765614	765615	765616
Sample Reference				MTP1	MTP1	MTP1	MTP2	MTP2
Sample Number				BUND	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.20-0.10	1.00-1.10	2.70-2.80	0.10-0.20	0.70-0.80			
Date Sampled				05/06/2017	05/06/2017	05/06/2017	05/06/2017	05/06/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	Chrysotile	Chrysotile	Chrysotile	Chrysotile	Chrysotile & Amosite & Crocidolite
Asbestos in Soil	Туре	N/A	ISO 17025	Detected	Detected	Detected	Detected	Detected
Asbestos Quantification (Stage 2) % 0.001 ISO 17025				0.002	< 0.001	< 0.001	< 0.001	0.005
Asbestos Quantification Total	%	0.001	ISO 17025	0.002	< 0.001	< 0.001	< 0.001	0.005





Lab Sample Number				765617	765619	765610	765620	765621
Cab Sample Number				703017 MTD3	703018 MTD4	703019 MTD4	703020 MTD5	703021 MTD7
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Denth (m)	0 40-0 50	0 10-0 20	1 10-1 30	0 40-0 50	0 20-0 30			
Date Sampled	05/06/2017	05/06/2017	05/06/2017	06/06/2017	06/06/2017			
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	-	Chrysotile & Amosite	-	Chrysotile	-
Asbestos in Soil	Туре	N/A	ISO 17025	Not-detected	Detected	Not-detected	Detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	0.002	-	< 0.001	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	0.002	-	< 0.001	-





Lab Sample Number		765622	765622	765624	765625	765626		
				703022	703023	703024	703023	703020
Sample Reference				MIP/	MTP9	MIP13	MIP15	MIPID
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.30-1.40	0.10-0.20	0.50-0.60	0.40-0.50	0.10-0.20			
Date Sampled				06/06/2017	06/06/2017	06/06/2017	06/06/2017	06/06/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Accreditation Analytical Parameter (Soil Analysis)								
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Туре	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	-	-	-	-	-			
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-





I ab Sample Number				765627	765628	765629	765630	765631
Sample Reference				MTP17	MTP20	MTP20	MTP22	MTP24
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20-0.30	0.30-0.40	0.80-0.90	0.80-0.90	0.30-0.40
Date Sampled				06/06/2017	06/06/2017	06/06/2017	06/06/2017	06/06/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	Amosite, Crocidolite	-	-	-	-
Asbestos in Soil	Туре	N/A	ISO 17025	Detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	< 0.001	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	< 0.001	-	-	-	-




Lab Sample Number				765632	765633	765634	765635	765636
Sample Reference				MTP26	MTP26	MTP27	MTP27	MTP28
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.20-0.30	1.20-1.30	0.10-0.20	0.30-0.40	0.20-0.30			
Date Sampled		07/06/2017	07/06/2017	07/06/2017	07/06/2017	07/06/2017		
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)								
Asbestos in Soil Screen / Identification Name	-	-	-	-	Chrysotile & Crocidolite			
Asbestos in Soil Type N/A ISO 17025				Not-detected	Not-detected	Not-detected	Not-detected	Detected
Asbestos Quantification (Stage 2) % 0.001 ISO 1702			ISO 17025	-	-	-	-	0.008
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	0.008





I ah Sample Number				765637	765638	765639	765640	765641
Sample Reference				MTP29	MTP30	MTP31	MTP32	MTP32
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.10-0.20	0.30-0.40	1.20-1.30	0.20-0.30	0.50-0.60			
Date Sampled				07/06/2017	07/06/2017	07/06/2017	07/06/2017	07/06/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)								
Asbestos in Soil Screen / Identification Name	-	-	-	-	-			
Asbestos in Soil Type N/A ISO 1702				Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2) % 0.001 ISO 1702			ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-





