Environmental and Earthworks Material Suitability Assessment Report

For Hammond Rutts Investments Limited

Delta-Simons Project No. 15-0210.02 V2

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EXECUTIVE SUMMARY STATEMENT

ENVIRONMENTAL AND EARTHWORKS MATERIAL SUITABILITY ASSESSMENT

REPORT

LAND AT HAVERHILL BUSINESS PARK, HAVERHILL

DELTA-SIMONS PROJECT NO. 15-0210.02 V2

Context and Purpose	Delta-Simons Environmental Consultants Limited was instructed by Hammond Rutts Investments, to undertake an Environmental and Earthworks Material Suitability Assessment at land located at Haverhill Business Park, Haverhill, CB9 7AA. The Site investigation has been carried out in order to assess the contamination and geotechnical status of Site won stockpiled material for re-use as engineered fill to form development platforms, or for off-Site disposal should this be considered.
Current Site Status	The Site consists of six undeveloped irregular parcels of land (NE1, NE2, SE1, SE2, SW1, NW1 and NW2) that currently hold large amounts of earthworks fill placed in stockpiles across the Site. The Site forms part of the wider Haverhill Business Park that consists of a mixture of a hotel and light industrial or commercial properties adjacent to the north, east and west. To the south of the Site are residential properties, a farm and undeveloped agricultural land. Residential properties are also present close to the north of the eastern extent of the Site along Bumpstead Road.
Environmental Setting	The environmental sensitivity of the Site setting was considered to be low, as the surrounding area is of a mixed commercial/industrial, residential and undeveloped use, the underlying geology is predominantly classified as Unproductive Strata over a Principal Aquifer, and with surface water drains located on Site.
Site Investigation	The ground investigation undertaken by Delta-Simons comprised: Δ Drilling of eight rotary auger holes (RA101 to RA108) to a maximum depth of 11.45 m below ground level (m bgl) with in-situ Standard Penetration Testing (SPTs); Δ Excavation of forty trial pits (TP101 to TP140) to a maximum depth of 3.90 m bgl; Δ Collection of disturbed soil samples from all intrusive locations for subsequent laboratory testing; and Δ Two rounds of gas and groundwater level monitoring.
Ground Conditions	In general, ground conditions comprised significant stockpiled reworked natural fill (where present - firm to very stiff brown clay with varying fractions of sand and gravel) overlying natural strata comprising the Lowestoft Formation (firm to very stiff brown clay with varying fractions of sand and gravel. Weathered Chalk Formation (cream slightly gravelly sandy silt) was encountered below this. Resting groundwater levels were recorded between 2.97 m and 8.38 m bgl, considered representative of perched water collecting in the boreholes and not of a consistent groundwater body.
Environmental Findings	The chemical analysis undertaken on selected soil and groundwater samples did not identify any elevated concentrations of contamination in the tested locations. Limited ground gas monitoring indicated elevated concentrations of carbon dioxide and methane resulting in a Characterisation Situation 2 (CS2) classification.

Environmental Recommendations	No significantly elevated concentrations of targeted contaminants above the respective screening criteria have been identified in soils collected from across the Site, and as such Site won soils are considered suitable for the proposed commercial/ industrial end use. It is recommended that plot specific ground gas monitoring and assessment is undertaken once earthworks are completed to confirm the CS2 classification. Additional, unidentified localised areas of contamination may exist at the Site and an appropriate 'hotspot' protocol should be in place for groundworkers to act upon should such contamination be identified during the earthworks process. Elevated costs above standard inert rates (non-hazardous) should be anticipated for disposal of engineering arisings from the Made Ground (material that does not comprise reworked natural fill) to include landfill tax, currently at a rate of £82.60/tonne. Additional waste classification testing (including WAC testing) may be required to facilitate off-Site disposal. Should there be a requirement for disposal off-Site it is recommended natural inert materials (or reworked natural fill) are removed and Made Ground soils retained as no significant risks have been identified with regards to human health should these remain; and It is recommended that Material Management Plan is produced in accordance with the Development Industry Code of Practice to enable earthworks materials movements to be undertaken without being classified as waste or requiring regulation through the Environment Agency.
Geotechnical Recommendations	The shallow Lowestoft Formation (stiff brown clay), if encountered within economic reach below proposed earthworks platforms, is likely to provide suitable bearing capacities for the shallow foundations. Where floor slabs are wholly founded on natural strata, then ground bearing floor slabs are likely to be suitable, depending on final proposed loads. Where floor slabs are partially or wholly founded in areas of earthworks fill, it is recommended that a ground improvement or stabilisation solution (if appropriate) be adopted to support a ground bearing slab. Alternatively a suspended floor slab could be adopted. Significant groundwater would not be anticipated during excavations required to form development platforms. The conditions of the shallow soils at the Site would be classified as Design Sulphate Class DS-2 and ACEC Class AC1s (assuming static groundwater in non-pyritic soils). Site won stockpiled fill and natural soils (predominantly classified as Class 2A/2B) are likely to be suitable in their current condition for incorporation as earthworks fill, a specification for reuse of these soils will need to be prepared by a suitably qualified geotechnical engineer to ensure that the materials are placed and compacted to an engineering specification and that the subsequent platform is suitable for development.
Risk Statements	
Regulatory Body Enforcement under Part 2A or Water Resources Act	There is considered to be a Low risk of enforcement action under Part 2A or WRA.
Third Party Liability	Potential for legal action by surrounding landowners based on the potential for contamination to migrate off-Site is considered to be Low.
Development Impact	Delta-Simons considers there to be a Low risk of impact associated with redevelopment of the Site with respect to significant contamination issues.
Overall Statement of Risk	On the basis of available information, Delta-Simons considers that with regard to potential soil and groundwater contamination issues and associated environmental liabilities, the Site represents a Low overall risk status.
This Executive Summary is intended as a summary of the Assessment of the Site based on information received by Delta-Simons at the time of production.	

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1.0 INTRODUCTION

1.1 Authorisation

Delta-Simons Environmental Consultants Limited ('Delta-Simons') was instructed by Hammond Rutts Investments Limited (the 'Client'), to undertake an Environmental and Earthworks Material Suitability Assessment at land located at Haverhill Business Park, Haverhill, CB9 7AA (hereafter referred to as the 'Site').

1.2 Context and Purpose

The Site comprises undeveloped plots of land situated within the wider Haverhill Business Park. Stockpiles of material are present across many of the plots which it is understood have arisen as a result of earthworks completed to form adjacent development platforms.

It is understood that the Client is to develop the Site for commercial and industrial end uses. There is likely to be a requirement for a programme of earthworks in order to prepare development platforms, which may include off-Site disposal of a quantity stockpiled soils, depending of final platform levels.

The Site investigation has been carried out in order to assess the contamination and geotechnical status of Site won stockpiled material for re-use as engineered fill to form development platforms, or for offsite disposal should this be considered.

This investigation has been completed in general accordance with BS5930:1999 +A2:2010, Code of Practice for Site Investigations. This Report has been produced in accordance with the current relevant guidance and best practice as set out within British Standard BS10175, Contaminated Land Report 11 and the National Planning Policy Framework (NPPF).

This Report comprises data obtained from the Delta-Simons Phase I Environmental Assessment (reference 15-0210.01_E, dated March 2015), and an intrusive Site investigation. The scope of works was specified in Delta-Simons proposal dated 1st June 2015.

1.3 Limitations to Site Investigation

Although reference may be made to archaeological and ecological issues, or the potential presence of asbestos containing materials (ACMs) and invasive weeds, this Assessment does not constitute an archaeological or ecological assessment, nor does it constitute an asbestos inspection or invasive weeds survey.

This document provides an assessment of the potential and actual contamination of the ground below the Site based upon the available information and in the context of the scope of works undertaken during this investigation. It does not provide a flood risk assessment, as such, any comments relating to such matters are for information only.

During the preparation of this Assessment, Delta-Simons reviewed and evaluated information provided by the Client, Groundsure, Chemtest Ltd, Professional Soils Laboratory Ltd and others. Delta-Simons' conclusions, opinions and recommendations are based upon this information. Delta-Simons does not warrant the accuracy of the information provided to it and will not be responsible for any opinions which Delta-Simons has expressed, or conclusions which it has reached in reliance upon information which is subsequently proven to be inaccurate.

The recommendations contained in this assessment represent our professional opinions. These opinions were arrived at in accordance with currently accepted industry practices and hydrological and engineering practices at this time and location and, as such, are not a guarantee that the Site is free of hazardous or potentially hazardous materials or conditions.

This assessment was prepared by Delta-Simons for our Client. Any third party using this assessment does so entirely at their own risk. Delta-Simons makes no warranty or representation whatsoever, express or implied, with respect to the use by a third party of any information contained in this assessment or its suitability for any purpose. Delta-Simons assumes no responsibility for any costs, claims, damages or expenses (including any consequential damages) resulting from the use of this assessment or any information contained in this assessment by a third party, with the exception of those named on the cover.

2.0 ENVIRONMENTAL SETTING

2.1 Desk Top Review

A summary of the Delta-Simons Phase I Environmental Assessment is provided in the table below:

Table 1 – Desk Top Data from Phase I

Current Site & Surrounding Area	The National Grid reference for the Site is 567800, 244200. A location map of the Site is provided as Figure 1. The Site consists of six undeveloped irregular parcels of land (NE1, NE2, SE1, SE1, SW1, NW1 and NW2) that currently hold large amounts of earthworks fill placed in stockpiles across the Site. The Site forms part of the wider Haverhill Business Park that consists of a mixture of a hotel and light industrial or commercial properties adjacent to the north, east and west. To the south of the Site are residential properties, a farm and undeveloped agricultural land. Residential properties are also present close to the north of the eastern extent of the Site along Bumpstead Road.
Geology	From current BGS online data, the Site is underlain by superficial deposits of sand and gravel of the Lowestoft Formation in the north of the Site. The Lowestoft Formation (Diamicton) is indicated in the rest of the Site. The bedrock geology comprises undifferentiated Lewes Nodular Chalk Formation And Seaford Chalk Formation (Chalk). The superficial Lowestoft sand and gravel deposits mapped to the north of the Site are classified as being Secondary A Aquifer, and the Diamicton deposits in the south of the Site are classified as being Unproductive Strata. The bedrock is classified as Principal Aquifer.
Hydrogeology	The superficial Lowestoft sand and gravel deposits to the north of the Site are classified as being Secondary A Aquifer, and the Diamicton deposits in the south of the Site are classified as being Unproductive Strata. The bedrock is classified as Principal Aquifer. A Source Protection Zone (SPZ), Total catchment (Zone 3) encroaches just inside the south east boundary.
Environmental Setting	The environmental sensitivity of the Site setting was considered to be low, as the surrounding area is of a mixed commercial/industrial, residential and undeveloped use, the underlying geology is predominantly classified as *Unproductive Strata* over a *Principal Aquifer*, and with surface water drains located on Site.
Historical Land Use	The Site appears to have been historically undeveloped, however, a railway was located along the southern Site boundary between circa 1877 and 1952. Potential sources of contamination were identified within the surrounding area (100 metres) have included: a railway line, factories and works.
Third Party Information	Two previous intrusive investigations were undertaken by Scott Wilson in November 2009 (Draft) and Geotechnics September 2006, which concluded that no significant ground contamination was encountered. A detailed review of these reports is presented in the Phase I Environmental Assessment.

Preliminary Conceptual Site Model	Delta-Simons has completed a source-pathway-receptor risk assessment as part of the Phase I Environmental Assessment. A potential source of contamination has been identified adjacent to the Site associated with the industrial estate that borders the Site to the north-west. During recent intrusive investigation undertaken by third Parties, significant contamination was not identified. Given the proposed future light industrial use of the Site that will be predominantly covered in buildings and hardstanding, the risk of pollutant linkages to exist in relation to soil and groundwater contamination was considered to be low.

3.0 SITE INVESTIGATION

3.1 Ground Investigation

The fieldwork was undertaken between the 15th and 22nd June 2015, and comprised the following items:

- Supervision of all works by a Delta-Simons geo-environmental engineer. All trial pits and boreholes were logged to BS5930:1999 +A2:2010, Code of Practice for Site Investigations;
- Service avoidance exercise;
- Drilling of eight Rotary Auger holes (RA101 to RA108) to a maximum depth of 11.45 m below ground level (bgl);
- Excavation of 40 trial pits (TP101 to TP140) to a maximum depth of 3.90 m bgl;
- Installation of eight 50 mm internal diameter groundwater monitoring wells;
- Standard penetration tests at regular intervals in the rotary auger boreholes;
- Hand shear vane tests in trial pits;
- Collection of disturbed and undisturbed soil samples from selected locations for subsequent laboratory testing; and
- Two rounds of gas and groundwater level monitoring.

3.2 Ground Investigation Factual Data

An intrusive location plan is presented as Figure 2.

Delta-Simons engineer verified trial pit and borehole logs are presented as Appendix I, the SPT Calibration Certificate (in accordance with BS EN ISO 22476-3:2005 incorporating corrigendum No. 1 2007), Geotechnical investigation and testing - Field testing - Part 3: Standard penetration test for rotary augur SPT trip hammer is presented as Appendix II.

The gas and groundwater monitoring results are presented as Appendix III.

3.3 In-situ Testing and Sampling

SPTs were undertaken at regular interval in natural strata in all boreholes. Hand shear vane tests were undertaken in trial pits. The results of these tests are presented in the trial pit and borehole logs included as Appendix I.

Sampling comprised disturbed tub and bulk bag geotechnical samples and environmental samples as detailed on the borehole logs.

3.4 Laboratory Investigation

Following the ground investigations, a schedule of environmental and geotechnical and chemical laboratory testing was prepared by Delta-Simons.

3.4.1 Environmental Soil Analysis

The location, depth and suite of analyses selected for each environmental soil sample is presented in Table 2. Copies of the environmental laboratory analysis results are presented in Appendix IV.

Table 2 – Soil Sample Analyses

Intrusive Location	Depth (m bgl)	10 Heavy Metals and CRVI	sPAH's	TPH	sTPH CWH AA Split	Water Soluble Sulphate	Total Sulphur	Acid Soluble Sulphate	Asbestos Screen & ID	Total Organic Contents
RA101	0.5	✓	✓	✓		✓	✓	✓		✓
RA102	6.0					✓	✓	✓		✓
RA103	8.5									
RA104	6.5					✓	✓	✓		✓
RA105	8.5									
RA108	9.0					✓	✓	✓		✓
TP101	2.0									
TP102	1.0	✓	✓	✓					✓	✓
TP103	1.0					✓	✓	✓		
TP105	1.0	✓	✓		✓					✓
TP108	2.0									
TP110	1.0					✓	✓	✓		
TP112	3.0					✓	✓	✓		
TP113	0.5	✓	✓	✓						
TP114	0.5								✓	
TP115	2.7					✓	✓	✓		
TP118	2.5					✓	✓	✓		✓
TP120	0.5	✓	✓		✓				✓	
TP122	1.0									
TP123	1.0	✓	✓		✓					✓
TP124	1.0									
TP125	1.9	✓	✓	✓						
TP126	1.0	✓	✓		✓					✓
TP129	3.0									
TP131	0.7					✓	✓	✓	✓	
TP132	0.5	✓	✓	✓						
TP135	1.0									
TP138	0.9	✓	✓		✓					✓
TP140	3.0									
TOTAL		**10**	**10**	**5**	**5**	**10**	**10**	**10**	**4**	**10**

Note: Heavy metals = Arsenic, water soluble boron, cadmium, total chromium, copper, zinc, lead, mercury, nickel, selenium
CR VI = Hexavalent chromium
sTPH = Speciated petroleum hydrocarbons
TPH = Total petroleum hydrocarbons
sPAH = Speciated polycyclic aromatic hydrocarbons

3.4.2 Geotechnical Testing

The geotechnical testing was carried out by a UKAS accredited laboratory (Professional Soils Laboratory Ltd), in accordance with BS 1377 - Parts 2 to 9:1990 Methods of test for soils for civil engineering purposes which comprised:

- 19 moisture content;
- 19 liquid and plastic limits;
- 17 particle size distribution;
- 17 dry density/ moisture content relationship (2.5 kg rammer);
- 17 dry density/ moisture content relationship (4.5 kg rammer);
- Five moisture condition value relationship; and
- 14 California Bearing Ratio (CBR) tests at optimum moisture content (2.5 kg and 4.5 kg rammer);
- 14 hand shear vane tests at optimum moisture content (2.5 kg and 4.5 kg rammer); and
- Four particle densities.

Copies of the geotechnical laboratory test results are presented in Appendix V.

4.0 GROUND AND GROUNDWATER CONDITIONS

4.1 Ground Conditions

A summary of the observed ground conditions at the Site are provided in Table 3a to Table 3g. Full details of the geological profile reveal at each location are presented on the trial pit and boreholes logs (Appendix I). A geological section through the Site is presented as Figure 3, and an interpolated contour profile of natural strata levels below the stockpiles is presented as Figure 4.

Table 3a - Plot NE1 Generalised Geology Strata

Strata	Description of Strata	Depth of Strata Base (m below existing ground level) *[Thickness Range (m)]*
Topsoil	Encountered in intrusive locations TP111, TP112, TP113, TP114, TP118 and TP139. The average thickness of Topsoil encountered is 0.42 m where present. A depth of 2.20 m bgl was encountered in TP114 as the small stockpile at this location was comprised of Topsoil. TP139 had a small fraction of anthropogenic materials between 0.40 and 2.10 m bgl RA105 encountered topsoil from 9.20 to 9.30 m bgl assumed to be the former surface level.	0.00 m – 2.20 m bgl *[0.00 m – 2.20 m]*
Made Ground – Reworked Natural Fill	Encountered in intrusive locations TP113, TP115, TP116, TP117, TP119, TP140 and RA105. Reworked natural fill comprised firm to very stiff brown clay with varying fractions of sand and gravel. This material is limited in the west of this plot area, however, where the stockpile exists in the east of the plot it has been proven to be 9.20 m thick in RA105.	0.0 m – 9.20 m bgl *[0.0 m – 9.20 m]*
Lowestoft Formation (Diamicton)	Encountered in intrusive locations TP111, TP112, TP114, TP116, TP118, TP139, TP140 and RA105. Typically comprised firm to very stiff brown clay with varying fractions of sand and gravel. This strata was also encountered in RA105 at 9.30 m bgl.	0.20 m – 9.30 m bgl *[the base of this strata was not proven in all locations]*
Chalk Formation	Encountered in intrusive locations TP112, TP113 and RA105. Typically Grade Dm chalk recovered as cream slightly gravelly sandy silt. The chalk encountered in TP112 was fully weathered.	1.3 m – 10.45 m bgl *[the base of this strata was not proven in all locations]*

Table 3b - Plot NE2 Generalised Geology Strata

Strata	Description of Strata	Depth of Strata Base (m below existing ground level) *[Thickness Range (m)]*
Topsoil	Encountered in intrusive locations TP121, TP123, TP124, TP126, TP127, TP128, RA107 and RA108. The average thickness of Topsoil encountered is 1.0 m where present. RA108 encountered topsoil from 10.20 to 10.35 m bgl assumed to be the former surface level.	0.00 m – 2.10 m bgl *[0.00 m – 2.10 m]*
Made Ground – Reworked Natural Fill	Encountered in intrusive locations TP120, TP121, TP122, TP123, TP124, TP125, RA107 and RA108. Reworked natural fill comprised firm to very stiff brown clay with varying fractions of sand and gravel. This material is limited in the east of the area, however, where the stockpile exists in the west it has been proven to be around 10.20 m thick in RA108 and 5.50 m thick in RA107.	0.0 m – 10.20 m bgl *[0.0 m – 10.20 m]*
Lowestoft Formation (Diamicton)	Encountered in intrusive locations TP120, TP121, TP123, TP126, TP127, TP128, RA107 and RA108. Typically comprised firm to very stiff brown clay with varying fractions of sand and gravel. . It was encountered in RA107 at 5.50 m bgl and RA108 at 10.35 m bgl.	0.20 m – 10.35 m bgl *[the base of this strata was not proven in all locations]*
Chalk Formation	Grade Dm chalk was encountered in RA10, recovered as cream slightly gravelly sandy silt.	11.20 m – 11.45 m bgl *[the base of this strata was not proven in all locations]*

Table 3c - Plot SE1 Generalised Geology Strata

Strata	Description of Strata	Depth of Strata Base (m below existing ground level) *[Thickness Range (m)]*
Made Ground	Not encountered.	-
Made Ground – Reworked Natural Fill	Only encountered in TP129 and TP131. Where encountered, Made Ground comprised stiff brown clay with varying fractions of sand and gravel.	0.0 m – 2.60 m bgl *[0.0 m – 2.60 m]*
Lowestoft Formation (Diamicton)	Encountered in all intrusive locations. Typically comprised stiff brown and grey clay with varying fractions of sand and gravel.	0.00 m – 3.40 m bgl *[the base of this strata was not proven in all locations]*
Chalk Formation	Not encountered	-

Table 3d - Plot SE2 Generalised Geology Strata

Strata	Description of Strata	Depth of Strata Base (m below existing ground level) *[Thickness Range (m)]*
Made Ground	Encountered in intrusive locations TP132, TP134 and RA106. Typically comprised sand and gravel in varying fractions consisting of concrete and brick with occasional brick cobbles. The average thickness of Made Ground encountered is 0.50 m where present.	0.00 m – 0.60 m bgl *[0.00 m – 0.60 m]*
Made Ground – Reworked Natural Fill	Not Encountered	-
Lowestoft Formation (Diamicton)	Encountered in all intrusive locations. Typically comprised stiff to very stiff brown and grey clay with varying fractions of sand and gravel.	0.0 m – 5.45 m bgl *[the base of this strata was not proven in all locations]*
Chalk Formation	Not Encountered	-

Table 3e - Plot SW1 Generalised Geology Strata

Strata	Description of Strata	Depth of Strata Base (m below existing ground level) *[Thickness Range (m)]*
Topsoil	Encountered in intrusive location TP101. The thickness of Topsoil encountered is 0.70 m where present.	0.00 m – 0.70 m bgl *[0.70]*
Made Ground – Reworked Natural Fill	Encountered in intrusive locations TP101, TP102 and RA101. Reworked natural fill comprised firm to stiff brown clay with varying fractions of sand and gravel.	0.00 m – 5.00 m bgl *[the base of this strata was not proven in all locations]*
Lowestoft Formation (Diamicton)	Encountered in intrusive location RA101. Typically comprised stiff orangish dark grey slightly sandy gravelly clay.	5.00 m – 9.30 m bgl *[the base of this strata was not proven in all locations]*
Chalk Formation	Not Encountered	-

Table 3f: Plot NW1 Generalised Geology Strata

Strata	Description of Strata	Depth of Strata Base (m below existing ground level) *[Thickness Range (m)]*
Made Ground	Encountered in intrusive locations TP103 and TP104. Typically comprised brown clay with varying fractions of sand and gravel. Anthropogenic material was noted within the soil matrix including brick, concrete and tarmac. Intrusive locations TP103 and TP104 were located to the west lower end of the stockpile.	0.0 m – 2.0 m bgl *[the base of this strata was not proven in all locations]*
Topsoil	Encountered in intrusive location RA102. The thickness of Topsoil encountered is 0.20 m where present. RA102 encountered topsoil from 6.80 to 7.00 m bgl, assumed to be the former surface level.	6.80 m – 7.00 m bgl *[0.20 m]*
Made Ground – Reworked Natural Fill	Encountered in intrusive location RA102. Reworked natural fill comprised firm brownish grey slightly sandy gravelly clay.	0.0 m – 6.80 m bgl *[6.80 m]*
Lowestoft Formation (Diamicton)	Encountered in intrusive location RA102. Typically comprised firm light brown slightly sandy.	7.00 m – 8.45 m bgl *[the base of this strata was not proven in all locations]*
Chalk Formation	Not Encountered	-

Table 3g - Plot NW2 Generalised Geology Strata

Strata	Description of Strata	Depth of Strata Base (m below existing ground level) *[Thickness Range (m)]*
Made Ground	Encountered in intrusive locations TP105, TP107 and TP108. Typically comprised brown clay with varying fractions of sand and gravel. Rare anthropogenic materials (vitreous stone with conchoidal fracture) were encountered in intrusive locations TP105 and TP107. Anthropogenic materials were noted within the soil matrix at intrusive location TP108 including brick gravel and cobbles.	0.0 m – 2.40 m bgl *[2.4]*
Topsoil	Encountered in intrusive location TP106, TP110, RA103 and RA104. The thickness of Topsoil encountered, excluding RA103 and RA104 is an average of 1.35 m where present. Intrusive locations RA103 and RA104 encountered topsoil from 9.20 to 9.50 m bgl	0.00 m – 1.45 m bgl *[1.45 m]*

	and 6.10 to 6.90 m bgl respectively, assumed to be the former surface level.	
Made Ground – Reworked Natural Fill	Encountered in intrusive locations RA103 and RA104. Reworked natural fill comprised firm to very stiff brown clay with varying fractions of sand and gravel. This material is limited to stockpiles in the west of the area. It has been proven to be between 6.10 and 9.20 m thick.	0.0 m – 9.20 m bgl *[6.10 m – 9.20 m]*
Lowestoft Formation (Sand and Gravel, and Diamicton)	Encountered in intrusive locations TP106, TP109, TP110, RA103 and RA104. Typically comprised very stiff brown/ grey clay with varying fractions of sand and gravel. However TP109 comprised slightly gravelly fine to coarse sand 1.20 to 3.30 m bgl.	0.0 m – 10.45 m bgl *[the base of this strata was not proven in all locations]*
Chalk Formation	Grade Dm chalk was encountered in TP109 and RA104, recovered as cream slightly gravelly sandy silt. Grade Dc chalk was encountered in TP106 and TP110.	2.400 m – 8.45 m bgl *[the base of this strata was not proven in all locations]*

4.2 Hydrogeology

No groundwater was encountered in any of the intrusive locations during the Site investigation.

Groundwater levels recorded during the return monitoring events were between 2.97 m (RA102) and 8.38 m bgl (RA105).
These measurements are not considered to be representative of resting groundwater but are a result of perched water collecting in the boreholes throughout the monitoring period.

4.3 Visual and Olfactory Evidence of Contamination

Visual and olfactory evidence of contamination was not encountered during the investigation works.

5.0 GROUND CONDITIONS AND MATERIAL PROPERTIES

A plot of uncorrected SPT 'N' values against depth for all strata is presented as Figure 5 and a plasticity chart is presented as Figure 6.

5.1 Summary of Geotechnical Parameters

A summary of geotechnical parameters for each strata are summarised in Table 4.

Table 4 - Summary of Geotechnical Parameters

	Made Ground – Reworked Natural Fill	Lowestoft Formation (Diamicton)
Moisture Content - w	5.3% - 27%	10% - 28%
Liquid Limit - w_L	34% - 47%	41% - 43%
Plastic Limit - w_P	17% - 22%	19% - 25%
Plasticity Index - I_P	17% - 25%	17% - 23%
Uncorrected SPT/CPT N	5-19	12-50
Corrected[1] SPT N_{60}	5-20	13-54
Bulk Density	2.00-2.37 Mg/m^3	1.99-2.11 Mg/m^3
Bulk Unit Weight[2]	19.6 - 23.2 kN/m^3	19.5 - 20.7 kN/m^3
In-Situ Hand Shear Vane (average)	34 - >140 kPa	70 - >140 kPa
Likely Earthworks Class[3]	2A/2B (2C in one sample)	2A/2B (2C in one sample)
Particle Density	2.63 - 2.68 Mg/m^3	2.71 Mg/m^3
Optimum Moisture Content (2.5 kg rammer)	12 - 21 %	18 - 21 %
Optimum Moisture Content (4.5 kg rammer)	9 - 18 %	15 - 18 %
Maximum Dry Density (2.5 kg rammer)	1.65 - 2.09 Mg/m^3	1.68 - 1.72 Mg/m^3
Maximum Dry Density (4.5 kg rammer)	1.77 - 2.17 Mg/m^3	1.78 - 1.83 Mg/m^3
CBR at OMC (2.5 kg rammer)	4.2 - 34 %	12.0 - 23.6 %
CBR at OMC (4.5 kg rammer)	6.8 - 27.6 %	-
Hand Vane at OMC (2.5 kg rammer)	70 - >140 kPa	70 - 92 kPa
Hand Vane at OMC (4.5 kg rammer)	120 - >140 kPa	123 - >140 kPa
Total Organic Matter	0.81 - 1.3 %	0.5 - 2.6%

1. SPT N values corrected for energy delivered to drive rods utilising the determined energy ratio (E_r): N60 = (E_r x N) / 60 after BS EN ISO 22476-3:2005
2. Bulk unit weight (kN/m^3) = 9.81 x bulk density (Mg/m^3 - as determined by laboratory testing)
3. In accordance with Manual of Contract Documents for Highway Works, Volume 1 Specification For Highway Works, Series 600 Earthworks

5.2 Geochemical Testing

Geochemical analysis was undertaken on 20 No. soil samples, tested for selective contaminants (BRE Special Digest 1:2005 (3rd Edition), Concrete in Aggressive Ground. The geochemical test results are summarised in Table 5.

Table 5: BRE SD1 Test Result Summary

	No. of Tests	Minimum	Maximum
Soil - pH	19	7.7	8.7
Soil - Water Soluble Sulphate (g/l)	9	0.01	0.95
Soil-Total Sulphur (%)	9	0.01	0.66
Soil- Acid Soluble Sulphate g/l	9	0.01	0.66

6.0 GEOTECHNICAL AND EARTHWORKS ASSESSMENT

6.1 Summary of Development Proposals

It is understood that the Client is to develop the Site for commercial and industrial end uses. There is likely to be a requirement for a programme of earthworks in order to prepare development platforms, which may include off-Site disposal of a quantity stockpiled soils, depending of final platform levels.

6.2 Foundations

6.2.1 Spread Foundations

Should shallow Lowestoft Formation (Diamicton) be encountered within economic reach for traditional spread foundation, then for preliminary foundation design purposes the firm (shear strength of >70 kPa) cohesive deposits likely to be encountered are likely to achieve an allowable bearing capacities in the order of 100 kPa. It is recommended that plot specific investigation is undertaken to confirm allowable bearing capacity at required depths.

Foundation excavations should be checked by a suitably qualified geotechnical engineer prior to casting to ensure the appropriate depth, founding medium and strength characteristics have been achieved.

6.2.2 Volume Change Potential

Atterberg limit tests carried out indicate that the cohesive soils have a low to medium volume change potential. The volume change potential should be considered in any foundation schedule for structures and services located within the influence zone of trees or bushes (proposed, existing or to be removed) and appropriate precautions and/or founding depths should be designed accordingly.

6.2.3 Floor Slabs

In areas where proposed floor slabs are wholly founded onto natural strata (following removal on any unsuitable soils including Made Ground and Topsoil), then ground bearing floor slabs are likely to be suitable, depending on final proposed loads, provided the formation is thoroughly proof rolled and any soft spots excavated and replaced with well-compacted granular material.

Where floor slabs are wholly or partially proposed in areas of earthworks fill, then it is recommended that a ground improvement or stabilisation solution (if appropriate) be adopted to support a ground bearing slab. Alternatively a suspended floor slab could be adopted, transferring loads to piles through concrete ground beams/concrete frame.

It is recommended that plot specific investigation is undertaken to confirm suitability of ground bearing floor slabs.

6.3 Excavations

It is expected that conventional mechanical excavators will readily remove the Made Ground and natural deposits likely to be encountered in excavations.

All shallow foundation or services excavations at the Site should be considered unstable, therefore, temporary support of all excavations should be considered when excavating on-Site.

No excavations should be entered until a full risk assessment is completed to assess stability requirements and safety issues.

6.4 Groundwater

Groundwater levels recorded during the return monitoring events were between 2.97 m (RA102) and 8.38 m bgl (RA105).

These measurements are not considered to be representative of resting groundwater but are a result of perched water collecting in the boreholes throughout the monitoring period.

Significant groundwater would not be anticipated during excavations required to form development platforms. Should any perched groundwater be encountered, then local dewatering via sump and pump may be suitable.

6.5 Chemical Attack on Buried Concrete

Based on the testing undertaken and in accordance with the recommendations of BRE Special Digest 1, the conditions at the Site would likely be classified as Design Sulphate Class DS-2 and ACEC Class AC1s for soils, when considering the most appropriate type of concrete to be used at the Site in order to resist chemical attack

from elevated sulphate present in the soils (assuming static groundwater in non-pyritic soils).

6.6 Earthworks

The results of the grading and compaction testing for both the Reworked Natural Fill and Lowestoft Formation (Diamicton) show that they are likely to be classified as Class 2A/2B, and the natural moisture content may typically be slightly wet of the optimum moisture content (OMC). If the lowest values of 5.3% and 10% are considered as outliers and removed from the population then the mean average natural moisture content is 20.4%.

In order to achieve a more uniform material, and to produce a material that would be less prone to deterioration due to inclement weather, a soil stabilisation programme may be considered.

Where soils stabilisation may be proposed, it is recommended that lime dosage testing is undertaken on earthworks materials to ascertain suitability and optimum dosage of lime required. The use of such stabilisation procedures will also have the added benefit of improving the performance characteristics of the treated soils.

A specification for reuse of these soils will need to be prepared by a suitably qualified geotechnical engineer to ensure that the materials are placed and compacted to an engineering specification and that the subsequent platform is suitable for development.

The suitability of earthworks materials has been assessed on the basis of the testing carried out as part of this investigation. The materials encountered on-Site may vary from those analysed; furthermore, inclement weather or winter working may result in materials being unsuitable for incorporation within the works without modification by lime, cement or other methods. In particular, cohesive soils as encountered on-Site are very susceptible to ‘wet weathering working’ and we strongly recommend that consideration should be given to lime and/or cement stabilisation of these materials if the earthworks are undertaken during inclement weather or the winter period.

Unprotected stockpiled materials often deteriorate due to water infiltration and they may become unsuitable for incorporation in the works.

7.0 ENVIRONMENTAL ANALYTICAL RESULTS

7.1 Introduction

The soil and groundwater analysis results from the Delta-Simons Site Investigation have been assessed against the current assessment criteria in the context of a commercial end-use.

7.2 Guidance for Analytical Results: Assessment Criteria

A risk assessment approach has been used for the assessment of the results. This process is defined as a tiered assessment considering the 'pollutant linkages' on the basis of a 'source-pathway-receptor' relationship. Analytical results have been assessed against screening criteria considered protective of Human Health and/or controlled waters in the context of the proposed redevelopment of the Site and the environmental setting of the Site.

7.2.1 Human Health Soil Screening Values

In the absence of a regulatory set of screening values derived using the Contaminated Land Exposure Assessment (CLEA) Framework, Delta-Simons will refer to the following:

- The Soil Guidance Values (SGVs) published by the EA;
- Category 4 Screening Levels (C4SLs) published by Defra;
- Suitable for Use Levels for Human Health Risk Assessment (S4ULs) published by Land Quality Management (LQM)/Chartered Institute of Environmental Health (CIEH);
- The guidance values produced by the Environmental Industries Commission (EIC), the Association of Geotechnical and Geo-Environmental Specialists (AGS) and Contaminated Land: Application in Real Environments (CL:AIRE) in December 2009; and;
- In house Generic Screening Values (HH-GSVs) derived by Delta-Simons and other non UK values where considered relevant.

Delta-Simons Adopted Human Health Generic Assessment Criteria for a commercial end-use which are presented in Appendix VI.

7.3 Soil Analytical Results

A summary of the soil analysis results is provided in Table 5 and copies of the laboratory certificates are presented in Appendix VI. The results have been assessed with reference to generic assessment criteria considered protective of Human Health for a commercial end-use.

Table 6 – Soil Sample Analysis Summary (mg/kg unless stated otherwise)

Parameter	Maximum Concentration (mg/kg)	Screening Value (Source)	Samples Which Exceed Screening Value/Elevated Results	
			Number of Exceedances	Location (Depth m bgl) = Concentration
Heavy Metals				
Arsenic	27	640 SGV	0	-
Cadmium	0.38	230 SGV	0	-
Chromium (Total)	<LoD	30,400 LQM	0	-
Copper	19	71,700 LQM	0	-
Lead	40	2,330 C4SL	0	-
Mercury	0.13	4.3 DS-GAC	0	-
Nickel	37	1,800 SGV	0	-
Selenium	<LoD	13,000 SGV	0	-
Zinc	74	665,000 LQM	0	-
Others				
pH	7.7 – 8.7	N/A	-	
Asbestos Screen	Not Detected		0	-

Note:
N/a = Generic screening value not available
Shaded = Concentrations exceed screening criteria or are considered significantly elevated
- = Not analysed / results not available
SGV = DEFRA/EA Soil Guideline Value
LQM = LQM/CIEH Generic Assessment Criteria
C4SL = Category 4 Screening Levels
DS-GAC = Delta-Simons in-house derived Generic Assessment Criteria

As can be seen from Table 6, no elevated concentrations of contaminants have been identified. No concentrations of sTPH and sPAH were detected above laboratory method lower detection limits and as such, are not mentioned in the table above.

The risk associated with the detectable concentrations of contaminants in soils to the identified receptors is further discussed in Section 8.2.

7.4 Ground Gas Monitoring

A collated summary of the results from the ground gas monitoring exercise is presented in Table 7. A complete set of ground gas monitoring results is presented in Appendix III.

Table 7 - Summary of Ground Gas Monitoring Results

Date	Methane (%v/v)	Carbon Dioxide (%v/v)	Oxygen (%v/v)	Flow Rate l/hr	GSV/CS			
					Methane		Carbon Dioxide	
	Max	Max	Min	Max	GSV	CS	GSV	CS
22/06/15	15.9	8.0	4.2	0.1	0.016	2	0.008	2
16/07/15	13.3	11.2	3.7	0.1	0.013	1	0.011	2

Date	Conditions During Monitoring Round	
	Atmospheric Pressure (mb)	Weather Conditions
22/06/15	999	Fine, Breezy
16/07/15	1006-1008	Fine, Breezy

Note: GSV = Gas Screening Value
CS = Characteristic Situation (Range: 1 = Very low risk to 6 = Very high risk)

The results of the gas monitoring indicate that concentrations of methane and carbon dioxide are present above instrument detection limits, with a maximum methane concentration of 15.9% and carbon dioxide concentration of 11.2 % v/v. No elevated gas flow rates have been identified at the Site.

The recorded elevated levels of methane and carbon dioxide are considered to be a result of the decay of organic matter within the soil and former topsoil/ vegetation layers.

From the gas results obtained, a GSV of 0.016 l/hr can be determined for the Site, which would classify the Site as Characterisation Situation 2 (CS2).

It is understood that the Site is to undergo earthwork remodelling in order to create developable platforms, which would include the removal of relict organic topsoil layers.

As such, it is recommended that plot specific ground gas monitoring and assessment is undertaken once earthworks are complete to confirm the above assessment.

7.5 Waste Classification

7.5.1 Regulatory Guidance

The Waste Framework Directive (2008/98/EC) (WFD) sets out what waste is and how it should be managed. The WFD considers some wastes to be hazardous which is based upon one or more of the fifteen specified properties listed in Annex III to the WFD and the application of this is determined by the List of Wastes Decision (2000/532/EC) (LoWD). This LoWD provides:

- A list of wastes (often still called the European Waste Catalogue);
- Rules for using the list; and
- Criteria used to assess if a waste on the list is hazardous.

The WFD and LoWD use the classification of product chemicals as the basis for the assessment of hazardous waste and are implemented in England, Northern Ireland, Scotland and Wales using different domestic regulations. There are two chemical directives that apply to hazardous waste assessment: the Dangerous Substances Directive (67/548/EC) DSD and the Dangerous Preparations Directive (1999/45/EC) (DPD) which are implemented in the UK by the Chemical (Hazard Information and Packaging for Supply) Regulations (CHIP). These are being replaced in stages by the Classification, Labelling and Packaging of Substances and Mixtures Regulation (CLP).

The key guidance document in relation to hazardous waste is: Technical Guidance WM3, Hazardous Waste: Interpretation of the definition and classification of hazardous waste (1st edition 2015). This document provides a common technical basis for applying the definition and classification of hazardous waste in the UK and with respect to oil related wastes supersedes and replaces SEPA's SWAN 04 guidance.

Hazardous waste classification presents certain challenges within the context of contaminated soils because classification relies upon the detailed knowledge of toxicological properties of specific substances as described in the Health and Safety Executive (HSE) document 'Approved Classification and Labelling Guide' (6th Edition) which refers to Table 3.2 Part 3 of Annex VI to the CLP Regulation Supply List' which defines a substance's specific properties. These are required to be displayed on product supply labels, Transport Emergency (TREM) cards and Material Safety Data Sheets (MSDS). Therefore, to completely profile waste soils the advanced categorisation of specific substances would be required. However, this level of testing is not practicable and, for example, typical laboratory testing only provides cation concentrations for heavy metals rather than concentrations of specific heavy metal compounds. Therefore, a conservative approach is usually adopted utilising a suitable worst-case surrogate substance from Table 3.2 Part 3 of Annex VI to the CLP Regulation Supply List as a benchmark against the hazardous waste property threshold.

HazWasteOnline (HAZWOL) is a web-based tool for classifying hazardous waste. The software follows the latest EA guidance and European regulations and maintains a conservative approach for surrogate compounds (although it can be adapted to reflect additional knowledge/data). The HAZWOL tool will classify sample results as either hazardous or non-hazardous based upon the concentrations of contaminations present and the threshold levels for various hazardous properties.

Since the Landfill Directive was implemented into UK law, landfill sites have been divided into those accepting inert, non-hazardous and hazardous waste. Landfills may only accept waste of the same classification as the landfill, although some non-hazardous landfills with specially prepared engineered cells, can accept certain types of hazardous waste such as Stable Non-reactive Hazardous Waste (SNRHW).

Waste Acceptance Criteria (WAC) are used to determine the acceptance of waste at landfills they do not provide waste classification. There are specific WAC tests for inert and hazardous landfills. Materials classified as hazardous must meet the hazardous WAC before they are accepted in a hazardous landfill. If materials classified as non-hazardous meet the inert WAC they may accepted in an inert landfill, if not, they may be accepted at a non-hazardous landfill. There are currently no non-hazardous WAC.

Landfill facilities may also have their own individual permit restrictions dictating the waste acceptable at their premises. These permit restrictions are often only available following direct consultation with the landfill facility.

7.5.2 Analytical Review

Analytical data from Made Ground, reworked natural fill and natural soil samples collected from intrusive locations have been entered into the HWOL spreadsheets (a copy of which is included as Appendix VII). In general all soils would be classed as Non-Hazardous for disposal purposes. Furthermore natural soils would likely be classified as inert.

Should there be a requirement for disposal off-Site it is recommended natural inert materials (or reworked natural fill) are removed and Made Ground soils retained as no significant risks have been identified with regards to human health should these remain. Consultation with landfill operators should be undertaken at an early stage

to confirm their requirements with copies of the HWOL and solid chemical results submitted to them for their own classification purposes.

7.5.3 Materials Management Plan

CL:AIRE is the Development Industry Code of Practice (CoP) approach which allows materials to be moved and used on Site without being classified as a waste material and therefore not requiring Environment Agency regulation through issuing a permit or exemption and associated costs and complexities.

This would require the production of a Materials Management Plan (MMP) based on an appropriate Risk Assessment and Remediation Strategy (or Design Statement) that ensure no unacceptable risk if materials are used in the proposed manner. This is provided that the use of the material can be fully justified, demonstrating:

- Suitability for use (environmentally and geotechnically);
- Certainty of use; and
- Volume use is no more than necessary.

A CoP 'Qualified Person' must review the relevant documents and provide a Declaration to the EA prior to use of the materials. A Verification Report must be produced at the end of the works to confirm the material and volumes were as set out in the MMP.

8.0 ASSESSMENT OF RISK AND CONCEPTUAL MODEL

8.1 Risk Assessment

The risk assessment procedure which identifies sources, pathways, receptors and pollutant linkages is, therefore, recognised as an appropriate approach to determining the extent and significance of contamination either within the context of Part 2A of the Environmental Protection Act 1990 (when assessing current Site-status or when considering the acquisition of an existing development), or as part of the planning process (for the redevelopment of an existing Site, or when considering the acquisition of a Site for redevelopment purposes). In either context the 'suitable for use' approach is adopted in assessing the risks. As such, the source-pathway-receptor assessment defines a conceptual model for the Site under consideration.

8.2 Identified Sources of Contamination

A revised CSM is presented overleaf (Table 8) and has been formulated taking into account all of the available data from the Delta-Simons intrusive investigation suitable for a Site with a proposed commercial end-use.

Table 8 – Revised Conceptual Site Model

Source	Pathway	Receptor	Matrix Assessment	Justification/Additional Assessment
No significant concentrations of contaminants identified in the stockpile or natural soil tested. Previously unidentified hotspots of contamination.	Direct contact/ingestion and inhalation of dust	Future Site users (occupiers and visitors)	**Low Risk**	Elevated contaminant concentrations have not been identified across the Site area investigated. Furthermore, as the Site is to be redeveloped with the majority of the Site area covered in hardstanding, should areas of unidentified contamination be present, this pathway is unlikely to exist.
		Groundworkers during any future sub-surface works	**Low Risk**	Any groundworkers who are required to perform work at the Site should be made aware of the potential for contamination to be present in shallow soils. Therefore, good standards of personal hygiene should be observed with appropriate levels of PPE provided and utilised, and toolbox talks should be given to contractors prior to the commencement of works.
	Windblown contaminated dust	Off-Site receptors	**Low Risk**	The potential for the generation of contaminated dust and the risk to off-Site receptors is considered to be low. However, in accordance with general good practice, the groundworks contractor will need to implement dust suppression techniques at the Site to limit the potential for the generation of dust.
	Leaching and migration through groundwater present beneath the Site	Controlled waters – Principal Aquifer (Chalk Formation)	**Low Risk**	No significantly elevated concentrations of contaminants have been detected in the soil beneath the Site.
	Direct infiltration in water supply pipes	Drinking water supply pipes	**Low Risk**	No elevated hydrocarbon concentrations were identified in the soil tested during this investigation. Hydrocarbons, especially aromatics and chlorinated solvents, are known to permeate plastic pipes. Assessment of the risk to water pipes for any new supply will have to be undertaken as a requirement of the statutory undertakers who should be provided with a copy of this Site investigation Report and provide recommendations for upgrading of potable water supply pipes, if considered necessary.
Asbestos containing materials.	Groundworkers and construction workers during redevelopment and future sub-surface maintenance and occupiers of adjacent properties during redevelopment	Inhalation of asbestos fibres	**Low Risk**	Asbestos fibres have not been identified within the soil samples collected from the Site. Groundworkers should be made aware of the possibility of encountering potential Asbestos Containing Materials (ACM) within the Made Ground across the Site and an appropriate protocol should be in place. Safe working procedures should be implemented, including damping down of excavations and stockpiles in line with general dust generation mitigation and appropriate levels of PPE provided and utilised. This recommendation should be captured in Site health and safety documentation and in maintenance plans.

Ground Gas	Vertical & lateral migration and accumulation of gas in enclosed spaces and sub-floor voids	Construction/maintenance workers and Site users/ visitors	**Low Risk**	It is considered that the ground gas regime at the Site falls under Characteristic Situation 2, as such basic gas protection measures would be considered necessary. It is understood that the Site is to undergo earthwork remodelling in order to create developable platforms, which would include the removal of relict organic topsoil layers. Plot specific ground gas monitoring and assessment should be undertaken once earthworks are complete to confirm the above assessment.
Potentially unidentified 'hotspots' of contamination, which may be present in areas of the Site that have not been directly investigated.	All receptors	All pathways	**Low Risk**	A 'hotspot' protocol should be in place for groundworkers to act upon during the future redevelopment of the Site.

9.0 ASSESSMENT OF RISKS AND LIABILITIES

This Assessment considers both perceived and actual risks using the Source-pathway-receptor concept, with the principal measure of risk being whether significant harm (to people, animals, property (including buildings, etc.), or ecosystems) or pollution of controlled waters (surface water bodies, aquifers, coastal waters, or territorial waters) is being caused, or whether there is a significant possibility of such harm being caused with respect to statuary liability.

The overall risk classification, based on the Source-pathway-receptor principle, adopted for this preliminary assessment, is defined as follows:

- Low risk – issue unlikely to present a liability or cost;
- Moderate risk – issue may present a liability or cost, but these may be limited; and
- High risk – likely that significant liabilities and/or costs exist.

9.1 Statement of Risk

Based on the available information following the Phase I Assessment and Phase II Investigation, Delta-Simons considers that in the context of a continuing commercial use of the Site, the following risk and liability statements can be made.

Table 9 - Liability Assessment

Regulatory Body Enforcement under Part 2A or WRA	There is considered to be a **Low** risk of enforcement action under Part 2A or WRA.
Third Party Liability	Potential for legal action by surrounding landowners based on the potential for contamination to migrate off-Site is considered to be **Low**.
Development Impact	Delta-Simons considers there to be a **Low** risk of impact associated with redevelopment of the Site with respect to significant contamination issues.
Overall Statement of Risk	On the basis of available information, Delta-Simons considers that with regard to potential soil and groundwater contamination issues and associated environmental liabilities, the Site represents a **Low** overall risk status.

10.0 CONCLUSIONS & RECOMMENDATIONS

10.1 General

The Site consists of six undeveloped irregular parcels of land that currently hold large amounts of earthworks fill placed in stockpiles across the Site.

No potential sources of contamination were identified at the Site during the Delta-Simons Phase I Environmental Assessment.

The Site investigation has been carried out in order to assess the contamination and geotechnical status of Site won stockpiled material for re-use as engineered fill to form development platforms, or for off-Site disposal should this be considered.

The chemical analysis undertaken on selected soil and groundwater samples did not identify any elevated concentrations of contamination in the tested locations. Limited ground gas monitoring indicated elevated concentrations of carbon dioxide and methane resulting in a Characterisation Situation 2 (CS2) classification.

10.2 Environmental Recommendations

On the basis of the information obtained and reviewed as part of this Assessment and the conclusions drawn above, Delta-Simons recommends the following:

- ∆ No significantly elevated concentrations of targeted contaminants above the respective screening criteria have been identified in soils collected from across the Site, and as such Site won soils are considered suitable for the proposed commercial/ industrial end use;
- ∆ It is recommended that plot specific ground gas monitoring and assessment is undertaken once earthworks are completed to confirm the classification.
- ∆ Additional, unidentified localised areas of contamination may exist at the Site and an appropriate ‘hotspot’ protocol should be in place for groundworkers to act upon should such contamination be identified during the earthworks process;
- ∆ Elevated costs above standard inert rates (non-hazardous) should be anticipated for disposal of engineering arisings from the Made Ground (material that does not comprise reworked natural fill) to include landfill tax,

currently at a rate of £82.60/tonne. Additional waste classification testing (including WAC testing) may be required to facilitate off-Site disposal;

- Should there be a requirement for disposal off-Site it is recommended natural inert materials (or reworked natural fill) are removed and Made Ground soils retained as no significant risks have been identified with regards to human health should these remain; and
- It is recommended that Material Management Plan is produced in accordance with the Development Industry Code of Practice to enable earthworks materials movements to be undertaken without being classified as waste or requiring regulation through the Environment Agency.

10.3 Summary of Geotechnical/ Earthworks Recommendations

On the basis of the information obtained and reviewed as part of this Assessment and the conclusions drawn above, Delta-Simons makes the following geotechnical recommendations:

- The shallow Lowestoft Formation (stiff brown clay), if encountered within economic reach below proposed earthworks platforms, is likely to provide suitable bearing capacities for the shallow foundations;
- Where floor slabs are wholly founded on natural strata, then ground bearing floor slabs are likely to be suitable, depending on final proposed loads;
- Where floor slabs are partially or wholly founded in areas of earthworks fill, it is recommended that a ground improvement or stabilisation solution (if appropriate) be adopted to support a ground bearing slab. Alternatively a suspended floor slab could be adopted;
- Significant groundwater would not be anticipated during excavations required to form development platforms;
- The conditions of the shallow soils at the Site would be classified as Design Sulphate Class DS-2 and ACEC Class AC1s (assuming static groundwater in non-pyritic soils);
- Site won stockpiled fill and natural soils (predominantly classified as Class 2A/2B) are likely to be suitable in their current condition for incorporation as earthworks fill, a specification for reuse of these soils will need to be prepared by a suitably qualified geotechnical engineer to ensure that the materials are placed and compacted to an engineering specification and that the subsequent platform is suitable for development.

This Report was prepared by:

09/09/15

Will Capps — Date

Senior Geo-environmental Engineer

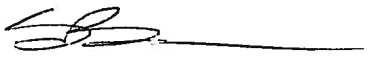
This Report was reviewed by:

09/09/15

Simon Steele — Date

Project Manager

This Report was authorised by:

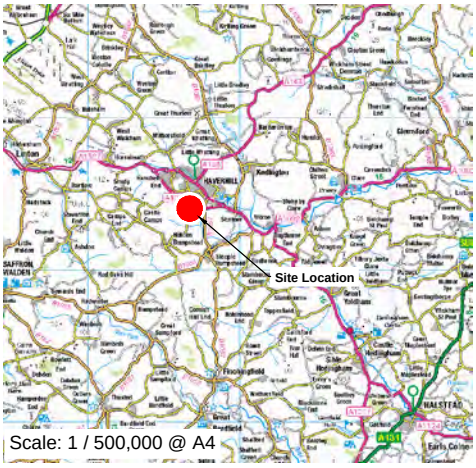


09/09/15

Simon Brown — Date

Commercial Director

Figures

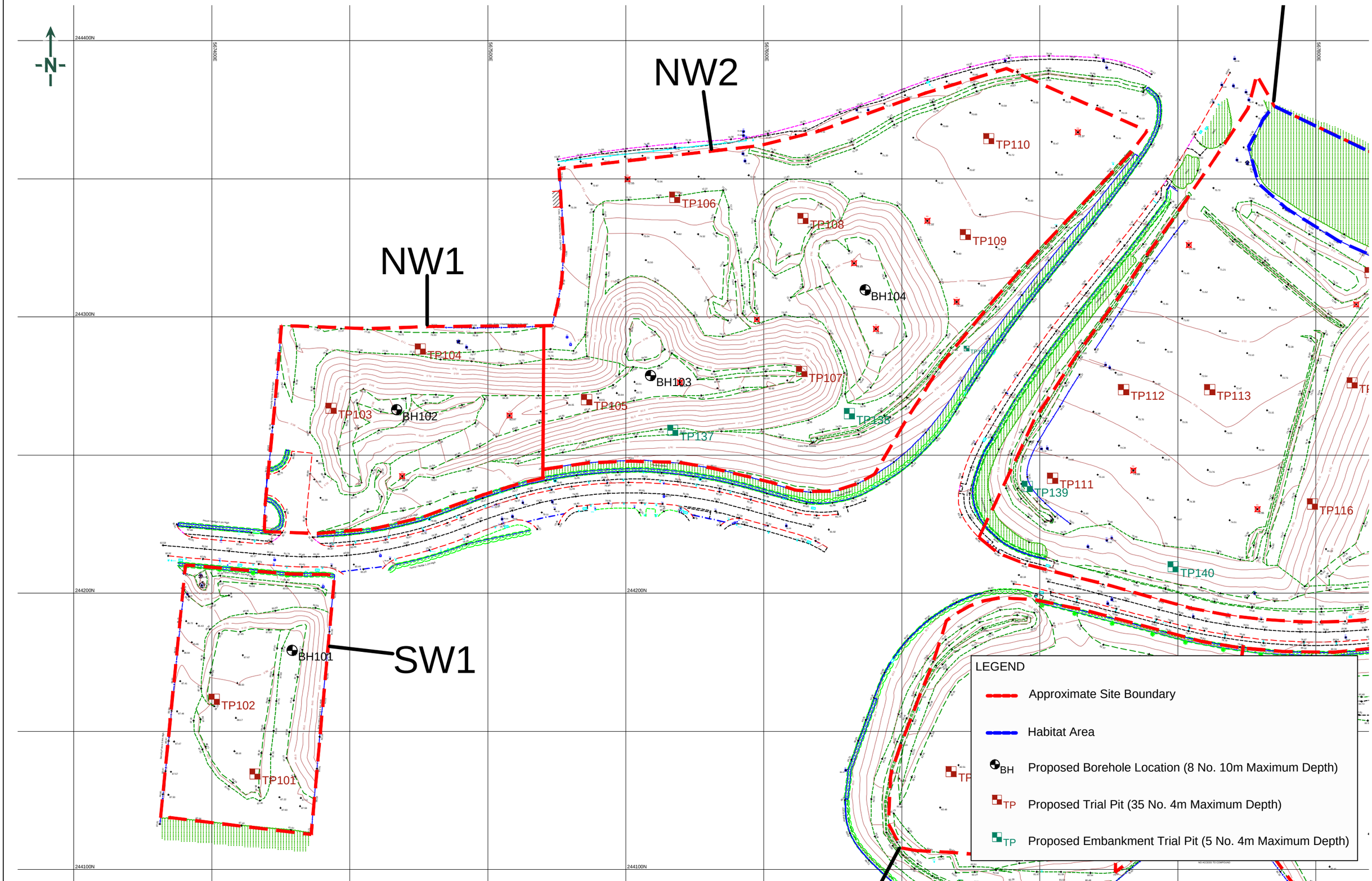


LEGEND

Site Boundary

Scale: 1 / 20,000 @ A4

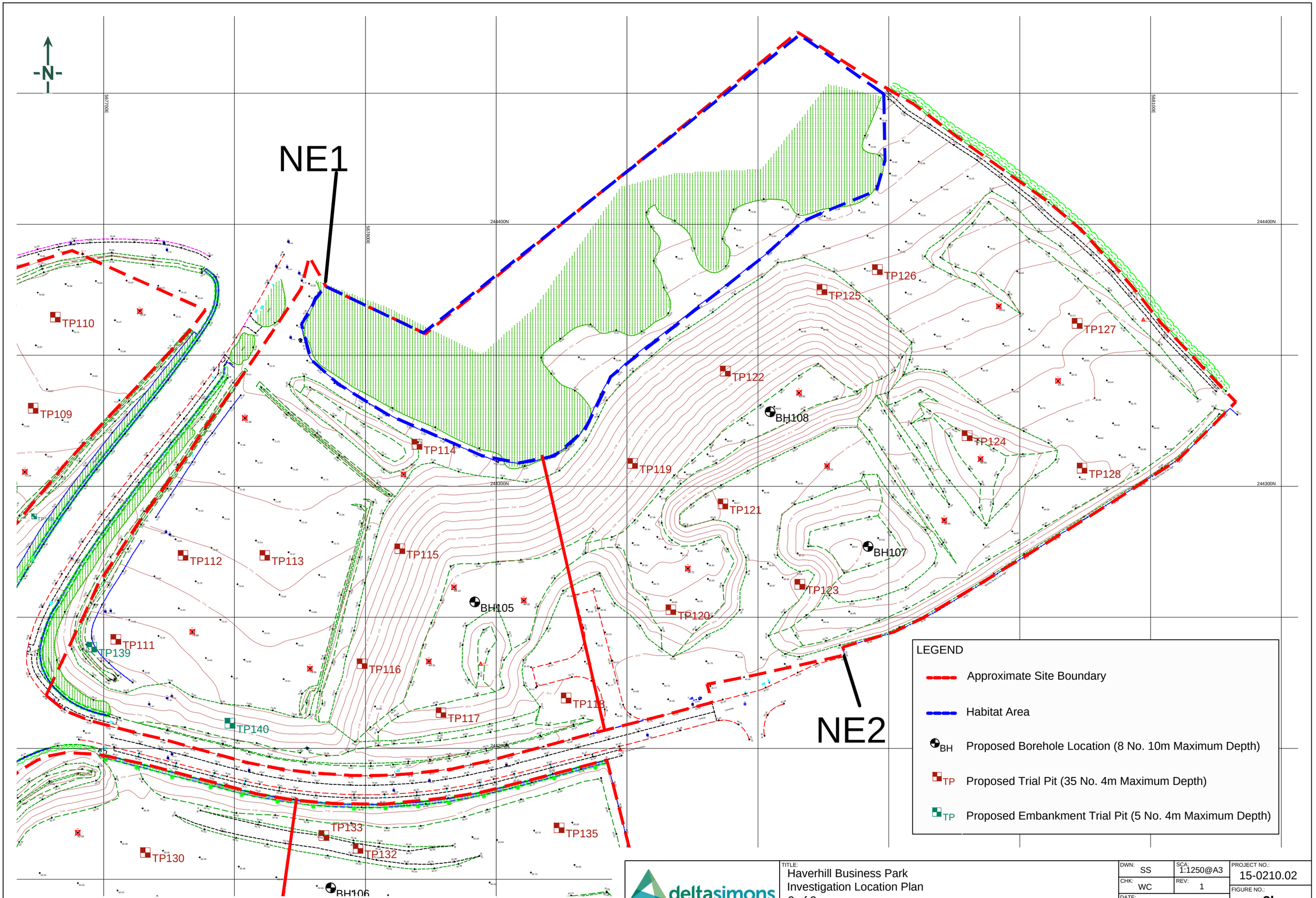
deltasimons	TITLE: Site Location Map Haverhill Business Park Haverhill	DRAWN BY: DP SCALE: To Scale@A4 CHECKED BY: SS REVISION: 1 DATE: 05 August 2015	PROJECT NO: 15-0210.02 FIGURE NO: 1



deltasimons

TITLE:
Haverhill Business Park
Investigation Location Plan
1 of 3

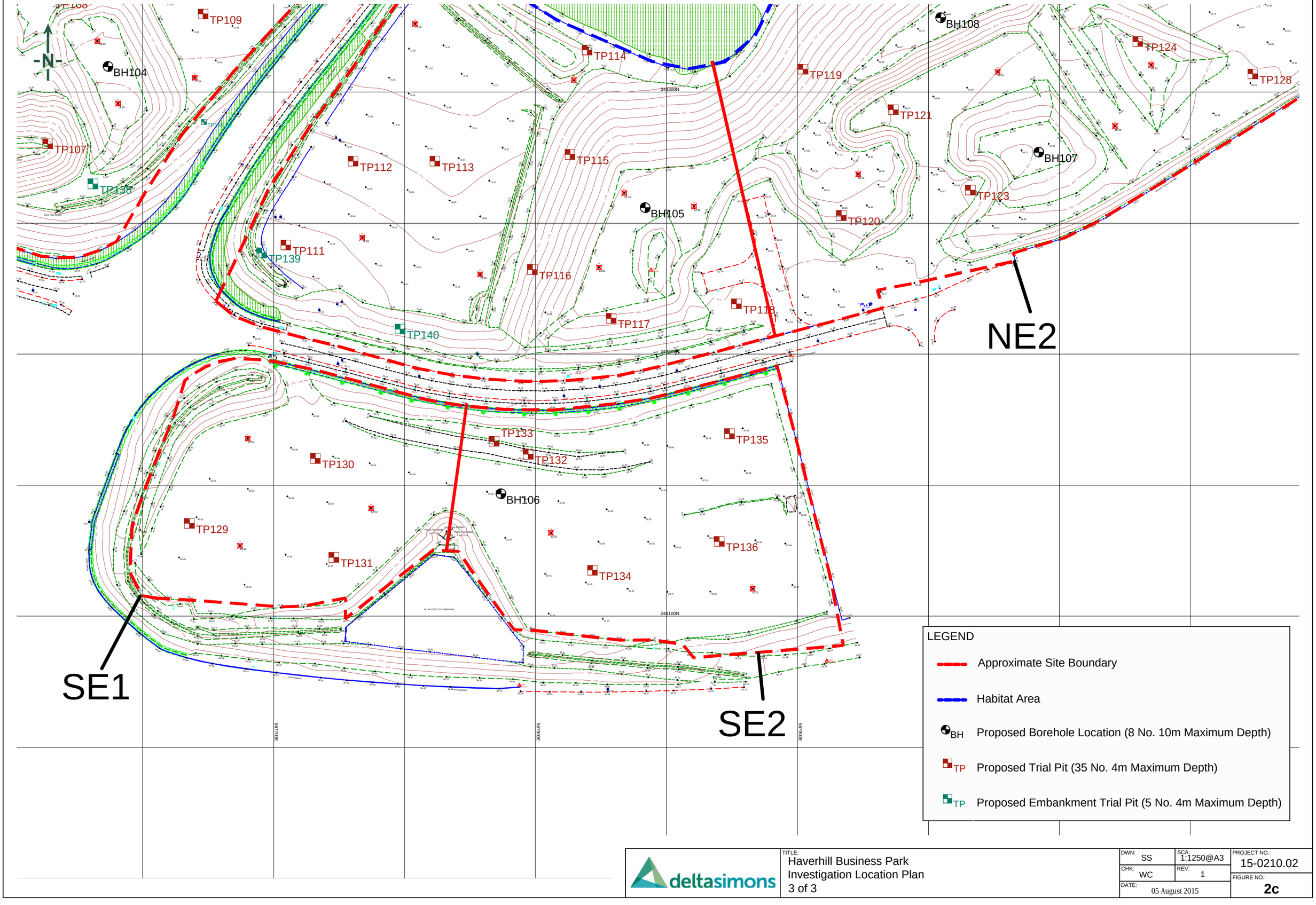
DWN: SS	SCA: 1:1250@A3	PROJECT NO.: 15-0210.02
CHK: WC	REV: 1	FIGURE NO.: **2a**
DATE: 05 August 2015		



deltasimons

TITLE:
Haverhill Business Park
Investigation Location Plan
2 of 3

DWN: SS	SCA: 1:1250@A3	PROJECT NO.: 15-0210.02	
CHK: WC	REV: 1	FIGURE NO.: **2b**	
DATE: 05 August 2015			



LEGEND

- Approximate Site Boundary
- Habitat Area
- BH — Proposed Borehole Location (8 No. 10m Maximum Depth)
- TP — Proposed Trial Pit (35 No. 4m Maximum Depth)
- TP — Proposed Embankment Trial Pit (5 No. 4m Maximum Depth)

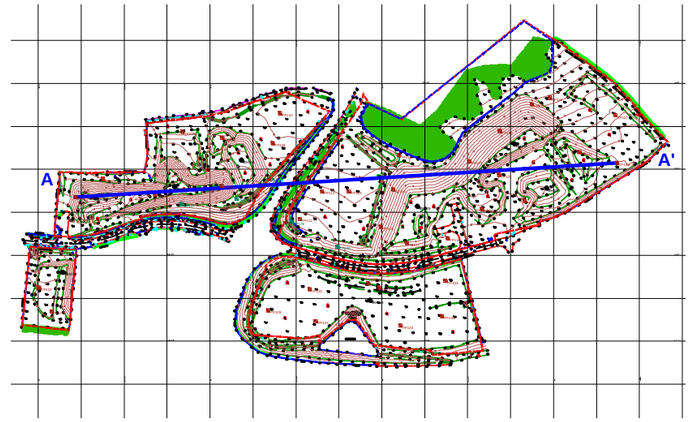
deltasimons

TITLE:
Haverhill Business Park
Investigation Location Plan
3 of 3

DWN: SS	SCA: 1:1250@A3	PROJECT NO.: 15-0210.02
CHK: WC	REV: 1	FIGURE NO.: 2c
DATE: 05 August 2015		

LEGEND

- Made Ground
- Clay
- Chalk



West
A

East
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RA102
TP105
RA103
TP103
TP107
RA104
TP112
TP113
TP115
RA107
TP124
TP128
TP121
TP119
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?

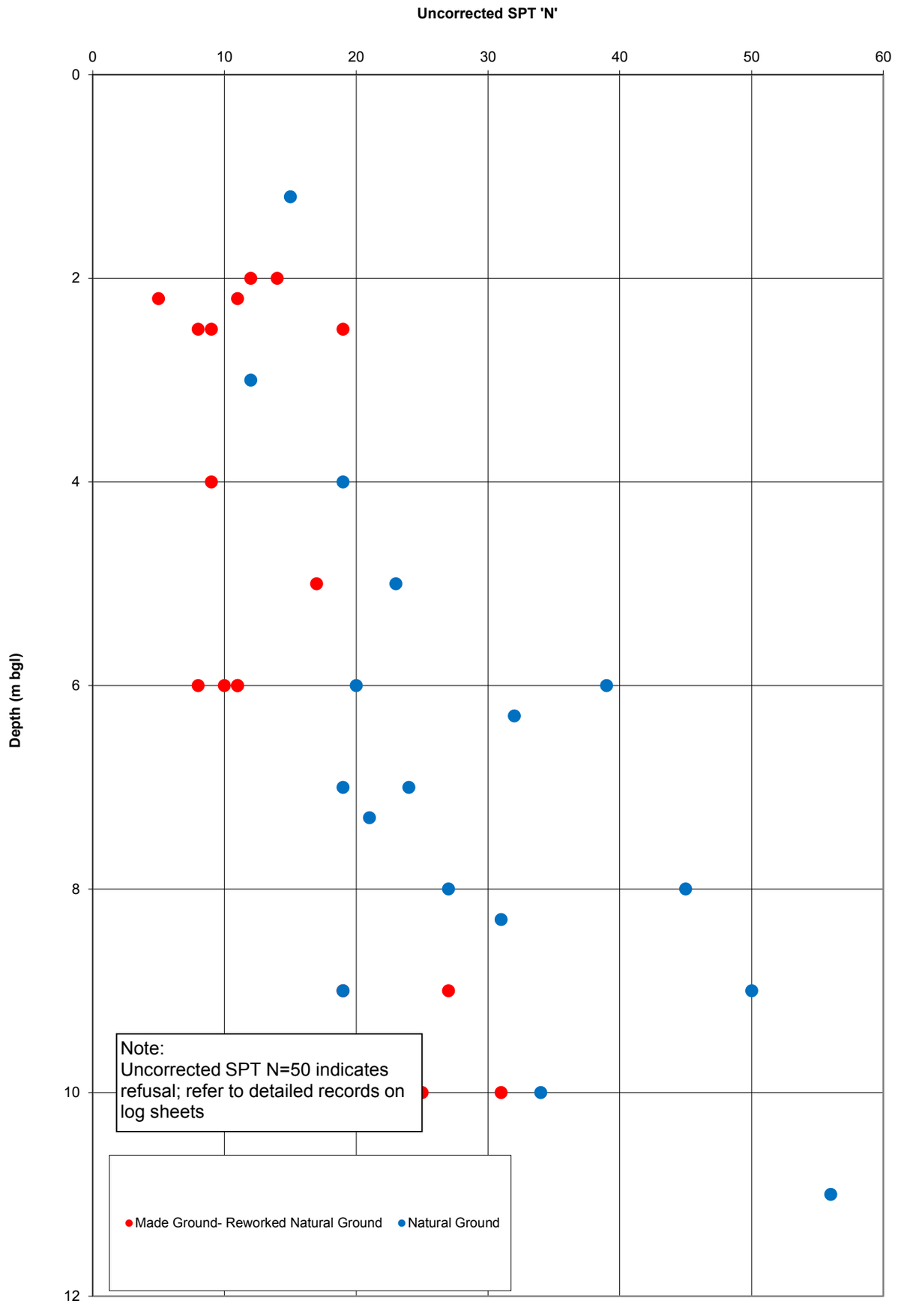
deltasimons	TITLE: Indicative Geological Cross Section Haverhill Business Park Haverhill	DWN: DP	DES: -	PROJECT NO.: 15-0210.02
		CHK: SS	APP: -	FIGURE NO.: 3
		DATE: 06August 2015	REV: 1	

A3

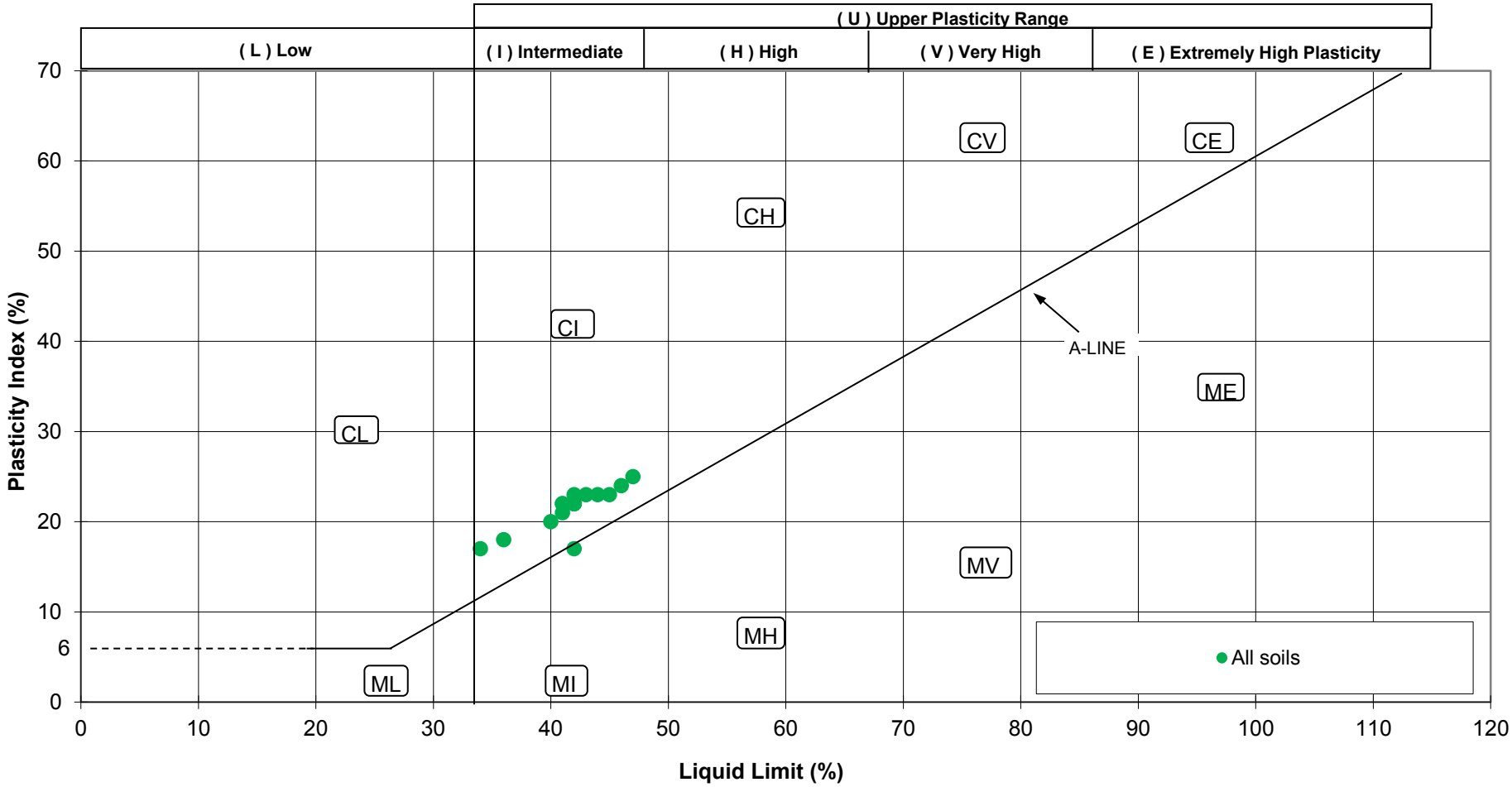
deltasimons

TITLE:
Contour Plot of Natural Strata Level (m AOD)
Haverhill Business Park
Haverhill

DWN: DP	DES: -	PROJECT NO.: 15-0210.02	
CHK: SS	APP: -	FIGURE NO.: 4	
DATE: 06 August 2015	REV: 1		



deltasimons	TITLE: Uncorrected SPT, Depth and Strata Type Haverhill Business Park	DWN: WC	PROJECT NO.: 15-0210.02
		DATE: Jun-15	FIGURE NO.: 5



deltasimons	TITLE: Plasticity Chart - All Soils Haverhill Business Park, Haverhill	DWN: WC	PROJECT NO.: 15-0210.02
		DATE: Jul-15	FIGURE NO.: 6

Appendix I

deltasimons
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Project No:	Hole ID:	Page No.
15-0210.02	RA101	1 of 1

Project: **Haverhill Business Park**

Rotary Core Borehole Log

Date: **19/06/2015**

Client: **Hammond Rutts Investments Limited**

Description Of Strata	Legend	Strata Depth / Reduced Level (Thickness)	Casing Depth (Dia. mm)	Core Recovery TCR%	Core Recovery SCR%	Core Recovery RQD%	Core Depth (Length)	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results	Backfill
MADE GROUND: Soft to firm brownish dark grey slightly sandy gravelly clay. Gravel is fine to coarse angular to rounded flint and chalk. Sand is fine to coarse. Drilling became stiff at 3.5 m bgl. (REWORKED NATURAL FILL)		(5.00)						0.50	ES			
								1.00	B			
								2.00	B			
										2.50-2.95	SPT(S) N=19 1,3/4,4,5,6	
								3.00	B			
		5.00 82.56										
Stiff orangish dark grey slightly sandy gravelly CLAY. Gravel is angular to subrounded fine to coarse chalk and flint. Sand is fine to coarse. (LOWESTOFT FORMATION)		(4.30)								6.00-6.45	SPT(S) N=39 3,6/8,9,11,11	
										9.00-9.45	SPT(S) N=50/152mm (3,7/9,36,5,0/-73mm)	
		9.30 78.26										
Borehole completed at 9.30 m bgl.												

Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Installed with 63mm standpipe to 9.3 m bgl.

Flush Return

Type	Depth (m)	Return

Water Level Observations

Date	Time	Water Strike (m)	Standing (m)	Casing Depth (m)
			NO WATER ENCOUNTERED	

Borehole Diameter	Casing Diameter	Depth Sealed
200mm to 9.30m		

Coordinates (National Grid) / Level (mAOD):		Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567429.161 N:244179.271 Level:87.558	SW	Commachio 205	WC	SS	SS	1:60

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Project: **Haverhill Business Park**

Rotary Core Borehole Log

Date: 17/06/2015

Client: Hammond Rutts Investments Limited

Description Of Strata	Legend	Strata Depth / Reduced Level / (Thickness)	Casing Depth (Dia. mm)	Core Recovery TCR%	Core Recovery SCR%	Core Recovery RQD%	Core Depth (Length)	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results	Backfill
MADE GROUND: Firm brownish grey slightly sandy gravelly clay. Gravel is rounded to angular fine to coarse flint and chalk. Sand is fine to coarse. (REWORKED NATURAL FILL)		(6.80)						1.00-2.00	B			
								2.00-3.00	B			
										2.50-2.95	SPT(S) N=8 1,1/2,2,2,2	
								3.00-4.00	B			
								4.00-5.00	B			
								6.00	ES	6.00-6.45	SPT(S) N=8 1,1/2,2,2,2	
		6.80 79.53										
Soft black brown organic sandy slightly gravelly CLAY. Gravel is subangular to rounded fine to coarse flint and chalk. Sand is fine to coarse. Grass relics possible original topsoil level. (TOPSOIL)		7.00 79.33								7.00-7.45	SPT(S) N=24 2,4/4,5,7,8	
Firm light brown slightly sandy gravelly CLAY. Gravel is rounded fine to medium chalk and flint. Sand is fine to coarse. (LOWESTOFT FORMATION)		(1.45)								8.00-8.45	SPT(S) N=45 4,7/7,10,13,15	
		8.45 77.88										
Borehole completed at 8.45 m bgl.												

Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Installed with 63mm standpipe to 8.0 m bgl.

Flush Return		
Type	Depth (m)	Return

Water Level Observations				
Date	Time	Water Strike (m)	Standing (m)	Casing Depth (m)
			NO WATER ENCOUNTERED	

Borehole Diameter	Casing Diameter	Depth Sealed
200mm to 8.45m		

Coordinates (National Grid) / Level (mAOD):		Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567475.7 N:244266.5 Level:86.332	SW	Commachio 206	WC	SS	SS	1:60

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Project No: **15-0210.02**

Hole ID: **RA103**

Project: **Haverhill Business Park**

Rotary Core Borehole Log

Date: **18/06/2015**

Client: **Hammond Rutts Investments Limited**

Description Of Strata	Legend	Strata Depth / Reduced Level (Thickness)	Casing Depth (Dia. mm)	Core Recovery TCR%	Core Recovery SCR%	Core Recovery RQD%	Core Depth (Length)	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results	Backfill
MADE GROUND: Soft to firm greyish brown slightly sandy gravelly clay. Gravel is rounded to angular fine to course flint and chalk. Sand is fine to coarse. (REWORKED NATURAL FILL)		(9.20)						1.00-2.00	B			
								2.00-3.00	B			
										2.50-2.95	SPT(S) N=9 1,1/1,3,2,3	
								3.00-4.00	B			
								4.00-5.00	B			
										6.00-6.45	SPT(S) N=11 0,1/2,3,3,3	
								8.50	ES			
										9.00-9.45	SPT(S) N=27 1,2/4,8,6,9	
		9.20 74.12										
MADE GROUND: Firm dark grey slightly sandy slightly gravelly CLAY. Gravel is subangular to rounded fine to medium flint. Sand is fine to coarse. (TOPSOIL)		9.50 73.82										
		(0.50)										
		10.00 73.32								10.00-10.45	SPT(S) N=34 3,6/8,8,8,10	
Firm brown slightly sandy slightly gravelly CLAY. Gravel is rounded to angular fine to		(0.45)										
		10.45 72.87										

Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Installed with 63mm standpipe to 10.0 m bgl.

Flush Return

Type	Depth (m)	Return

Water Level Observations

Date	Time	Water Strike (m)	Standing (m)	Casing Depth (m)
			NO WATER ENCOUNTERED	

Borehole Diameter	Casing Diameter	Depth Sealed
200mm to 10.45m		

Coordinates (National Grid) / Level (mAOD)		Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567559.007 N:244278.78 Level:83.315	SW	Commachio 207	WC	SS	SS	1:60

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Project: **Haverhill Business Park**

Rotary Core Borehole Log

Date: 18/06/2015

Client: Hammond Rutts Investments Limited

Description Of Strata	Legend	Strata Depth Reduced Level (Thickness)	Casing Depth (Dia. mm)	Core Recovery TCR%	Core Recovery SCR%	Core Recovery RQD%	Core Depth (Length)	Sample Details Depth (m)	Sample Details Type Ref	Test Details Depth (m)	Test Details Results	Backfill
medium flint. Sand is fine to coarse. (LOWESTOFT FORMATION)												
Stiff yellowish brown slightly sandy gravelly CLAY. Gravel is rounded to angular fine to course chalk and flint gravel. Sand is fine to coarse. (LOWESTOFT FORMATION)												
Borehole complete at 10.45 m bgl.												

Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Installed with 63mm standpipe to 10.0 m bgl.

Flush Return		
Type	Depth (m)	Return

Water Level Observations				
Date	Time	Water Strike (m)	Standing (m)	Casing Depth (m)
			NO WATER ENCOUNTERED	

Borehole Diameter	Casing Diameter	Depth Sealed
200mm to 10.45m		

Coordinates (National Grid) / Level (mAOD):		Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567559.007 N:244278.78 Level:83.315	SW	Commachio 207	WC	SS	SS	1:60

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Project No: **15-0210.02**

Hole ID: **RA104**

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Project: **Haverhill Business Park**

Rotary Core Borehole Log

Date: **22/06/2015**

Client: **Hammond Rutts Investments Limited**

Description Of Strata	Legend	Strata Depth / Reduced Level (Thickness)	Casing Depth (Dia. mm)	Core Recovery TCR%	Core Recovery SCR%	Core Recovery RQD%	Core Depth (Length)	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results	Backfill
MADE GROUND: Firm brown slightly gravelly clay . Gravel is rounded to angular fine to coarse flint and chalk . (REWORKED NATURAL FILL)		(6.10)						0.00-1.30	B			
										2.00-2.45	SPT(S) N=12 1,1/2,3,4,3	
								4.00-5.00	B	4.00-4.45	SPT(S) N=9 2,2/2,3,2,2	
										5.00-5.45	SPT(S) N=17 2,2/3,4,5,5	
		6.10 72.80								6.00-6.45	SPT(S) N=20 2,3/5,5,5,5	
Firm greenish brown sandy slightly gravelly CLAY. Gravel is subrounded to rounded fine to coarse flint and chalk. Occasional rootlets. (TOPSOIL)		(0.80)						6.50	ES			
		6.90 72.00								7.00-7.45	SPT(S) N=19 2,2/4,5,5,5	
Firm brownish light orange sandy gravelly CLAY. Gravel is rounded to angular fine to coarse flint and chalk. (LOWESTOFT FORMATION)		(1.20)								8.00-8.45	SPT(S) N=27 2,4/7,6,7,7	
		8.10 70.80										
Structureless CHALK composed of uncompact, cream with orange veins, slightly gravelly sandy SILT. Gravel is very weak, low density, creamish and subangular. (Grade Dm) (LEWES NODULAR CHALK FORMATION AND SEAFORD NODULAR CHALK FORMATION UNDIFFERENTIATED)		8.45 70.45										
Borehole complete at 8.45 m bgl.												

Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Installed with 63mm standpipe to 8.45 m bgl.

Flush Return		
Type	Depth (m)	Return

Water Level Observations				
Date	Time	Water Strike (m)	Standing (m)	Casing Depth (m)
			NO WATER ENCOUNTERED	

Borehole Diameter	Casing Diameter	Depth Sealed
200mm to 8.45m		

Coordinates (National Grid) / Level (mAOD)		Plant Used	Logged By	Checked By	Approved By	Scale
E:567636.816 N:244309.737 Level:78.899	SW	Commachio 208	WC	SS	SS	1:60

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Project No:	Hole ID:	Page No.
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Project: **Haverhill Business Park**

Rotary Core Borehole Log

Date: 17/06/2015

Client: Hammond Rutts Investments Limited

Description Of Strata	Legend	Strata Depth / Reduced Level / (Thickness)	Casing Depth (Dia. mm)	Core Recovery TCR%	Core Recovery SCR%	Core Recovery RQD%	Core Depth (Length)	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results	Backfill
MADE GROUND: Firm grey slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. (REWORKED NATURAL FILL)		(3.50)						1.00-2.00	B			
								2.00-3.00	B	2.20-2.65	SPT(S) N=5 1,1/1,1,1,2	
								3.00-4.00	B			
		3.50 80.74										
MADE GROUND: Firm brown slightly sandy gravelly clay. Gravel is subrounded to rounded fine to coarse chalk and flint with rare red sandstone. Rare rootlets. (REWORKED NATURAL FILL)		(5.70)						4.00-5.00	B			
										6.00-6.45	SPT(S) N=11 1,1/2,2,3,4	
								8.50	ES			
										9.00-9.45	SPT(S) N=19 2,3/4,5,5,5	
		9.20 75.04										
MADE GROUND: Soft black organic slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to medium flint. Sand is fine to coarse. Grass remains possible original topsoil layer.		9.30 74.94 (1.05)								10.00-10.45	SPT(S) N=25 2,2/4,5,5,11	
Stiff orangish brown sandy gravelly CLAY.		10.35 73.89										
		10.45 73.79										

Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Installed with 63mm standpipe to 10.45 m bgl.

Flush Return

Type	Depth (m)	Return

Water Level Observations

Date	Time	Water Strike (m)	Standing (m)	Casing Depth (m)

NO WATER ENCOUNTERED

Borehole Diameter	Casing Diameter	Depth Sealed
200mm to 10.45m		

Coordinates (National Grid) / Level (mAOD):		Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567841.894 N:244255.889 Level:84.236	SW	Commachio 209	WC	SS	SS	1:60

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Project No: 15-0210.02

Hole ID: RA105

Project: Haverhill Business Park

Rotary Core Borehole Log

Date: 17/06/2015

Client: Hammond Rutts Investments Limited

Description Of Strata	Legend	Strata Depth Reduced Level (Thickness)	Casing Depth (Dia. mm)	Core Recovery TCR%	Core Recovery SCR%	Core Recovery RQD%	Core Depth (Length)	Sample Details Depth (m)	Sample Details Type Ref	Test Details Depth (m)	Test Details Results	Backfill
Gravel is angular to rounded fine to coarse chalk and flint. (LOWESTOFT FORMATION)												
Structureless CHALK composed of uncompact, cream with orange veins, slightly gravelly sandy SILT. Gravel is very weak, low density, creamish and subangular. (Grade Dm) (LEWES NODULAR CHALK FORMATION AND SEAFORD NODULAR CHALK FORMATION UNDIFFERENTIATED)												
Borehole complete at 10.45 m bgl.												

Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Installed with 63mm standpipe to 10.45 m bgl.

Flush Return

Type	Depth (m)	Return

Water Level Observations

Date	Time	Water Strike (m)	Standing (m)	Casing Depth (m)
			NO WATER ENCOUNTERED	

Borehole Diameter	Casing Diameter	Depth Sealed
200mm to 10.45m		

Coordinates (National Grid) / Level (mAOD):		Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567841.894 N:244255.889 Level:84.236	SW	Commachio 209	WC	SS	SS	1:60

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Project No: **15-0210.02**

Hole ID: **RA106**

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Project: **Haverhill Business Park**

Rotary Core Borehole Log

Date: **15/06/2015**

Client: **Hammond Rutts Investments Limited**

Description Of Strata	Legend	Strata Depth / Reduced Level / (Thickness)	Casing Depth (Dia. mm)	Core Recovery TCR%	Core Recovery SCR%	Core Recovery RQD%	Core Depth (Length)	Sample Details Depth (m)	Sample Details Type Ref	Test Details Depth (m)	Test Details Results	Backfill
MADE GROUND: Firm slightly sandy gravelly clay. Gravel is angular to subrounded fine to coarse flint and chalk. Occasional brick cobbles.		0.40 82.12										
Firm dark greyish brown gravelly CLAY. Gravel is subrounded to rounded fine to coarse chalk and flint. (LOWESTOFT FORMATION)		(5.05)						1.00-2.00	B	1.20-1.65	SPT(S) N=15 2,2/3,4,4,4	
								3.00-4.00	B	3.00-3.45	SPT(S) N=12 2,2/4,3,2,3	
								4.00-5.00	B	4.00-4.45	SPT(S) N=19 3,3/4,5,5,5	
										5.00-5.45	SPT(S) N=23 4,4/5,6,6,6	
Borehole complete at 5.45 m bgl.		5.45 77.07										

Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Installed with 63mm standpipe to 5.3 m bgl.

Flush Return

Type	Depth (m)	Return

Water Level Observations

Date	Time	Water Strike (m)	Standing (m)	Casing Depth (m)
			NO WATER ENCOUNTERED	

Borehole Diameter	Casing Diameter	Depth Sealed
200mm to 5.45m		

Coordinates (National Grid) / Level (mAOD):		Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567954.69 N:244328.397 Level:82.522	SW	Commachio 210	WC	SS	SS	1:60

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Project No:	Hole ID:	Page No.
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Project: **Haverhill Business Park**

Rotary Core Borehole Log

Date: **16/06/2015**

Client: **Hammond Rutts Investments Limited**

Description Of Strata	Legend	Strata Depth / Reduced Level / (Thickness)	Casing Depth (Dia. mm)	Core Recovery TCR%	Core Recovery SCR%	Core Recovery RQD%	Core Depth (Length)	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results	Backfill
MADE GROUND: Stiff brown sandy slightly gravelly clay. Gravel is subangular to subrounded fine to medium flint and chalk. Sand is fine to coarse. (REWORKED NATURAL FILL)		(1.90)						0.00-1.50	B			
		1.90 86.13								2.00-2.45	SPT(S) N=14 2,1/3,3,4,4	
MADE GROUND: Soft greyish brown slightly gravelly silty clay. Gravel is rounded fine to medium chalk and flint. (REWORKED NATURAL FILL)		(3.60)						3.00-4.00	B			
								4.00-5.00	B			
		5.50 82.53										
Firm grey gravelly CLAY. Gravel is subrounded to rounded fine to coarse flint and chalk. (LOWESTOFT FORMATION)		(3.25)								6.30-6.75	SPT(S) N=32 2,5/7,8,8,9	
								7.30-8.30	B	7.30-7.75	SPT(S) N=21 2,4/4,4,6,7	
										8.30-8.75	SPT(S) N=31 4,7/7,7,8,9	
		8.75 79.28										
Borehole complete at 8.75 m bgl.												

Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Installed with 63mm standpipe to 8.75 m bgl.

Flush Return

Type	Depth (m)	Return

Water Level Observations

Date	Time	Water Strike (m)	Standing (m)	Casing Depth (m)

NO WATER ENCOUNTERED

Borehole Diameter	Casing Diameter	Depth Sealed
200mm to 8.75m		

Coordinates (National Grid) / Level (mAOD):		Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567992.121 N:244277.069 Level:88.034	SW	Commachio 211	WC	SS	SS	1:60

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Project No: **15-0210.02**

Hole ID: **RA108**

Project: **Haverhill Business Park**

Rotary Core Borehole Log

Date: **16/06/2015**

Client: **Hammond Rutts Investments Limited**

Description Of Strata	Legend	Strata Depth / Reduced Level (Thickness)	Casing Depth (Dia. mm)	Core Recovery TCR%	Core Recovery SCR%	Core Recovery RQD%	Core Depth (Length)	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results	Backfill
MADE GROUND: Firm to stiff grey gravelly clay. Gravel is angular to subrounded fine to medium chalk and flint. (REWORKED NATURAL FILL)		(3.00)								2.20-2.65	SPT(S) N=11 1,1/2,3,3,3	
		3.00 86.58						3.00-4.00	B			
MADE GROUND: Stiff greyish brown firm gravelly clay. Gravel is rounded fine to medium chalk and flint. (REWORKED NATURAL FILL)								4.00-5.00	B			
		(3.80)								6.00-6.45	SPT(S) N=10 1,1/2,2,3,3	
		6.80 82.78										
MADE GROUND: Firm to stiff brown slightly sandy gravelly clay. Gravel is subrounded to rounded fine to coarse chalk and flint . Occasional rootlets. (REWORKED NATURAL FILL)		(3.40)						9.00	ES	9.00-9.45	SPT(S) N=19 1,2/4,5,5,5	
										10.00-10.45	SPT(S) N=31 2,5/6,7,8,10	
		10.20 79.38										
MADE GROUND: Soft dark brown organic		10.35 79.23										

Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Installed with 63mm standpipe to 11.45 m bgl.

Flush Return

Type	Depth (m)	Return

Water Level Observations

Date	Time	Water Strike (m)	Standing (m)	Casing Depth (m)
			NO WATER ENCOUNTERED	

Borehole Diameter	Casing Diameter	Depth Sealed
200mm to 11.45m		

Coordinates (National Grid) / Level (mAOD)		Plant Used	Logged By	Checked By	Approved By	Scale
E:567786.791 N:244146.71 Level:89.583	SW	Commachio 212	WC	SS	SS	1:60

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Project: **Haverhill Business Park**

Rotary Core Borehole Log

Date: **16/06/2015**

Client: **Hammond Rutts Investments Limited**

Description Of Strata	Legend	Strata Depth / Reduced Level (Thickness)	Casing Depth (Dia. mm)	Core Recovery TCR%	Core Recovery SCR%	Core Recovery RQD%	Core Depth (Length)	Sample Details Depth (m)	Sample Details Type Ref	Test Details Depth (m)	Test Details Results	Backfill
CLAY. Occasional rootlets and vegetation evidence of green grass. (TOPSOIL)		(0.85)										
Stiff brown slightly gravelly CLAY. Gravel is rounded fine to medium chalk and flint. (LOWESTOFT FORMATION)*(BH Continued)*		11.20 78.38								11.00-11.45	SPT(S) N=56 4,9/25,15,8,8	
Structureless CHALK composed of uncompact, cream with orange veins, slightly gravelly sandy SILT. Gravel is very weak, low density, creamish and subangular. (Grade Dm) (LEWES NODULAR CHALK FORMATION AND SEAFORD NODULAR CHALK FORMATION UNDIFFERENTIATED)		11.45 78.13										
Borehole complete at 11.45 m bgl												

Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Installed with 63mm standpipe to 11.45 m bgl.