I ah Sample Number				765642	765643	765644	765645	765646
Sample Reference				MTP33	MTP34	MTP38	MTP38	MTP43
Sample Number				None Supplied	None Supplied	BUND	None Supplied	None Supplied
Depth (m)		0.60-0.80	0.60-0.80	0.50-0.40	1.40-1.50	1.00-1.10		
Date Sampled		07/06/2017	07/06/2017	07/06/2017	07/06/2017	08/06/2017		
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)								
Asbestos in Soil Screen / Identification Name	-	-	-	-	-			
Asbestos in Soil Type N/A ISO 1702				Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2) % 0.001 ISO 1702			ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-





I ah Sample Number				765647	765648	765640	765650	765651
Sample Reference				MTP44	MTP45	MTP46	MTP50	MTP50
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80-0.90	0.20-0.30	0.50-0.60	0.20-0.30	0.90-1.00
Date Sampled		08/06/2017	08/06/2017	08/06/2017	08/06/2017	08/06/2017		
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Asbestos in Soil Screen / Identification Name Type N/A ISO 17025				-	Chrysotile & Amosite	Amosite & Crocidolite	-	-
Asbestos in Soil Type N/A ISO 1702			ISO 17025	Not-detected	Detected	Detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2) % 0.001 ISO 1702			ISO 17025	-	0.001	0.004	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	0.001	0.004	-	-





Lab Sample Number				765652	765653	765654	765655	765656
Sample Reference				MTP51	MTP51	MTP52	MTP53	MTP59
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)		0.80-0.90	1.30-1.40	0.90-1.00	0.80-0.90	0.00-0.15		
Date Sampled		08/06/2017	08/06/2017	08/06/2017	08/06/2017	08/06/2017		
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)								
Asbestos in Soil Screen / Identification Name Type N/A ISO 17025				-	Amosite	-	-	Amosite
Asbestos in Soil Type N/A ISO 1702			ISO 17025	Not-detected	Detected	Not-detected	Not-detected	Detected
Asbestos Quantification (Stage 2) % 0.001 ISO 17025			ISO 17025	-	< 0.001	-	-	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	-	< 0.001	-	-	< 0.001





I ah Sample Number				765657	765658	765659	765660	765661
Sample Reference				MTP59	MTP59	MTP60	MTP61	MTP62
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.20-1.40	1.85-2.00	0.30-0.40	0.50-0.60	0.05-0.15			
Date Sampled				08/06/2017	08/06/2017	09/06/2017	09/06/2017	09/06/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)								
Asbestos in Soil Screen / Identification Name Type N/A ISO 17025				-	-	-	Chrysotile & Amosite	Chrysotile
Asbestos in Soil Type N/A ISO 1702			ISO 17025	Not-detected	Not-detected	Not-detected	Detected	Detected
Asbestos Quantification (Stage 2) % 0.001 ISO 1702			ISO 17025	-	-	-	< 0.001	0.003
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	< 0.001	0.003





I ah Sample Number				765662	765663	765664	765665	765666
Sample Reference				MTP63	MTP64	MTP65	MTP65	MTP65
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)		0.10-0.20	0.90-1.00	0.10-0.20	0.40-0.50	0.70-0.80		
Date Sampled		09/06/2017	09/06/2017	09/06/2017	09/06/2017	09/06/2017		
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)								
Asbestos in Soil Screen / Identification Name	-	-	-	-	-			
Asbestos in Soil Type N/A ISO 1702				Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2) % 0.001 ISO 1702			ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-





Lab Sample Number				765667	765669	765660	765670	765671
Lab Sample Number				703007 MTD66	703008 MTD67P	703009 MTD67P	703070 MTD69	703071 MTD69
Sample Reference				None Supplied	Mono Supplied	Nono Supplied	None Supplied	Nono Supplied
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)		0.60-0.70	0.20-0.30	0.65-0.75	0.10-0.20	0.80-0.90		
Date Sampled		09/06/2017	09/06/2017	09/06/2017	09/06/2017	09/06/2017		
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)								
Asbestos in Soil Screen / Identification Name	-	Chrysotile	Amosite	-	-			
Asbestos in Soil Type N/A ISO 1702				Not-detected	Detected	Detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2) % 0.001 ISO 1702			ISO 17025	-	< 0.001	< 0.001	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	< 0.001	< 0.001	-	-





I ah Sample Number				765672	765673	765674	765675	765676
Sample Reference				MTP69	MTP70	MTP70	MHP2	MHP2
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)		0.20-0.30	0.30-0.40	0.70-0.80	0.05-0.15	0.15-0.25		
Date Sampled		09/06/2017	09/06/2017	09/06/2017	08/06/2017	08/06/2017		
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)								
Asbestos in Soil Screen / Identification Name	-	Amosite & Chrysotile	-	Chrysotile	Amosite			
Asbestos in Soil Type N/A ISO 1702			ISO 17025	Not-detected	Detected	Not-detected	Detected	Detected
Asbestos Quantification (Stage 2) % 0.001 ISO 1702			ISO 17025	-	0.004	-	< 0.001	0.003
Asbestos Quantification Total	%	0.001	ISO 17025	-	0.004	-	< 0.001	0.003





Lab Sample Number				765677	765678	765679	
Sample Reference				MHP12	MHP14	ACM MTP1	
Sample Number				None Supplied	None Supplied	None Supplied	
Depth (m)		0.20-0.30	0.00-0.20	None Supplied			
Date Sampled				09/06/2017	09/06/2017	05/06/2017	
Time Taken				None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)							
Asbestos in Soil Screen / Identification Name	ISO 17025	-	-	-			
Asbestos in Soil	ISO 17025	Not-detected	Not-detected	Not-detected			
Asbestos Quantification (Stage 2)	ISO 17025	-	-	-			
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	





Analytical Report Number:17-51313Project / Site name:Tilbury 2, TilburyYour Order No:17-S14-FDO-LABS

# **Certificate of Analysis - Asbestos Quantification**

### **Methods:**

### **Qualitative Analysis**

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

### **Quantitative Analysis**

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
765612	MTP1	0.20-0.10	229	Loose Fibres	Chrysotile	0.002	0.002
765613	MTP1	1.00-1.10	208	Loose Fibres	Chrysotile	< 0.001	< 0.001
765614	MTP1	2.70-2.80	151	Loose Fibres	Chrysotile	< 0.001	< 0.001
765615	MTP2	0.10-0.20	169	Loose Fibres	Chrysotile	< 0.001	< 0.001
765616	MTP2	0.70-0.80	238	Loose Fibres & Hard/Cement Type Material	Chrysotile & Amosite & Crocidolite	0.005	0.005
765618	MTP4	0.10-0.20	166	Loose Fibres & Hard/Cement Type Material	Chrysotile & Amosite	0.002	0.002
765620	MTP5	0.40-0.50	133	Loose Fibres	Chrysotile	< 0.001	< 0.001
765627	MTP17	0.20-0.30	222	Loose fibres	Amosite, Crocidolite	< 0.001	< 0.001
765636	MTP28	0.20-0.30	161	Loose Fibrous Debris	Chrysotile & Crocidolite	0.008	0.008
765648	MTP45	0.20-0.30	154	Loose Fibres & Hard/Cement Type Material	Chrysotile & Amosite	0.001	0.001
765649	MTP46	0.50-0.60	145	Loose Fibres	Amosite & Crocidolite	0.004	0.004
765653	MTP51	1.30-1.40	137	Loose Fibrous Debris	Amosite	< 0.001	< 0.001
765656	MTP59	0.00-0.15	157	Loose Fibres	Amosite	< 0.001	< 0.001
765660	MTP61	0.50-0.60	188	Loose Fibres	Chrysotile & Amosite	< 0.001	< 0.001
765661	MTP62	0.05-0.15	129	Loose Fibrous Debris	Chrysotile	0.003	0.003
765668	MTP67B	0.20-0.30	141	Loose fibres	Chrysotile	< 0.001	< 0.001
765669	MTP67B	0.65-0.75	156	Loose Fibres	Amosite	< 0.001	< 0.001
765673	MTP70	0.30-0.40	202	Loose Fibrous Debris & Sheeting/Board Debris	Amosite & Chrysotile	0.004	0.004

Both Qualitative and Quantitative Analyses are UKAS accredited.