Flush Return

Type	Depth (m)	Return

Water Level Observations

Date	Time	Water Strike (m)	Standing (m)	Casing Depth (m)
			NO WATER ENCOUNTERED	

Borehole Diameter	Casing Diameter	Depth Sealed
200mm to 11.45m		

Coordinates (National Grid) / Level (mAOD):		Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567786.791 N:244146.71 Level:89.583	SW	Commachio 212	WC	SS	SS	1:60

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Project No:	Hole ID:	Page No.
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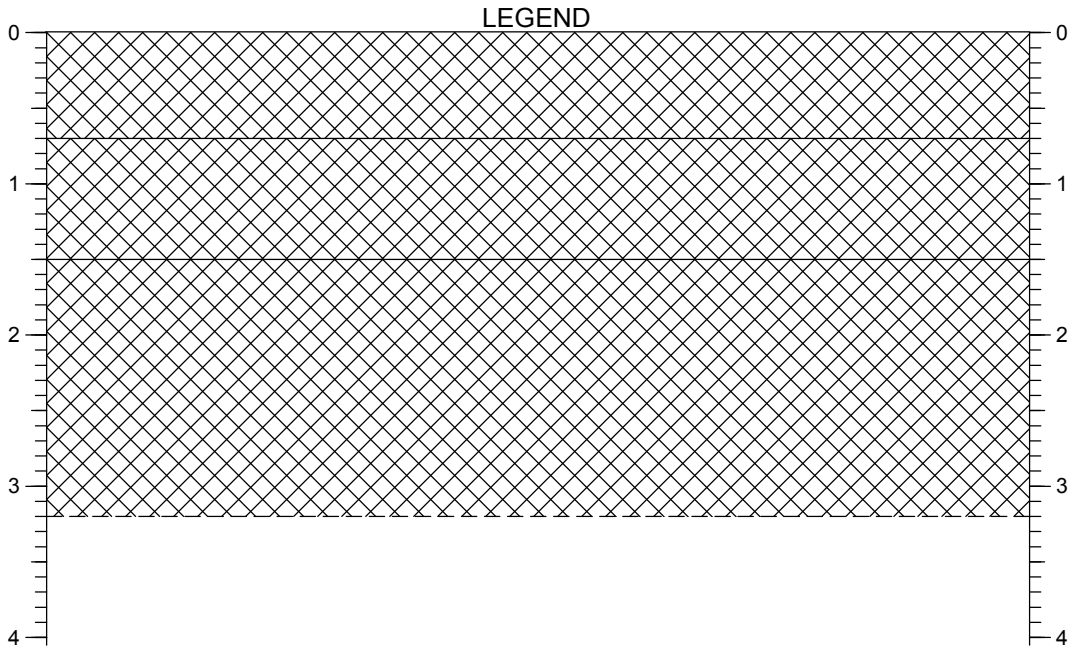
Project: **Haverhill Business Park**

Trial Pit Log

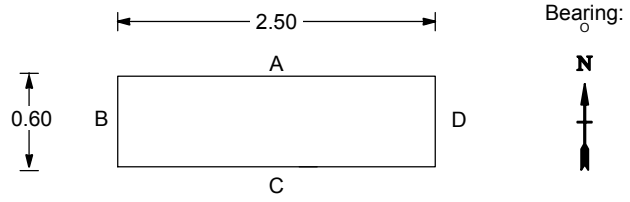
Date: **18/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(0.70) 0.70 87.625	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (TOPSOIL)				0.50	HSV= >140kN/m^2
(0.80) 1.50 86.825	MADE GROUND: Dark brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. Rare flint boulder. (REWORKED NATURAL FILL)				1.20	HSV= 110kN/m^2
(1.70) 3.20 85.125	MADE GROUND: Grey mottled brown slightly sandy gravelly clay. Gravel is angular to subrounded fine to coarse chalk and flint. Sand is fine to coarse. Rare coarse gravel sized pockets of orange clayey sand. (REWORKED NATURAL FILL)		2.00	B 1 ES		
	Trial pit complete at 3.20 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567415.612 N:244134.595 Level:88.325		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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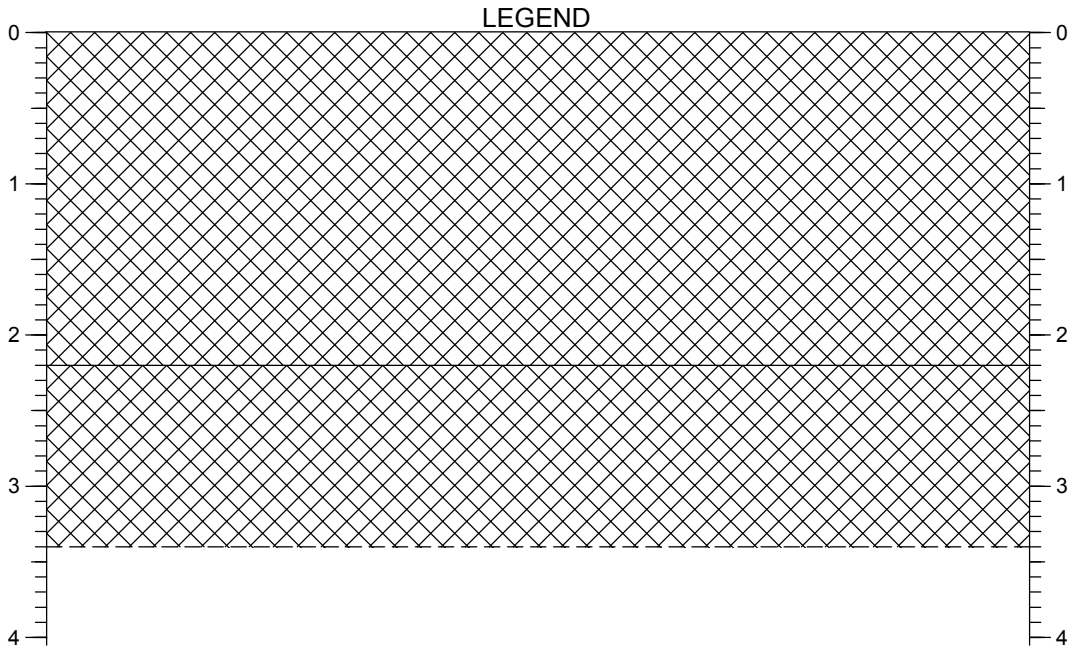
Project: **Haverhill Business Park**

Trial Pit Log

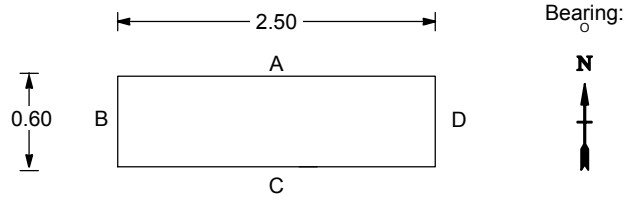
Date: **18/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details Depth (m)	Sample Details Type Ref	Test Details Depth (m)	Test Details Results
(2.20) 2.20 86.161	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (REWORKED NATURAL FILL)		1.00	B 1 ES	1.20	HSV= 124 to >140kN/m^2
(1.20) 3.40 84.961	MADE GROUND: Grey mottled brown slightly sandy gravelly clay. Gravel is angular to subrounded fine to coarse chalk and flint. Sand is fine to coarse. Rare coarse gravel sized pockets of orange clayey sand. (REWORKED NATURAL FILL)					
	Trial pit complete at 3.40 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567400.874 N:244161.623 Level:88.361		JCB 3CX	WC	SS	SS	1:50

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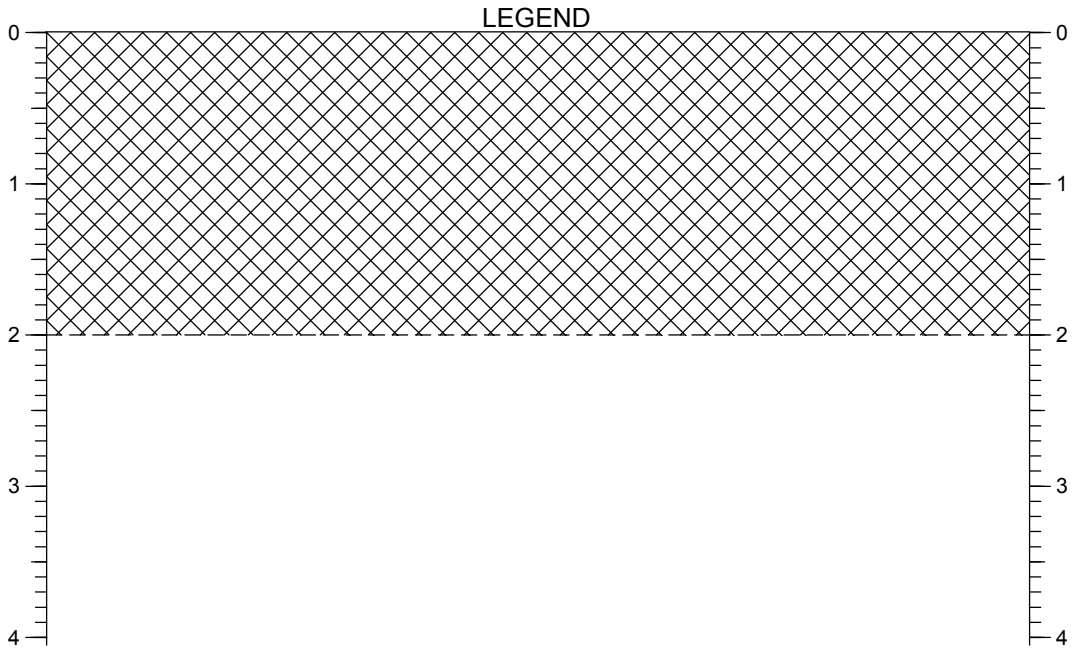
Project No:	Hole ID:	Page No.
15-0210.02	TP103	1 of 1

Project: **Haverhill Business Park**

Trial Pit Log

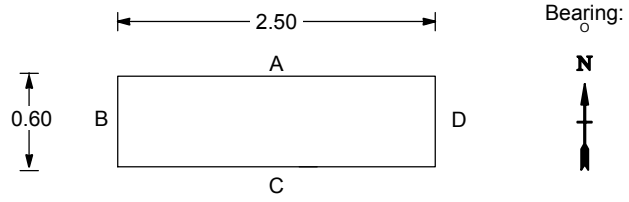
Date: **19/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(2.00)	MADE GROUND: Stiff light brown slightly sandy slightly gravelly clay. Gravel is angular to subrounded fine to coarse. Predominantly flint with rare brick and concrete. Sand is fine to coarse. Rare cobbles of tarmac.		1.00	B 1 ES		
2.00 80.118	Trial pit complete at 2.00 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567443.223 N:244267.005 Level:82.118		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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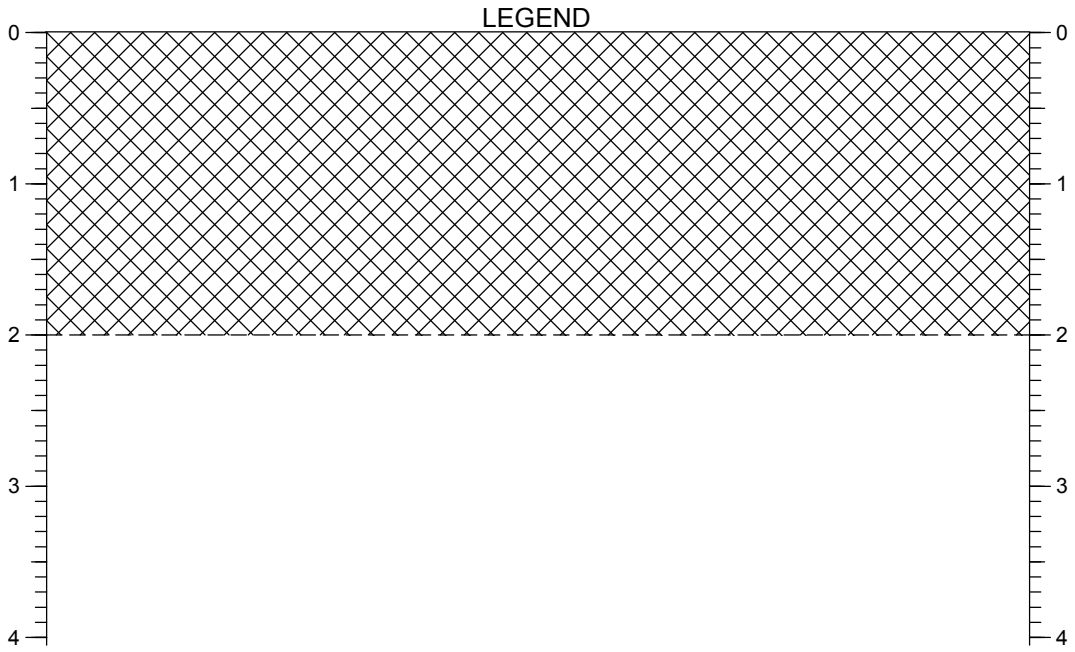
Project: **Haverhill Business Park**

Trial Pit Log

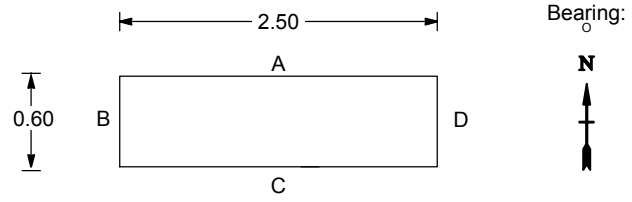
Date: **19/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(2.00)	MADE GROUND: Stiff light brown slightly sandy slightly gravelly clay. Gravel is angular to subrounded fine to coarse. Predominantly flint with rare brick and concrete. Sand is fine to coarse.		1.00	B 1		
2.00 75.04	Trial pit complete at 2.00 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567475.563 N:244288.428 Level:77.04		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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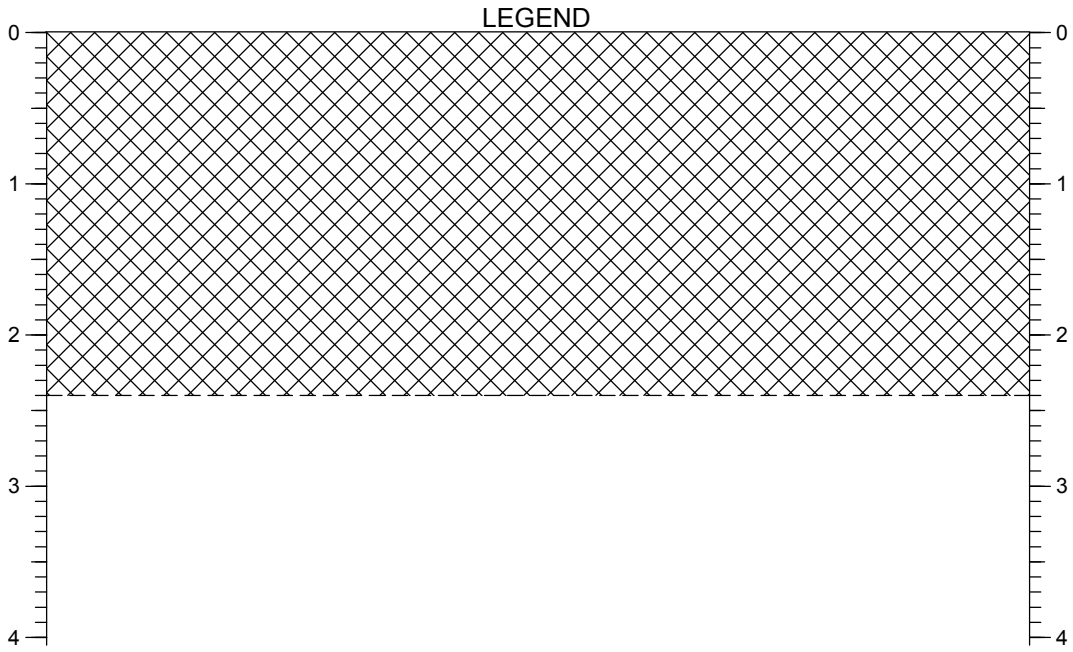
Project: **Haverhill Business Park**

Trial Pit Log

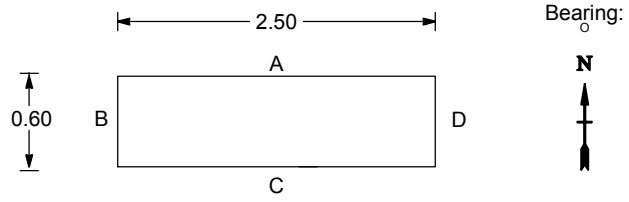
Date: **17/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(2.40)	MADE GROUND: Very stiff light brown slightly sandy slightly gravelly clay. Gravel is angular to rounded fine to coarse of mixed lithologies including flint, chalk and rare vitreous slag with conchoidal fractures . Sand is fine to coarse. Occasional chalk and rare flint cobbles.		1.00	B 1 ES		
2.40 81.545	Trial pit complete at 2.40 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567535.838 N:244270.093 Level:83.945		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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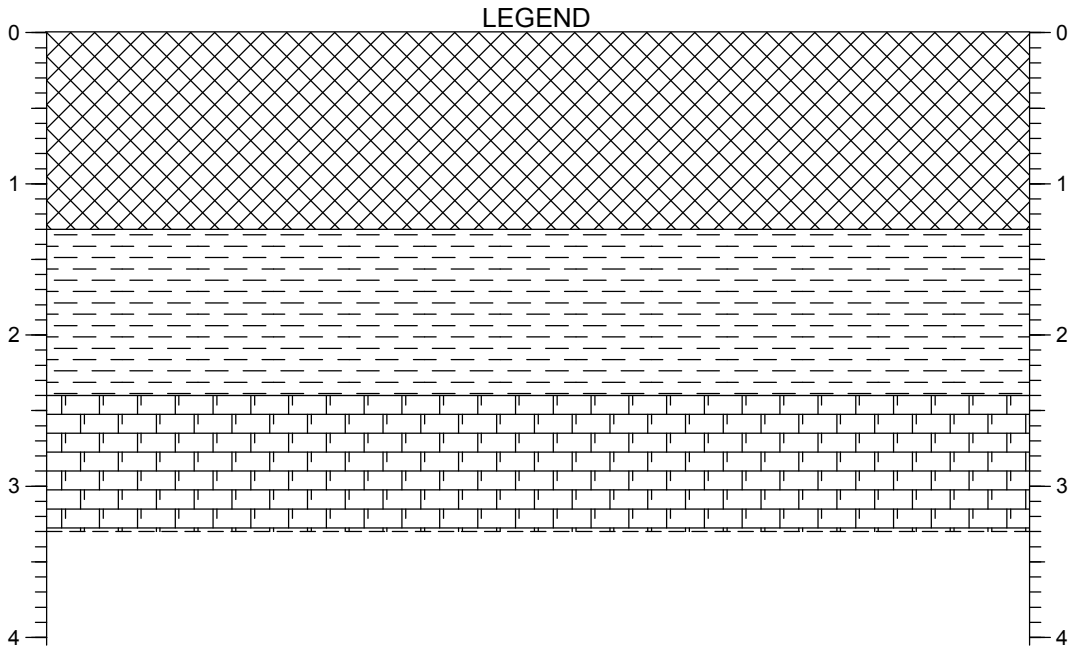
Project: **Haverhill Business Park**

Trial Pit Log

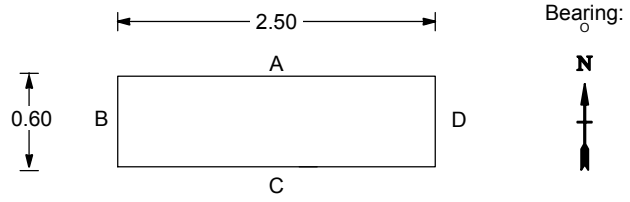
Date: **19/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(1.30) 1.30 71.182	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (TOPSOIL)					
(1.10) 2.40 70.082	Very stiff orangish brown slightly sandy slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse predominantly flint with rare chalk. Occasional subrounded flint cobbles. (LOWESTOFT FORMATION)		2.00	B 1		
(0.90) 3.30 69.182	Hard CHALK with large flint quantity cobbles of flint irregular shaped. Irregular shaped large boulder sized pockets of brownish orange sandy gravelly clay. Gravel is subangular to rounded fine to coarse flint. Sand is fine to coarse. (LEWES NODULAR CHALK FORMATION AND SEAFORD CHALK FORMATION UNDIFFERENTIATED)					
	Trial pit complete at 3.30 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567567.713 N:244343.336 Level:72.482		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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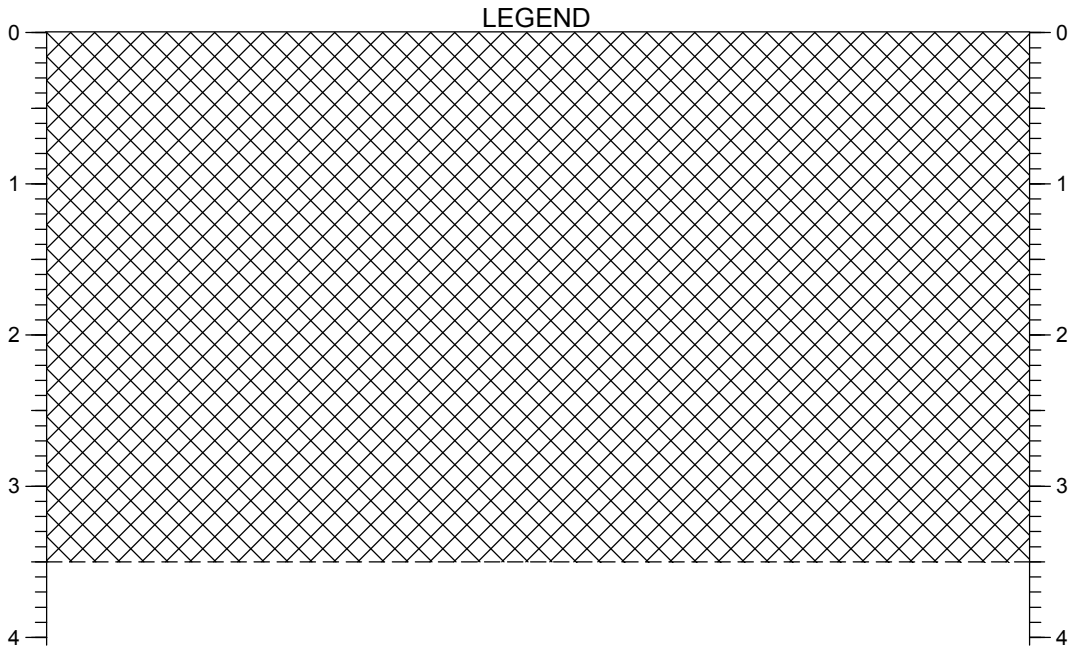
Project: **Haverhill Business Park**

Trial Pit Log

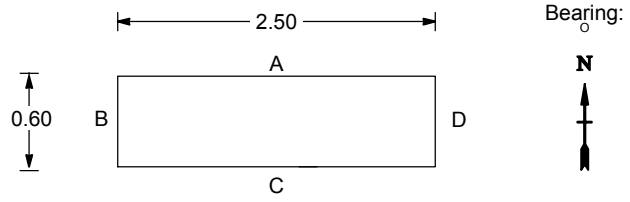
Date: **17/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(3.50)	MADE GROUND: Stiff greyish light brown slightly sandy gravelly clay. Gravel is angular to rounded fine to coarse of mixed lithologies including flint, chalk and rare vitreous slag with conchoidal fractures . Sand is fine to coarse. Occasional chalk and rare flint cobbles.		3.00	B 1	2.00	HSV= 34 to 52kN/m^2
3.50 78.375	Trial pit complete at 3.50 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567613.717 N:244280.286 Level:81.875		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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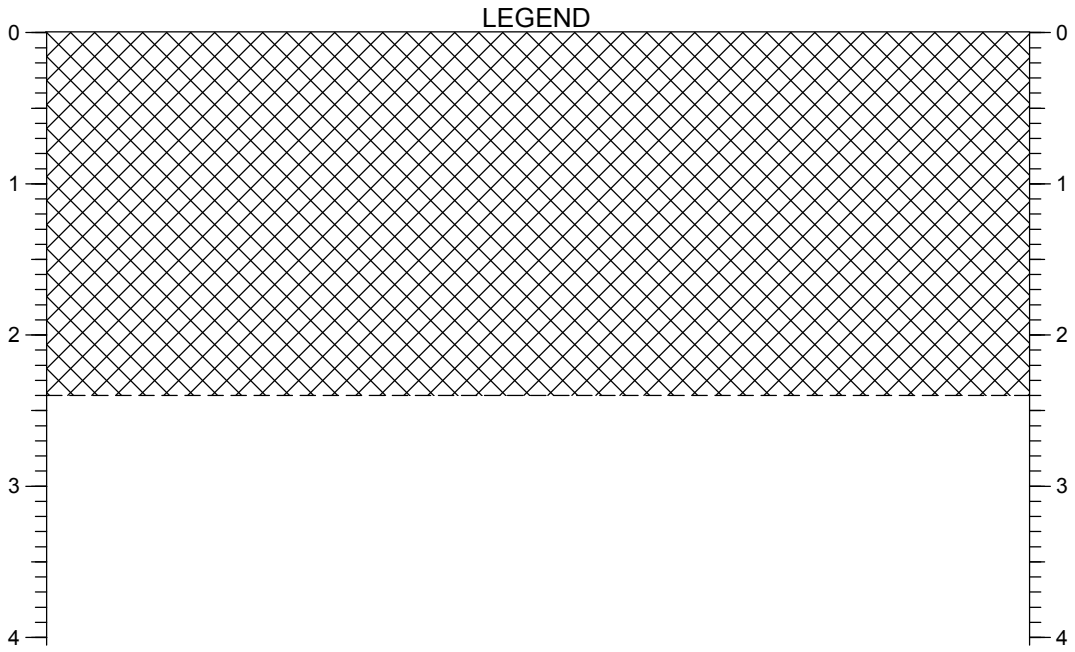
Project: **Haverhill Business Park**

Trial Pit Log

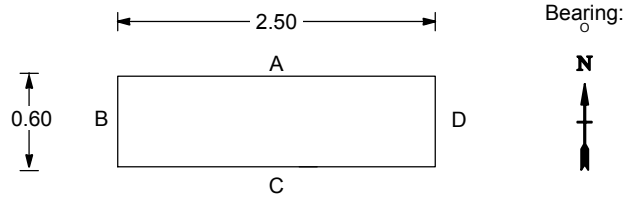
Date: **18/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
	MADE GROUND: Stiff light brown slightly sandy gravelly clay. Gravel is subangular to subrounded fine to coarse and of mixed lithologies including flint, chalk and brick. Sand is fine to coarse. Rare brick cobbles.				0.50	HSV= 124 to >140kN/m^2
					1.00	HSV= 96 to >140kN/m^2
(2.40)			2.00	B 1 ES	2.00	HSV= 104 to >140kN/m^2
2.40 *73.062*	Trial pit complete at 2.40 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567614.2 N:244335.66 Level:75.462		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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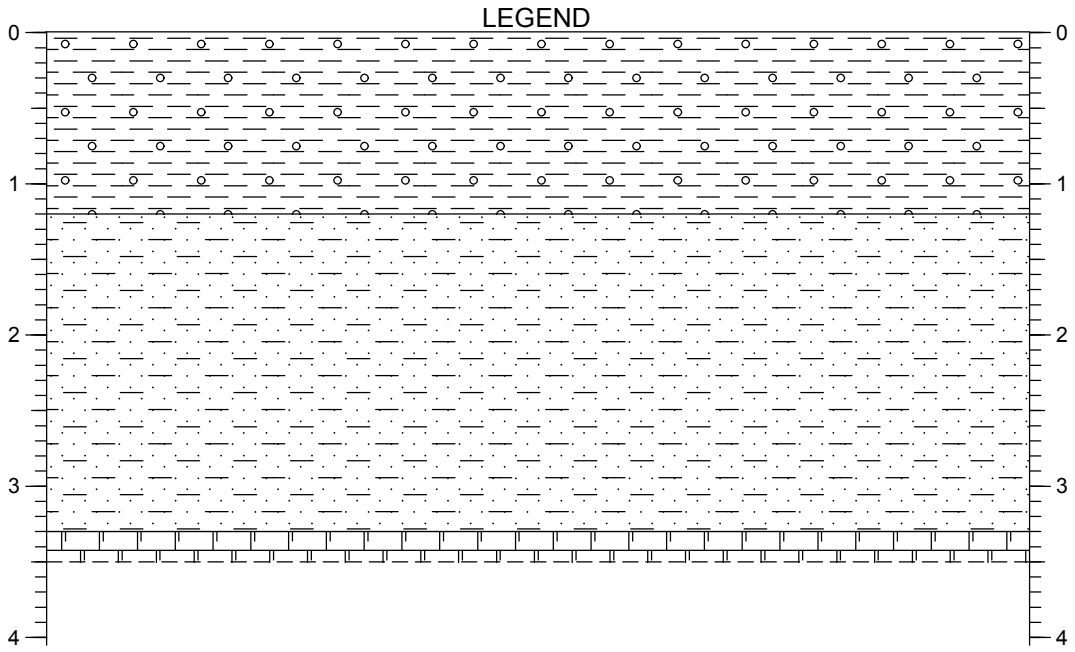
Project: **Haverhill Business Park**

Trial Pit Log

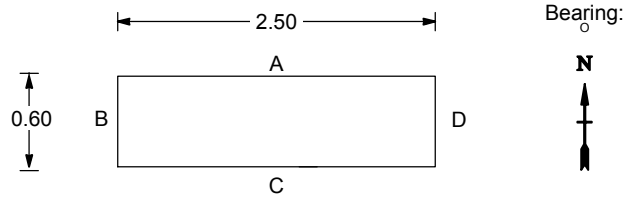
Date: **18/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details Depth (m)	Sample Details Type Ref	Test Details Depth (m)	Test Details Results
(1.20) 1.20 70.171	Very stiff orangish brown slightly sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (LOWESTOFT FORMATION)				1.00	HSV= >140kN/m^2
(2.10) 3.30 68.071	Yellowish orange clayey slightly gravelly fine to coarse SAND. Gravel is subrounded fine to medium flint and chalk. Rare flint boulders and cobbles. Rare boulder sized pockets of structureless chalk composed of uncompact, cream, slightly gravelly sandy SILT. Gravel is very weak, low density, creamish and subangular flint (Grade Dm). Rare flint boulders and cobbles. (LOWESTOFT FORMATION)		2.70	B 1		
3.50 67.871	Structureless CHALK composed of uncompact, greyish cream, slightly gravelly sandy SILT. Gravel is very weak, low density, creamish and subangular. Rare subrounded flint cobbles. Rare subangular chalk cobbles. (Grade Dm) (LEWES NODULAR CHALK FORMATION AND SEAFORD CHALK FORMATION					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567673.074 N:244329.82 Level:71.371		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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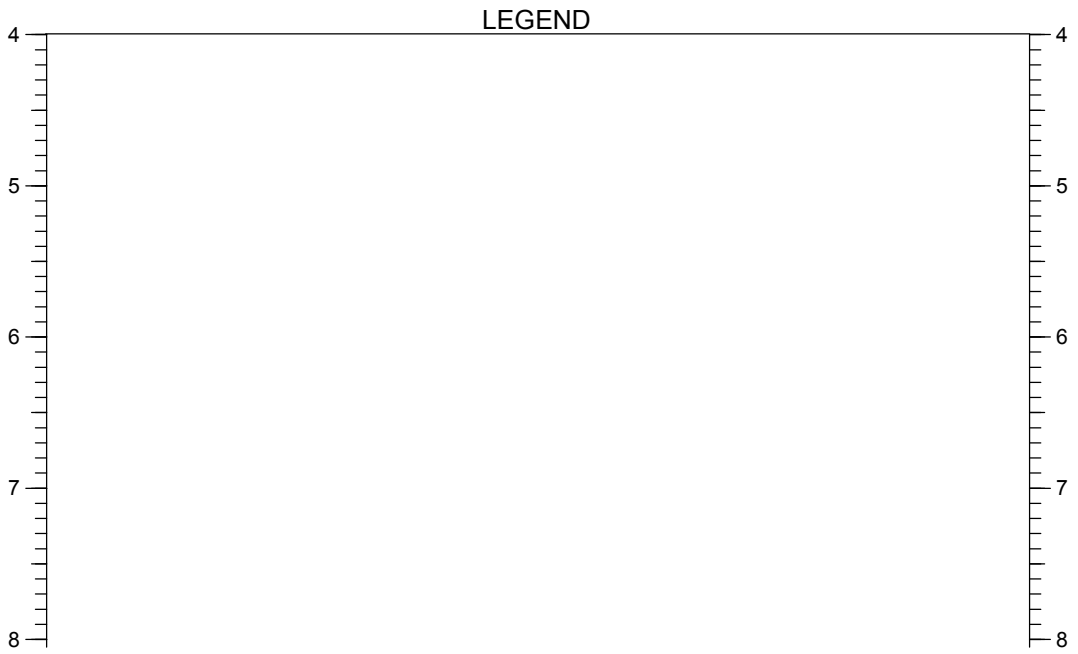
Project: **Haverhill Business Park**

Trial Pit Log

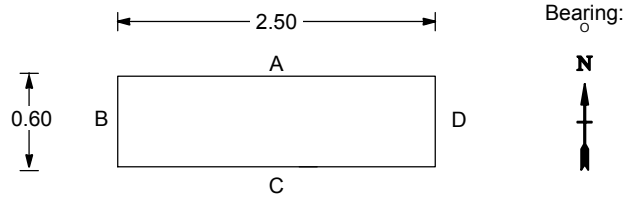
Date: **18/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details		Test Details	
			Depth (m)	Type Ref	Depth (m)	Results
	UNDIFFERENTIATED)					
	Trial pit complete at 3.50 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567673.074 N:244329.82 Level:71.371		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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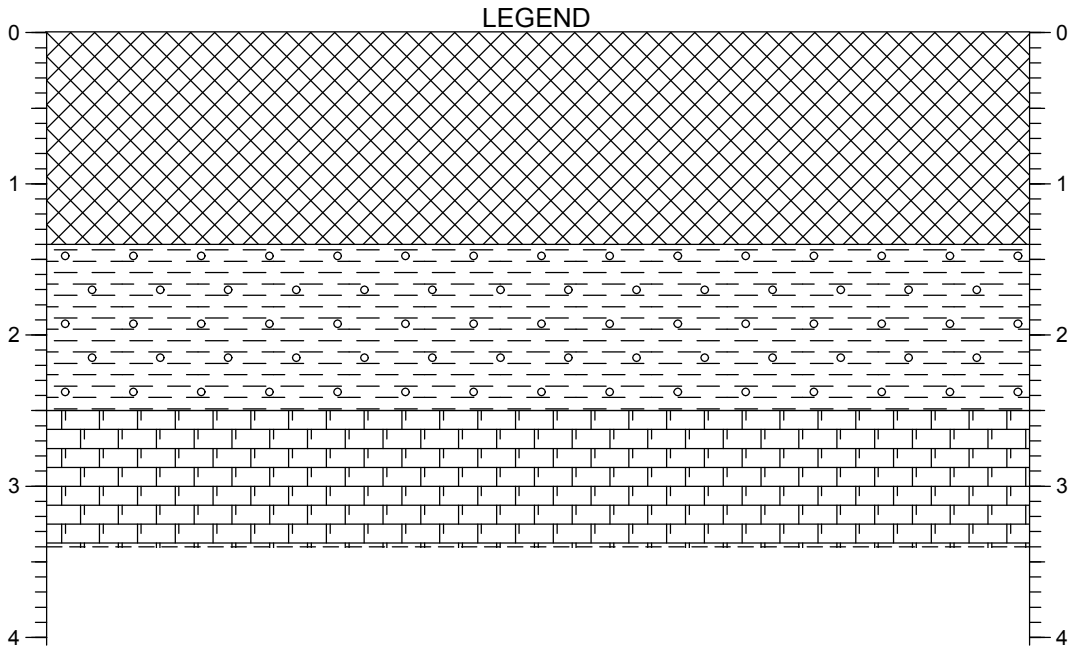
Project: **Haverhill Business Park**

Trial Pit Log

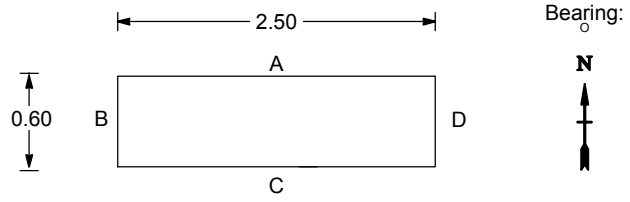
Date: **19/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(1.40) 1.40 69.307	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (TOPSOIL)		1.00	B 1 ES	1.20	HSV= >140kN/m^2
(1.10) 2.50 68.207	Very stiff brown slightly sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. Pocket roughly 1.0 m in diameter structureless chalk (Grade Dm) composed of uncompact, greyish cream, slightly gravelly sandy SILT. Gravel is very weak, low density, creamish and subangular. Rare subangular chalk boulders. (LOWESTOFT FORMATION)					
(0.90) 3.40 67.307	Weak CHALK. (LEWES NODULAR CHALK FORMATION AND SEAFORD CHALK FORMATION UNDIFFERENTIATED)					
	Trial pit complete at 3.40 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567681.531 N:244364.556 Level:70.707		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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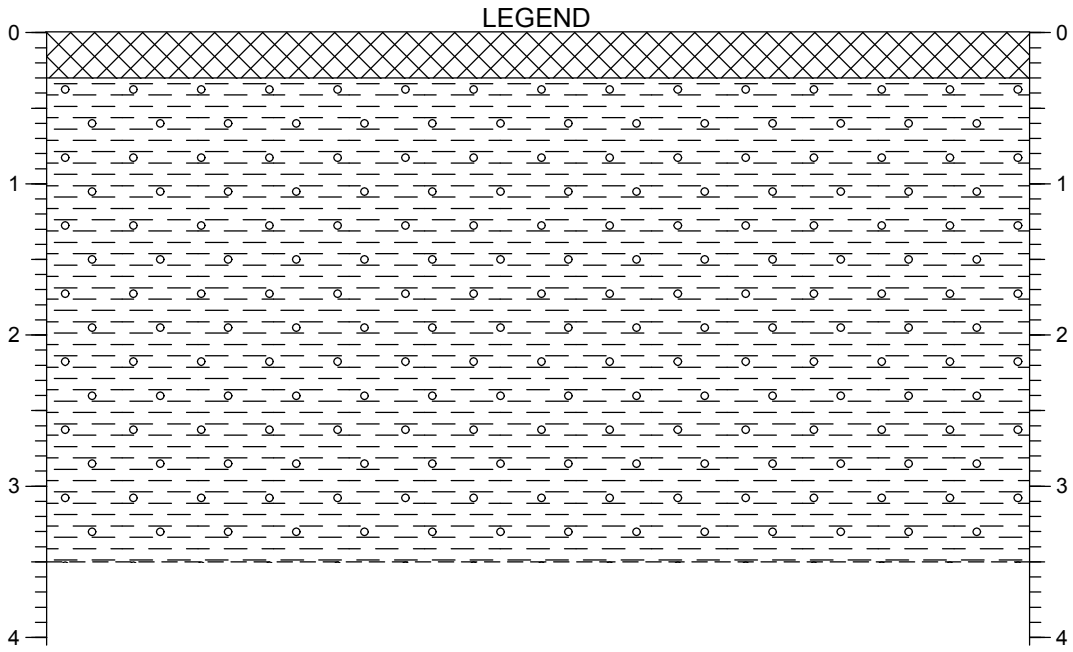
Project: **Haverhill Business Park**

Trial Pit Log

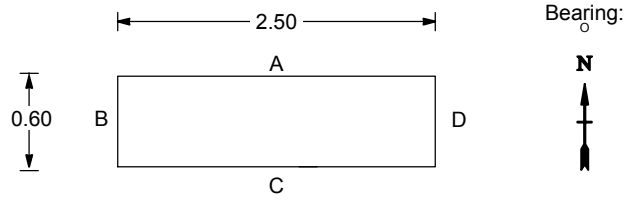
Date: **17/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details Depth (m)	Sample Details Type Ref	Test Details Depth (m)	Test Details Results
0.30 *75.13*	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (TOPSOIL)					
	Very stiff greyish orange slightly sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (LOWESTOFT FORMATION)		1.00	B 1	1.00	HSV= >140kN/m^2
(3.20)					2.00	HSV= >140kN/m^2
					3.00	HSV= >140kN/m^2
3.50 *71.93*	Trial pit complete at 3.50 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567704.648 N:244241.649 Level:75.43		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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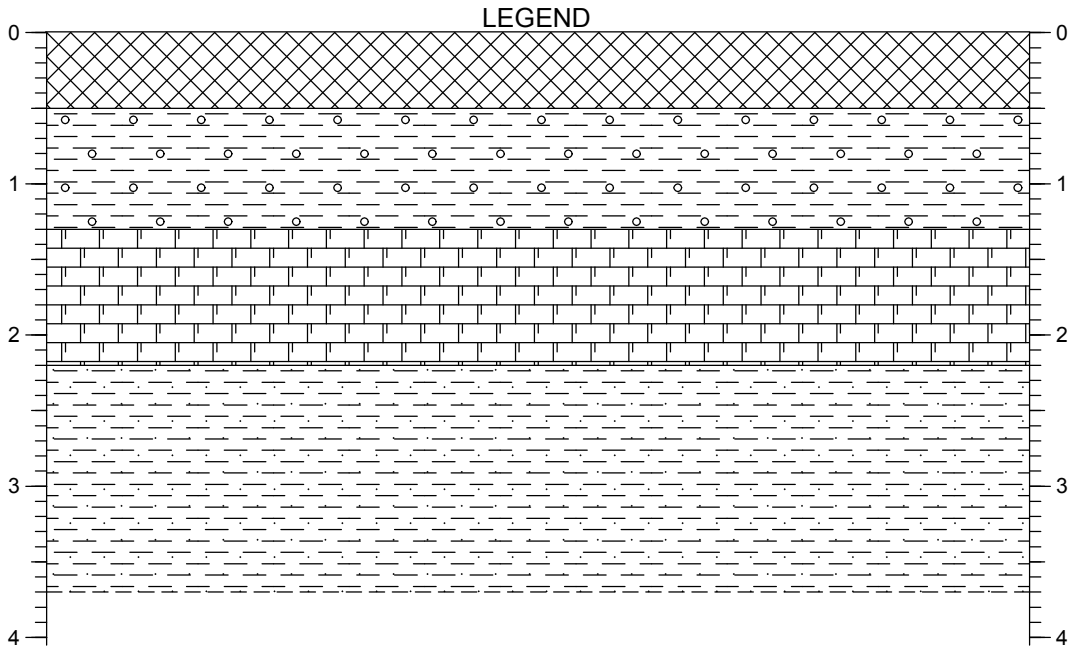
Project: **Haverhill Business Park**

Trial Pit Log

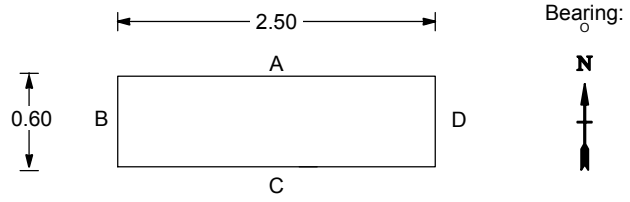
Date: **17/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(0.50) 0.50 73.163	MADE GROUND: Very stiff brown slightly sandy slightly gravelly clay. Gravel is angular to rounded fine to coarse and of mixed lithologies including flint, chalk and concrete. Sand is fine to coarse. (TOPSOIL)					
(0.80) 1.30 72.363	Very stiff light brown mottled orange slightly sandy gravelly CLAY. Gravel is angular to subrounded predominantly chalk and rare flint. Sand is fine to coarse. Occasional subrounded to rounded flint and chalk cobbles. (LOWESTOFT FORMATION)					
(0.90) 2.20 71.463	Structureless CHALK composed of uncompact, cream with orange veins, slightly gravelly sandy SILT. Gravel is very weak, low density, creamish and subangular. Rare subrounded flint cobbles. Rare subangular chalk cobbles. Occasional greyish orange cobble to boulder sized pockets of sandy clay pockets. (Grade Dm) (LEWES NODULAR CHALK FORMATION AND SEAFORD CHALK FORMATION UNDIFFERENTIATED)					
(1.50) 3.70 69.963	Stiff orangish light brown sandy CLAY. Sand is fine to coarse. (WEATHERED LEWES NODULAR CHALK FORMATION AND SEAFORD CHALK FORMATION UNDIFFERENTIATED)		3.00	B 1 ES		
	Trial pit complete at 3.70 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567730.36 N:244273.677 Level:73.663		JCB 3CX	WC	SS	SS	1:50

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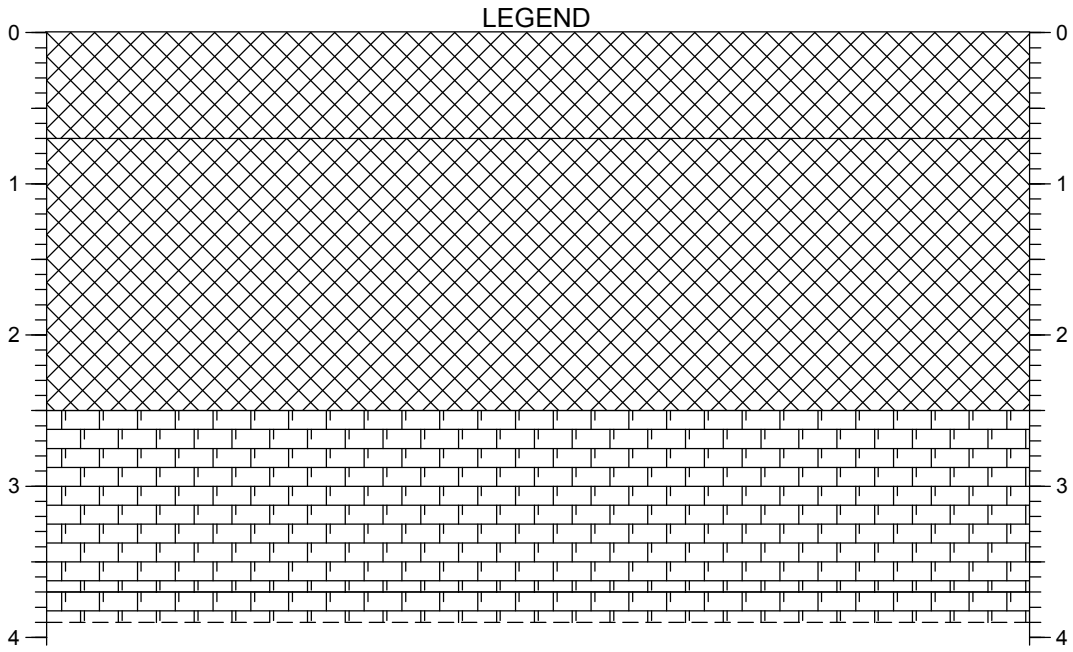
Project: **Haverhill Business Park**

Trial Pit Log

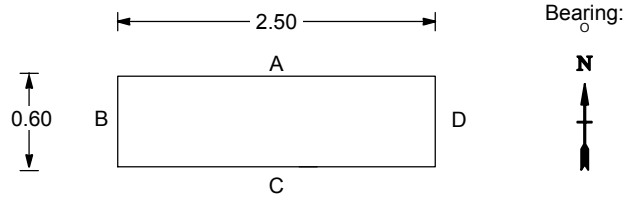
Date: **17/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(0.70) 0.70 71.956	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (TOPSOIL)		0.50	ES 1		
(1.80) 2.50 70.156	MADE GROUND: Very stiff creamish light brown mottled grey sandy slightly gravelly CLAY. Gravel is angular to rounded fine to coarse predominantly chalk and rare flint. Occasional chalk and rare flint cobbles. (REWORKED NATURAL FILL)					
(1.20) 3.70 68.956	Structureless CHALK composed of uncompact, cream with orange veins, slightly gravelly sandy SILT. Gravel is very weak, low density, creamish and subangular. Rare subrounded flint cobbles. Rare subangular chalk cobbles. Occasional greyish orange cobble to boulder sized pockets of sandy clay pockets. (Grade Dm) (LEWES NODULAR CHALK FORMATION AND SEAFORD CHALK FORMATION UNDIFFERENTIATED)					
3.90 68.756	Structureless CHALK composed of uncompact, cream with orange veins, slightly gravelly sandy SILT. Gravel is very weak, low density, creamish and subangular.		3.80	B 1		

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567761.577 N:244273.695 Level:72.656		JCB 3CX	WC	SS	SS	1:50

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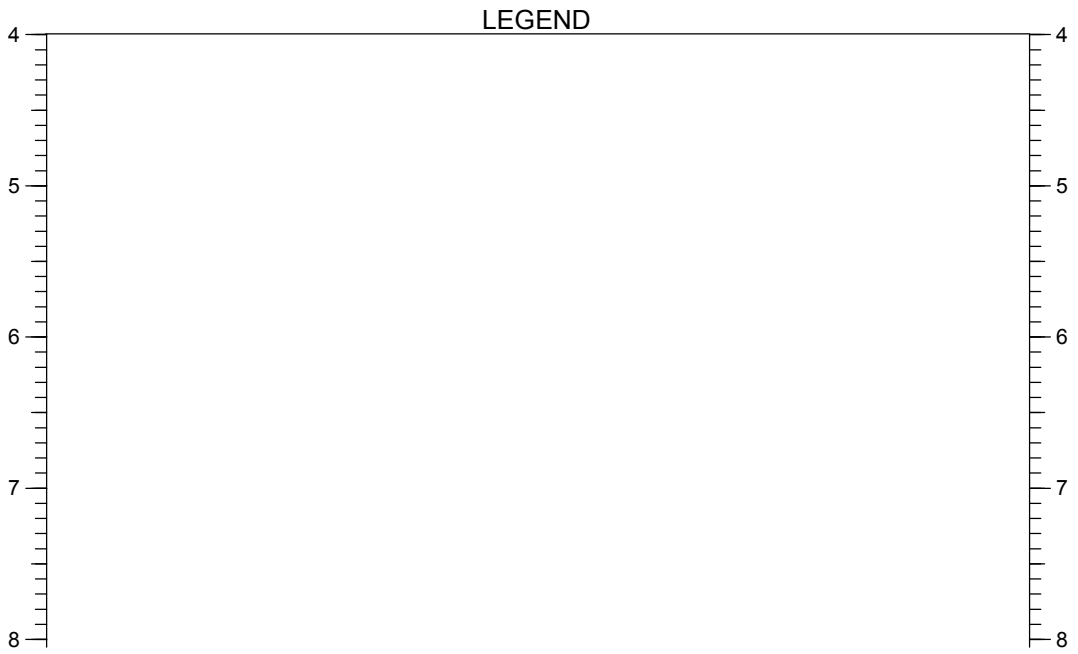
Project: **Haverhill Business Park**

Trial Pit Log

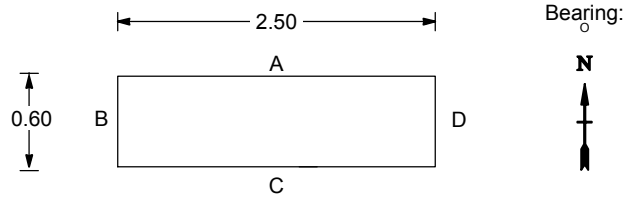
Date: **17/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details		Test Details	
			Depth (m)	Type Ref	Depth (m)	Results
	Rare subrounded flint cobbles. Rare subangular chalk cobbles. (Grade Dm) (LEWES NODULAR CHALK FORMATION AND SEAFORD CHALK FORMATION UNDIFFERENTIATED)					
	Trial pit complete at 3.90 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567761.577 N:244273.695 Level:72.656		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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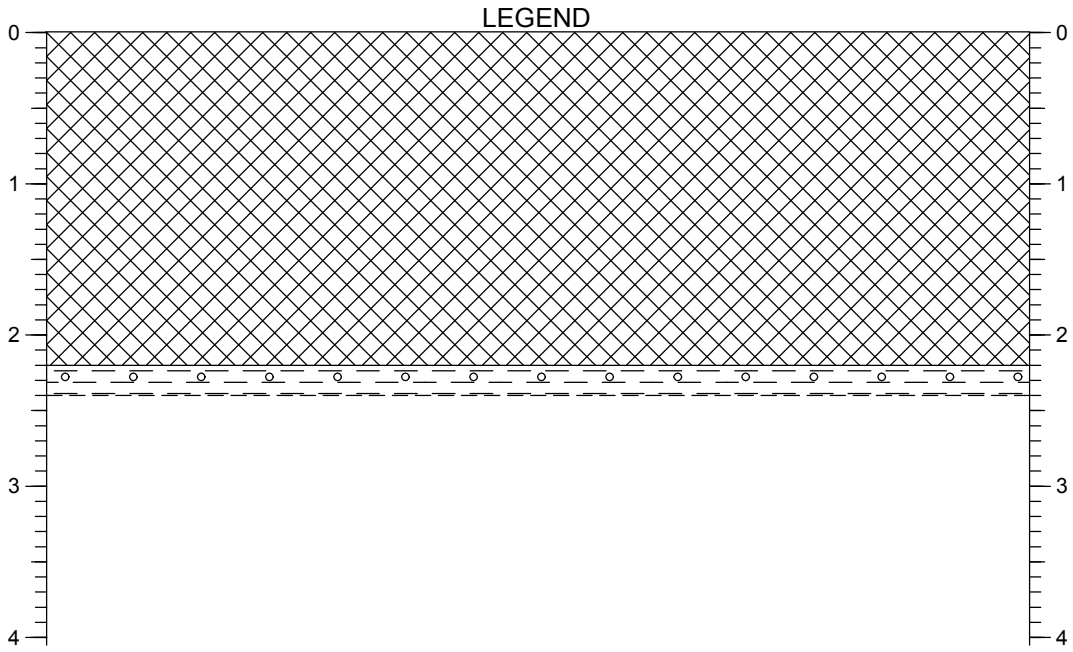
Project: **Haverhill Business Park**

Trial Pit Log

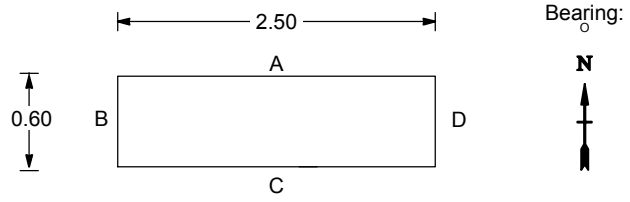
Date: **17/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(2.20)	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (TOPSOIL)		0.50	ES 1		
2.20 70.304			2.00	B 1		
2.40 70.104	Very stiff greyish orange slightly sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (LOWESTOFT FORMATION)					
	Trial pit complete at 2.40 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567819.711 N:244316.079 Level:72.504		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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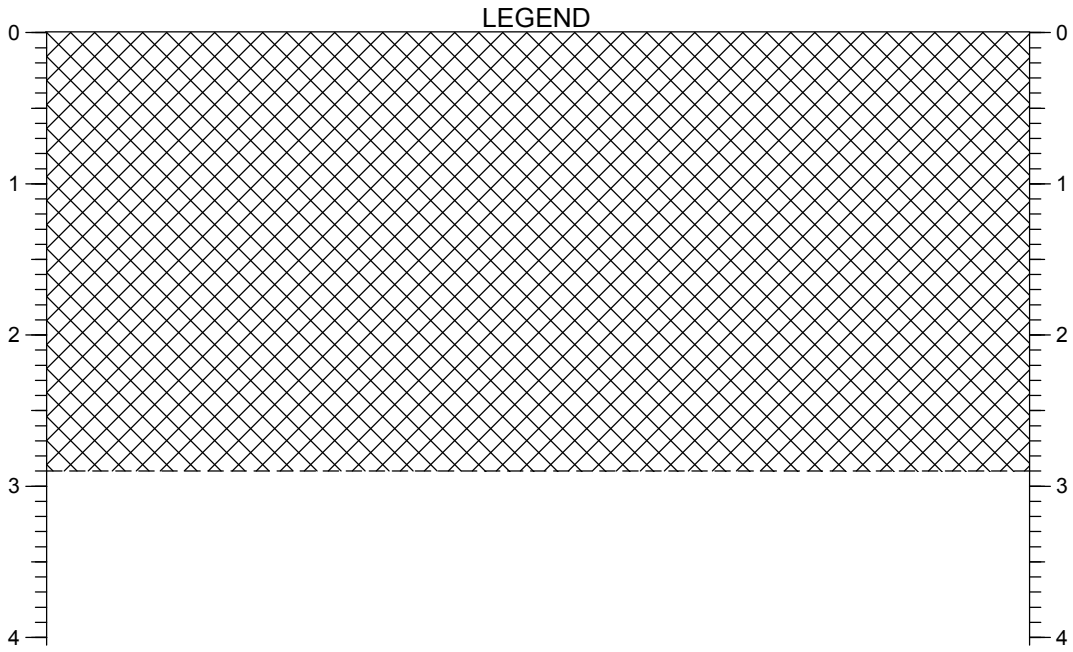
Project: **Haverhill Business Park**

Trial Pit Log

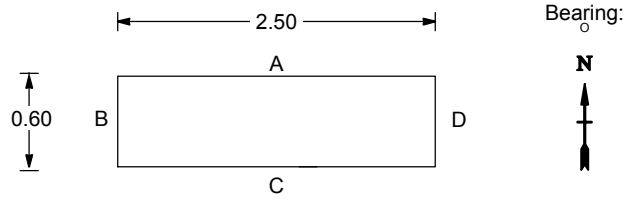
Date: **17/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(2.90)	MADE GROUND: Firm grey slightly sandy slightly gravelly clay. Gravel is angular to subrounded predominantly chalk and rare flint. Sand is fine to coarse. (REWORKED NATURAL FILL)		2.70	B 1 ES	2.00	HSV= 72kN/m^2
2.90 74.037	Trial pit complete at 2.90 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567813.156 N:244276.21 Level:76.937		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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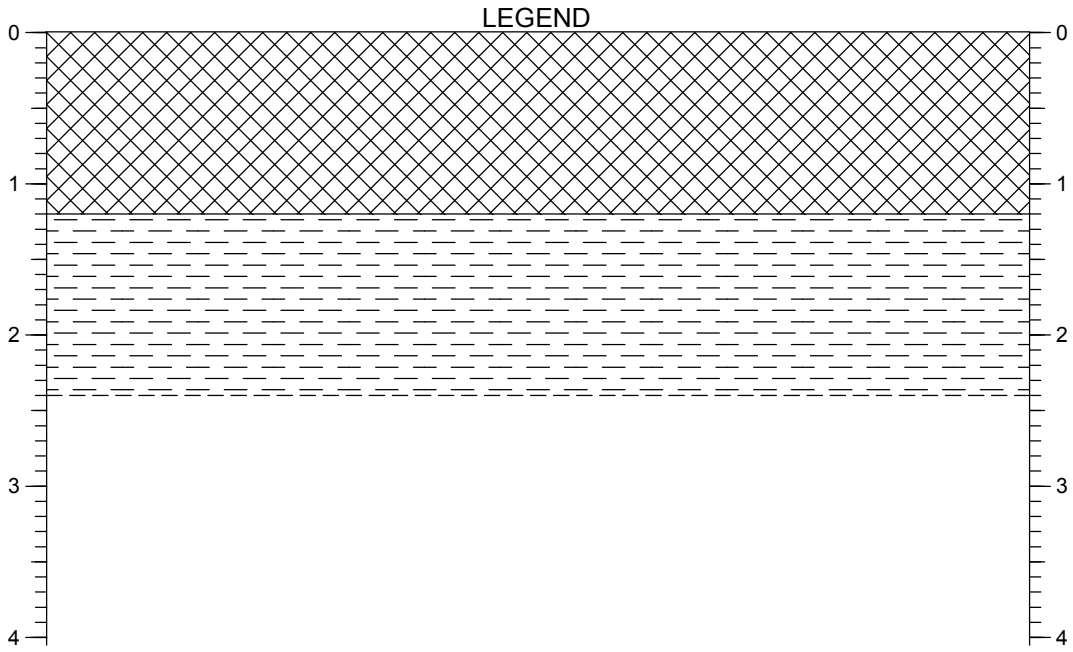
Project: **Haverhill Business Park**

Trial Pit Log

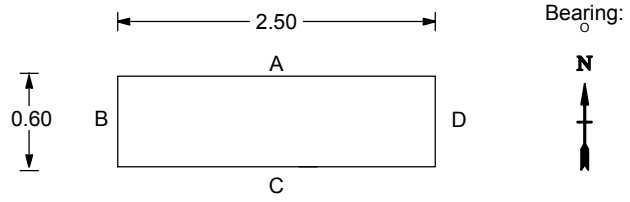
Date: **16/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(1.20) 1.20 76.056	MADE GROUND: Very stiff light brown slightly sandy slightly gravelly clay. Gravel is angular to rounded fine to coarse flint. Sand is fine to coarse. Gravel is angular to subrounded predominantly chalk and rare flint. (REWORKED NATURAL FILL)				1.00	HSV= 86 to 114kN/m^2
(1.20) 2.40 74.856	Very stiff light brown slightly sandy slightly gravelly CLAY. Gravel is angular to rounded fine to coarse flint. Sand is fine to coarse. Gravel is angular to subrounded predominantly chalk and rare flint. Coarse gravel sized pockets of sand and sandstone. (LOWESTOFT FORMATION)		2.00-1.00	B 1	2.00	HSV= >140kN/m^2
	Trial pit complete at 2.40 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567798.771 N:244232.317 Level:77.256		JCB 3CX	WC	SS	SS	1:50

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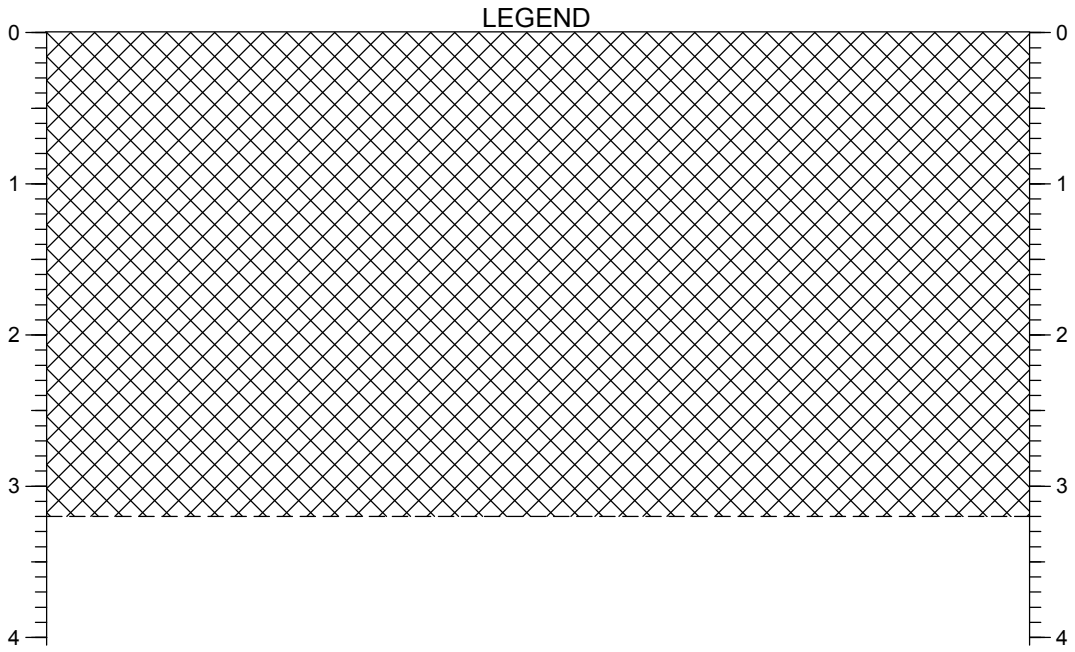
Project: **Haverhill Business Park**

Trial Pit Log

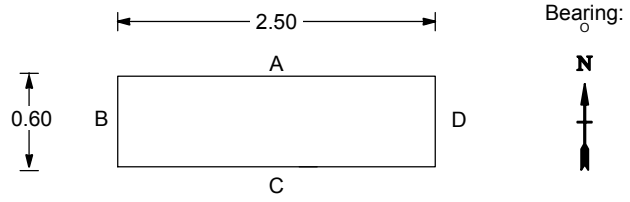
Date: **17/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
	MADE GROUND: Light brown slightly sandy gravelly clay. Gravel is angular to subrounded fine to coarse predominantly chalk and rare flint. Sand is fine to coarse. Rare flint and chalk cobbles. (REWORKED NATURAL FILL)				1.00	HSV= 70kN/m^2
(3.20)					2.00	HSV= 70kN/m^2
			2.50-3.00	B 1		
					3.00	HSV= 70kN/m^2
3.20 80.487	Trial pit complete at 3.20 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567828.878 N:244213.677 Level:83.687		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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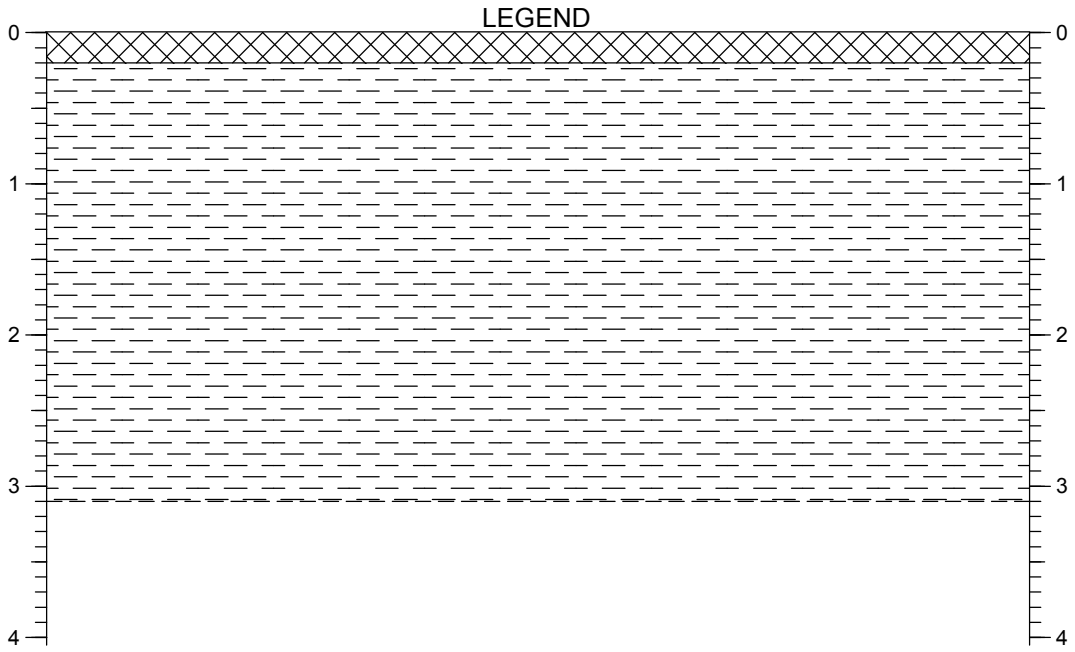
Project: **Haverhill Business Park**

Trial Pit Log

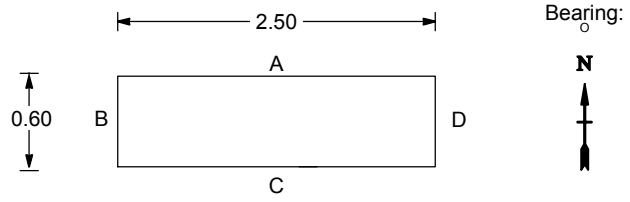
Date: **15/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
0.20 81.88	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (TOPSOIL)					
(2.90)	Very stiff grey mottled orange slightly sandy slightly gravelly CLAY. Gravel is angular to rounded fine to coarse chalk and flint. Sand is fine to coarse. Rare subrounded chalk cobbles. Occasional coarse gravel sized pockets of yellow sandy clay. (LOWESTOFT FORMATION)				1.00	HSV= 136 to >140kN/m^2
			2.50	B 1 ES	2.30	HSV= 110 to >140kN/m^2
3.10 78.98					3.00	HSV= 130 to >140kN/m^2
	Trial pit complete at 3.10 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567876.699 N:244219.227 Level:82.08		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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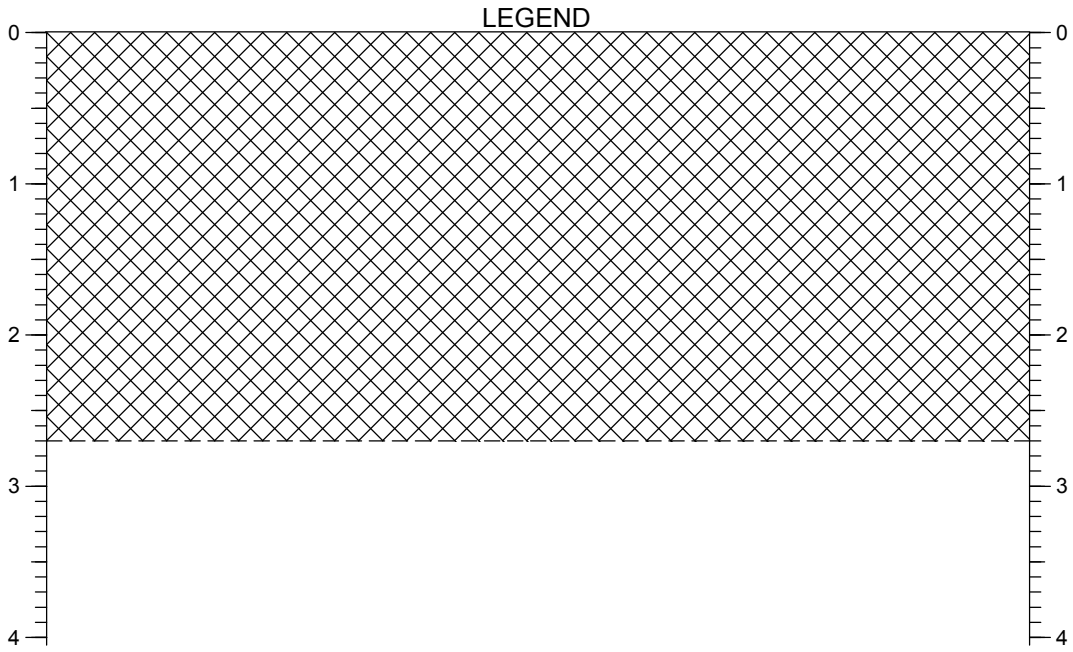
Project: **Haverhill Business Park**

Trial Pit Log

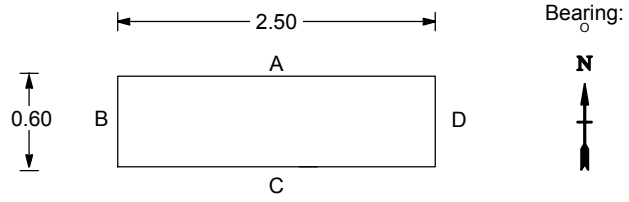
Date: **16/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
	MADE GROUND: Stiff grey mottled orange slightly sandy slightly gravelly clay. Gravel is angular to subrounded predominantly chalk and rare flint. (REWORKED NATURAL FILL)				0.50	HSV= 54 to 102kN/m^2
(2.70)			1.50	B 1		
					2.00	HSV= 48 to 70kN/m^2
2.70 79.373	Trial pit complete at 2.70 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567902.112 N:244308.752 Level:82.073		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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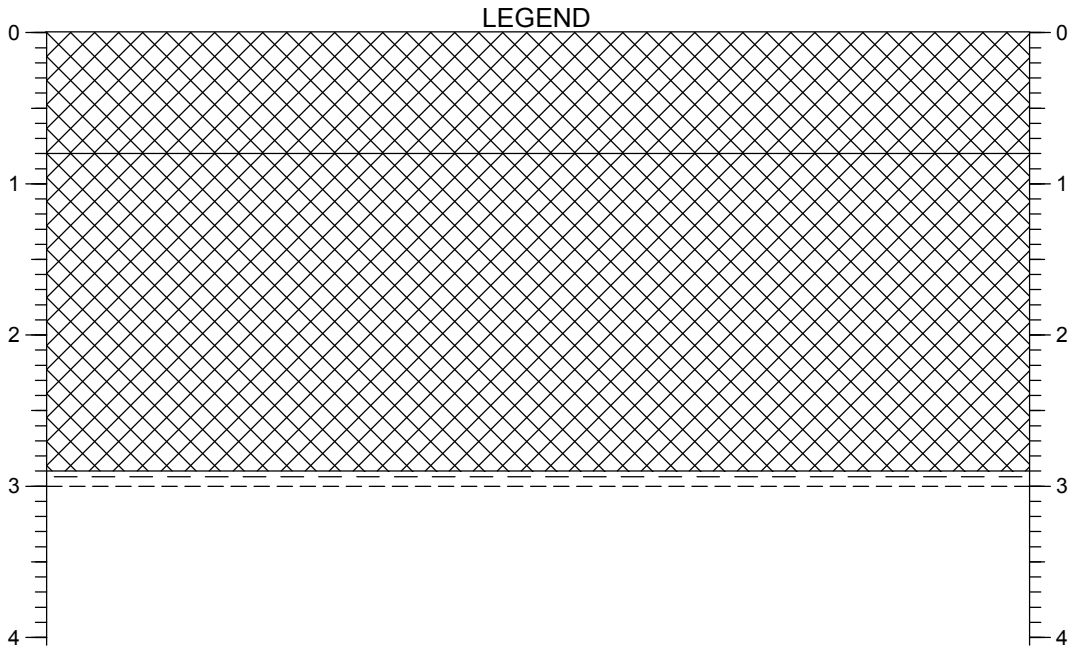
Project: **Haverhill Business Park**

Trial Pit Log

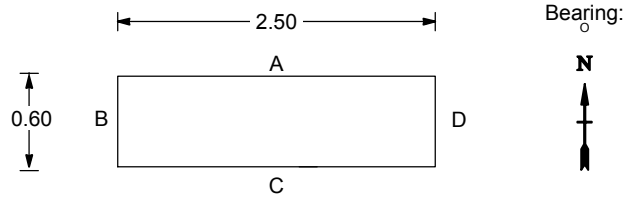
Date: **16/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details Depth (m)	Sample Details Type Ref	Test Details Depth (m)	Test Details Results
(0.80) 0.80 84.437	MADE GROUND: Stiff grey sandy gravelly clay. Gravel is angular to subrounded predominantly chalk and rare flint. Sand is fine to coarse. (REWORKED NATURAL FILL)		0.50	B 1 ES		
(2.10) 2.90 82.337	MADE GROUND: Stiff greyish brown sandy gravelly clay. Gravel is angular to subrounded predominantly chalk and rare flint. Sand is fine to coarse. Rare plastic. (REWORKED NATURAL FILL)				1.20	HSV= 44 to 82kN/m^2
3.00 82.237	Very stiff grey slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded predominantly chalk and rare flint. Sand is fine to coarse. (LOWESTOFT FORMATION)				2.95	HSV= 126 to 134kN/m^2
	Trial pit complete at 3.00 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567916.714 N:244252.917 Level:85.237		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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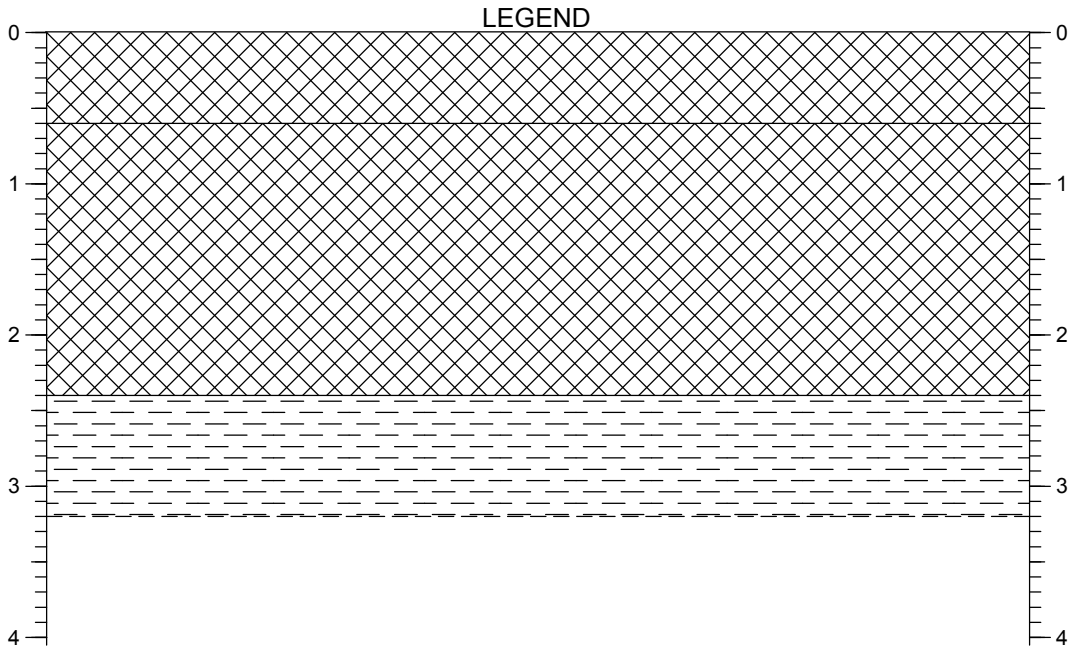
Project: **Haverhill Business Park**

Trial Pit Log

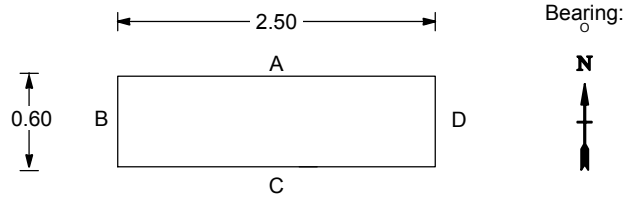
Date: **16/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(0.60) 0.60 82.447	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (TOPSOIL)				0.50	HSV= >140kN/m^2
(1.80) 2.40 80.647	MADE GROUND: Firm grey slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse chalk and flint. Occasional organic content. (REWORKED NATURAL FILL)				1.00	HSV= 40 to 60kN/m^2
(0.80) 3.20 79.847	Very stiff grey slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded predominantly chalk and rare flint. Sand is fine to coarse. (LOWESTOFT FORMATION)		3.00	B 1	2.50	HSV= 90 to 110kN/m^2
	Trial pit complete at 3.20 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567936.604 N:244293.303 Level:83.047		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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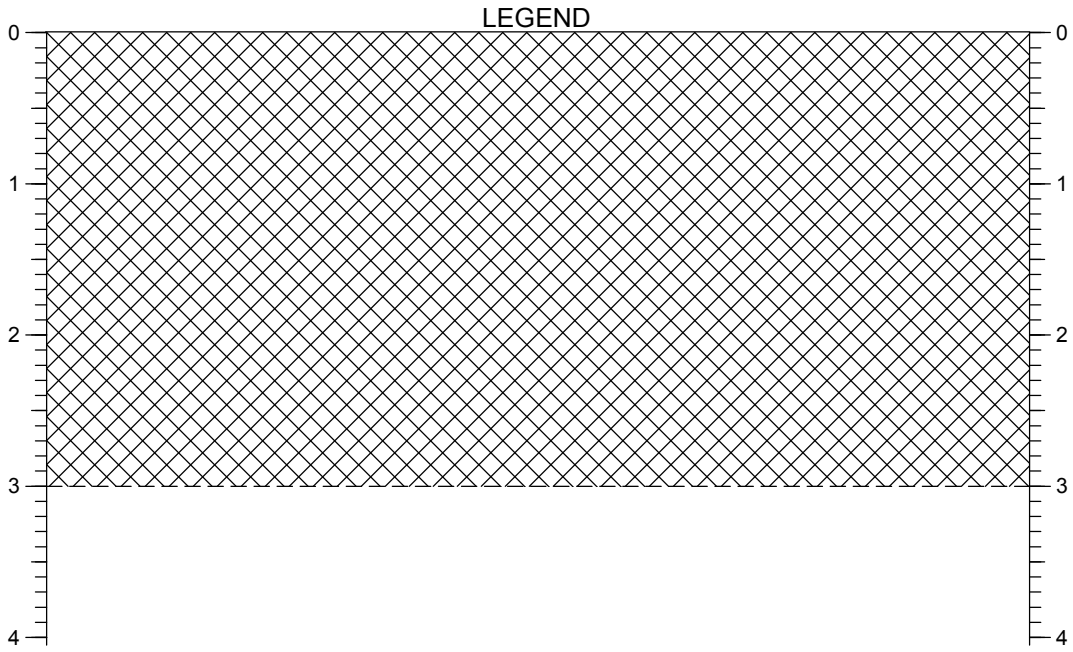
Project: **Haverhill Business Park**

Trial Pit Log

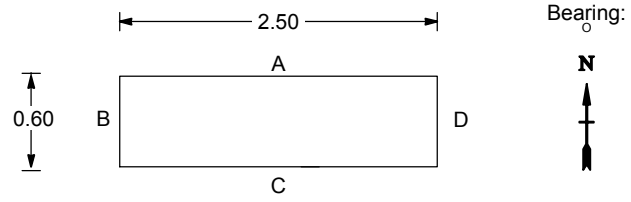
Date: **16/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(3.00)	MADE GROUND: Stiff grey mottled orange slightly sandy slightly gravelly clay. Gravel is angular to subrounded predominantly chalk and rare flint. (REWORKED NATURAL FILL)		1.00	B 1 ES		
3.00 79.523	Trial pit complete at 3.00 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567937.507 N:244344.019 Level:82.523		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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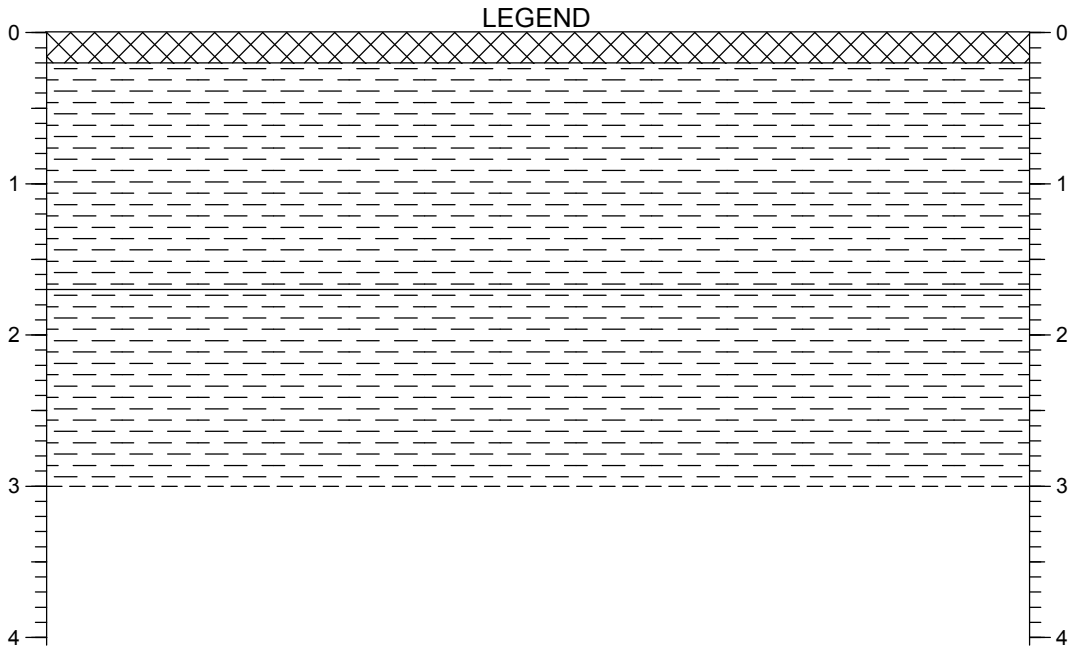
Project: **Haverhill Business Park**

Trial Pit Log

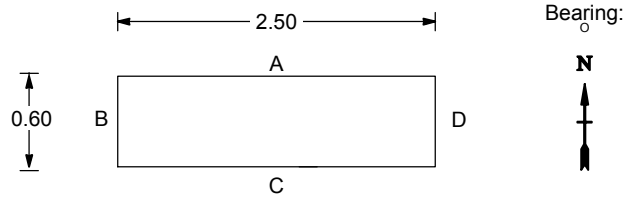
Date: **16/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
0.20 82.913	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (TOPSOIL)					
(1.50)	Very stiff grey slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded predominantly chalk and rare flint. Sand is fine to coarse. Occasional subrounded to rounded flint and chalk cobbles. (LOWESTOFT FORMATION)		1.00	B 1 ES	1.30	HSV= 88 to 106kN/m^2
1.70 81.413						
(1.30)	Very stiff grey mottled orange slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded predominantly chalk and rare flint. Sand is fine to coarse. Occasional subrounded to rounded flint and chalk cobbles. (LOWESTOFT FORMATION)					
3.00 80.113	Trial pit complete at 3.00 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567966.019 N:244262.616 Level:83.113		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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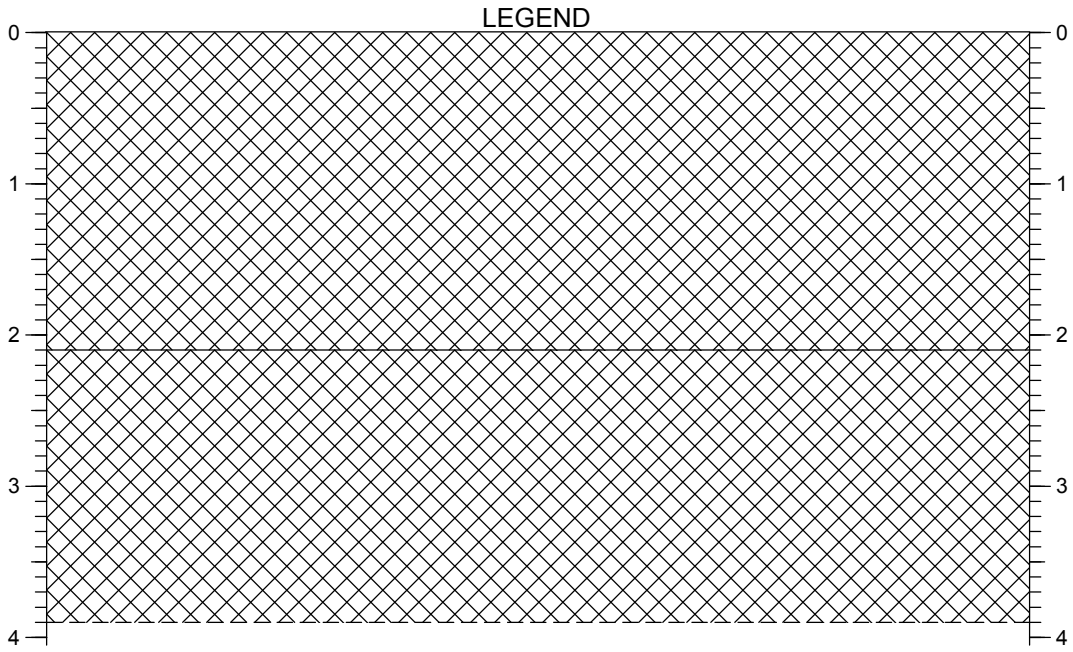
Project: **Haverhill Business Park**

Trial Pit Log

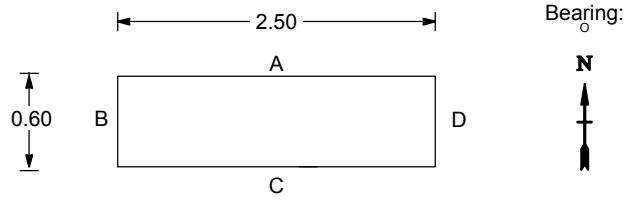
Date: **16/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details Depth (m)	Sample Details Type Ref	Test Details Depth (m)	Test Details Results
(2.10)	MADE GROUND: Very stiff brown slightly sandy slightly gravelly clay. Gravel is angular to rounded fine to coarse and of mixed lithologies including flint, chalk and concrete. Sand is fine to coarse. (TOPSOIL)		1.00	B 1 ES	1.00	HSV= >140kN/m^2
2.10 84.234					2.00	HSV= >140kN/m^2
(1.80)	MADE GROUND: Grey slightly sandy slightly gravelly clay. Gravel is angular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. Layer of grass organic material at 3.4 m bgl. (REWORKED NATURAL FILL)				3.00	HSV= 40 to 60kN/m^2
3.90 82.434						

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:568029.926 N:244319.339 Level:86.334		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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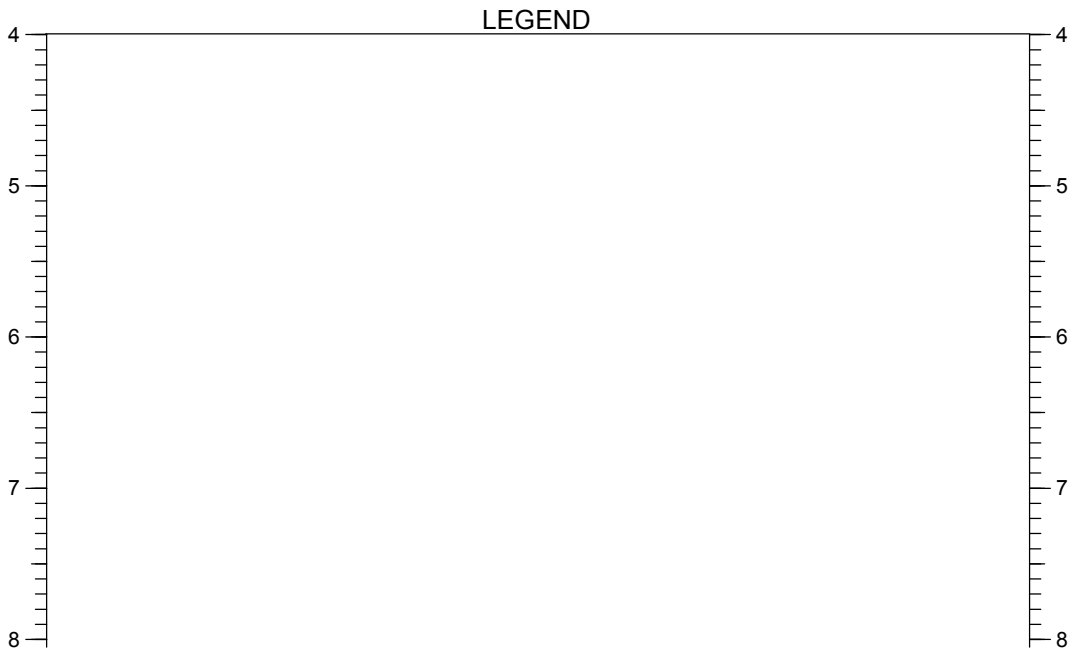
Project: **Haverhill Business Park**

Trial Pit Log

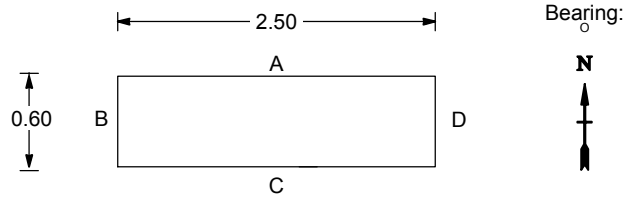
Date: **16/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details		Test Details	
			Depth (m)	Type Ref	Depth (m)	Results
	Trial pit complete at 3.90 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:568029.926 N:244319.339 Level:86.334		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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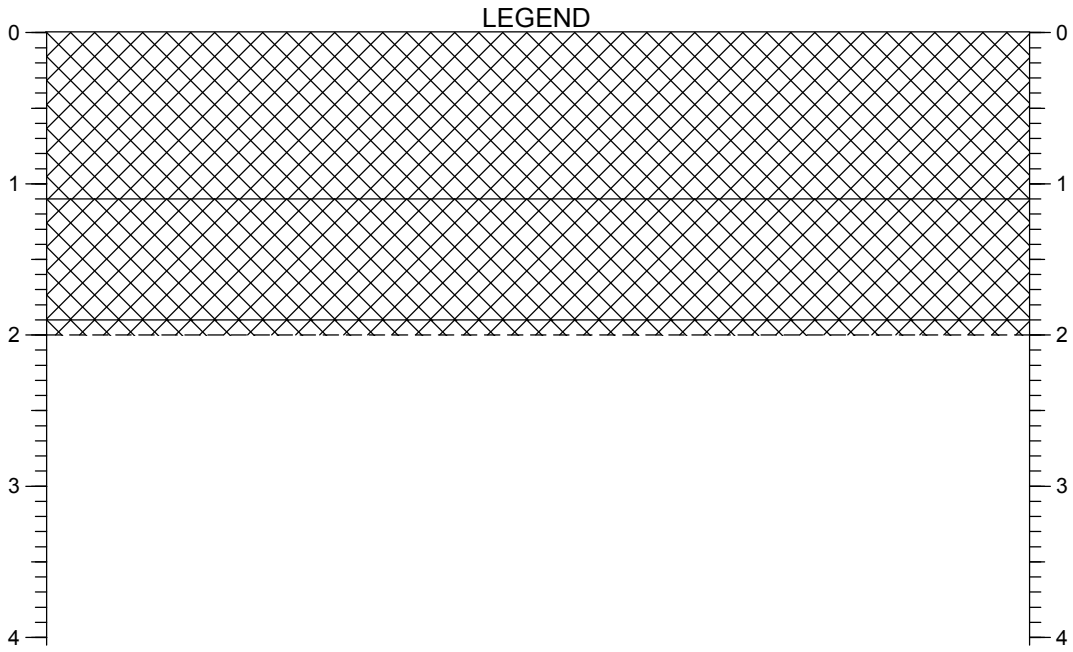
Project: **Haverhill Business Park**

Trial Pit Log

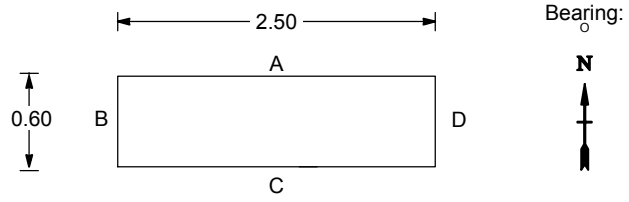
Date: **16/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(1.10)	MADE GROUND: Very stiff grey slightly sandy slightly gravelly clay. Gravel is subangular to rounded fine to coarse predominantly flint and rare chalk. (REWORKED NATURAL FILL)				1.00	HSV= 70 to 90kN/m^2
1.10 77.861						
(0.80)	MADE GROUND: Very stiff brown slightly sandy slightly gravelly clay. Gravel is subangular to rounded fine to coarse predominantly flint and rare chalk. (REWORKED NATURAL FILL)				1.50	HSV= 120 to 130kN/m^2
1.90 77.061			1.90	B 1 ES	1.90	HSV= 50 to 70kN/m^2
2.00 76.961	MADE GROUND: Stiff grey mottled orange slightly sandy slightly gravelly CLAY. Gravel is subangular to rounded fine to coarse predominantly flint and rare chalk. Rare cobble sized pockets of organic material. (REWORKED NATURAL FILL)					
	Trial pit complete at 2.00 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567974.465 N:244375.111 Level:78.961		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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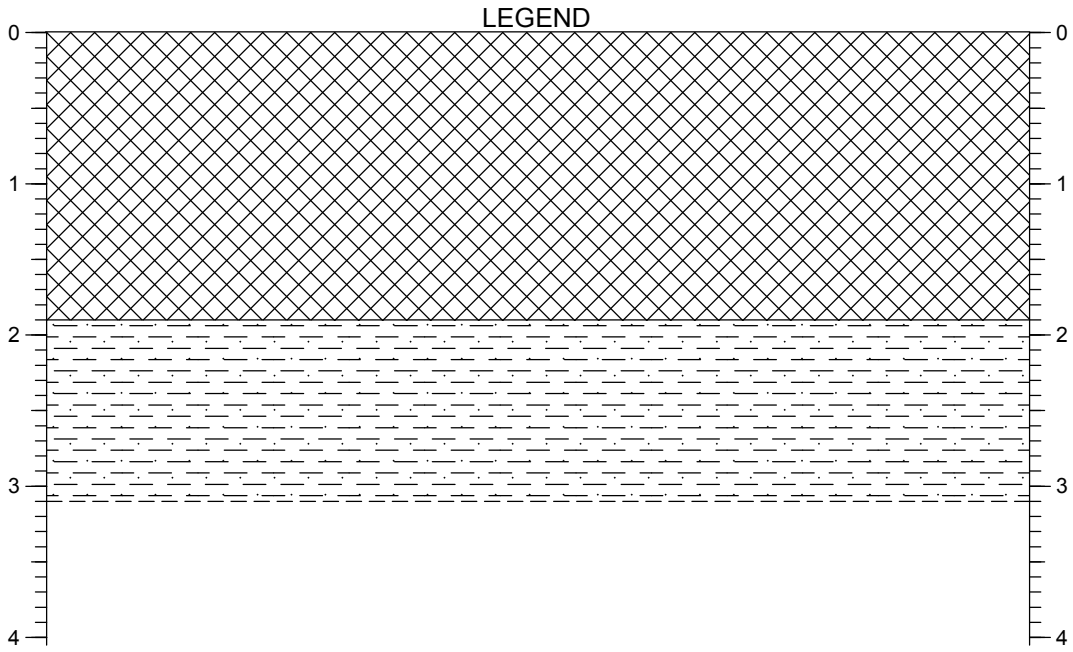
Project: **Haverhill Business Park**