Iss No 17-51313-1 Tilbury 2, Tilbury 20752

This certificate should not be reproduced, except in full, without the express permission of the laboratory. The results included within the report are representative of the samples submitted for analysis.





Analytical Report Number:17-51313Project / Site name:Tilbury 2, TilburyYour Order No:17-S14-FDO-LABS

# **Certificate of Analysis - Asbestos Quantification**

### **Methods:**

### **Qualitative Analysis**

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

### **Quantitative Analysis**

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
765675	MHP2	0.05-0.15	151	Sheeting/Board Debris	Chrysotile	< 0.001	< 0.001
765676	MHP2	0.15-0.25	157	Hard/Cement Type Material	Amosite	0.003	0.003

Both Qualitative and Quantitative Analyses are UKAS accredited.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.





#### Project / Site name: Tilbury 2, Tilbury

Lab Sample Number		765680	765681				
Sample Reference				ACM MTP29	ACM MTP40		
Sample Number				None Supplied	None Supplied		
Depth (m)				None Supplied	None Supplied		
Date Sampled				07/06/2017	09/06/2017		
Time Taken				None Supplied	None Supplied		
Analytical Parameter (Bulk Analysis)	Units	Limit of detection	Accreditation Status				
Asbestos Identification Name	Туре	N/A	ISO 17025	Hard/Cement Type Material- Chrysotile & Crocidolite	Hard/Cement Type Material- Chrysotile		





Project / Site name: Tilbury 2, Tilbury

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in ouse method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom. For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland. Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

APPENDIX 4 • Reassurance Air Monitoring Certificates





	JOB DETAILS	3	
Lab reference:	Date:	Issue Number:	Page:
J031070/BC01	9 Jun 2017	2	1 of 3

# JOB DETAILS

Client: Idom Merebrook Ltd	Contractor: Idom Merebrook Ltd			
Site Address: Tilbury Power Station Fort Road Tilbury	Location of Works: Excavation Area.			
Essex RM18 8UJ	Name and job title: Alejandro sanchez - Surveyor.			
Nature of testing: Personal air monitoring during the sampling of soil from excavation	ıs.			
Nature of works: Personal ran during taking samples of soil from different depths us	ing trowls and pots.			
Summary:				
Result satisfactory < 0.07 f/ml.				
Analyst: Daniel Gold	Signature:			
Comments read and agreed by: Nathan Dellow.	Signature:			



DETERMINATION OF AIRBORNE FIBRE CONCENTRATION								
Lab reference:	Date:	Issue Number:	Page:					
J031070/BC01	9 Jun 2017	2	2 of 3					

Time on sit	e:		07:45	5	Fibre counting location:			Site	As per 'HSG248' and our in House procedures P006, P009 & P022				, P009 & P022
Temperatur	re ( ^o C):		17.9		Pressur	e (MB):		1018	The current control limit for the most common airborne asbestos fibres is 0.1 fibres/m			res is 0.1 fibres/ml of air mallowed exposure. At all	
Microscope	centred:		YES		NPL Tes	st slide band §	5/6:	YES	times the concentration of fibres in the atmosphere must be kept as low as reas and for clearance purposes following completion of asbestos removal works a cc			al works a concentration of	
Eyepiece gr	raticule (µm	ı):	100		Expose	d filter diamet	ter (mm):	22.0	less than 0.01 fibre/ml should be achieved. Vintec is a participant in R.I.C.E with current satisfactory classification. Any comments, opinions, or interpretations expressed herein			R.I.C.E with current ons expressed herein are	
Field blank	ield blank taken: NO Field bla			ank counted:		NO	<ul> <li>outside the scope of our UKAS accreditation (accreditation number 1249), and ar comments only whose accuracy we do not guarantee and which should be verified</li> </ul>			1249), and are subjective uld be verified by the client.			
Name and j	ob title: Ale	jandro sanc	:hez - Sı	urveyor.									
Field	Pump No.	Head No.		Start		End	Mean Flow	Total Test Duration	1 Total Volume	Fibres	Fields	Limit of	Fibre Concentration
Reference			Time	Flow (litres/min)	Time	Flow (litres/min)	(litres/min)	(mins)	(litres)			Quantification	(fibres/ml)
BC000475	079	DG05	11:05	2.00	12:11	2.00	2.00	66	132	7	100	0.073	< 0.073
	Test ran du	uring survey	ing the	ground.									