Trial Pit Log

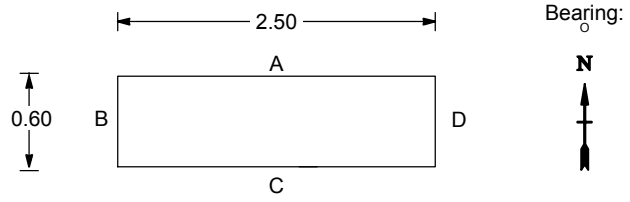
Date: **16/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(1.90)	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (TOPSOIL)		1.00	ES 1	1.50	HSV= 110 to >140kN/m^2
1.90 74.857						
(1.20)	Very stiff creamish light brown mottled grey sandy slightly gravelly CLAY. Gravel is angular to rounded fine to coarse predominantly chalk and rare flint. Occasional chalk cobbles. (LOWESTOFT FORMATION)		2.70	B 1		
3.10 73.657						
	Trial pit complete at 3.10 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567995.628 N:244382.715 Level:76.757		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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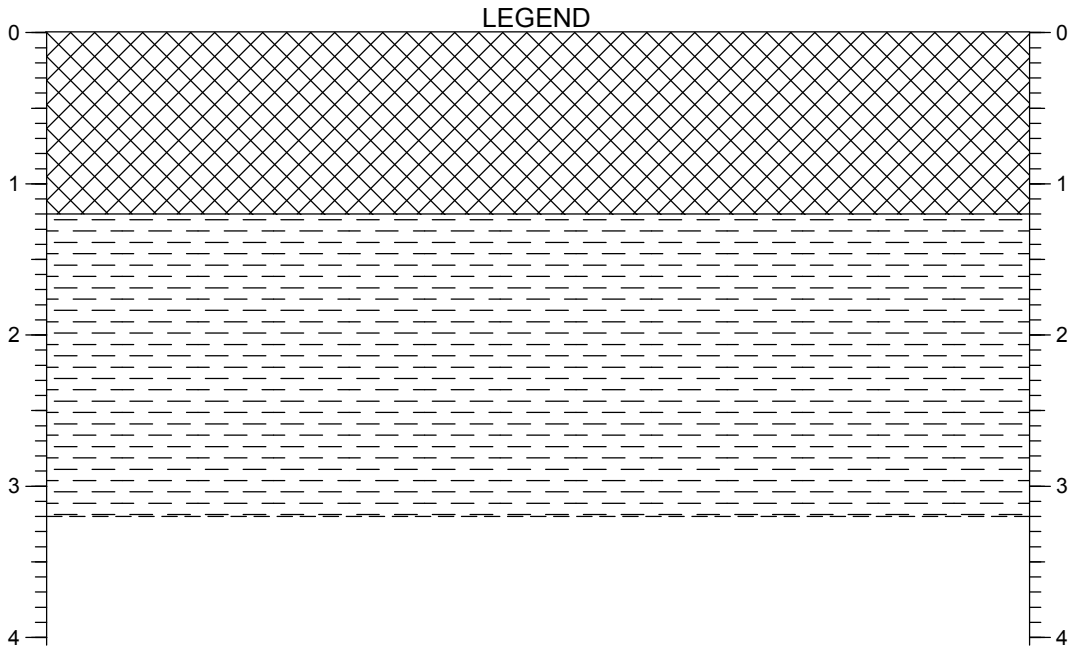
Project: **Haverhill Business Park**

Trial Pit Log

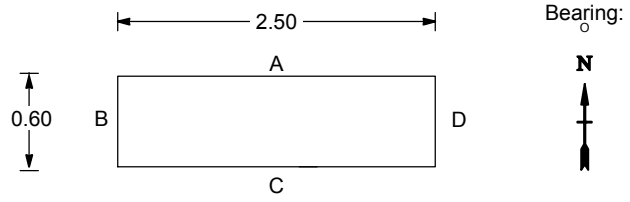
Date: **16/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(1.20) 1.20 80.787	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (TOPSOIL)		1.00	B 1		
(2.00) 3.20 78.787	Stiff grey mottled orange slightly sandy slightly gravelly CLAY. Gravel is angular to rounded fine to coarse chalk and flint. Sand is fine to coarse. Rare subrounded chalk cobbles. Occasional coarse gravel sized pockets of yellow sandy clay. (LOWESTOFT FORMATION)					
	Trial pit complete at 3.20 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:568071.946 N:244362.212 Level:81.987		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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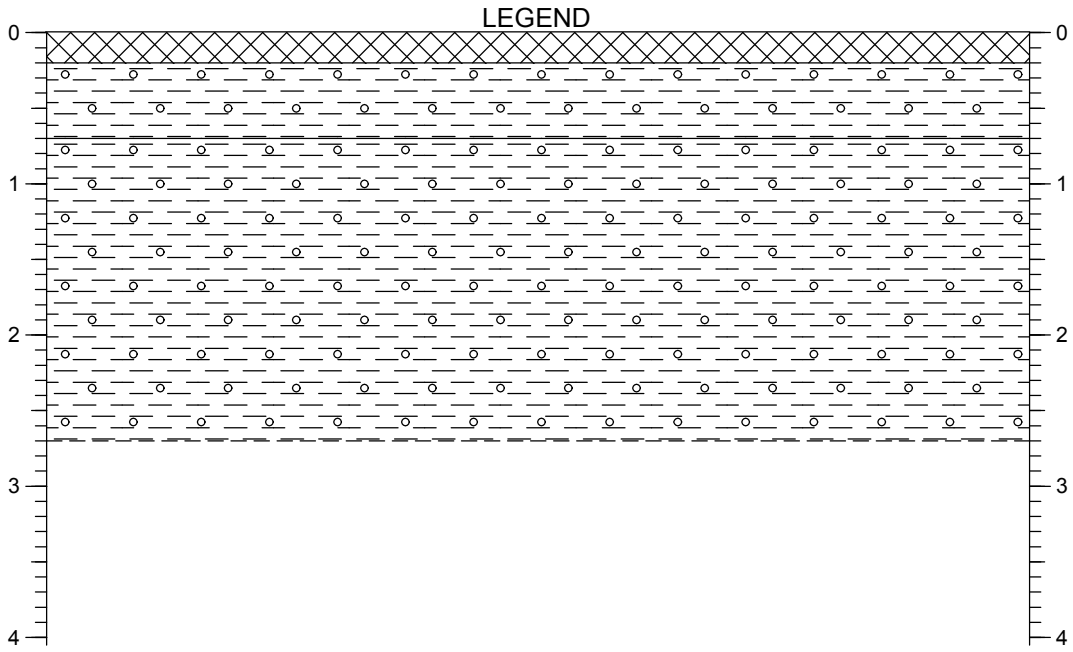
Project: **Haverhill Business Park**

Trial Pit Log

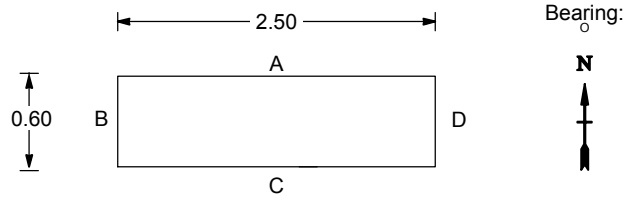
Date: **16/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
0.20 84.415	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (TOPSOIL)					
(0.50)	Very stiff grey slightly sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse chalk and flint. Sand is fine to coarse. Occasional subrounded flint cobble. (LOWESTOFT FORMATION)				0.50	HSV= >140kN/m^2
0.70 83.915	Very stiff grey mottled orange slightly sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse chalk and flint. Sand is fine to coarse. Occasional subrounded flint cobble. (LOWESTOFT FORMATION)				1.00	HSV= 100 to 110kN/m^2
(2.00)			2.00	B 1		
2.70 81.915	Trial pit complete at 2.70 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:568073.825 N:244306.979 Level:84.615		JCB 3CX	WC	SS	SS	1:50

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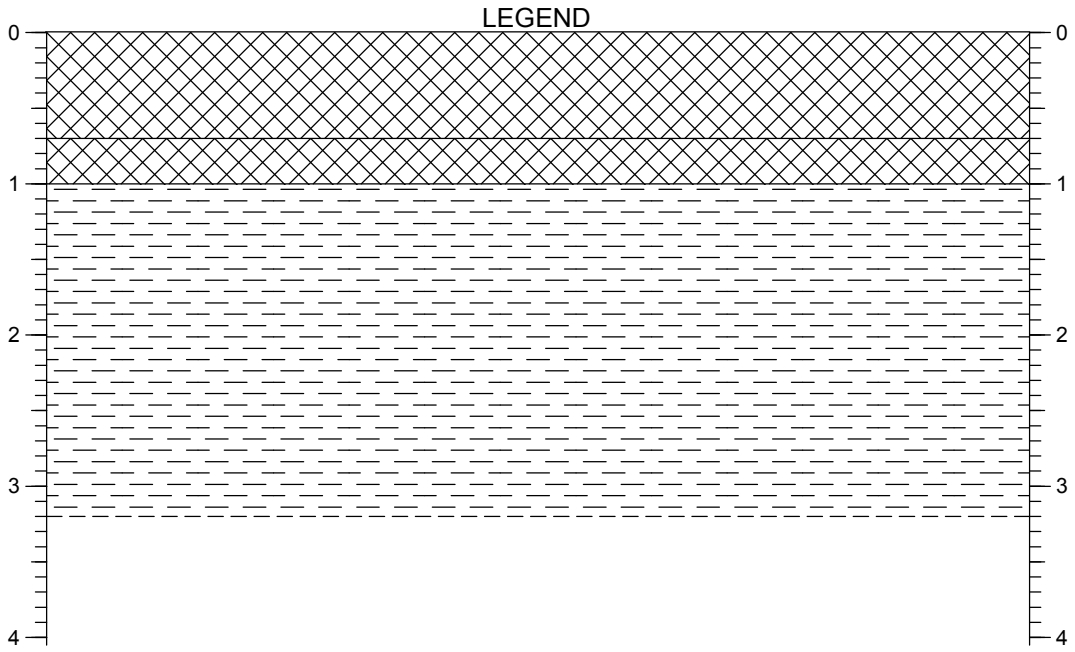
Project: **Haverhill Business Park**

Trial Pit Log

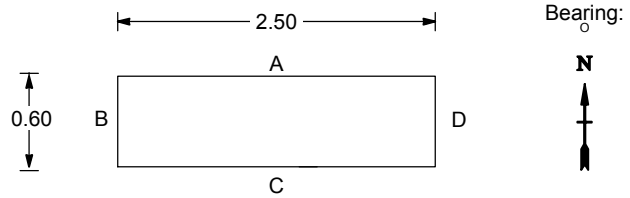
Date: **15/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(0.70)	MADE GROUND: Stiff grey slightly sandy gravelly CLAY. Gravel is angular to rounded fine to coarse chalk and flint. Sand is fine to coarse. (REWORKED NATURAL FILL)				0.50	HSV= 130kN/m^2
0.70 81.885						
1.00 81.585	MADE GROUND: Stiff light brownish grey slightly sandy gravelly CLAY. Gravel is angular to rounded fine to coarse chalk and flint. Sand is fine to coarse. (REWORKED NATURAL FILL)				0.90	HSV= 132kN/m^2
(2.20)	Stiff light brownish grey slightly sandy slightly gravelly CLAY. Gravel is angular to rounded fine to coarse chalk and flint. Sand is fine to coarse. Rare subrounded chalk cobbles. Occasional coarse gravel sized pockets of yellow sandy clay. (LOWESTOFT FORMATION)				2.00	HSV= >140kN/m^2
			3.00	B 1 ES		
3.20 79.385	Trial pit complete at 3.20 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567667.865 N:244135.454 Level:82.585		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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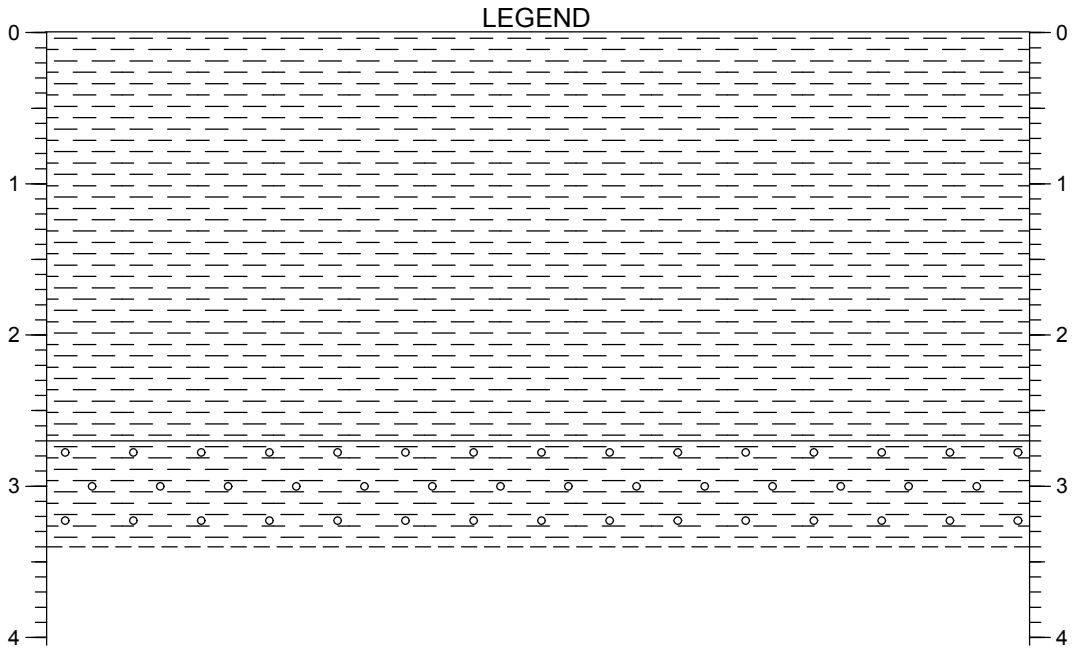
Project: **Haverhill Business Park**

Trial Pit Log

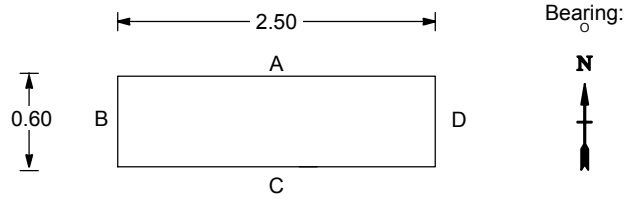
Date: **15/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(2.70)	Stiff light brownish grey slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse chalk and flint. Sand is fine to coarse. Rare subrounded fine to medium red sandstone gravel. (LOWESTOFT FORMATION)				1.00	HSV= 70 to 110kN/m^2
					2.00	HSV= 70 to 110kN/m^2
2.70 79.881						
(0.70)	Stiff light brownish grey slightly sandy gravelly CLAY. Gravel is angular to subrounded fine to coarse chalk and flint. Sand is fine to coarse. Rare subrounded fine to medium red sandstone gravel. (LOWESTOFT FORMATION)		3.00	B 1	3.00	HSV= 120kN/m^2
3.40 79.181	Trial pit complete at 3.40 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567715.939 N:244160.241 Level:82.581		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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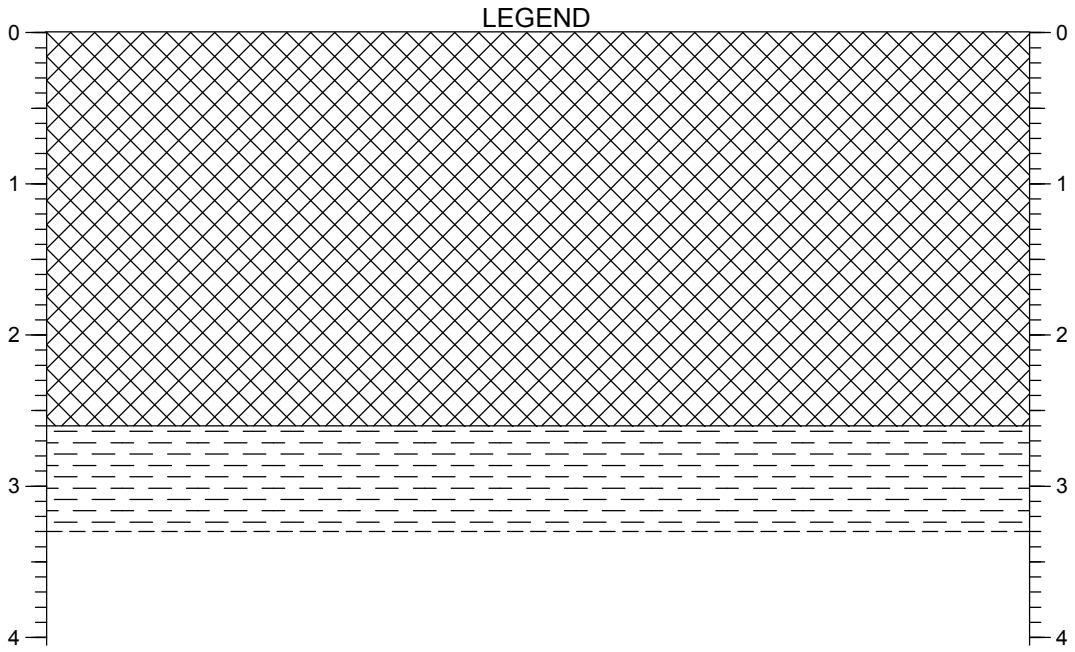
Project: **Haverhill Business Park**

Trial Pit Log

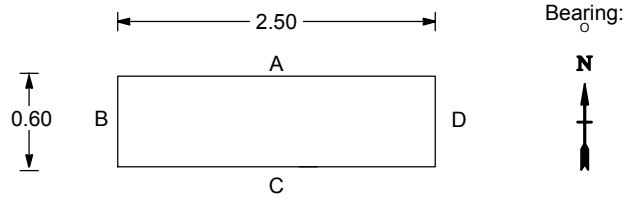
Date: **15/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details Depth (m)	Sample Details Type Ref	Test Details Depth (m)	Test Details Results
(2.60) 2.60 79.931	MADE GROUND: Greyish light brown slightly sandy slightly gravelly clay. Gravel is angular to subrounded fine to coarse chalk and flint. Sand is fine to coarse. (REWORKED NATURAL FILL)		0.70	B 1 ES	1.00	HSV= 48 to 120kN/m^2
(0.70) 3.30 79.231	Stiff greyish light brown slightly sandy slightly gravelly CLAY Gravel is angular to subrounded fine to coarse chalk and flint. Sand is fine to coarse. (LOWESTOFT FORMATION)				3.00	HSV= 128kN/m^2
	Trial pit complete at 3.30 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567722.988 N:244122.462 Level:82.531		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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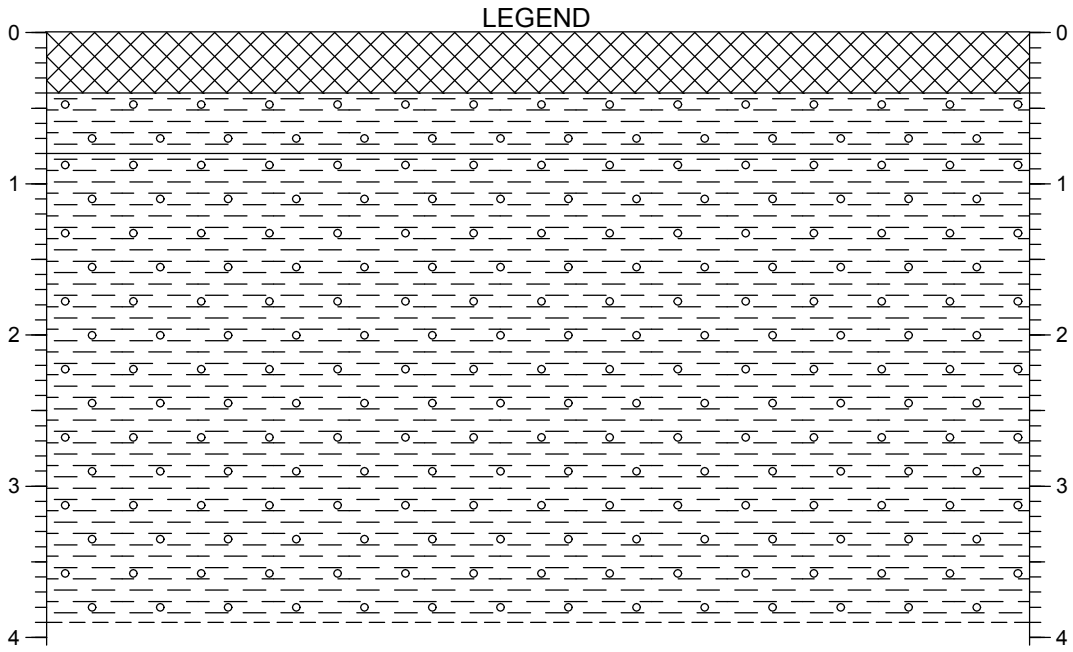
Project: **Haverhill Business Park**

Trial Pit Log

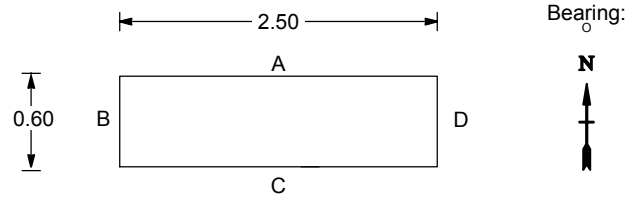
Date: **15/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details Depth (m)	Sample Details Type Ref	Test Details Depth (m)	Test Details Results
(0.40) 0.40 82.392	MADE GROUND: Brown gravelly sand. Sand is fine to coarse. Gravel is angular to subangular fine to coarse concrete and brick.		0.50-1.00	B 1 ES	0.50	HSV= 110kN/m^2
(0.40) 0.80 81.992	Stiff yellowish brownish grey slightly gravelly CLAY. Gravel is subrounded to rounded chalk and rare angular to subangular flint. (LOWESTOFT FORMATION)				1.00	HSV= >140kN/m^2
(3.10)	Stiff grey slightly sandy gravelly CLAY. Gravel is angular to rounded fine to coarse chalk and flint. Sand is fine to coarse. Rare subrounded chalk cobbles. Occasional coarse gravel sized pockets of yellow sandy clay. (LOWESTOFT FORMATION)				2.00	HSV= >140kN/m^2
					3.00	HSV= >140kN/m^2
3.90 78.892						

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567797.21 N:244161.825 Level:82.792		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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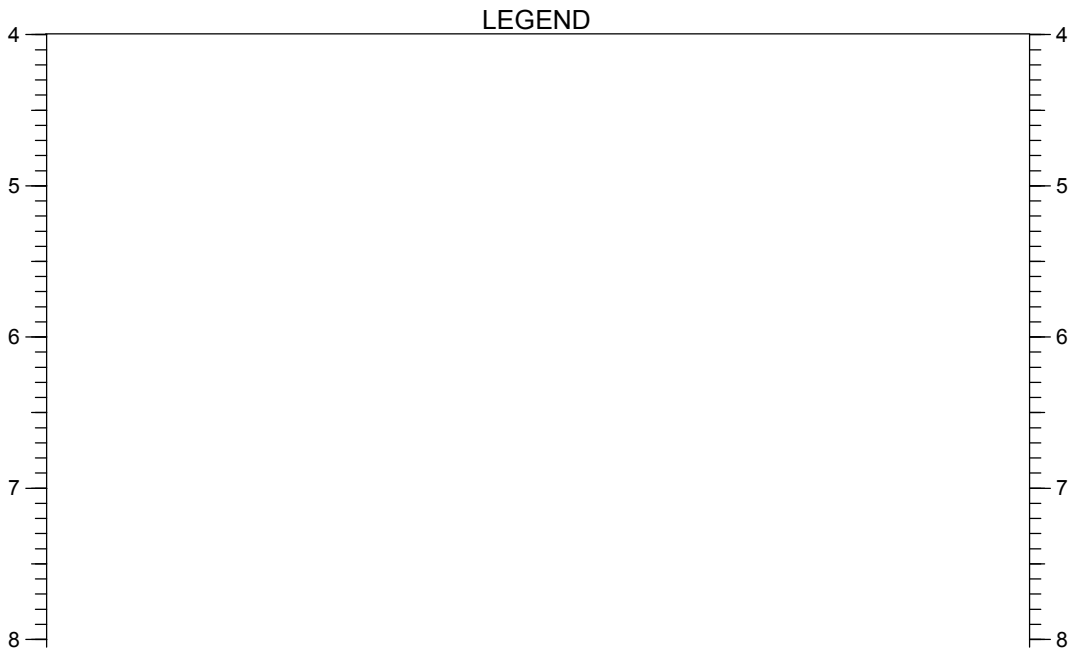
Project: **Haverhill Business Park**

Trial Pit Log

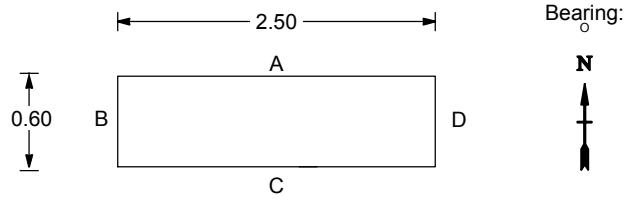
Date: **15/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details		Test Details	
			Depth (m)	Type Ref	Depth (m)	Results
	Trial pit complete at 3.90 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567797.21 N:244161.825 Level:82.792		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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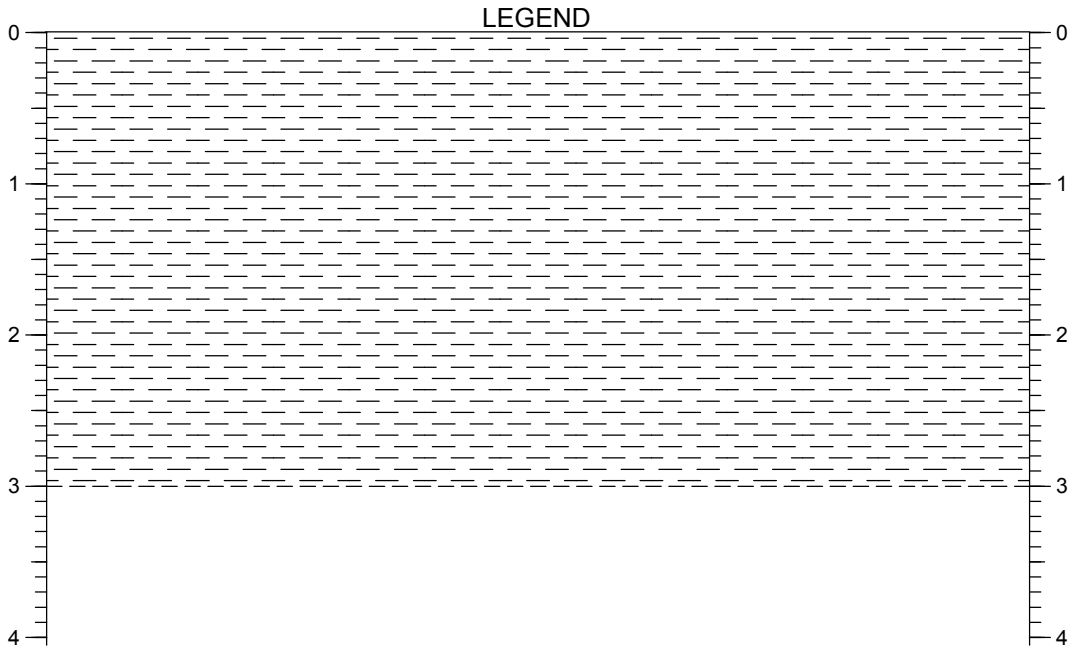
Project: **Haverhill Business Park**

Trial Pit Log

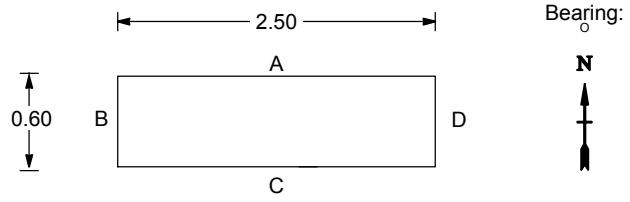
Date: **15/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
	Very stiff light brownish grey slightly sandy slightly gravelly CLAY. Gravel is angular to rounded fine to coarse flint and chalk. Sand is fine to coarse. Occasional rounded chalk and subrounded flint cobbles. Becomes gravelly at 2.7 m bgl. (LOWESTOFT FORMATION)				1.00	HSV= 130kN/m^2
(3.00)					2.00	HSV= >140kN/m^2
			2.80-1.00	B 1		
3.00 79.732	Trial pit complete at 3.00 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567784.169 N:244166.757 Level:82.732		JCB 3CX	WC	SS	SS	1:50

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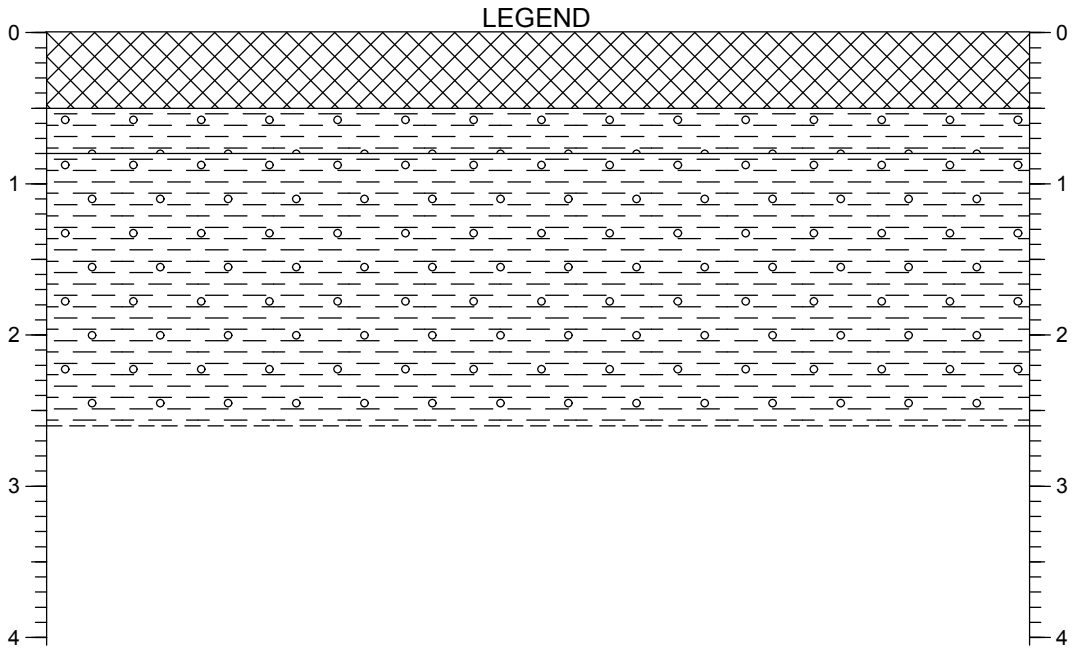
Project: **Haverhill Business Park**

Trial Pit Log

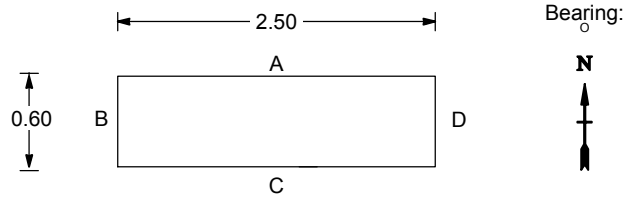
Date: **15/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(0.50) 0.50 82.011	MADE GROUND: Grey sandy gravel. Gravel is angular to subangular fine to coarse concrete and brick. Sand is fine to coarse. Occasional brick cobbles.				0.50	HSV= 70kN/m^2
0.80 81.711	Stiff yellowish brownish grey slightly gravelly CLAY. Gravel is subrounded to rounded chalk and rare angular to subangular flint. (LOWESTOFT FORMATION)				0.80	HSV= >140kN/m^2
(1.80)	Stiff grey slightly sandy gravelly CLAY. Gravel is angular to rounded fine to coarse chalk and flint. Sand is fine to coarse. Rare subrounded chalk cobbles. Occasional coarse gravel sized pockets of yellow sandy clay. (LOWESTOFT FORMATION)		2.00	B 1	2.00	HSV= >140kN/m^2
2.60 79.911	Trial pit complete at 2.60 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567821.703 N:244117.564 Level:82.511		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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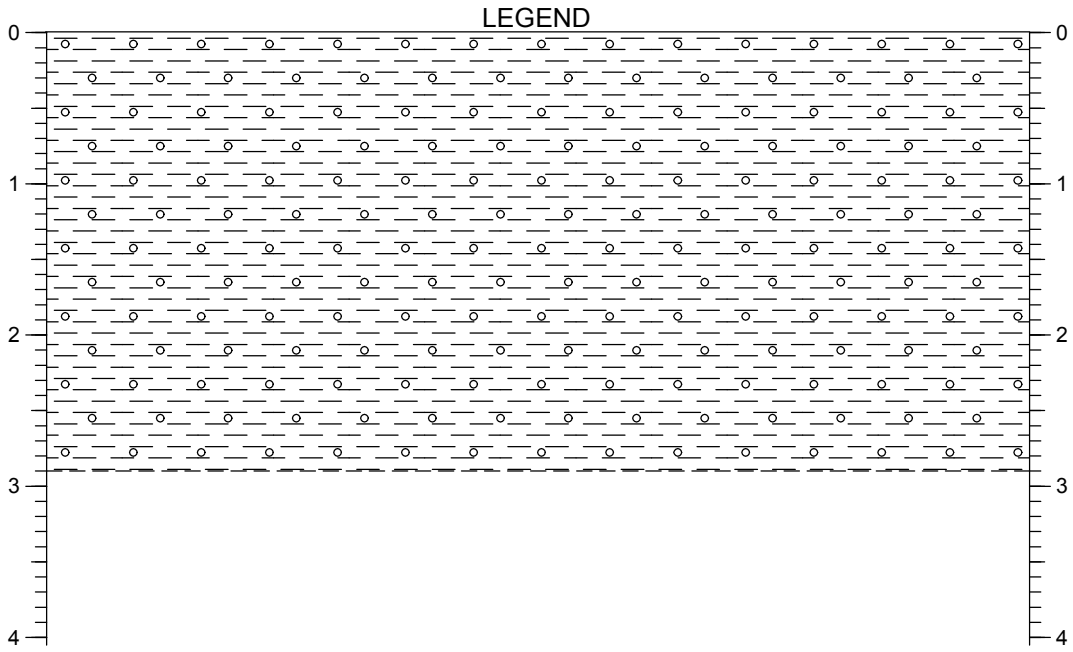
Project: **Haverhill Business Park**

Trial Pit Log

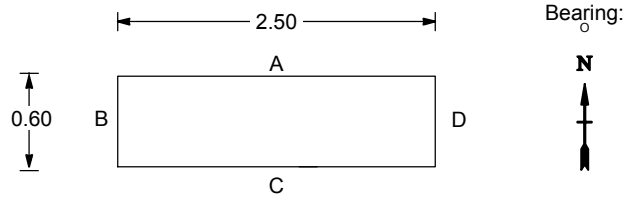
Date: **15/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
	Stiff grey slightly sandy slightly gravelly CLAY. Gravel is angular to rounded fine to coarse chalk and flint. Sand is fine to coarse. Rare rounded chalk cobbles. Rare subangular to rounded flint cobbles. Occasional coarse gravel sized pockets of yellow sandy clay. (LOWESTOFT FORMATION)		1.00	B 1 ES	1.00	HSV= >140kN/m^2
(2.90)					2.00	HSV= >140kN/m^2
2.90 *79.967*	Trial pit complete at 2.90 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567874.034 N:244169.679 Level:82.867		JCB 3CX	WC	SS	SS	1:50

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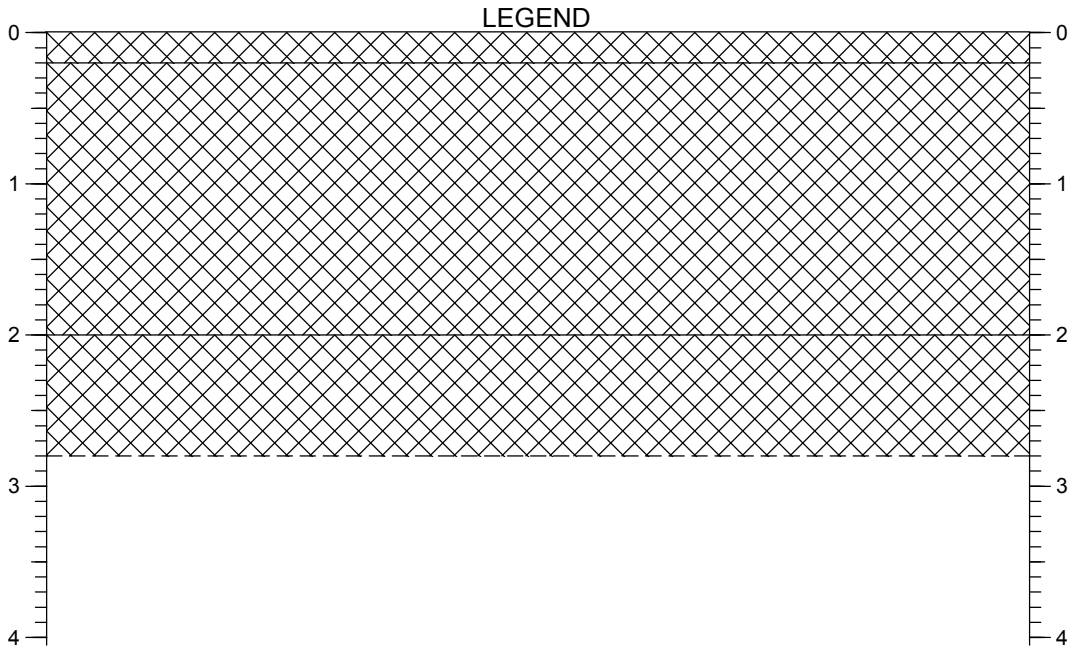
Project: **Haverhill Business Park**

Trial Pit Log

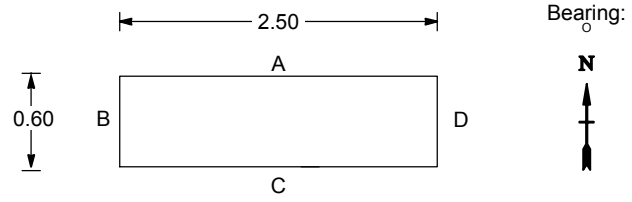
Date: **18/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details Depth (m)	Sample Details Type Ref	Test Details Depth (m)	Test Details Results
0.20 82.272	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (TOPSOIL)					
(1.80)	MADE GROUND: Orangish brown slightly sandy gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (REWORKED NATURAL FILL)		1.00	B 1	1.00	HSV= 68 to 76kN/m^2
2.00 80.472						
(0.80)	MADE GROUND: Stiff light brown slightly sandy gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. Rare flint and chalk boulders. (REWORKED NATURAL FILL)					
2.80 79.672	Trial pit complete at 2.80 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567870.132 N:244128.546 Level:82.472		JCB 3CX	WC	SS	SS	1:50

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Project No:	Hole ID:	Page No.
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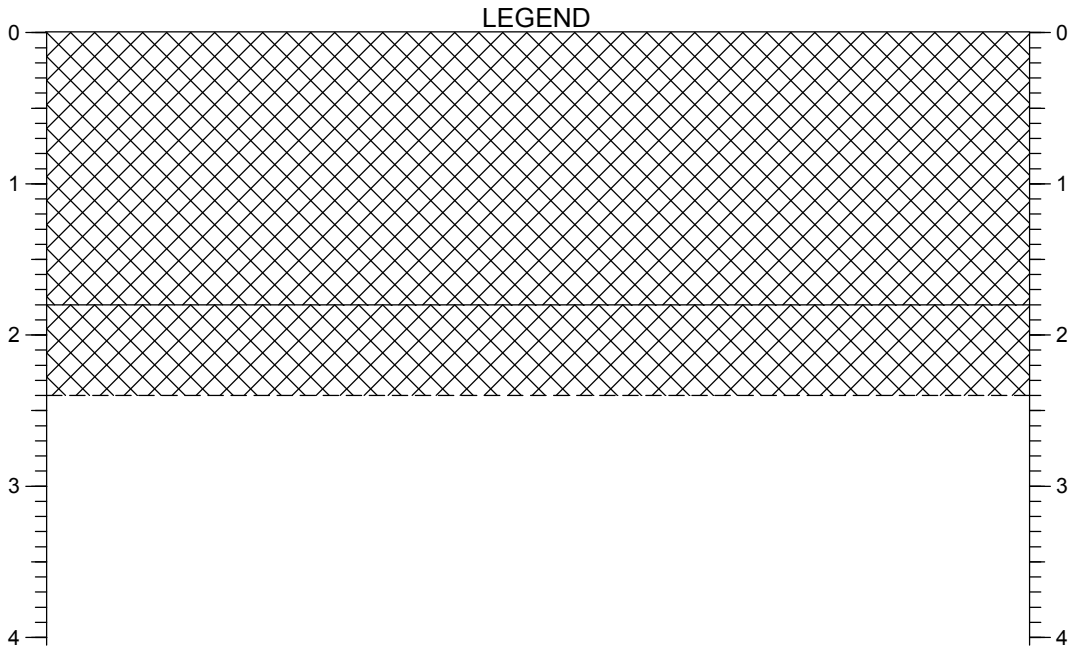
Project: **Haverhill Business Park**

Trial Pit Log

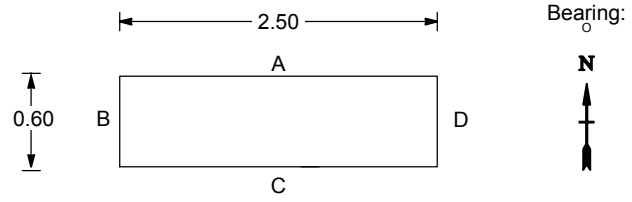
Date: **18/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(1.80) 1.80 75.964	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. Rare anthropogenic material including bricks and tiles. (TOPSOIL)				1.20	HSV= 44 to 110kN/m^2
(0.60) 2.40 75.364	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (REWORKED NATURAL FILL)		2.00	B 1		
	Trial pit complete at 2.40 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567567 N:244259 Level:77.764		JCB 3CX	WC	SS	SS	1:50

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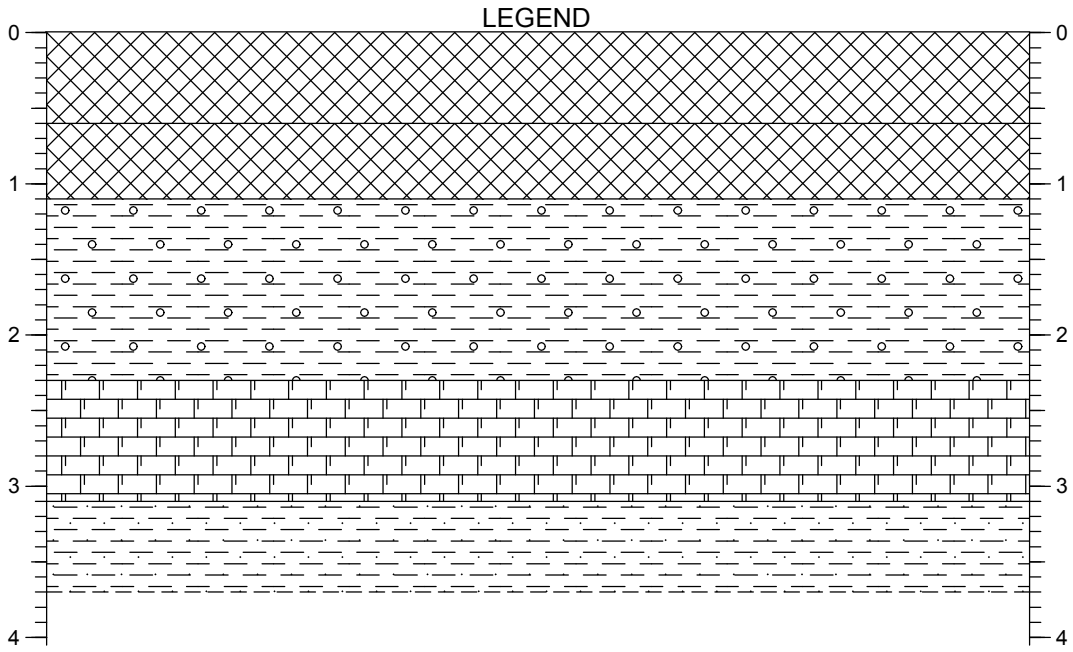
Project No:	Hole ID:	Page No.
15-0210.02	TP138	1 of 1

Project: **Haverhill Business Park**

Trial Pit Log

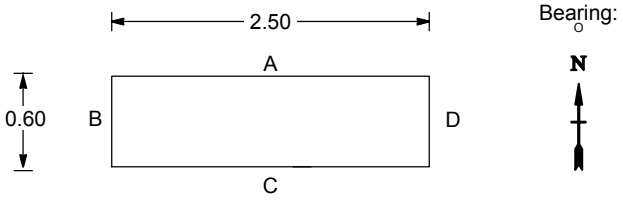
Date: **18/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(0.60) 0.60 71.4	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (TOPSOIL)				0.50	HSV= 64kN/m²
(0.50) 1.10 70.9	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (REWORKED NATURAL FILL)		0.90	B 1 ES		
(1.20) 2.30 69.7	Stiff light brown slightly sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (LOWESTOFT FORMATION)					
(0.80) 3.10 68.9	Structureless CHALK composed of uncompact, cream with orange veins, slightly gravelly sandy SILT. Gravel is very weak, low density, creamish and subangular. Rare subrounded flint cobbles. Rare subangular chalk cobbles. (Grade Dm) (LEWES NODULAR CHALK FORMATION AND SEAFORD CHALK FORMATION UNDIFFERENTIATED)					
(0.60) 3.70 68.3	Very stiff orangish brown sandy slightly gravelly CLAY. Gravel is subangular to rounded fine to coarse chalk and flint. Rare flint cobbles. (WEATHERED LEWES NODULAR CHALK FORMATION AND SEAFORD CHALK FORMATION UNDIFFERENTIATED)					
	Trial pit complete at 3.70 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567631 N:244265 Level:72		JCB 3CX	WC	SS	SS	1:50

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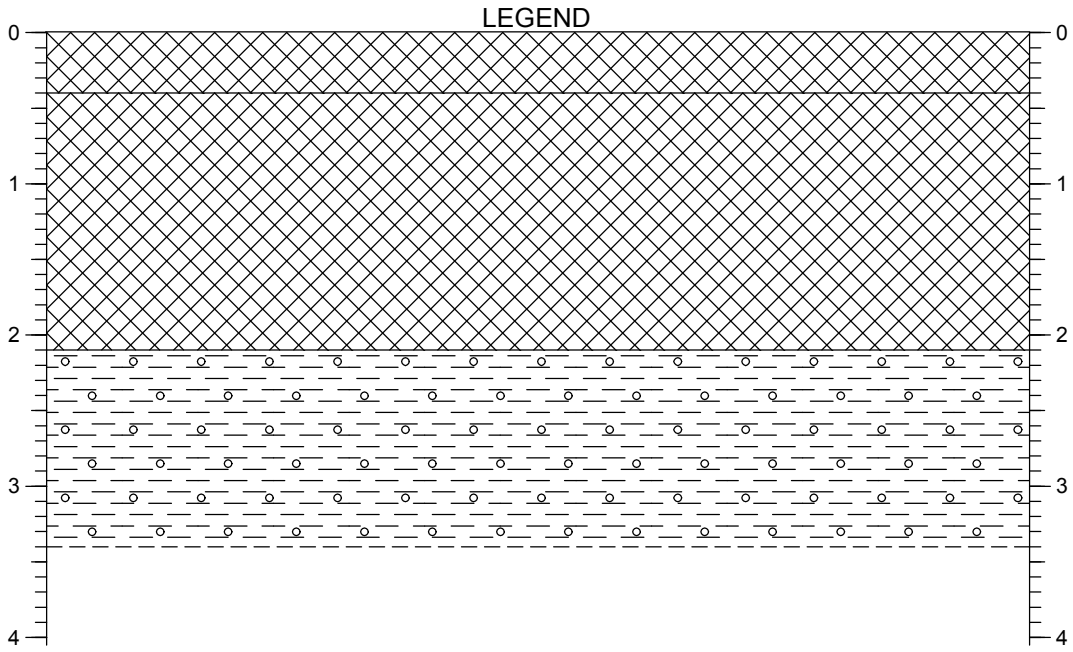
Project No:	Hole ID:	Page No.
15-0210.02	TP139	1 of 1

Project: **Haverhill Business Park**

Trial Pit Log

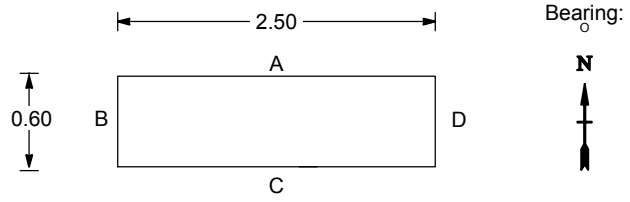
Date: **17/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(0.40) 0.40 75.398	MADE GROUND: Brown slightly sandy slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint and chalk. Sand is fine to coarse. (TOPSOIL)				0.20	HSV= 110kN/m^2
(1.70) 2.10 73.698	MADE GROUND: Stiff light brown sandy gravelly clay. Gravel is angular to subrounded predominantly chalk and rare flint. Sand is fine to coarse. Rare plastic. (REWORKED NATURAL FILL)		1.00	B 1		
(1.30) 3.40 72.398	Very stiff creamish light brown slightly sandy gravelly CLAY. Gravel is subangular to subrounded fine to coarse predominantly chalk and rare flint. Sand is fine to coarse. Occasional flint and chalk cobbles. (LOWESTOFT FORMATION)					
	Trial pit complete at 3.40 m bgl.					