Analyst: Daniel Gold

Signature:





SITE PHOTOGRAPHS							
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Photograph No.177577 – Personal - Alejandro Sanchez.





JOB DETAILS							
Lab reference:	Date:	Issue Number:	Page:				
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# JOB DETAILS

Client:	Contractor:				
Idom Merebrook Ltd	Idom Merebrook Ltd				
Site Address:	Location of Works:				
Tilbury Power Station	Excavation trial pits.				
Fort Road					
Tilbury					
	Name and job title: Nathan Dellow - Surveyor.				
Nature of testing:					
Personal air monitoring during excavations/trial pits.					
Nature of works:					
Test ran on surveyor during the taking of soil samples from trial pit	S.				
Summary:					
Result saisfactory < 0.07 f/ml.					
Analyst:	Signature:				
Daniel Gold					
Comments read and agreed by:	Signature:				
Nathan Dellow.					



	DETERMINATION OF AIRBORNE FIBRE CONCENTRATION								
L	.ab reference:	Date:	Issue Number:	Page:					
	J031070/BC03	09 Jun 2017	1	2 of 3					

Time on sit	e:		07:45	07:45		ounting location	on:	MT65AVR	As per 'HSG248' and our in House procedures P006, P009 & P022				, P009 & P022
Temperatu	re ( ^o C):		19.2		Pressur	re (MB):		1019	The current control limi	t for the mo	ost commo	n airborne asbestos fib urs This is the maximu	res is 0.1 fibres/ml of air m allowed exposure At all
Microscope centred: YES			NPL Test slide band 5		5/6:	YES	times the concentration of fibres in the atmosphere must be kept as low as reasonably practic: and for clearance purposes following completion of asbestos removal works a concentration of				low as reasonably practicable al works a concentration of		
Eyepiece g	raticule (µm	ı):	100		Expose	d filter diamet	ter (mm):	22.0	less than 0.01 fibre/ml should be achieved. Vintec is a participant in R.I.C.E w satisfactory classification. Any comments, opinions, or interpretations expr		R.I.C.E with current ons expressed herein are		
Field blank	Field blank taken: NO			Field blank counted:			NO	outside the scope of ou comments only whose a	outside the scope of our UKAS accreditation (accreditation number 1249), and are subjective comments only whose accuracy we do not guarantee and which should be verified by the client.				
Name and	job title: Na	than Dellow	· - Surve	eyor.				•					
Field	Pump No.	Head No.		Start		End	Mean Flow	Total Test Duration	n Total Volume	Fibres	Fields	Limit of	Fibre Concentration
Reference			Time	Flow (litres/min)	Time	Flow (litres/min)	(litres/min)	(mins)	(litres)			Quantification	(fibres/ml)
BC000476	079	DG01	13:24	2.00	14:35	2.00	2.00	71	142	5	100	0.068	< 0.068
	Test ran d	uring soil sa	mpling										
∆nalvst∙				Signature									

Analyst:	Signature:	
Daniel Gold		



SITE PHOTOGRAPHS					
Lab reference:	Date:	Page:			
J031070/BC03	09 Jun 2017	3 of 3			

No photographic evidence	Photograph No. –
	Personal - Nathan Dellow.