Dimensions and Orientation:



Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567695.449 N:244238.669 Level:75.798		JCB 3CX	WC	SS	SS	1:50

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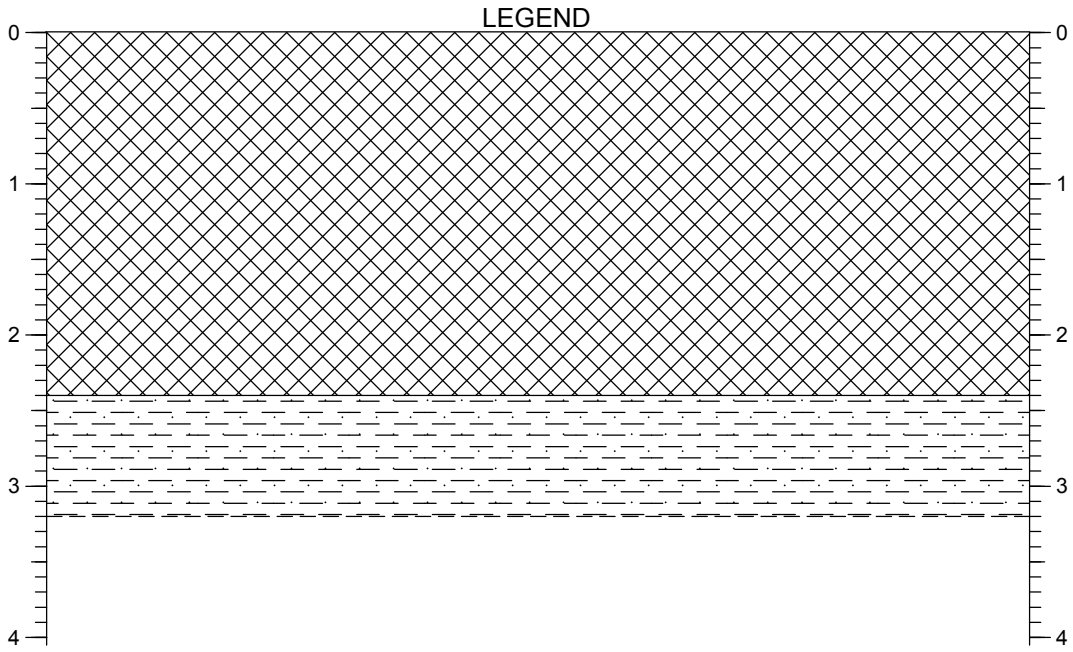
Project No:	Hole ID:	Page No.
15-0210.02	TP140	1 of 1

Project: **Haverhill Business Park**

Trial Pit Log

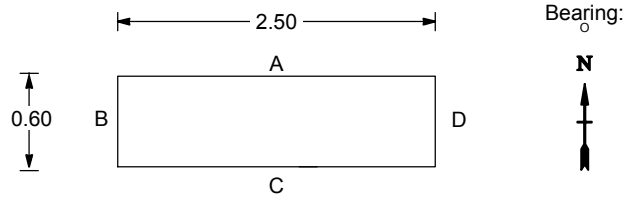
Date: **17/06/2015**

Client: **Hammond Rutts Investments Limited**



Strata Depth (Thickness) Reduced Level	Description of Strata	Water	Sample Details: Depth (m)	Sample Details: Type Ref	Test Details: Depth (m)	Test Details: Results
(2.40) 2.40 74.78	MADE GROUND: Greyish light brown slightly sandy gravelly clay. Gravel is angular to subrounded fine to coarse chalk and flint. Sand is fine to coarse. (REWORKED NATURAL FILL)				0.20	HSV= 82 to 122kN/m^2
(0.80) 3.20 73.98	Very stiff creamish light brown mottled grey sandy slightly gravelly CLAY. Gravel is angular to rounded fine to coarse predominantly chalk and rare flint. Sand is fine to coarse. Occasional chalk and rare flint cobbles. (LOWESTOFT FORMATION)		3.00	B 1 ES		
	Trial pit complete at 3.20 m bgl.					

Dimensions and Orientation:



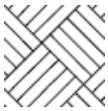
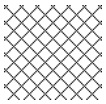
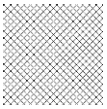
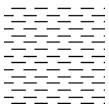
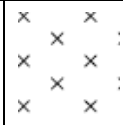
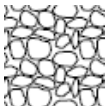
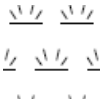
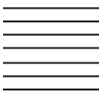
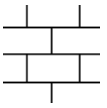
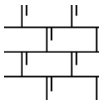
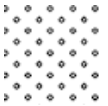
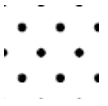
Remarks:

1. Engineer verified logged in general accordance to BS EN ISO 14688-1:2002+A1:2013.
2. Area CAT scanned prior to excavation.
3. No groundwater encountered.
4. Backfilled with arisings.

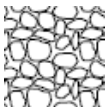
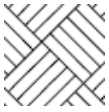
Coordinates (National Grid) / Level (mAOD):	Excavated By:	Plant Used:	Logged By:	Checked By:	Approved By:	Scale:
E:567748.286 N:244209.601 Level:77.18		JCB 3CX	WC	SS	SS	1:50

KEY TO BOREHOLE AND TRIAL PIT LOGS

MATERIAL LEGENDS

	Topsoil		Made Ground		Made Ground 2
	Concrete		Clay		Silt
	Sand		Gravel		Peat
	Cobbles		Boulders		Mudstone
	Siltstone		Sandstone		Limestone
	Chalk		Coal		Breccia
	Conglomerate		Igneous		Metamorphic
	Volcanoclastic		Gypsum		Shale
	Ironstone		Bedrock (Unidentified)		Void

INSTALLATION / BACKFILL LEGENDS

	Sand		Gravel		Bentonite
	Cement/Grout		Arisings		Concrete
	Plain Pipe		Slotted Pipe		Piezometer Tip

Legend symbols in general accordance with BS 5930 (1999) and AGS.

KEY TO BOREHOLE AND TRIAL PIT LOGS

SAMPLE TYPES

ACM	Asbestos Containing Material Sample
B	Bulk Disturbed Sample
BLK	Block Sample
C	Core Sample
CBR	Undisturbed Sample for California Bearing Ratio Test – 154mm diameter
D	Disturbed Sample - Tub
ES	Soil Sample for Environmental Testing
EW	Water Sample for Environmental Testing
J	Disturbed Sample - Jar
U	Undisturbed Driven Tube Sample – 70/102mm diameter, 450mm long
U(P)	Undisturbed Pushed Piston Sample – 102mm diameter, 450mm long
U(TW)	Undisturbed Thin Walled Push In Sample – 100mm diameter, 450mm long
V	Disturbed Sample - Vial

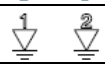
TEST TYPES

CPT	Cone Penetrometer Test (kN/m^2)
FID	Flame Ionisation Detector Test (ppm)
HSV	In-Situ Hand Sheer Vane Test (kN/m^2)
PID	Photoionisation Detector Test (ppm)
SPT (S)	Standard Penetration Test – Split Spoon Sampler
SPT (C)	Standard Penetration Test – Solid 60 Degree Cone

CORE DETAILS

If	Fracture Spacing (mm) – Minimum, Average, Maximum
NI	Non-Intact where >25 fracture spacings per metre
TCR	Total Core Recovery (%)
SCR	Solid Core Recovery (%)
RQD	Rock Quality Designation (%)
AF	Air Flush Return (%)
WF	Water Flush Return (%)

WATER COLUMN DETAILS

	First Water Strike, Second Water Strike etc.
	Standing Water Level – First Strike, Second Strike etc.
	Seepage

Appendix II

SPT Calibration Report

www.equipegroup.com

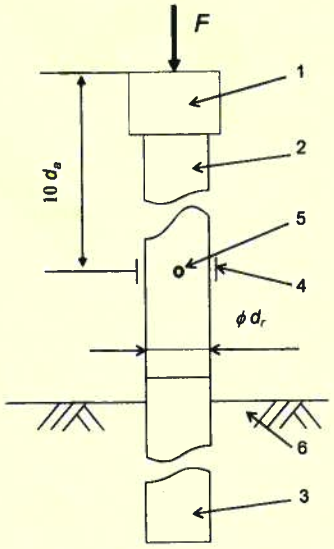
Hammer Energy Measurement Report

Type of Hammer	SPT HAMMER
Client	DELTA SIMONS
Test No	EQU1240
Test Depth (m)	6.70
Date of Test	02 April 2015
Valid until	01 April 2016
Hammer ID	DS001

Mass of the hammer	m =	63.5kg
Falling height	h =	0.76m
E_{theor} =	$m \times g \times h$ =	473J

Characteristics of the instrumented rod

Diameter	d_r =	0.052 m
Length of the instrumented rod		0.558 m
Area	A =	11.61 cm^2
Modulus	E_a =	206843 MPa

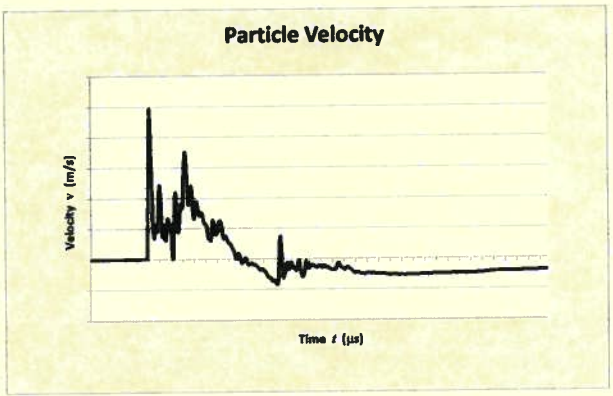


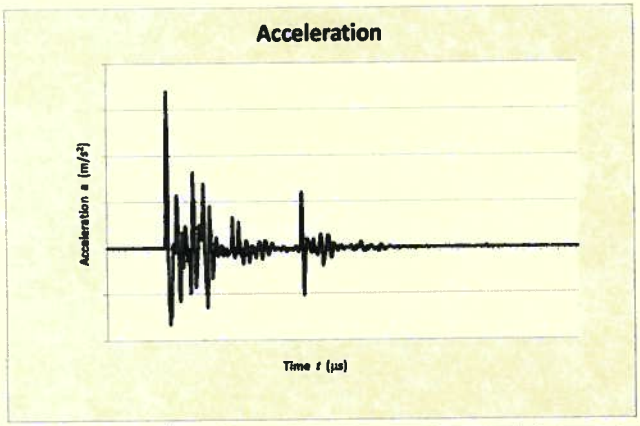
Key

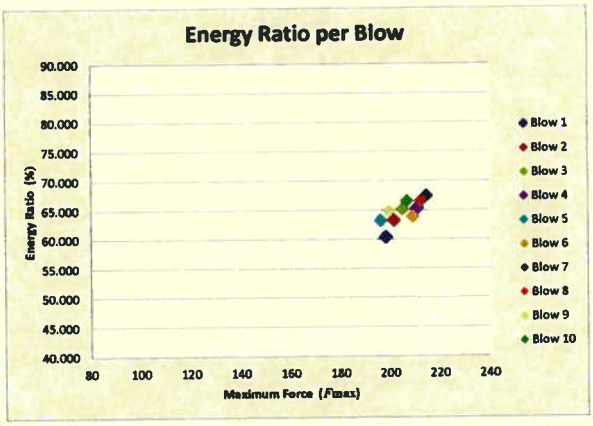
1 Anvil
2 Part of instrumented rod
3 Drive Rod
4 Strain Gauge
5 Accelerometer
6 Ground

F Force
d_r Diameter of rod

Fig. B.1 and B.2 BS EN ISO 22476-3 : 2005 + A1 : 2011







Observations:
1.

E_{meas} =	**0.304** kN-m
E_{theor} =	**0.473** kN-m

Energy Ratio (E_r) = $\frac{E_{meas}}{E_{theor}}$ = **64.36%**

Equipe SPT Analyzer Operators: KS

Prepared by: **Checked by:** **Date** 08/04/2015

Equipe Group, The Paddocks, Home Farm Offices, The Upton Estate, Banbury, Oxfordshire, OX15 6HU
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Appendix III

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GROUNDWATER AND GROUND GAS MONITORING RECORD SHEET

Sheet: 1 of 1

Project Name:	Haverhill Business Park, Haverhill	Weather Conditions:	Fine, breezy 19 degrees celcius
Project Number:	15-0210.02	Gas Kit Model:	GFM436
Personnel:	Will Capps	Gas Kit Serial No:	

Date: 22/06/2015

LOCATION	Flow Peak (L/hr)	Flow Steady (L/hr)	CH_4 Peak (%v/v)	CH_4 Steady (%v/v)	CO_2 Peak (%v/v)	CO_2 Steady (%v/v)	O_2 Min. (%v/v)	O_2 Steady (%v/v)	Atmospheric Pressure (mb)	PID (ppm)	Well I.D. (mm)	Depth to Product (DTP) (m)	Product Thickness (m)	Depth to Water (DTW) (m)	Depth to Base (DTB) (m)	Height of Water Column (m)	NOTES
RA101	<0.1	<0.1	<0.1	<0.1	0.9	0.8	19.1	19.1	999	n/a	50	n/a	n/a	Dry	9.010	n/a	Pipe+0.16
RA102	<0.1	<0.1	0.2	0.2	0.9	0.9	18.1	18.1	999	n/a	50	n/a	n/a	3.020	8.240	5.220	Pipe+0.21
RA103	<0.1	<0.1	15.9	15.9	7.6	7.6	9.1	9.1	999	n/a	50	n/a	n/a	Dry	9.930	n/a	Pipe+0.22
RA104	<0.1	<0.1	<0.1	<0.1	0.3	0.3	19.7	19.7	999	n/a	50	n/a	n/a	Dry	8.230	n/a	Pipe+0.14
RA105	<0.1	<0.1	0.5	0.5	0.6	0.6	19.2	19.2	999	n/a	50	n/a	n/a	7.150	10.170	3.020	Pipe+0.17
RA106	<0.1	<0.1	<0.1	<0.1	1.5	1.5	18.2	18.2	999	n/a	50	n/a	n/a	Dry	5.320	n/a	Pipe+0.12
RA107	<0.1	<0.1	<0.1	<0.1	0.1	0.1	19.9	19.9	999	n/a	50	n/a	n/a	Dry	8.420	n/a	Pipe+0.32
RA108	<0.1	<0.1	1.5	1.5	8.0	8.0	4.2	4.2	999	n/a	50	n/a	n/a	Dry	11.120	n/a	Pipe+0.05

GUIDE TO PURGING VOLUMES

To calculate the number of litres to be purged from a well with a different diameter, use the formula $3\pi r^2 h$ (where r = radius of the well and h = height of the water column). Use the formula $\pi r^2 h$ to calculate the volume of a bailer. Please note that the standard bailers Delta-Simons use are typically 0.95 m in length.

Diameter of Casing (mm)	19	35	50	50	75	100
Diameter of Bailer (mm)	18	19	19	38	38	38
No. bails per m	4	12	22	6	13	23

GROUNDWATER AND GROUND GAS MONITORING RECORD SHEET

Sheet: 1 of 1

Project Name:	Haverhill Business Park, Haverhill	Weather Conditions:	Fine, breezy 23 degrees celcius
Project Number:	15-0210.02	Gas Kit Model:	GFM436
Personnel:	Will Capps	Gas Kit Serial No:	

Date: 16/07/2015

LOCATION	Flow Peak (L/hr)	Flow Steady (L/hr)	CH_4 Peak (%v/v)	CH_4 Steady (%v/v)	CO_2 Peak (%v/v)	CO_2 Steady (%v/v)	O_2 Min. (%v/v)	O_2 Steady (%v/v)	Atmospheric Pressure (mb)	PID (ppm)	Well I.D. (mm)	Depth to Product (DTP) (m)	Product Thickness (m)	Depth to Water (DTW) (m)	Depth to Base (DTB) (m)	Height of Water Column (m)	NOTES
RA101	<0.1	<0.1	<0.1	<0.1	1.0	1.0	19.9	19.9	1008	n/a	50	n/a	n/a	Dry	9.000	n/a	Pipe+0.16
RA102	<0.1	<0.1	<0.1	<0.1	0.8	0.8	20.2	20.2	1008	n/a	50	n/a	n/a	2.970	8.260	5.290	Pipe+0.21
RA103	<0.1	<0.1	13.3	13.3	11.2	11.2	3.7	3.7	1008	n/a	50	n/a	n/a	Dry	9.930	n/a	Pipe+0.22
RA104	<0.1	<0.1	<0.1	<0.1	0.8	0.8	19.5	19.5	1008	n/a	50	n/a	n/a	Dry	8.220	n/a	Pipe+0.14
RA105	<0.1	<0.1	<0.1	<0.1	5.5	5.5	15.3	15.4	1006	n/a	50	n/a	n/a	7.220	10.160	2.940	Pipe+0.17
RA106	<0.1	<0.1	<0.1	<0.1	1.4	1.4	19.2	19.2	1006	n/a	50	n/a	n/a	Dry	5.350	n/a	Pipe+0.12
RA107	<0.1	<0.1	<0.1	<0.1	3.9	3.9	15.7	15.8	1006	n/a	50	n/a	n/a	8.380	8.420	0.040	Pipe+0.32
RA108	<0.1	<0.1	<0.1	<0.1	0.8	0.8	20.0	20.0	1006	n/a	50	n/a	n/a	Dry	11.120	n/a	Pipe+0.05

GUIDE TO PURGING VOLUMES

To calculate the number of litres to be purged from a well with a different diameter, use the formula $3\pi r^2 h$ (where r = radius of the well and h = height of the water column). Use the formula $\pi r^2 h$ to calculate the volume of a bailer. Please note that the standard bailers Delta-Simons use are typically 0.95 m in length.

Diameter of Casing (mm)	19	35	50	50	75	100
Diameter of Bailer (mm)	18	19	19	38	38	38
No. bails per m	4	12	22	6	13	23

Appendix IV

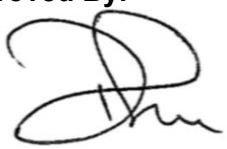
Chemtest Ltd.
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.co.uk

Final Report

Report Number:	15-14553 Issue-1
Initial Date of Issue:	03-Jul-2015
Client:	Delta Simons
Client Address:	3 Henley Office Park Doddington Road Lincoln Lincolnshire LN6 3QR
Contact(s):	Simon Steele Will Capps
Project:	15-0210.02 - Haverhill
Quotation No.:	
Order No.:	DS25140
No. of Samples:	10
Turnaround: (Wkdays)	5
Date Approved:	03-Jul-2015

Date Received:	24-Jun-2015
Date Instructed:	24-Jun-2015
Results Due Date:	30-Jun-2015

Approved By:



Details: Darrell Hall, Laboratory Director

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Results Summary - Soil

Project: 15-0210.02 - Haverhill

Client: Delta Simons					15-14553	15-14553	15-14553	15-14553	15-14553	15-14553	15-14553	15-14553	15-14553	15-14553
Quotation No.:					157487	157488	157490	157493	157494	157495	157496	157497	157499	157501
Order No.: DS25140					BH101	BH102	BH104	BH108	TP101	TP102	TP103	TP105	TP110	TP138
					ES01	ES01	ES01	ES01	ES01	ES01	ES01	ES01	ES01	ES01
					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					0.5	6.0	6.5	8.0	2.0	1.0	1.0	1.0	1.0	0.9
					19-Jun-15	18-Jun-15	22-Jun-15	17-Jun-15	18-Jun-15	18-Jun-15	19-Jun-15	17-Jun-15	19-Jun-15	18-Jun-15
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
ACM Type	U	2192								-				
Asbestos Identification	U	2192	%	0.001						No Asbestos Detected				
Moisture	N	2030	%	0.02	15	16	15	6.4	15	17	12	16	13	15
Soil Colour	N				brown	brown	brown	grey	brown	brown	brown	brown	brown	brown
Other Material	N				chalk	none	chalk	none	none	chalk	stones	none	none	stones
Soil Texture	N				clay	clay	clay	clay	clay	clay	clay	clay	clay	clay
pH	M	2010			8.4	8.0	8.4	7.7	7.8	8.0	8.3	8.2	7.8	7.9
Boron (Hot Water Soluble)	M	2120	mg/kg	0.4	< 0.40					0.58		0.41		0.80
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.01	0.025	0.27	0.023	0.95			0.098		0.017	
Total Sulphur	M	2175	%	0.01	0.060	0.080	0.030	0.50			0.66		0.030	
Sulphate (Acid Soluble)	M	2430	%	0.01	0.010	0.16	< 0.010	0.66			0.072		0.027	
Arsenic	M	2450	mg/kg	1	4.4					11		3.2		10
Cadmium	M	2450	mg/kg	0.1	< 0.10					0.17		< 0.10		0.22
Chromium	M	2450	mg/kg	1	4.3					16		5.7		30
Copper	M	2450	mg/kg	0.5	5.0					11		5.0		14
Mercury	M	2450	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Nickel	M	2450	mg/kg	0.5	2.5					18		5.1		23
Lead	M	2450	mg/kg	0.5	3.4					9.1		4.0		15
Selenium	M	2450	mg/kg	0.2	< 0.20					< 0.20		< 0.20		< 0.20
Zinc	M	2450	mg/kg	0.5	19					35		16		73
Chromium (Hexavalent)	N	2490	mg/kg	0.5	< 0.50					< 0.50		< 0.50		< 0.50
Organic Matter	M	2625	%	0.4	1.1	1.2	0.50	1.2		1.3		0.81		1.3
Total TPH >C6-C40	M	2670	mg/kg	10	< 10					< 10				
Aliphatic TPH >C5-C6	N	2675	mg/kg	0.1								< 0.10		< 0.10
Aliphatic TPH >C6-C8	N	2675	mg/kg	0.1								< 0.10		< 0.10
Aliphatic TPH >C8-C10	M	2675	mg/kg	0.1								< 0.10		< 0.10
Aliphatic TPH >C10-C12	M	2675	mg/kg	1								< 1.0		< 1.0
Aliphatic TPH >C12-C16	M	2675	mg/kg	1								< 1.0		< 1.0
Aliphatic TPH >C16-C21	M	2675	mg/kg	1								< 1.0		< 1.0
Aliphatic TPH >C21-C35	M	2675	mg/kg	1								< 1.0		< 1.0
Aliphatic TPH >C35-C44	M	2675	mg/kg	1								< 1.0		< 1.0
Total Aliphatic Hydrocarbons	M	2675	mg/kg	5								< 5.0		< 5.0

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Results Summary - Soil

Project: 15-0210.02 - Haverhill

Client: Delta Simons			Chemtest Job No.:		15-14553	15-14553	15-14553	15-14553	15-14553	15-14553	15-14553	15-14553	15-14553	15-14553
Quotation No.:			Chemtest Sample ID.:		157487	157488	157490	157493	157494	157495	157496	157497	157499	157501
Order No.: DS25140			Client Sample Ref.:		BH101	BH102	BH104	BH108	TP101	TP102	TP103	TP105	TP110	TP138
			Client Sample ID.:		ES01	ES01	ES01	ES01	ES01	ES01	ES01	ES01	ES01	ES01
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.5	6.0	6.5	8.0	2.0	1.0	1.0	1.0	1.0	0.9
			Bottom Depth(m):											
			Date Sampled:		19-Jun-15	18-Jun-15	22-Jun-15	17-Jun-15	18-Jun-15	18-Jun-15	19-Jun-15	17-Jun-15	19-Jun-15	18-Jun-15
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
Aromatic TPH >C5-C7	N	2675	mg/kg	0.1								< 0.10		< 0.10
Aromatic TPH >C7-C8	N	2675	mg/kg	0.1								< 0.10		< 0.10
Aromatic TPH >C8-C10	M	2675	mg/kg	0.1								< 0.10		< 0.10
Aromatic TPH >C10-C12	M	2675	mg/kg	1								< 1.0		< 1.0
Aromatic TPH >C12-C16	M	2675	mg/kg	1								< 1.0		< 1.0
Aromatic TPH >C16-C21	M	2675	mg/kg	1								< 1.0		< 1.0
Aromatic TPH >C21-C35	M	2675	mg/kg	1								< 1.0		< 1.0
Aromatic TPH >C35-C44	N	2675	mg/kg	1								< 1.0		< 1.0
Total Aromatic Hydrocarbons	M	2675	mg/kg	5								< 5.0		< 5.0
Total Petroleum Hydrocarbons	M	2675	mg/kg	10								< 10		< 10
Naphthalene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Acenaphthylene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Acenaphthene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Fluorene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Phenanthrene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Anthracene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Fluoranthene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Pyrene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Benzo[a]anthracene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Chrysene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Benzo[b]fluoranthene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.1	< 0.10					< 0.10		< 0.10		< 0.10
Total Of 16 PAH's	M	2700	mg/kg	2	< 2.0					< 2.0		< 2.0		< 2.0

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Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis
The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVCOs, PCBs, Phenols
For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at our Coventry laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container

Sample Retention and Disposal

All soil samples will be retained for a period of 60 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.co.uk

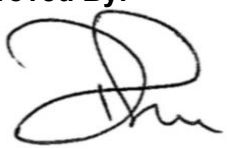
Chemtest Ltd.
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.co.uk

Final Report

Report Number:	15-14349 Issue-1
Initial Date of Issue:	30-Jun-2015
Client:	Delta Simons
Client Address:	3 Henley Office Park Doddington Road Lincoln Lincolnshire LN6 3QR
Contact(s):	Reception Simon Steele Will Capps
Project:	15-0210.02 - Haverhill

Quotation No.:		**Date Received:**	22-Jun-2015
Order No.:		**Date Instructed:**	24-Jun-2015
No. of Samples:	12		
Turnaround: (Wkdays)	5	**Results Due Date:**	30-Jun-2015
Date Approved:	30-Jun-2015		

Approved By:



Details: Darrell Hall, Laboratory Director

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Results Summary - Soil

Project: 15-0210.02 - Haverhill

Client: Delta Simons					15-14349	15-14349	15-14349	15-14349	15-14349	15-14349	15-14349	15-14349	15-14349	15-14349
Quotation No.:					156360	156361	156362	156363	156364	156365	156366	156368	156369	156372
Order No.:														
					TP112	TP113	TP114	TP118	TP120	TP122	TP123	TP125	TP126	TP131
					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					3.0	0.5	0.5	2.5	0.5	1.0	1.0	1.9	1.0	0.7
					17-Jun-15	17-Jun-15	17-Jun-15	15-Jun-15	16-Jun-15	16-Jun-15	16-Jun-15	16-Jun-15	16-Jun-15	15-Jun-15
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
ACM Type	U	2192					-		-					-
Asbestos Identification	U	2192	%	0.001			No Asbestos Detected		No Asbestos Detected					No Asbestos Detected
Moisture	N	2030	%	0.02	12	12	14	15	4.7	17	15	20	21	19
Soil Colour	N				brown	brown	brown	brown	brown	brown	brown	brown	brown	brown
Other Material	N				stones	stones	stones	stones	stones	stones	stones	stones	stones	stones
Soil Texture	N				sand	sand	clay	clay	sand	clay	clay	clay	clay	clay
pH	M	2010			8.3		8.7	8.2	8.7	8.1	8.2		7.9	7.9
Boron (Hot Water Soluble)	M	2120	mg/kg	0.4		0.92			0.40		0.45	0.80	1.5	
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.01	0.064			< 0.010						0.18
Total Sulphur	M	2175	%	0.01	0.010			0.040						0.060
Sulphate (Acid Soluble)	M	2430	%	0.01	0.019			0.033						0.073
Arsenic	M	2450	mg/kg	1		27			15		25	23	21	
Cadmium	M	2450	mg/kg	0.1		0.26			0.38		0.21	0.34	0.35	
Chromium	M	2450	mg/kg	1		24			6.5		25	33	38	
Copper	M	2450	mg/kg	0.5		14			4.2		13	16	19	
Mercury	M	2450	mg/kg	0.1		< 0.10			< 0.10		< 0.10	< 0.10	0.13	
Nickel	M	2450	mg/kg	0.5		30			8.3		31	36	37	
Lead	M	2450	mg/kg	0.5		22			19		14	23	40	
Selenium	M	2450	mg/kg	0.2		< 0.20			< 0.20		< 0.20	< 0.20	< 0.20	
Zinc	M	2450	mg/kg	0.5		51			23		40	67	74	
Chromium (Hexavalent)	N	2490	mg/kg	0.5		< 0.50			< 0.50		< 0.50	< 0.50	< 0.50	
Organic Matter	M	2625	%	0.4				1.0			0.76		2.6	
Total TPH >C6-C40	M	2670	mg/kg	10		< 10						< 10		
Aliphatic TPH >C5-C6	N	2675	mg/kg	0.1					< 0.10		< 0.10		< 0.10	
Aliphatic TPH >C6-C8	N	2675	mg/kg	0.1					< 0.10		< 0.10		< 0.10	
Aliphatic TPH >C8-C10	M	2675	mg/kg	0.1					< 0.10		< 0.10		< 0.10	
Aliphatic TPH >C10-C12	M	2675	mg/kg	1					< 1.0		< 1.0		< 1.0	
Aliphatic TPH >C12-C16	M	2675	mg/kg	1					< 1.0		< 1.0		< 1.0	
Aliphatic TPH >C16-C21	M	2675	mg/kg	1					< 1.0		< 1.0		< 1.0	
Aliphatic TPH >C21-C35	M	2675	mg/kg	1					< 1.0		< 1.0		< 1.0	
Aliphatic TPH >C35-C44	M	2675	mg/kg	1					< 1.0		< 1.0		< 1.0	
Total Aliphatic Hydrocarbons	M	2675	mg/kg	5					< 5.0		< 5.0		< 5.0	

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Results Summary - Soil

Project: 15-0210.02 - Haverhill

Client: Delta Simons					Chemtest Job No.:	15-14349	15-14349	15-14349	15-14349	15-14349	15-14349	15-14349	15-14349	15-14349	15-14349
Quotation No.:					Chemtest Sample ID.:	156360	156361	156362	156363	156364	156365	156366	156368	156369	156372
Order No.:					Client Sample Ref.:										
					Client Sample ID.:	TP112	TP113	TP114	TP118	TP120	TP122	TP123	TP125	TP126	TP131
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	3.0	0.5	0.5	2.5	0.5	1.0	1.0	1.9	1.0	0.7
					Bottom Depth(m):										
					Date Sampled:	17-Jun-15	17-Jun-15	17-Jun-15	15-Jun-15	16-Jun-15	16-Jun-15	16-Jun-15	16-Jun-15	16-Jun-15	15-Jun-15
Determinand	**Accred.**	**SOP**	**Units**	**LOD**											
Aromatic TPH >C5-C7	N	2675	mg/kg	0.1						< 0.10		< 0.10		< 0.10	
Aromatic TPH >C7-C8	N	2675	mg/kg	0.1						< 0.10		< 0.10		< 0.10	
Aromatic TPH >C8-C10	M	2675	mg/kg	0.1						< 0.10		< 0.10		< 0.10	
Aromatic TPH >C10-C12	M	2675	mg/kg	1						< 1.0		< 1.0		< 1.0	
Aromatic TPH >C12-C16	M	2675	mg/kg	1						< 1.0		< 1.0		< 1.0	
Aromatic TPH >C16-C21	M	2675	mg/kg	1						< 1.0		< 1.0		< 1.0	
Aromatic TPH >C21-C35	M	2675	mg/kg	1						< 1.0		< 1.0		< 1.0	
Aromatic TPH >C35-C44	N	2675	mg/kg	1						< 1.0		< 1.0		< 1.0	
Total Aromatic Hydrocarbons	M	2675	mg/kg	5						< 5.0		< 5.0		< 5.0	
Total Petroleum Hydrocarbons	M	2675	mg/kg	10						< 10		< 10		< 10	
Naphthalene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Acenaphthylene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Acenaphthene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Fluorene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Phenanthrene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Anthracene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Fluoranthene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Pyrene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Benzo[a]anthracene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Chrysene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Benzo[b]fluoranthene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Benzo[k]fluoranthene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Benzo[a]pyrene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Benzo[g,h,i]perylene	M	2700	mg/kg	0.1		< 0.10				< 0.10		< 0.10	< 0.10	< 0.10	
Total Of 16 PAH's	M	2700	mg/kg	2		< 2.0				< 2.0		< 2.0	< 2.0	< 2.0	

Chemtest
The right chemistry to deliver results

Results Summary - Soil

Project: 15-0210.02 - Haverhill

Client: Delta Simons			**Chemtest Job No.:**		15-14349	15-14349
Quotation No.:			**Chemtest Sample ID.:**		156373	156374
Order No.:			Client Sample Ref.:			
			Client Sample ID.:		TP132	TP135
			Sample Type:		SOIL	SOIL
			Top Depth (m):		0.5	1.0
			Bottom Depth(m):			
			Date Sampled:		15-Jun-15	15-Jun-15
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
ACM Type	U	2192				
Asbestos Identification	U	2192	%	0.001		
Moisture	N	2030	%	0.02	17	16
Soil Colour	N				brown	brown
Other Material	N				stones	stones
Soil Texture	N				clay	clay
pH	M	2010				8.1
Boron (Hot Water Soluble)	M	2120	mg/kg	0.4	< 0.40	
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.01		
Total Sulphur	M	2175	%	0.01		
Sulphate (Acid Soluble)	M	2430	%	0.01		
Arsenic	M	2450	mg/kg	1	23	
Cadmium	M	2450	mg/kg	0.1	0.17	
Chromium	M	2450	mg/kg	1	20	
Copper	M	2450	mg/kg	0.5	13	
Mercury	M	2450	mg/kg	0.1	< 0.10	
Nickel	M	2450	mg/kg	0.5	29	
Lead	M	2450	mg/kg	0.5	14	
Selenium	M	2450	mg/kg	0.2	< 0.20	
Zinc	M	2450	mg/kg	0.5	46	
Chromium (Hexavalent)	N	2490	mg/kg	0.5	< 0.50	
Organic Matter	M	2625	%	0.4		
Total TPH >C6-C40	M	2670	mg/kg	10	< 10	
Aliphatic TPH >C5-C6	N	2675	mg/kg	0.1		
Aliphatic TPH >C6-C8	N	2675	mg/kg	0.1		
Aliphatic TPH >C8-C10	M	2675	mg/kg	0.1		
Aliphatic TPH >C10-C12	M	2675	mg/kg	1		
Aliphatic TPH >C12-C16	M	2675	mg/kg	1		
Aliphatic TPH >C16-C21	M	2675	mg/kg	1		
Aliphatic TPH >C21-C35	M	2675	mg/kg	1		
Aliphatic TPH >C35-C44	M	2675	mg/kg	1		
Total Aliphatic Hydrocarbons	M	2675	mg/kg	5		

Chemtest
The right chemistry to deliver results

Results Summary - Soil

Project: 15-0210.02 - Haverhill

Client: Delta Simons			**Chemtest Job No.:**		15-14349	15-14349
Quotation No.:			**Chemtest Sample ID.:**		156373	156374
Order No.:			Client Sample Ref.:			
			Client Sample ID.:		TP132	TP135
			Sample Type:		SOIL	SOIL
			Top Depth (m):		0.5	1.0
			Bottom Depth(m):			
			Date Sampled:		15-Jun-15	15-Jun-15
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Aromatic TPH >C5-C7	N	2675	mg/kg	0.1		
Aromatic TPH >C7-C8	N	2675	mg/kg	0.1		
Aromatic TPH >C8-C10	M	2675	mg/kg	0.1		
Aromatic TPH >C10-C12	M	2675	mg/kg	1		
Aromatic TPH >C12-C16	M	2675	mg/kg	1		
Aromatic TPH >C16-C21	M	2675	mg/kg	1		
Aromatic TPH >C21-C35	M	2675	mg/kg	1		
Aromatic TPH >C35-C44	N	2675	mg/kg	1		
Total Aromatic Hydrocarbons	M	2675	mg/kg	5		
Total Petroleum Hydrocarbons	M	2675	mg/kg	10		
Naphthalene	M	2700	mg/kg	0.1	< 0.10	
Acenaphthylene	M	2700	mg/kg	0.1	< 0.10	
Acenaphthene	M	2700	mg/kg	0.1	< 0.10	
Fluorene	M	2700	mg/kg	0.1	< 0.10	
Phenanthrene	M	2700	mg/kg	0.1	< 0.10	
Anthracene	M	2700	mg/kg	0.1	< 0.10	
Fluoranthene	M	2700	mg/kg	0.1	< 0.10	
Pyrene	M	2700	mg/kg	0.1	< 0.10	
Benzo[a]anthracene	M	2700	mg/kg	0.1	< 0.10	
Chrysene	M	2700	mg/kg	0.1	< 0.10	
Benzo[b]fluoranthene	M	2700	mg/kg	0.1	< 0.10	
Benzo[k]fluoranthene	M	2700	mg/kg	0.1	< 0.10	
Benzo[a]pyrene	M	2700	mg/kg	0.1	< 0.10	
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.1	< 0.10	
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.1	< 0.10	
Benzo[g,h,i]perylene	M	2700	mg/kg	0.1	< 0.10	
Total Of 16 PAH's	M	2700	mg/kg	2	< 2.0	

Chemtest
The right chemistry to deliver results

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis
The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVCOs, PCBs, Phenols
For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at our Coventry laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container

Sample Retention and Disposal

All soil samples will be retained for a period of 60 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.co.uk

Appendix V

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/3101

Client's Reference: 15-0210.02 Report Date: 20 July 2015

Client Name: Delta Simons
3 Henley Office Park
Doddington Road
Lincoln
LN6 3QR

For the attention of: Will Capps

Contract Title: Haverhill

Date Received: 25/06/2015
Date Commenced: 25/06/2015
Date Completed: 17/07/2015

Notes: **Opinions and Interpretations are outside the UKAS Accreditation**

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

R Gunson (Director)
A Watkins (Director)
M Beastall (Laboratory Manager)

D Lambe (Senior Technician)
S Royle (Senior Technician)

5 – 7 Hexthorpe Road, Hexthorpe,
Doncaster DN4 0AR
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fax: +44 (0)844 815 6642
e-mail: rgunson@prosoils.co.uk
awatkins@prosoils.co.uk

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Depth m	Description of Sample
BH101	1	B	1.00	Brown gravelly sandy silty CLAY.
BH101	2	B	2.00	Brown slightly gravelly very sandy very silty CLAY.
BH102	1	B	1.00	Brown slightly gravelly sandy silty CLAY.
BH102	2	B	2.00	Brown slightly gravelly sandy very silty CLAY.
BH102	3	B	3.00	Brown slightly gravelly sandy silty CLAY.
BH102	4	B	4.00	Brown slightly gravelly sandy very silty CLAY.
BH103	1	B	1.00	Brown gravelly sandy silty CLAY.
BH103	3	B	3.00	Brown slightly gravelly sandy very silty CLAY.
BH103	4	B	4.00	Brown slightly gravelly very sandy silty CLAY.
BH104	1	B	0.00	Brown gravelly sandy very silty CLAY.
BH105	1	B	1.00	Dark brown gravelly very sandy silty CLAY.
BH105	2	B	2.00	Brown gravelly sandy very silty CLAY.
BH105	3	B	3.00	Brown slightly gravelly sandy silty CLAY.
BH105	4	B	4.00	Brown gravelly sandy silty CLAY.
BH106	1	B	1.00	Brown mottled grey gravelly sandy silty CLAY.
BH106	3	B	4.00	Brown slightly gravelly sandy silty CLAY.
BH107	1	B	0.00	Brown gravelly very sandy very silty CLAY.
BH107	4	B	7.30	Grey gravelly very sandy silty CLAY.
BH108	1	B	3.00	Brown gravelly sandy very silty CLAY.

PSL
Professional Soils Laboratory

Compiled by	Date	Checked by	Date	Approved by	Date
	16/07/15		17/07/15		17/07/15

HAVERHILL.

Contract No: PSL15/3101

Client Ref: 15-0210.02

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Depth m	Description of Sample
TP101	1	B	2.00	Dark brown slightly gravelly slightly sandy silty CLAY.
TP103	1	B	1.00	Brown mottled grey gravelly sandy very silty CLAY.
TP104	1	B	1.00	Brown gravelly sandy slightly silty CLAY.
TP106	1	B	2.00	Brown very sandy clayey silty GRAVEL.
TP107	1	B	3.00	Brown slightly gravelly sandy silty CLAY.
TP108	1	B	2.00	Brown slightly gravelly sandy very silty CLAY.
TP109	1	B	2.70	Brown silty SAND.
TP110	1	B	1.00	Brown slightly gravelly sandy silty CLAY.
TP112	1	B	3.00	Brown slightly gravelly very sandy very silty CLAY.
TP113	1	B	3.80	Off white structureless CHALK.
TP114	1	B	2.00	Dark brown gravelly very sandy silty CLAY.
TP116	1	B	2.00	Brown mottled grey gravelly very sandy silty CLAY.
TP117	1	B	2.50	Brown slightly gravelly slightly sandy silty CLAY.
TP120	1	B	0.50	Brown very sandy clayey silty GRAVEL.
TP122	1	B	1.00	Brown gravelly sandy very silty CLAY.
TP124	1	B	1.00	Brown slightly gravelly sandy silty CLAY.
TP125	1	B	1.90	Dark brown slightly gravelly sandy silty CLAY.
TP126	1	B	2.70	Brown mottled grey gravelly sandy very silty CLAY.
TP127	1	B	1.00	Brown gravelly sandy silty CLAY.

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Compiled by	Date	Checked by	Date	Approved by	Date
	16/07/15		17/07/15		17/07/15

HAVERHILL.

Contract No: PSL15/3101

Client Ref: 15-0210.02

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Depth m	Description of Sample
TP129	1	B	3.00	Brown mottled grey gravelly sandy very silty CLAY.
TP130	1	B	3.00	Brown mottled grey gravelly sandy silty CLAY
TP131	1	B	0.70	Brown gravelly sandy silty CLAY.
TP132	1	B	0.50	Dark brown gravelly sandy very silty CLAY.
TP133	1	B	2.80	Brown gravelly sandy silty CLAY.
TP134	1	B	2.00	Brown mottled grey gravelly sandy silty CLAY.
TP135	1	B	1.00	Brown mottled grey gravelly sandy very silty CLAY.
TP136	1	B	1.00	Dark brown gravelly very sandy silty CLAY.
TP137	1	B	2.00	Brown very gravelly very sandy very silty CLAY.
TP138	1	B	0.90	Brown slightly gravelly sandy silty CLAY.
TP140	1	B	3.00	Brown gravelly very sandy silty CLAY.

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Compiled by	Date	Checked by	Date	Approved by	Date
	16/07/15		17/07/15		17/07/15

HAVERHILL.

Contract No: PSL15/3101

Client Ref: 15-0210.02

SUMMARY OF SOIL CLASSIFICATION TESTS

(B.S. 1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Depth m	Moisture Content % Clause 3.2	Bulk Density Mg/m^3 Clause 7.2	Dry Density Mg/m^3 Clause 7.2	Particle Density Mg/m^3 Clause 8.2	Liquid Limit % Clause 4.3/4.4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	% Passing .425mm	Remarks
BH101	1	B	1.00	16				42	20	22	80	Intermediate plasticity CI.
BH102	1	B	1.00	21				41	19	22	92	Intermediate plasticity CI.
BH102	3	B	3.00	22				42	20	22	95	Intermediate plasticity CI.
BH103	1	B	1.00	20				42	20	22	80	Intermediate plasticity CI.
BH103	3	B	3.00	21				44	21	23	85	Intermediate plasticity CI.
BH103	4	B	4.00	19				34	17	17	80	Low plasticity CL.
BH105	3	B	3.00	27				42	19	23	95	Intermediate plasticity CI.
BH106	1	B	1.00	17				41	19	22	88	Intermediate plasticity CI.
BH106	3	B	4.00	19				41	20	21	95	Intermediate plasticity CI.
TP104	1	B	1.00	21				40	20	20	80	Intermediate plasticity CI.
TP109	1	B	2.70	10					NP			
TP113	1	B	3.80	28				42	25	17	100	Intermediate plasticity CI.
TP116	1	B	2.00	19				36	18	18	85	Intermediate plasticity CI.
TP120	1	B	0.50	5.3					NP			
TP124	1	B	1.00	21				45	22	23	95	Intermediate plasticity CI.
TP127	1	B	1.00	16				46	22	24	74	Intermediate plasticity CI.
TP130	1	B	3.00	21				43	20	23	80	Intermediate plasticity CI.
TP133	1	B	2.80	21				42	20	22	80	Intermediate plasticity CI.
TP138	1	B	0.90	18				47	22	25	99	Intermediate plasticity CI.

SYMBOLS : NP : Non Plastic *** : Liquid Limit and Plastic Limit Wet Sieved.**

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Compiled by	Date	Checked by	Date	Approved by	Date
	16/07/15		17/07/15		17/07/15

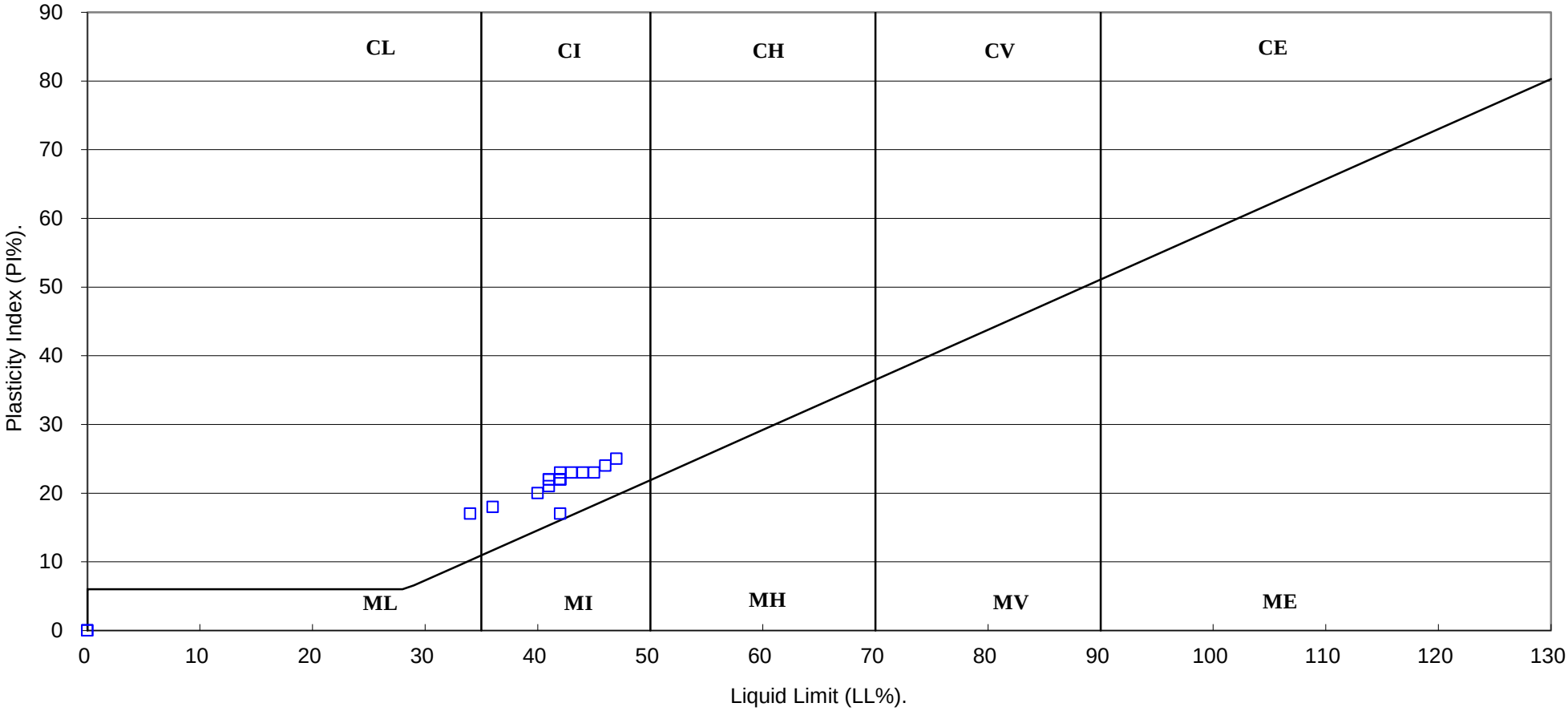
HAVERHILL.

Contract No: **PSL15/3101**

Client Ref: **15-0210.02**

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(B.S.5930 : 1999)



PSL Professional Soils Laboratory	**Compiled by**	**Date**	**Checked by**	**Date**	**Approved by**	**Date**
		16/07/15		17/07/15		17/07/15
	HAVERHILL.				**Contract No:**	**PSL15/3101**
					Client Ref:	**15-0210.02**

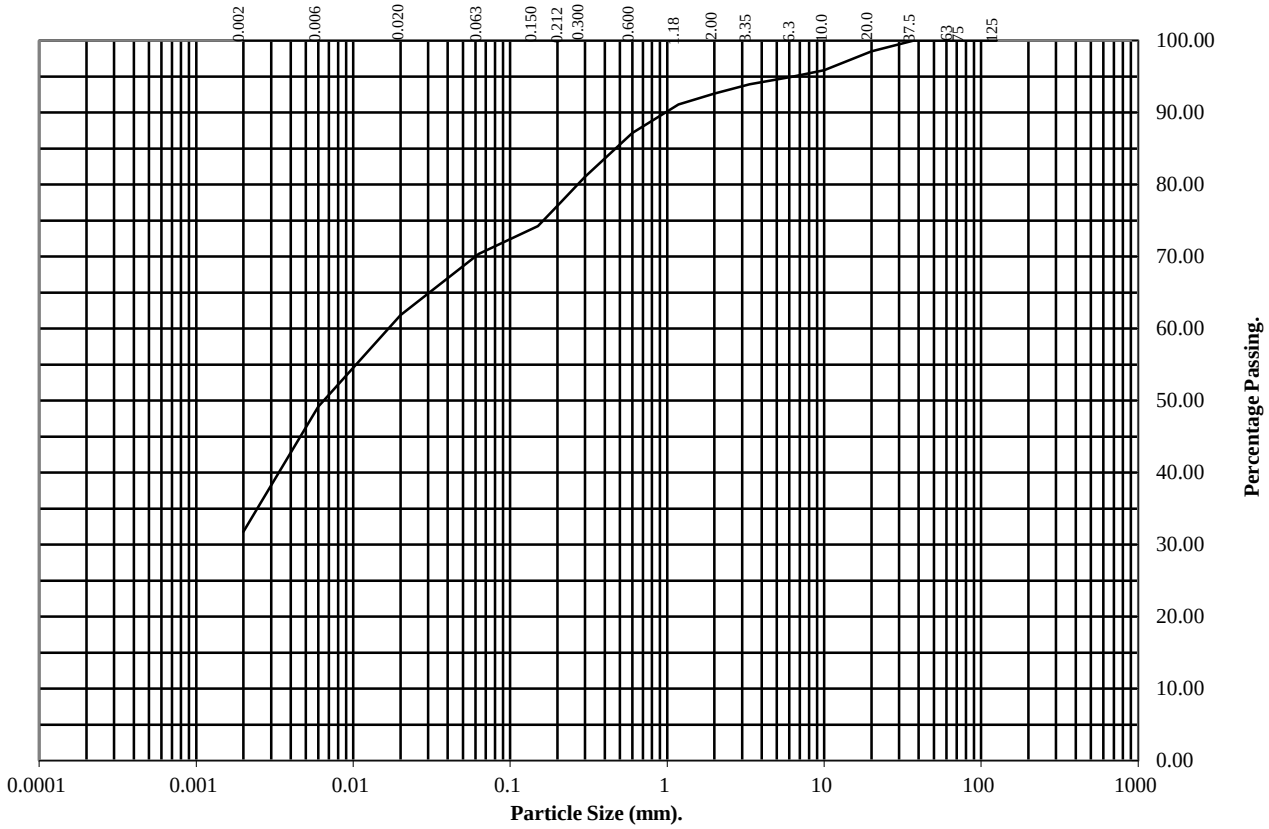
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **BH101** **Depth (m):** **2.00**

Sample Number: **2** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	98
10	96
6.3	95
3.35	94
2	93
1.18	91
0.6	87
0.3	81
0.212	78
0.15	74
0.063	70

Particle Diameter	Percentage Passing
0.02	62
0.006	49
0.002	32

Soil Fraction	Total Percentage
Cobbles	0
Gravel	7
Sand	23
Silt	38
Clay	32

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
	16/07/15		16/07/15

PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No.: PSL15/3101**

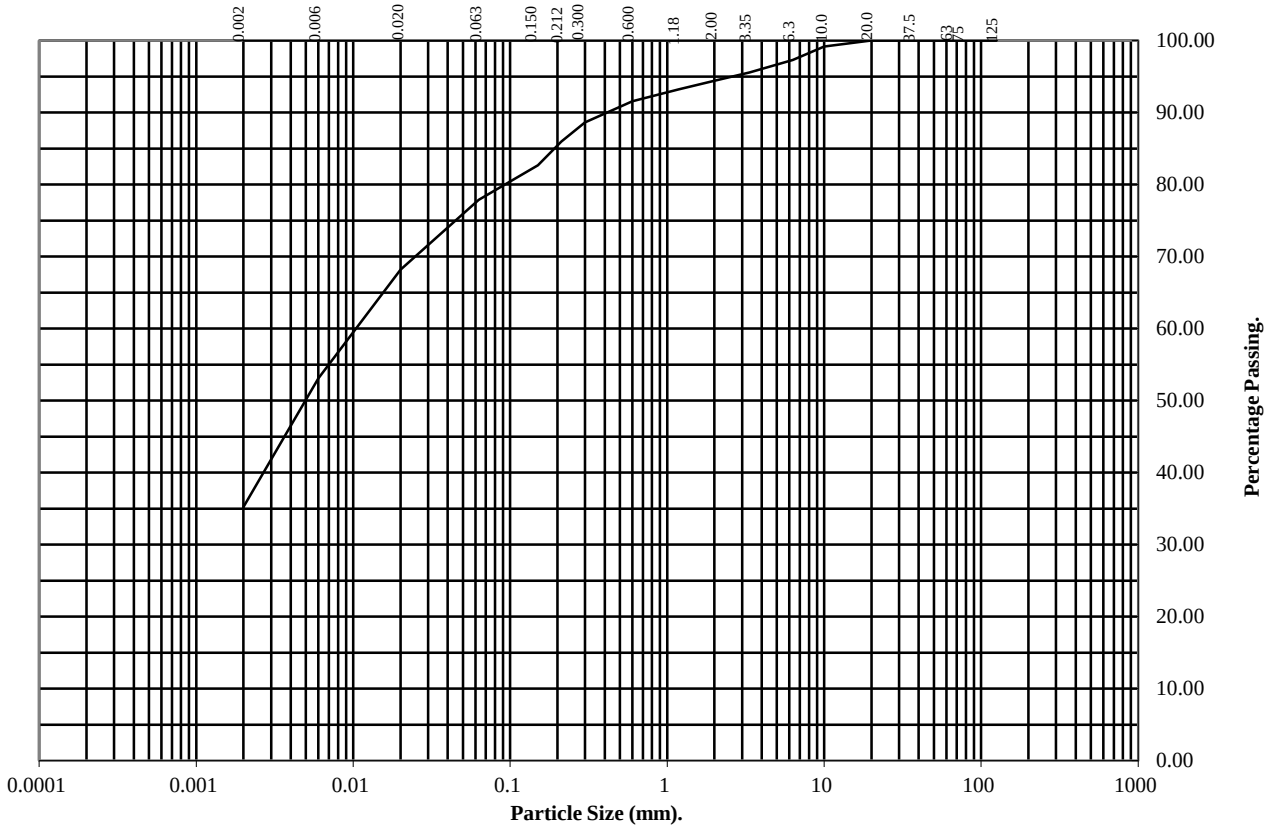
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **BH102** **Depth (m):** **2.00**

Sample Number: **2** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	99
6.3	97
3.35	96
2	94
1.18	93
0.6	92
0.3	89
0.212	86
0.15	83
0.063	78

Particle Diameter	Percentage Passing
0.02	68
0.006	53
0.002	35

Soil Fraction	Total Percentage
Cobbles	0
Gravel	6
Sand	16
Silt	43
Clay	35

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
	16/07/15		16/07/15

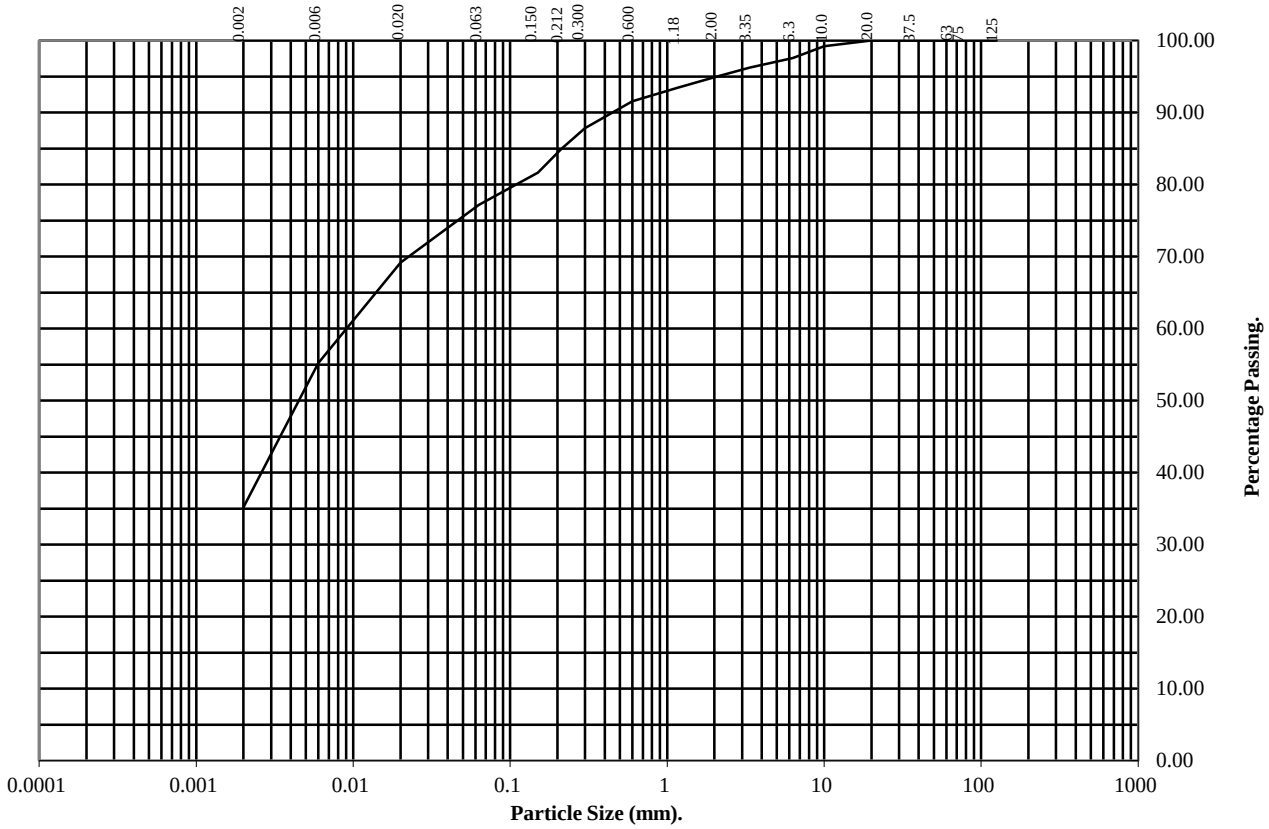
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **BH102** **Depth (m):** **4.00**

Sample Number: **4** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	99
6.3	98
3.35	96
2	95
1.18	93
0.6	92
0.3	88
0.212	85
0.15	82
0.063	77

Particle Diameter	Percentage Passing
0.02	69
0.006	55
0.002	35

Soil Fraction	Total Percentage
Cobbles	0
Gravel	5
Sand	18
Silt	42
Clay	35

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
	16/07/15		16/07/15

PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No.: PSL15/3101**

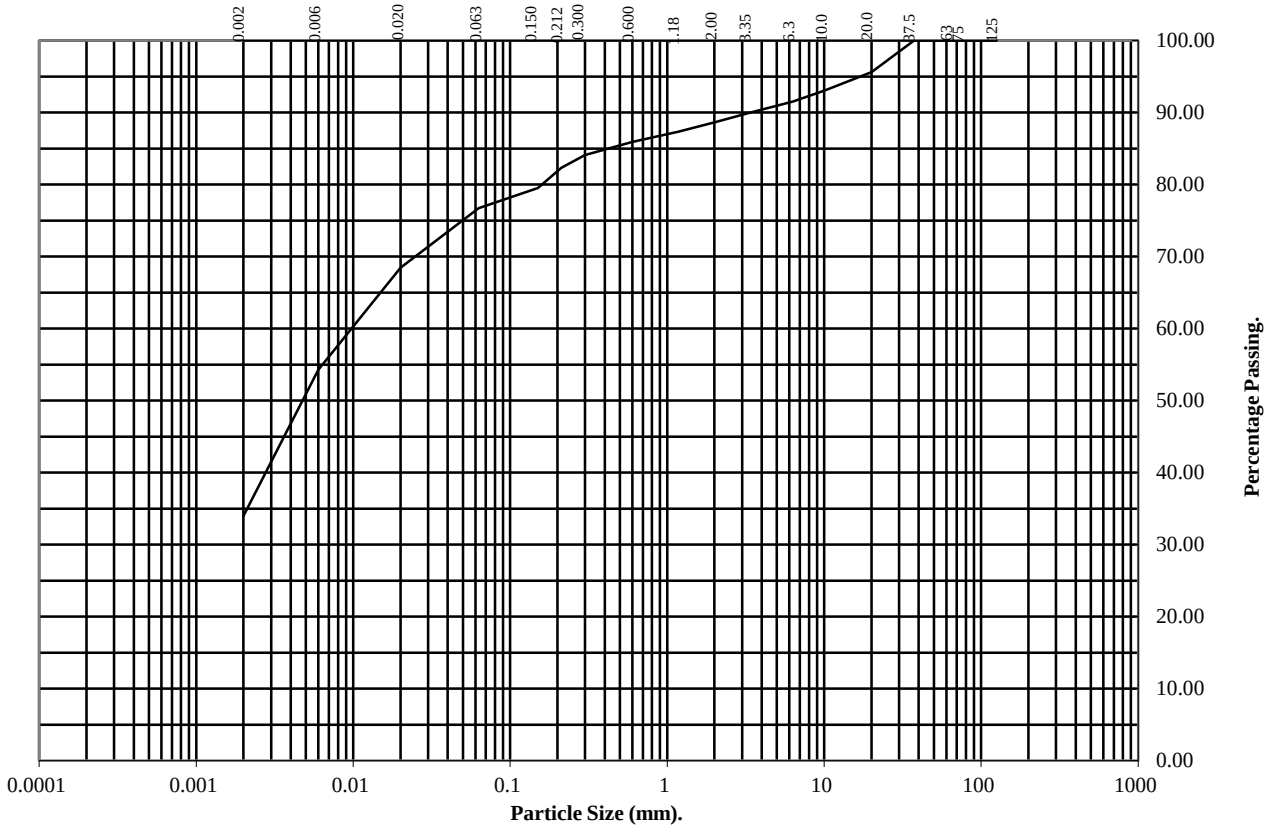
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **BH104** **Depth (m):** **0.00**

Sample Number: **1** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	96
10	93
6.3	92
3.35	90
2	89
1.18	87
0.6	86
0.3	84
0.212	82
0.15	80
0.063	77

Particle Diameter	Percentage Passing
0.02	68
0.006	54
0.002	34

Soil Fraction	Total Percentage
Cobbles	0
Gravel	11
Sand	12
Silt	43
Clay	34

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
	16/07/15		16/07/15

PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No.: PSL15/3101**

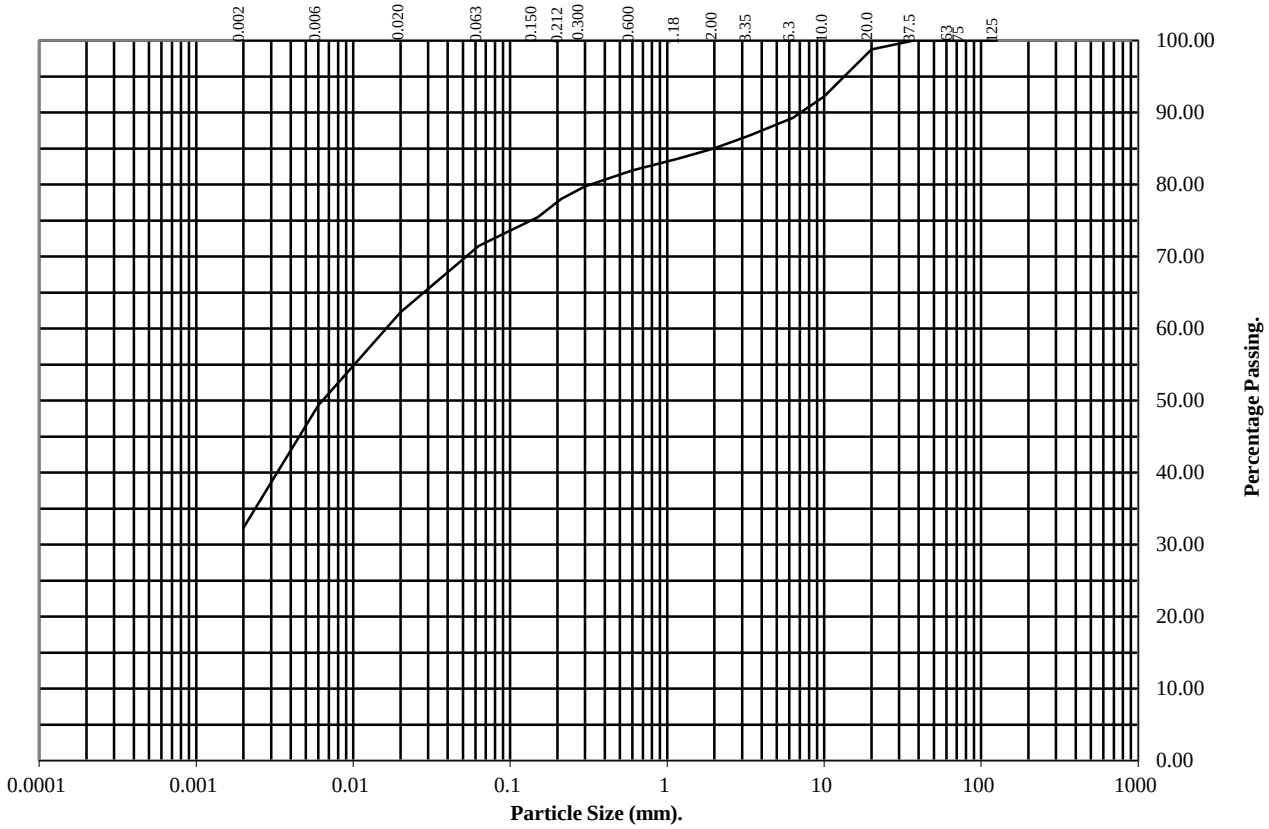
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **BH105** **Depth (m):** **2.00**

Sample Number: **2** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	99
10	92
6.3	89
3.35	87
2	85
1.18	84
0.6	82
0.3	80
0.212	78
0.15	75
0.063	71

Particle Diameter	Percentage Passing
0.02	62
0.006	49
0.002	32

Soil Fraction	Total Percentage
Cobbles	0
Gravel	15
Sand	14
Silt	39
Clay	32

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
	16/07/15		16/07/15

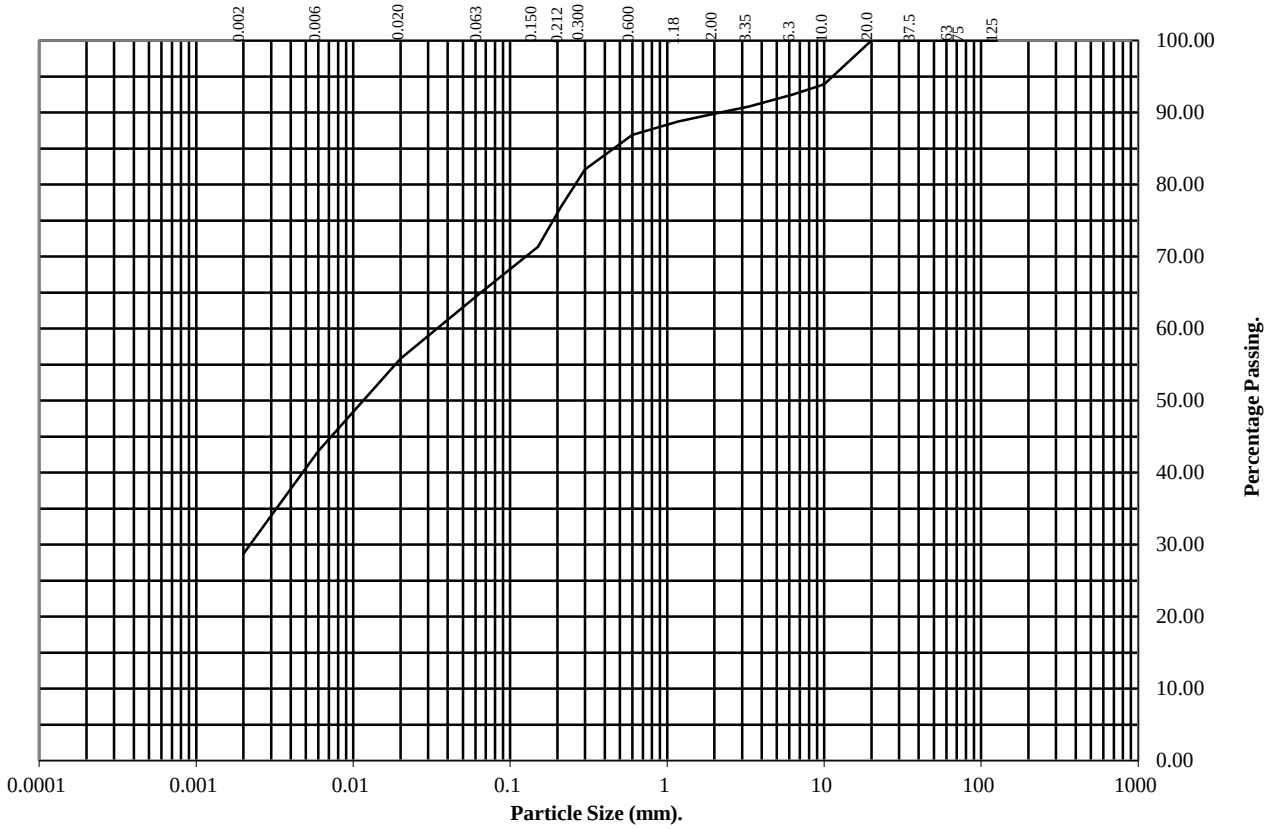
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **BH107** **Depth (m):** **0.00**

Sample Number: **1** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	94
6.3	93
3.35	91
2	90
1.18	89
0.6	87
0.3	82
0.212	77
0.15	71
0.063	65

Particle Diameter	Percentage Passing
0.02	56
0.006	43
0.002	29

Soil Fraction	Total Percentage
Cobbles	0
Gravel	10
Sand	25
Silt	36
Clay	29

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
	16/07/15		16/07/15

PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No.: PSL15/3101**

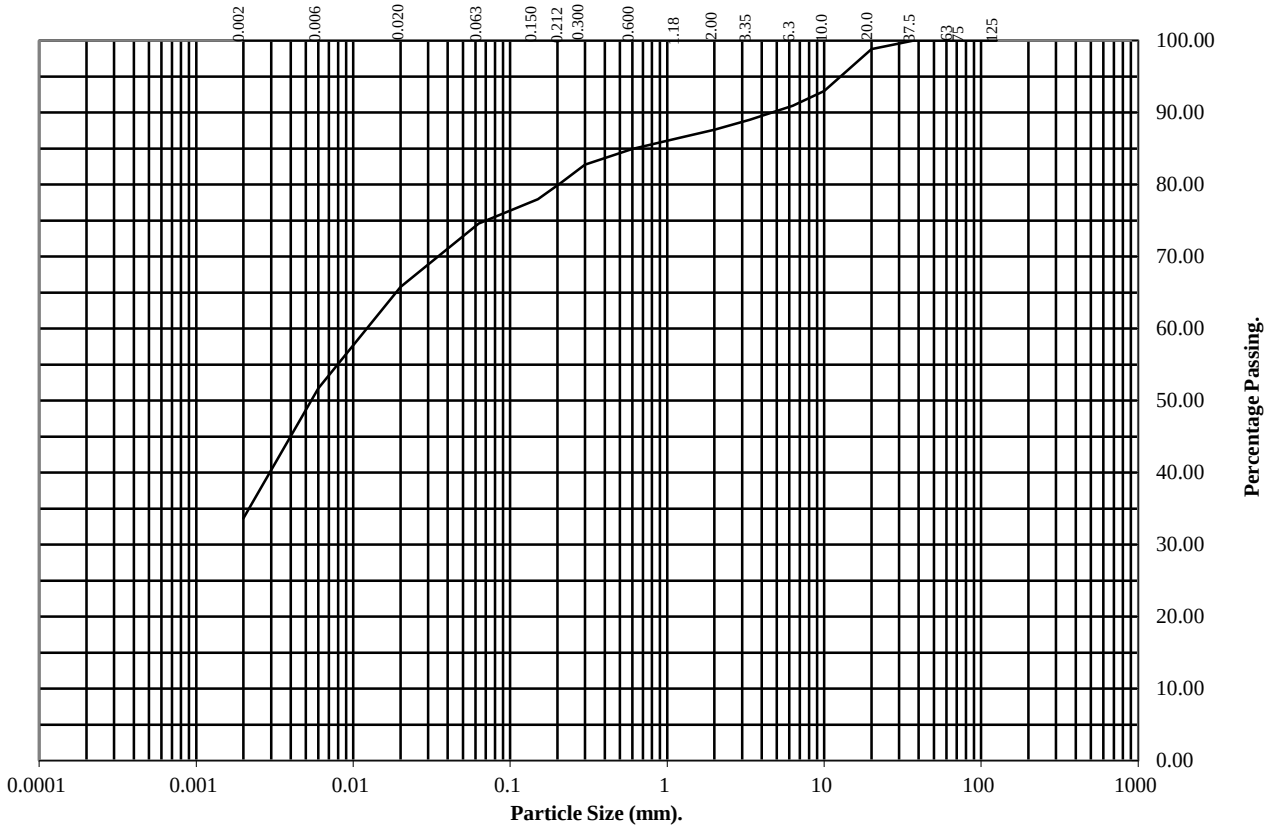
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **BH108** **Depth (m):** **3.00**

Sample Number: **1** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	99
10	93
6.3	91
3.35	89
2	88
1.18	86
0.6	85
0.3	83
0.212	80
0.15	78
0.063	75

Particle Diameter	Percentage Passing
0.02	66
0.006	52
0.002	34

Soil Fraction	Total Percentage
Cobbles	0
Gravel	12
Sand	13
Silt	41
Clay	34

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
	16/07/15		16/07/15

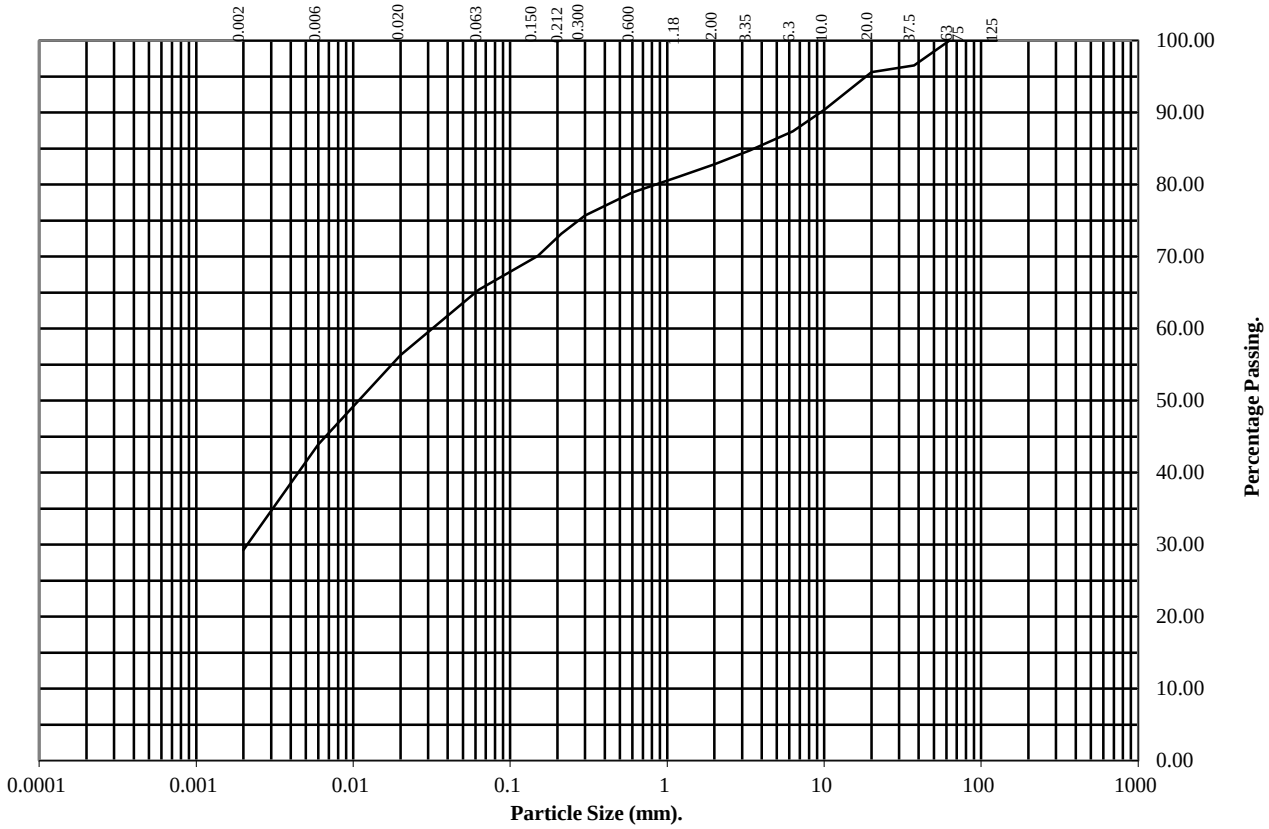
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP103** **Depth (m):** **1.00**

Sample Number: **1** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	97
20	96
10	90
6.3	87
3.35	85
2	83
1.18	81
0.6	79
0.3	76
0.212	73
0.15	70
0.063	65

Particle Diameter	Percentage Passing
0.02	56
0.006	44
0.002	29

Soil Fraction	Total Percentage
Cobbles	0
Gravel	17
Sand	18
Silt	36
Clay	29

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
	16/07/15		16/07/15

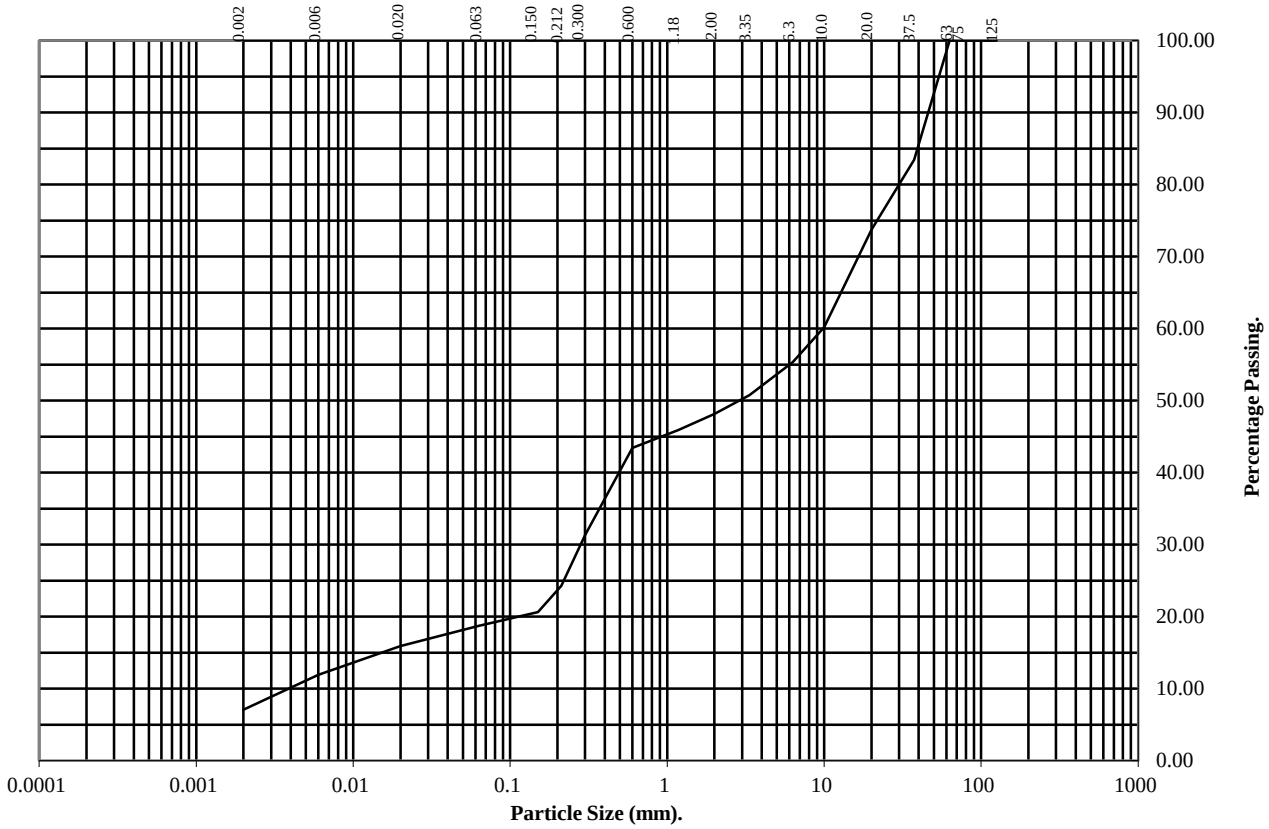
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP106** **Depth (m):** **2.00**

Sample Number: **1** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	83
20	74
10	60
6.3	55
3.35	51
2	48
1.18	46
0.6	43
0.3	31
0.212	24
0.15	21
0.063	19

Particle Diameter	Percentage Passing
0.02	16
0.006	12
0.002	7

Soil Fraction	Total Percentage
Cobbles	0
Gravel	52
Sand	29
Silt	12
Clay	7

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
	16/07/15		16/07/15

PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No.: PSL15/3101**

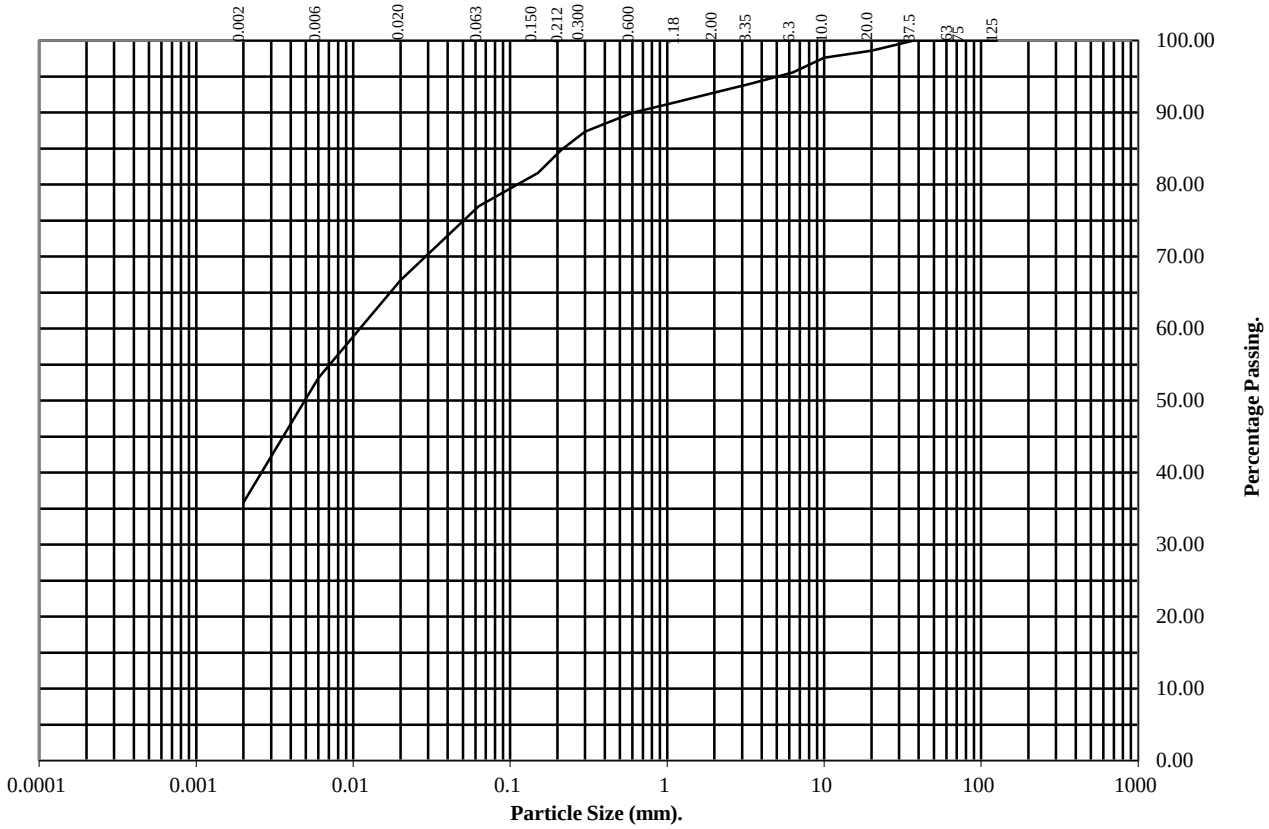
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP108** **Depth (m):** **2.00**

Sample Number: **1** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	99
10	98
6.3	96
3.35	94
2	93
1.18	92
0.6	90
0.3	87
0.212	85
0.15	82
0.063	77

Particle Diameter	Percentage Passing
0.02	67
0.006	53
0.002	36

Soil Fraction	Total Percentage
Cobbles	0
Gravel	7
Sand	16
Silt	41
Clay	36

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
	16/07/15		16/07/15

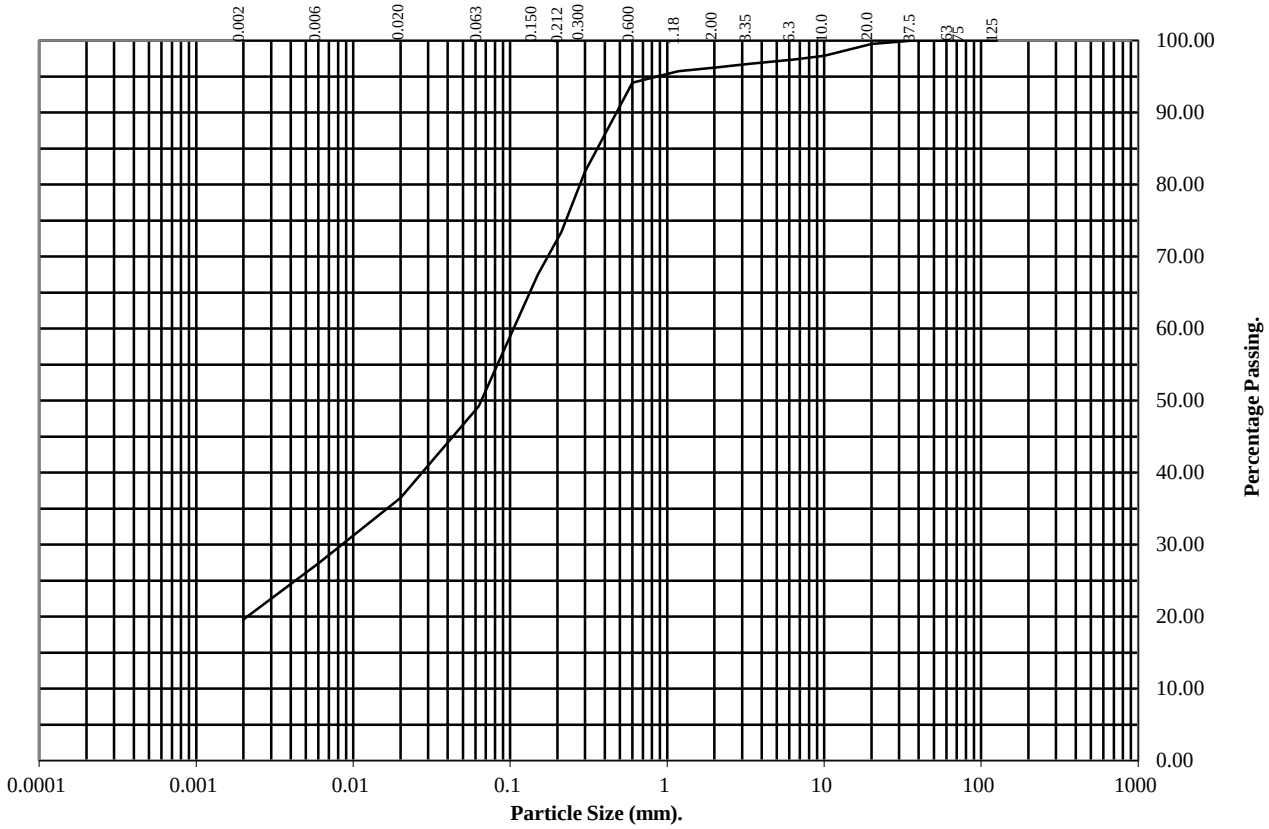
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP112** **Depth (m):** **3.00**

Sample Number: **1** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	98
6.3	97
3.35	97
2	96
1.18	96
0.6	94
0.3	82
0.212	73
0.15	68
0.063	49

Particle Diameter	Percentage Passing
0.02	37
0.006	27
0.002	20

Soil Fraction	Total Percentage
Cobbles	0
Gravel	4
Sand	47
Silt	29
Clay	20

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
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PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No.: PSL15/3101**

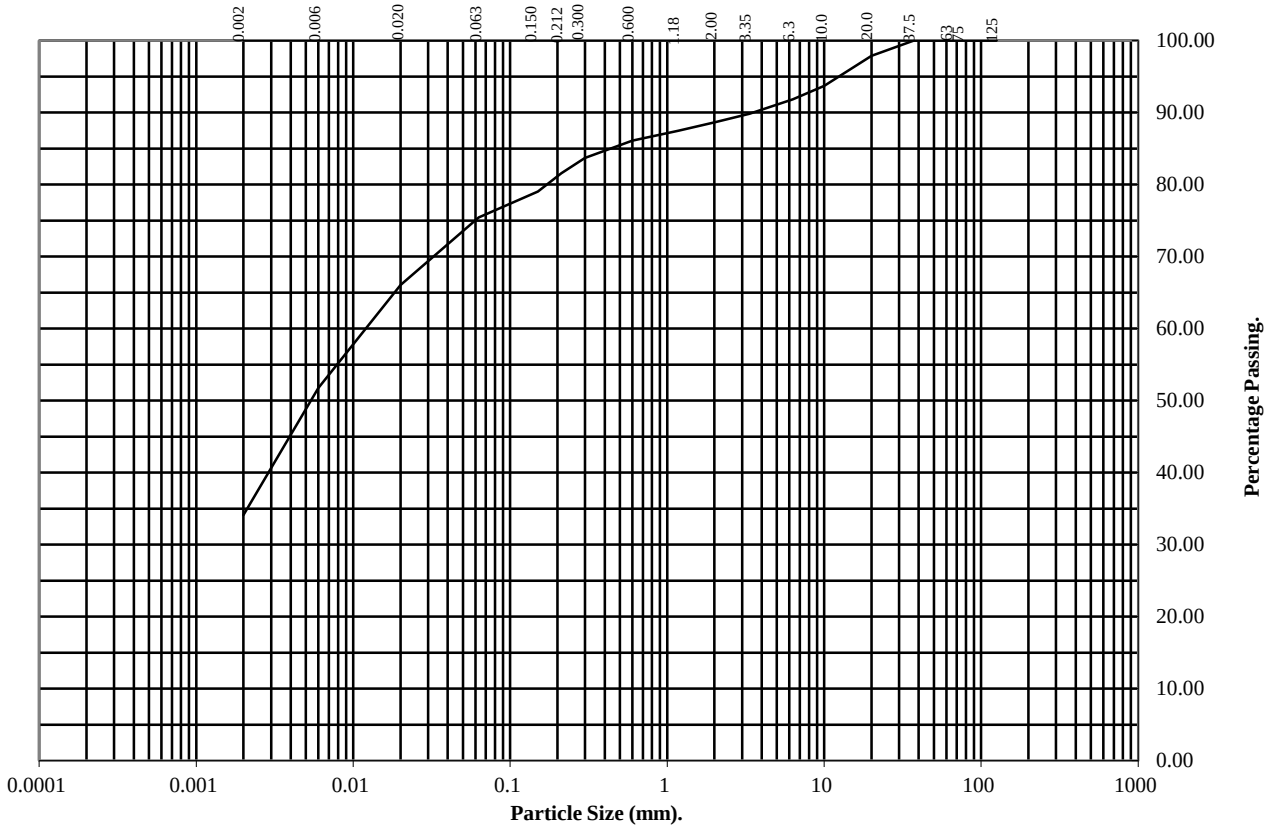
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP122** **Depth (m):** **1.00**

Sample Number: **1** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	98
10	94
6.3	92
3.35	90
2	89
1.18	87
0.6	86
0.3	84
0.212	82
0.15	79
0.063	75

Particle Diameter	Percentage Passing
0.02	66
0.006	52
0.002	34

Soil Fraction	Total Percentage
Cobbles	0
Gravel	11
Sand	14
Silt	41
Clay	34

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
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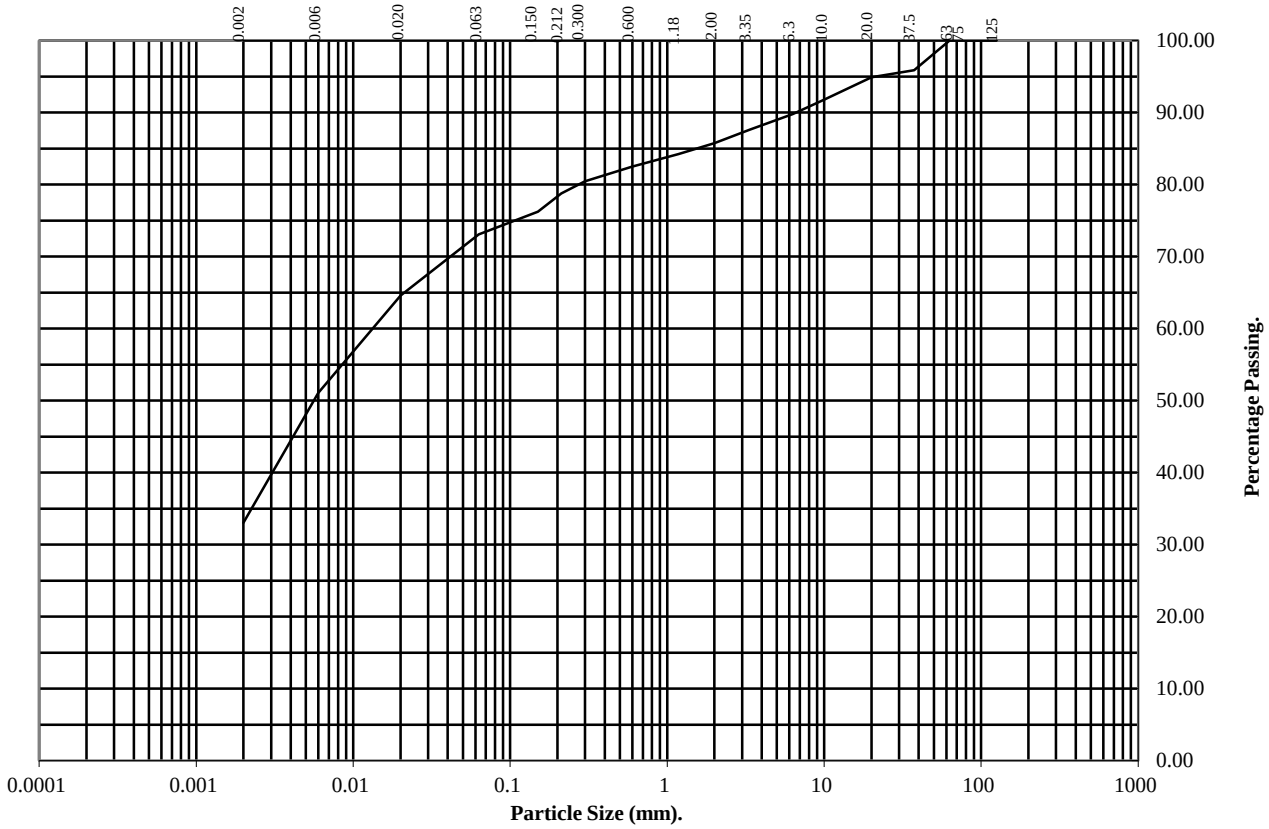
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP126** **Depth (m):** **2.70**