JOB DETAILS				
Lab reference:	Date:	Issue Number:	Page:	
J031070/BC02	09 Jun 2017	1	1 of 5	

# JOB DETAILS

Client: Idom Merebrook Ltd	Contractor: Idom Merebrook Ltd
Site Address: Tilbury Power Station Fort Road Tilbury Essex RM18 8UJ	Location of Works: Excavation Areas.
Nature of Works: Reassurance air monitoring down - wind and in close proximity to t	rial excavations during a land survey,
COMMENTS:	
All tests satisfactory <0.01 fibre/ml.	
Analyst: Daniel Gold	Signature:
Comments read and agreed by: Nathan Dellow.	Signature:



	DETERMINATION OF AIRBORNE FIBRE CONCENTRATION						
Lat	o reference:	Date:	Issue Number:	Page:			
	J031070/BC02	09 Jun 2017	1	2 of 5			

Time or	n site:				07:45		Fibre counting location:				Ν	/IT65AVR		
Temper	ature ( ^o C	):			14.5	Pressure (MB):					1	019		
Microso	ope cent	red:		,	YES		NPL Test	slide band 5/	/6:				Y	'ES
Eyepied	ece graticule (μm): 100 Exposed filter diameter (mm):					2	2.0							
Field bla	ank taker	1:	YES Field blank counted:				٢	10						
Pump No.	Head No.	Field Reference	Sample Location	Time	Start Flow (litres/min)	Time	End Flow (litres/min)	Mean Flow (litres/min)	Total Test Duration (mins)	Total Volume (litres)	Fibres	Fields	Limit of Quantificatio	Fibre Concentration (fibres/ml)
055	DG01	BC000471	Adj to CCTV mast.	08:53	5.0	10:40	5.0	5.00	107	535	2	200	0.01	< 0.01
056	DG02	BC000472	Adj to the waste skip.	09:00	5.0	10:44	5.0	5.00	104	520	2.5	200	0.01	< 0.01
121	DG03	BC000473	Adj to the office complex.	09:08	5.0	10:46	5.0	5.00	98	490	2	200	0.01	< 0.01
122	DG04	BC000474	Adj to lamp post/road to power station.	09:11	5.0	10:49	5.0	5.00	98	490	5	200	0.01	< 0.01
121	DG02	BC000477	Adj to Car store hardstanding entrance.	13:20	8.0	14:20	8.0	8.00	60	480	3	200	0.01	< 0.01
122	DG03	BC000478	Adj to utility excavation.	13:22	8.0	14:22	8.0	8.00	60	480	5	200	0.01	< 0.01
N/A	DG09	BC000479	Field Blank	N/A	N/A	N/A	N/A	N/A	N/A	N/A			Field Blank	

As per 'HSG248' and our in House procedures P006, P009 & P022

The current control limit for the most common airborne asbestos fibres is 0.1 fibres/ml of air averaged over a continuous period of four hours. This is the maximum allowed exposure. At all times the concentration of fibres in the atmosphere must be kept as low as reasonably practicable and for clearance purposes following completion of asbestos removal works a concentration of less than 0.01 fibre/ml should be achieved. Vintec is a participant in R.I.C.E with current satisfactory classification. Any comments, opinions, or interpretations expressed herein are outside the scope of our UKAS accreditation (accreditation number 1249), and are subjective comments only whose accuracy we do not guarantee and which should be verified by the client.

Analyst: Daniel Gold	Signature:	
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SITE PLAN				
Lab reference:	Date:	Issue Number:	Page:	
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SITE PHOTOGRAPHS				
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No photographic evidence

Photograph No. – Test location - CCTV mast.



Photograph No.440 – Test location - Office Complex.



SITE PHOTOGRAPHS				
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1249

Photograph No.441 – Test location - Lamp Post.



# Photograph No.445 – Test location - Car storeage entrance.



Photograph No.444 – Test location - Utillity Excavation.



# AN ICOM GROUP COMPANY

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