Sample Number: **1** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	96
20	95
10	92
6.3	90
3.35	88
2	86
1.18	84
0.6	82
0.3	80
0.212	79
0.15	76
0.063	73

Particle Diameter	Percentage Passing
0.02	65
0.006	51
0.002	33

Soil Fraction	Total Percentage
Cobbles	0
Gravel	14
Sand	13
Silt	40
Clay	33

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
	16/07/15		16/07/15

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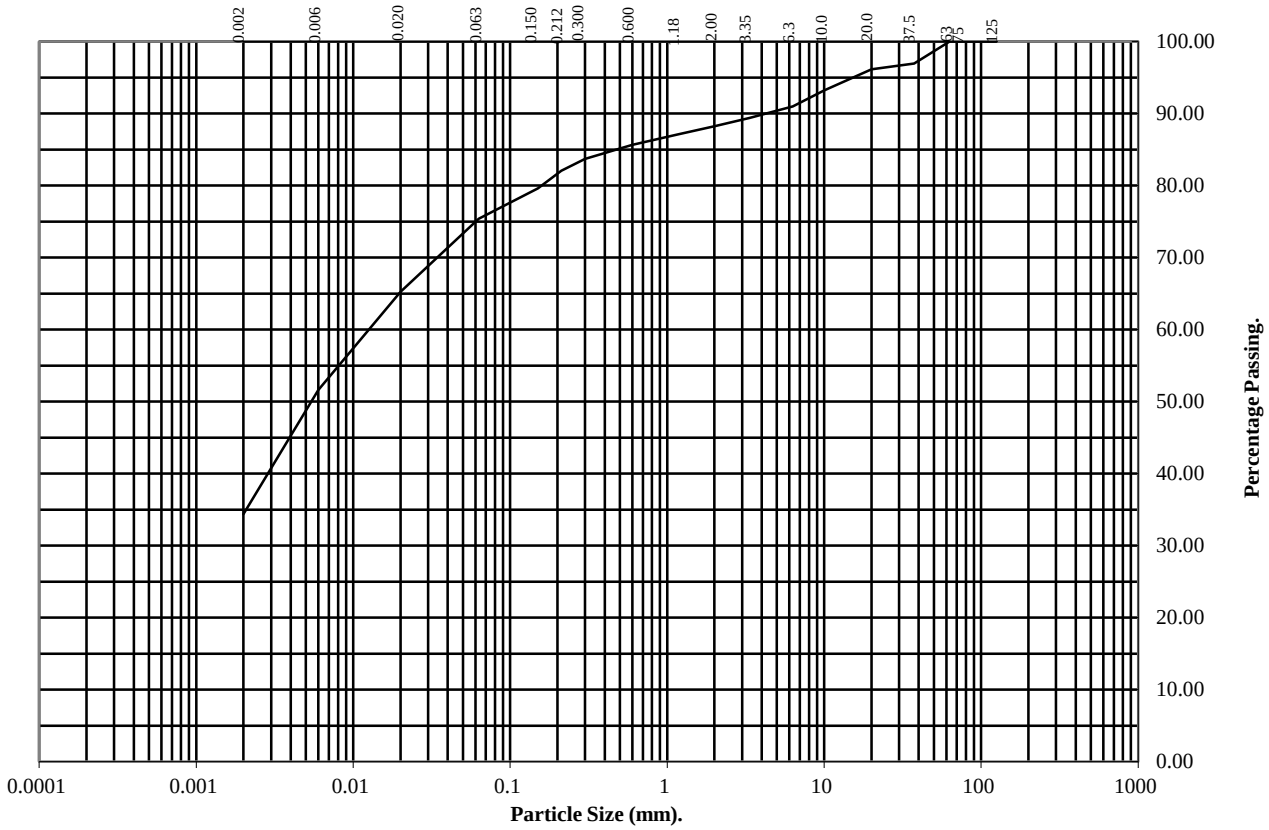
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP129** **Depth (m):** **3.00**

Sample Number: **1** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	97
20	96
10	93
6.3	91
3.35	89
2	88
1.18	87
0.6	86
0.3	84
0.212	82
0.15	80
0.063	75

Particle Diameter	Percentage Passing
0.02	65
0.006	52
0.002	34

Soil Fraction	Total Percentage
Cobbles	0
Gravel	12
Sand	13
Silt	41
Clay	34

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
	16/07/15		16/07/15

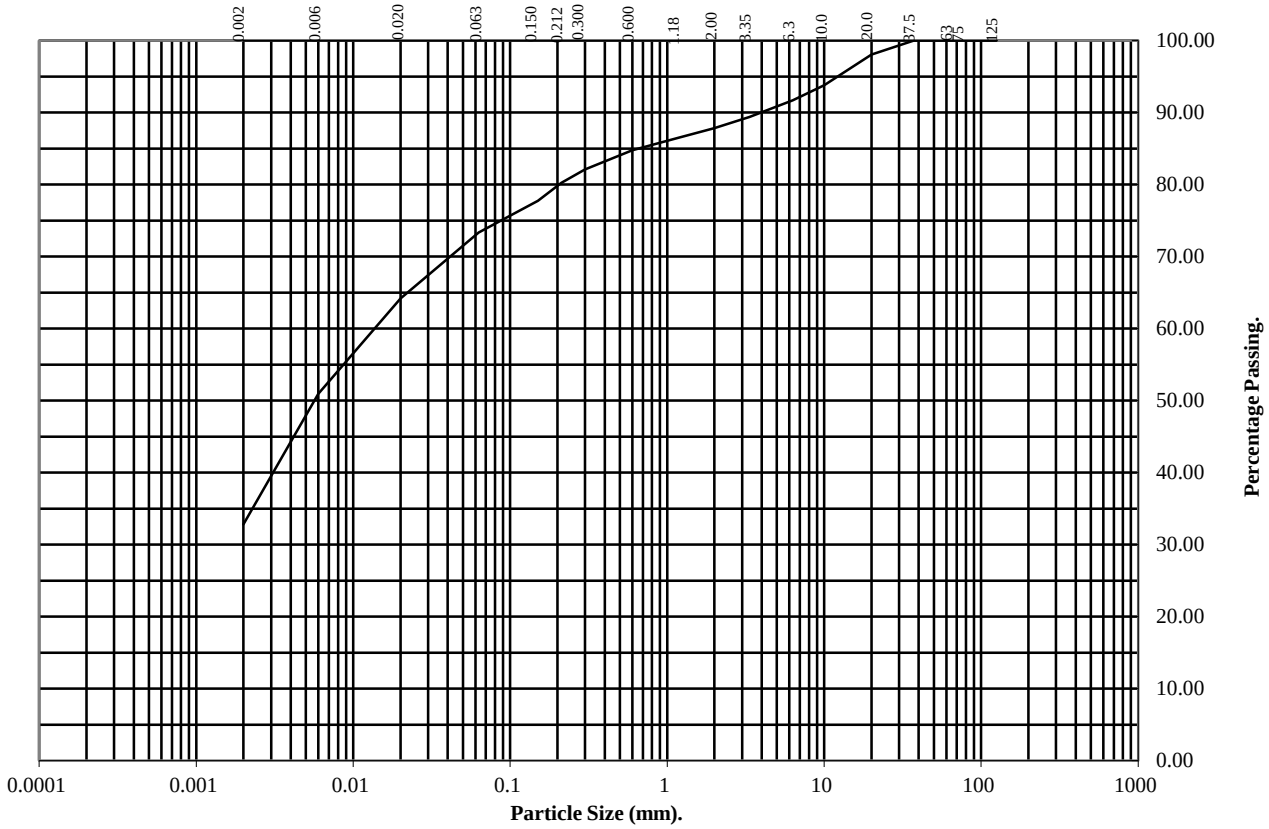
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP132** **Depth (m):** **0.50**

Sample Number: **1** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	98
10	94
6.3	92
3.35	89
2	88
1.18	86
0.6	85
0.3	82
0.212	80
0.15	78
0.063	73

Particle Diameter	Percentage Passing
0.02	64
0.006	51
0.002	33

Soil Fraction	Total Percentage
Cobbles	0
Gravel	12
Sand	15
Silt	40
Clay	33

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
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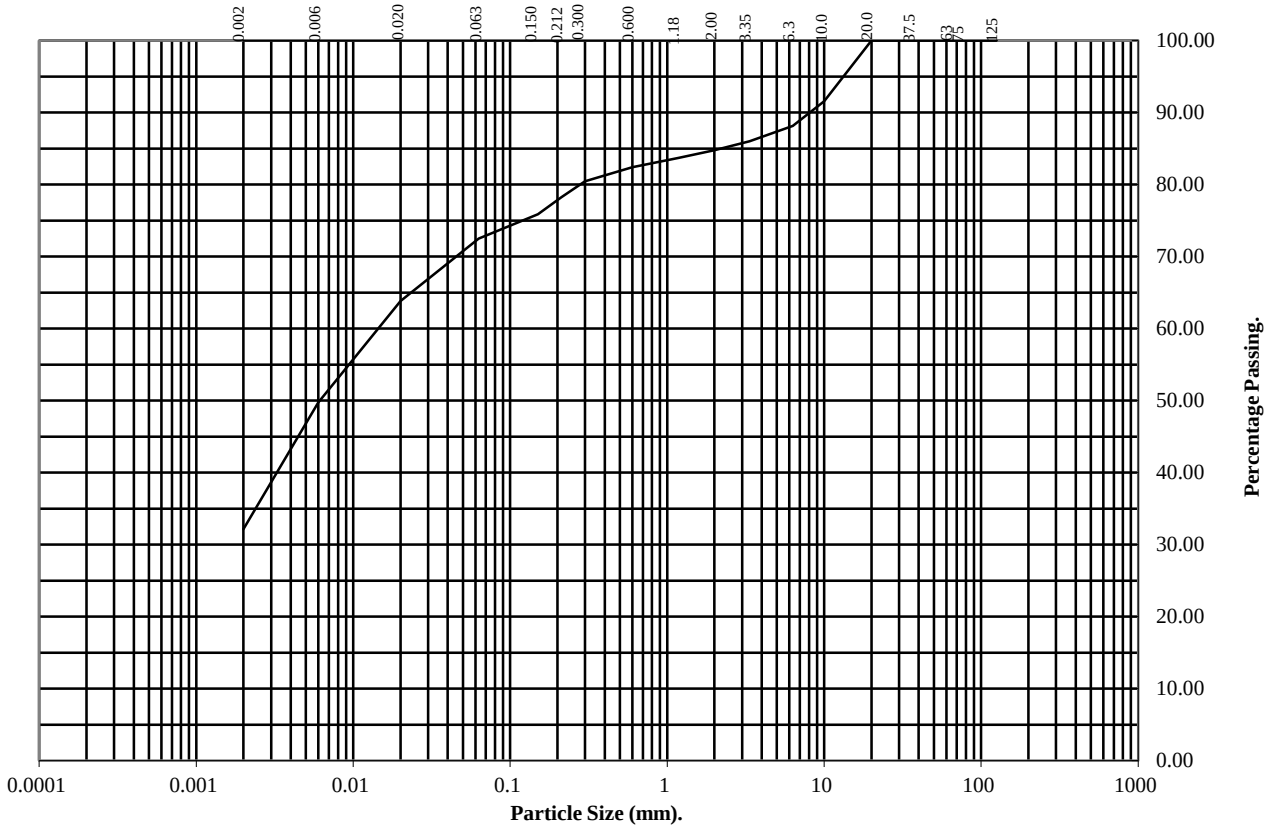
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP135** **Depth (m):** **1.00**

Sample Number: **1** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	92
6.3	88
3.35	86
2	85
1.18	84
0.6	82
0.3	80
0.212	78
0.15	76
0.063	73

Particle Diameter	Percentage Passing
0.02	64
0.006	50
0.002	32

Soil Fraction	Total Percentage
Cobbles	0
Gravel	15
Sand	12
Silt	41
Clay	32

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
	16/07/15		16/07/15

PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No.: PSL15/3101**

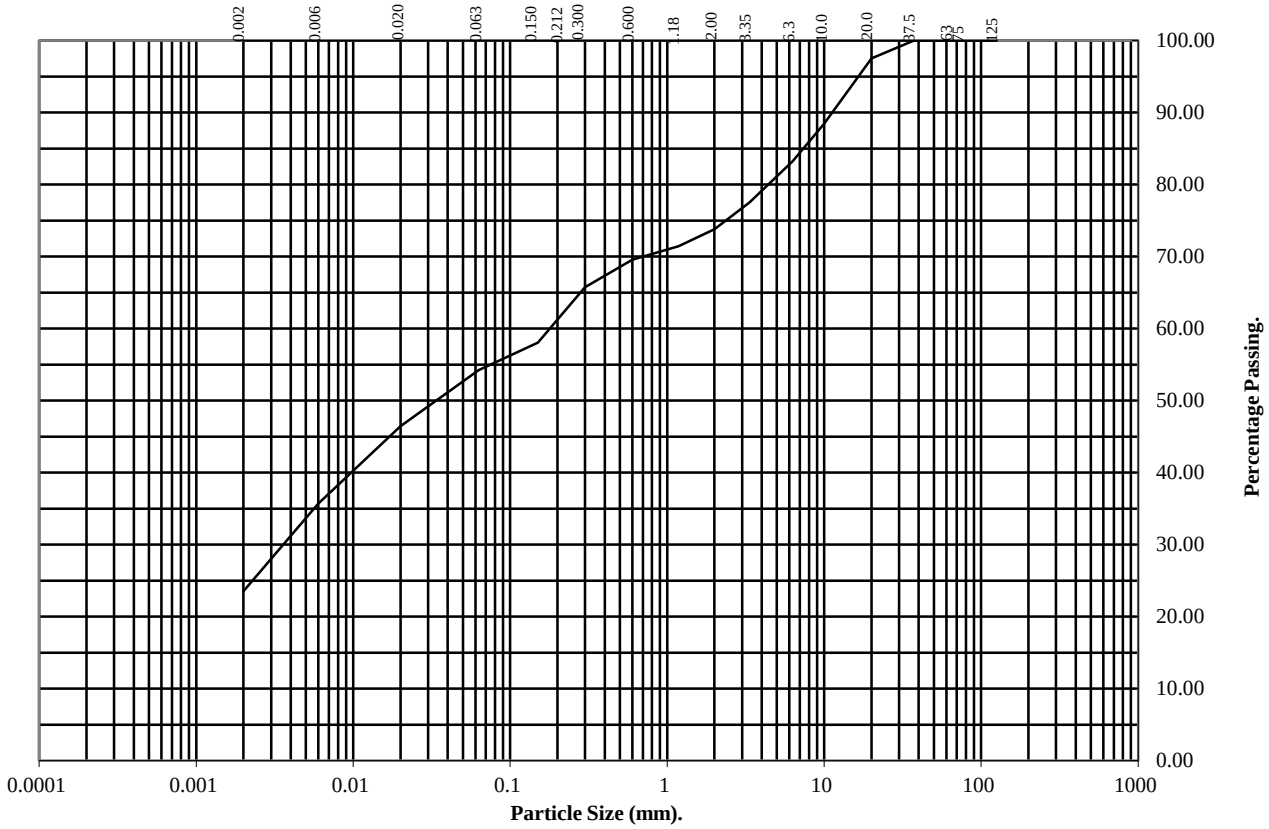
Particle Size Distribution Test

BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **TP137** **Depth (m):** **2.00**

Sample Number: **1** **Sample Type:** **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	98
10	88
6.3	83
3.35	78
2	74
1.18	71
0.6	70
0.3	66
0.212	62
0.15	58
0.063	54

Particle Diameter	Percentage Passing
0.02	46
0.006	36
0.002	24

Soil Fraction	Total Percentage
Cobbles	0
Gravel	26
Sand	20
Silt	30
Clay	24

Remarks:
See summary of soil descriptions.

Checked By	Date	Approved By	Date
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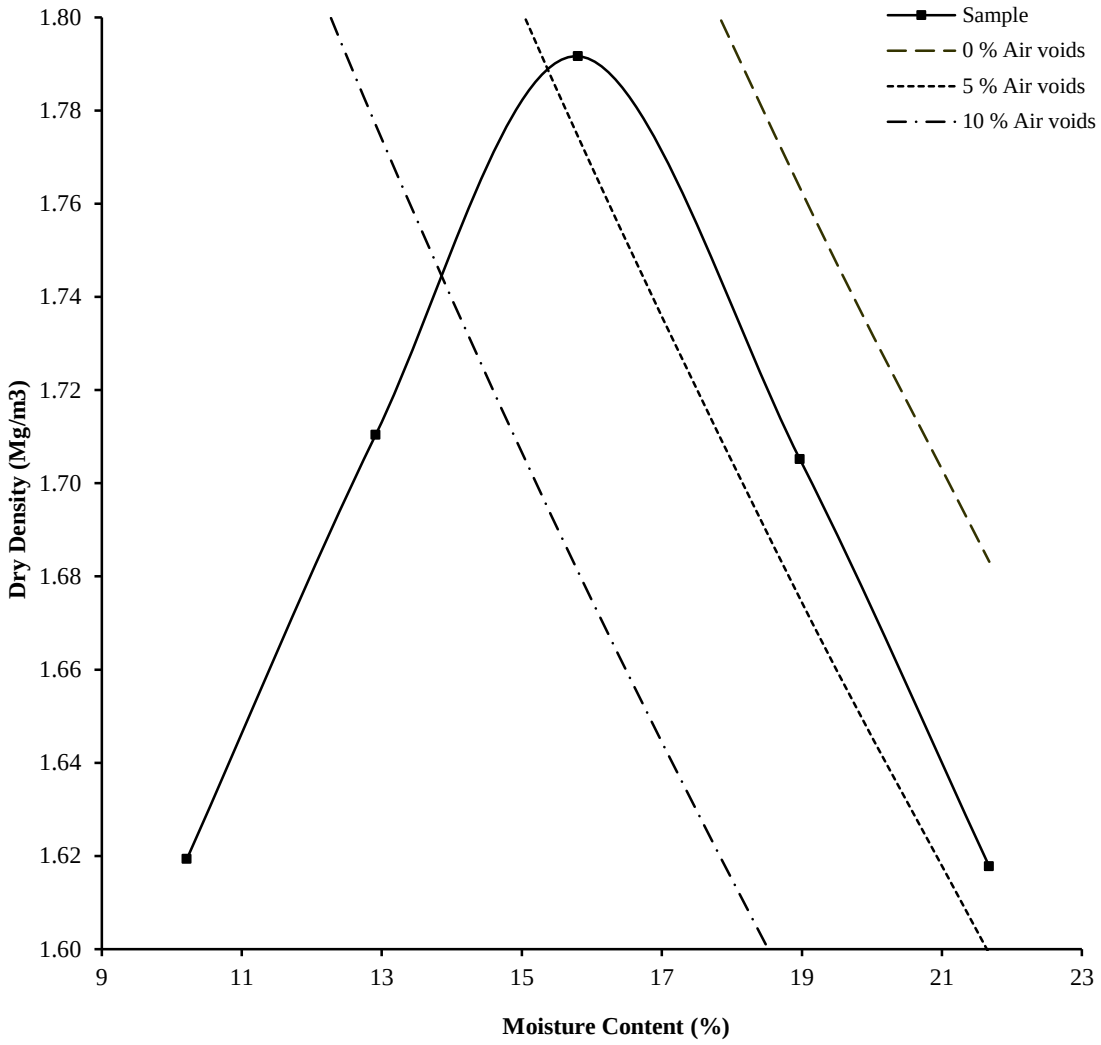
Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number:	**BH103**	**Depth (m) :**	**4.00-5.00**
Sample Number:	**4**	**Sample Type:**	**B**



Initial Moisture Content:	19	Method of Compaction	2.5kg / Separate Sample	
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.79	Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):		16		
Remarks	Optimum point handvane = 89kPa.			

Checked By	Date	Approved By	Date
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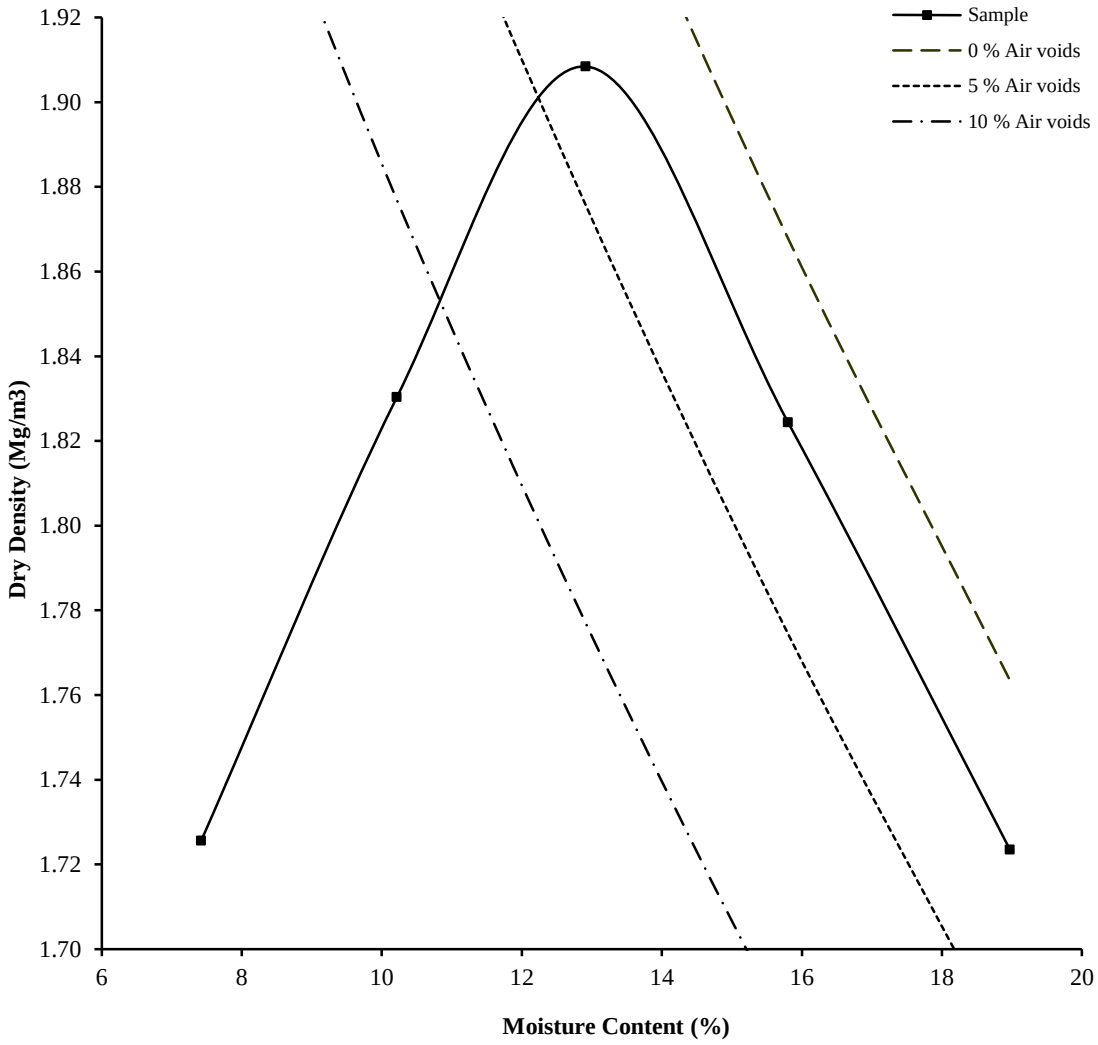
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number:	**BH103**	**Depth (m) :**	**4.00-5.00**
Sample Number:	**4**	**Sample Type:**	**B**



Initial Moisture Content:	19	Method of Compaction	4.5kg / Separate Sample	
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.91	Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):		13		
Remarks	Optimum point handvane = >140 kPa.			

Checked By	Date	Approved By	Date
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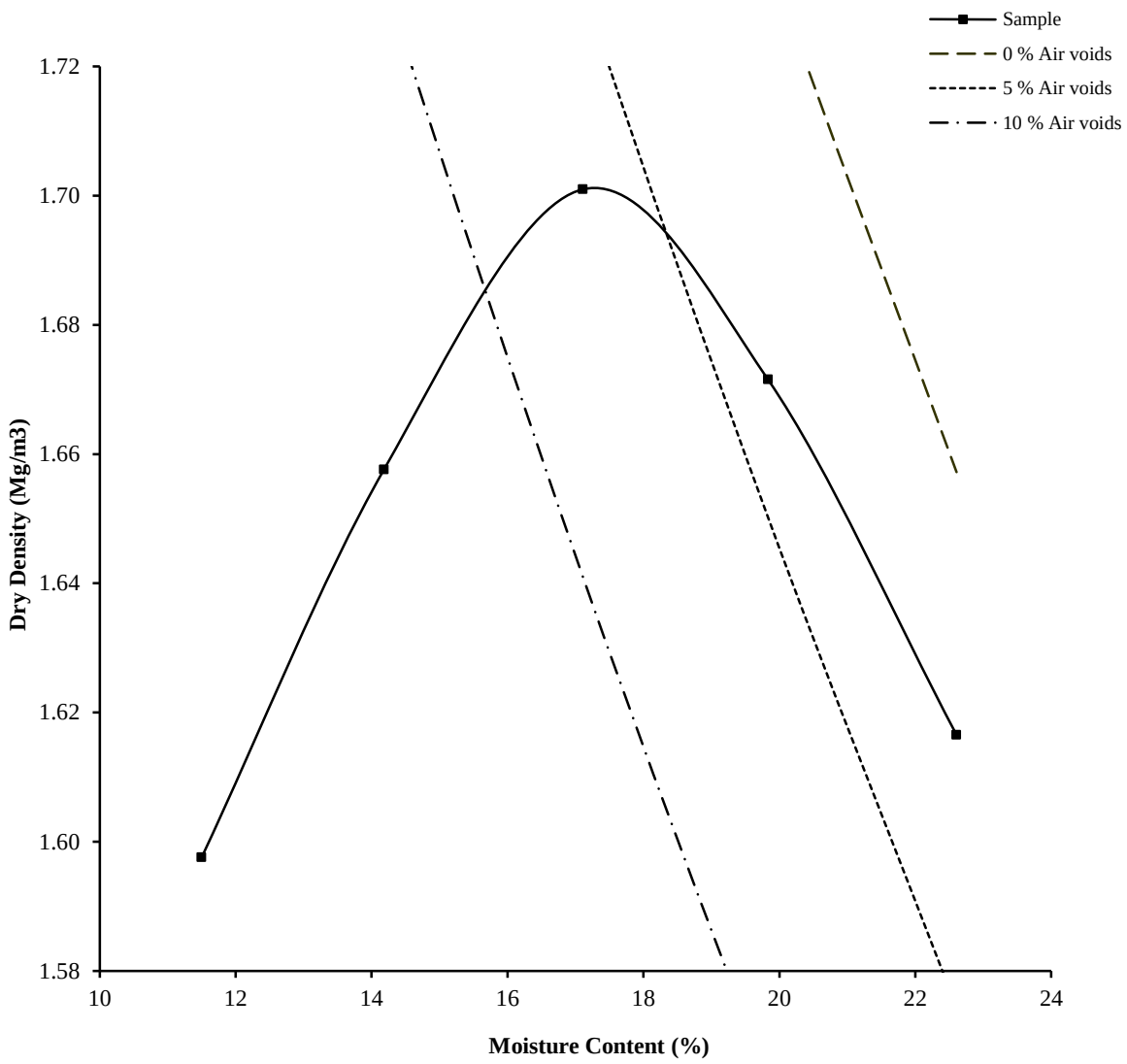
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: **BH105** **Depth (m) :** **4.00**

Sample Number: **4** **Sample Type:** **B**



Initial Moisture Content:	23	Method of Compaction	2.5kg / Separate Sample	
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.70	Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):		17		
Remarks	Optimum point handvane = 79 kPa.			

Checked By	Date	Approved By	Date
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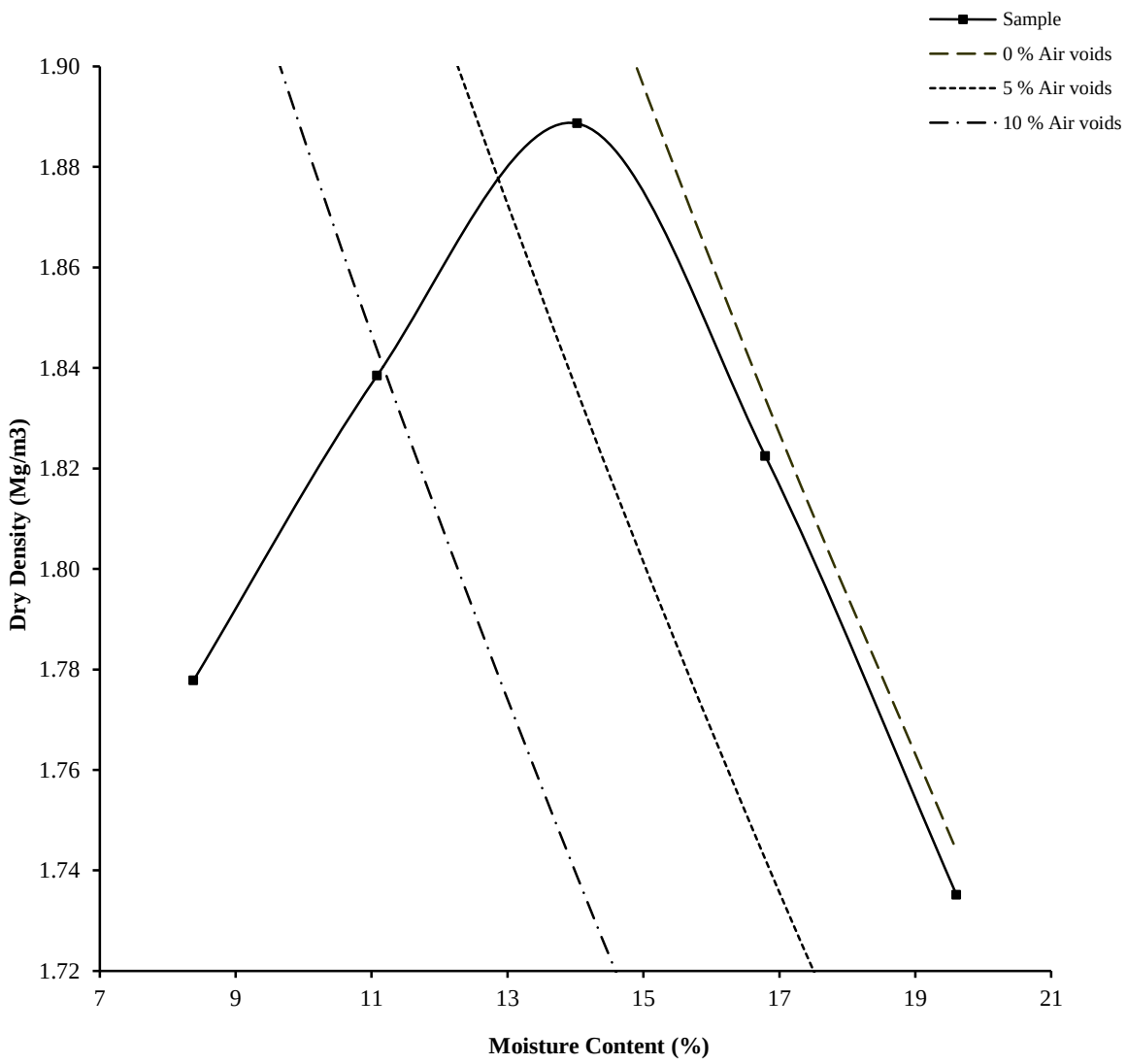
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: BH105 **Depth (m) :** 4.00

Sample Number: 4 **Sample Type:** B



Initial Moisture Content:	23	Method of Compaction	4.5kg / Separate Sample	
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.89	Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):		17		
Remarks	Optimum point handvane = 133 kPa.			

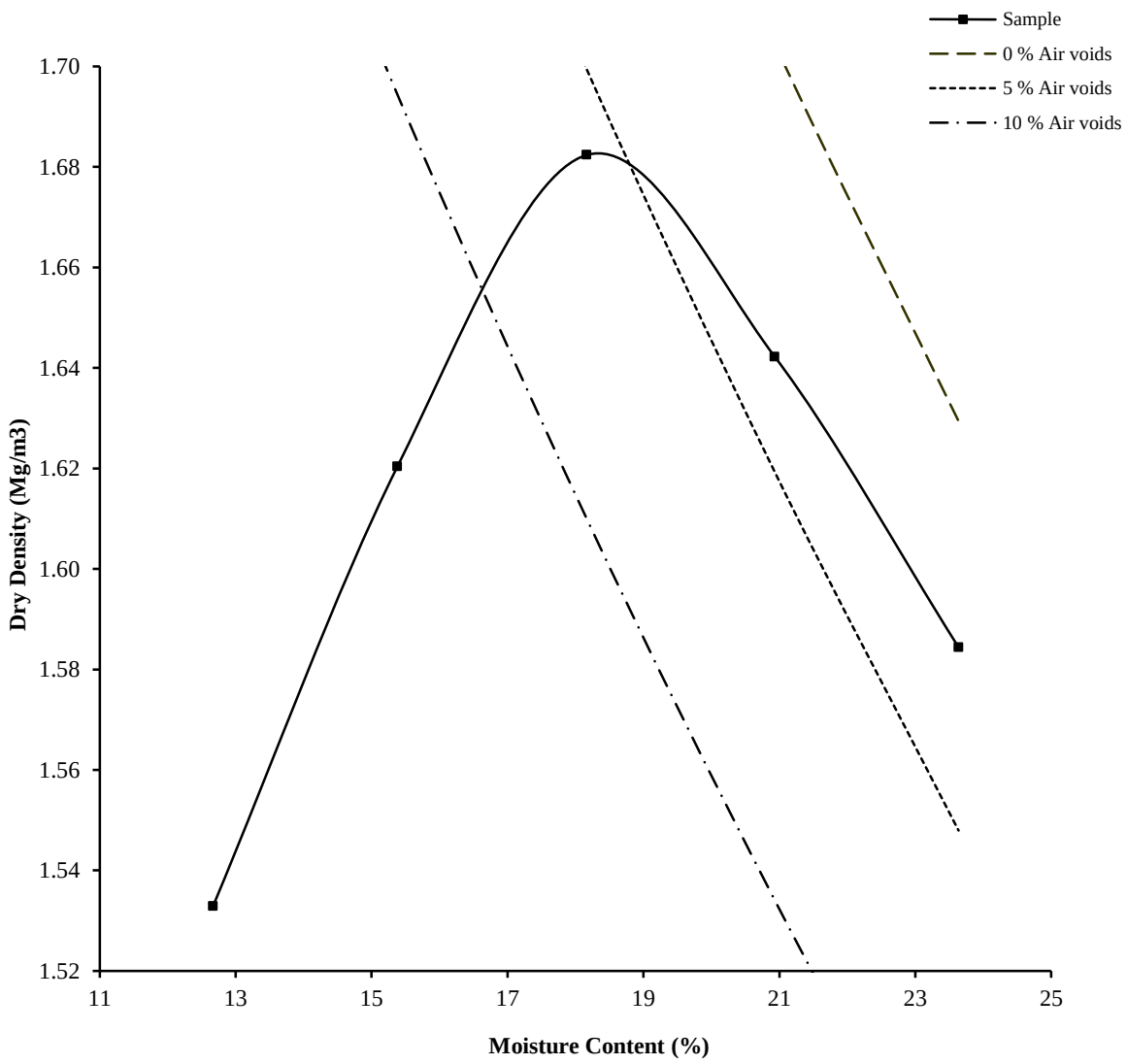
Checked By	Date	Approved By	Date
	17/07/15		17/07/15

PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number:	**BH107**	**Depth (m) :**	**7.30**
Sample Number:	**4**	**Sample Type:**	**B**



Initial Moisture Content:	15	Method of Compaction	2.5kg / Separate Sample	
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.68	Material Retained on 20.0 mm Test Sieve (%):	2
Optimum Moisture Content (%):		18		
Remarks	Optimum point handvane = 70 kPa.			

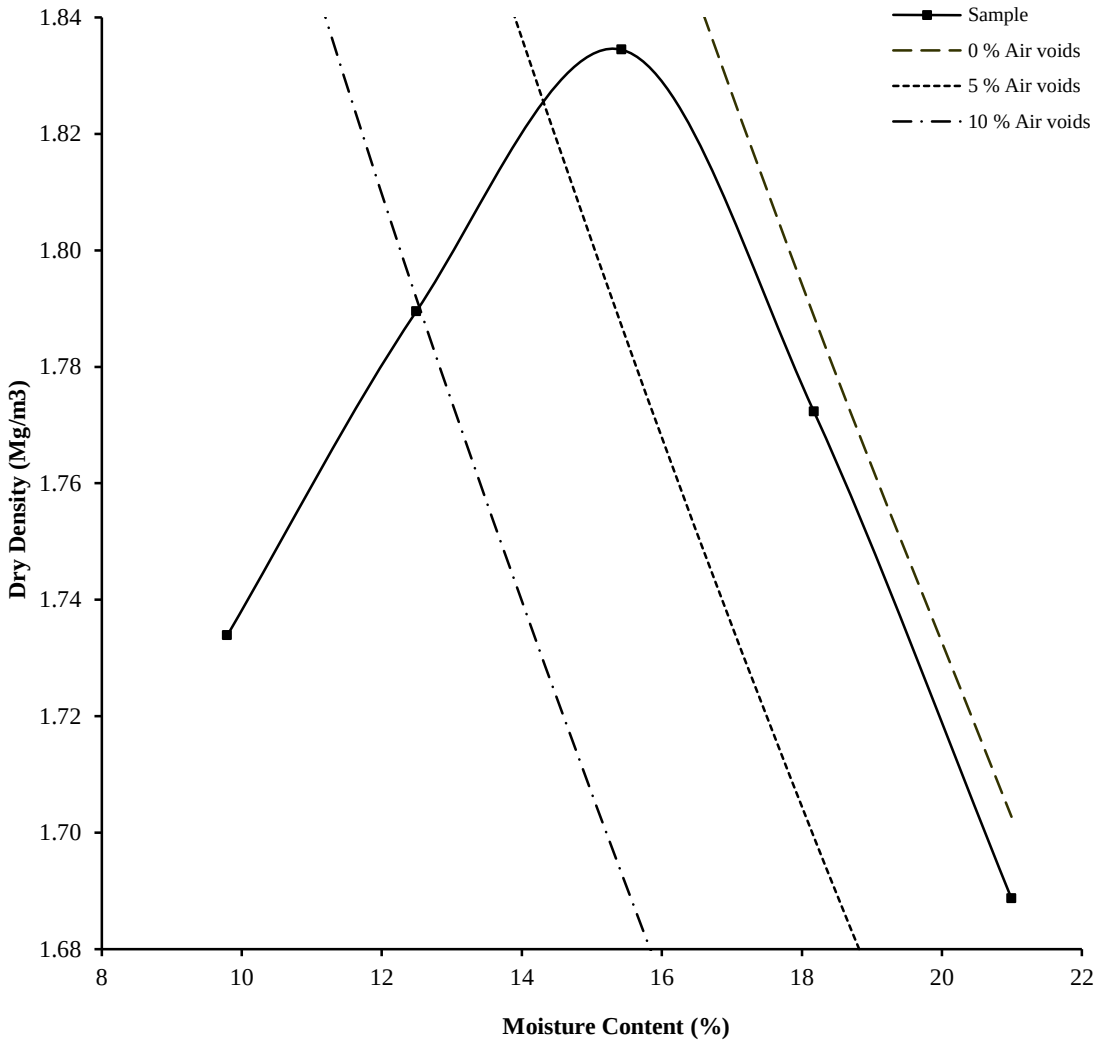
Checked By	Date	Approved By	Date
	17/07/15		17/07/15

PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number:	**BH107**	**Depth (m) :**	**7.30**
Sample Number:	**4**	**Sample Type:**	**B**



Initial Moisture Content:	15	Method of Compaction	4.5kg / Separate Sample	
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.83	Material Retained on 20.0 mm Test Sieve (%):	2
Optimum Moisture Content (%):		15		
Remarks	Optimum point handvane = 123 kPa.			

Checked By	Date	Approved By	Date
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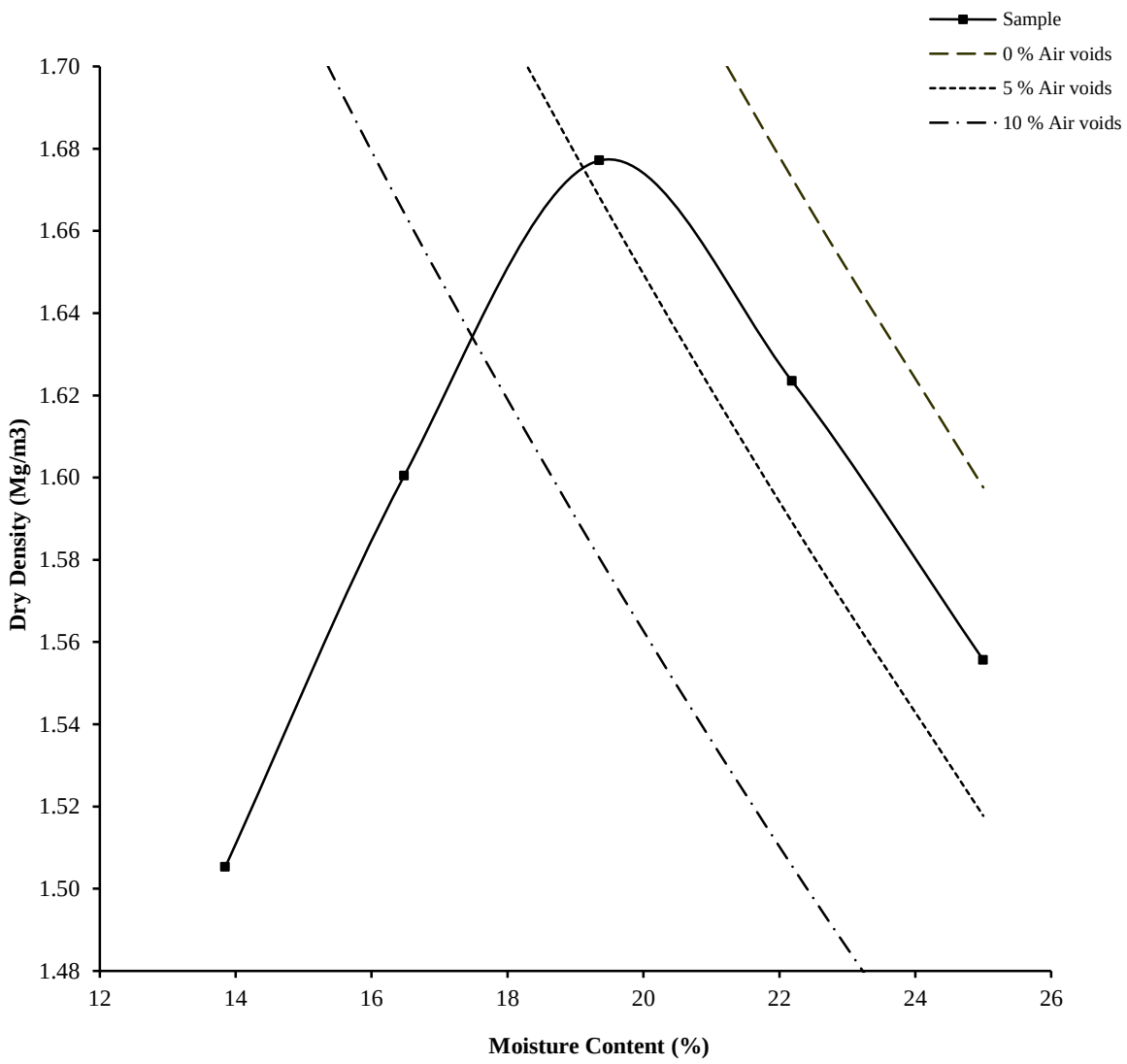
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP101 **Depth (m) :** 2.00

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	19	Method of Compaction	2.5kg / Separate Sample	
Particle Density (Mg/m3):	2.66	Measured	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.68	Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):		19		
Remarks	Optimum point handvane = 98 kPa.			

Checked By	Date	Approved By	Date
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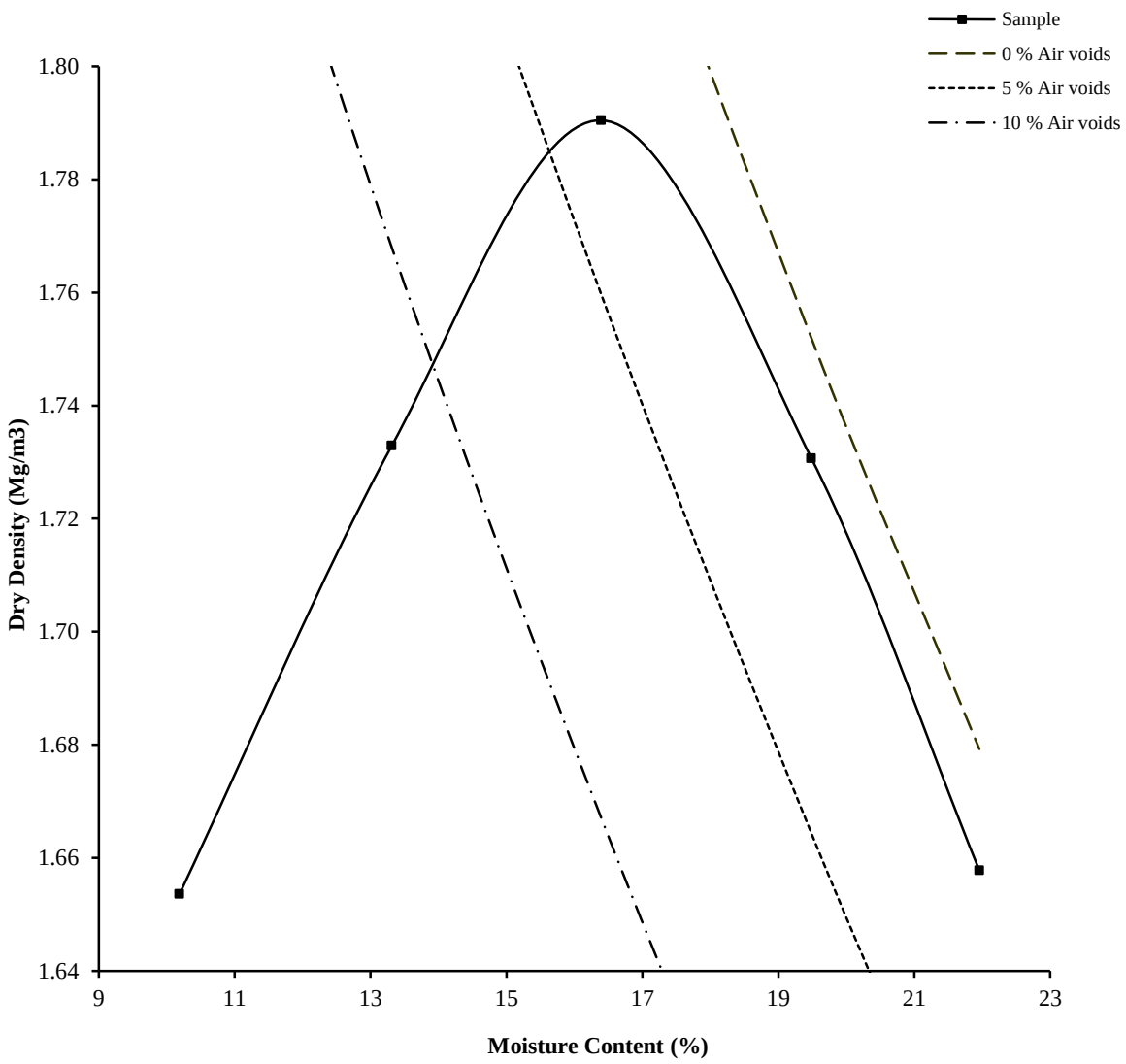
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP101 **Depth (m) :** 2.00

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	19	Method of Compaction	4.5kg / Separate Sample	
Particle Density (Mg/m3):	2.66	Measured	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.79	Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):		16		
Remarks	Optimum point handvane = >140 kPa.			

Checked By	Date	Approved By	Date
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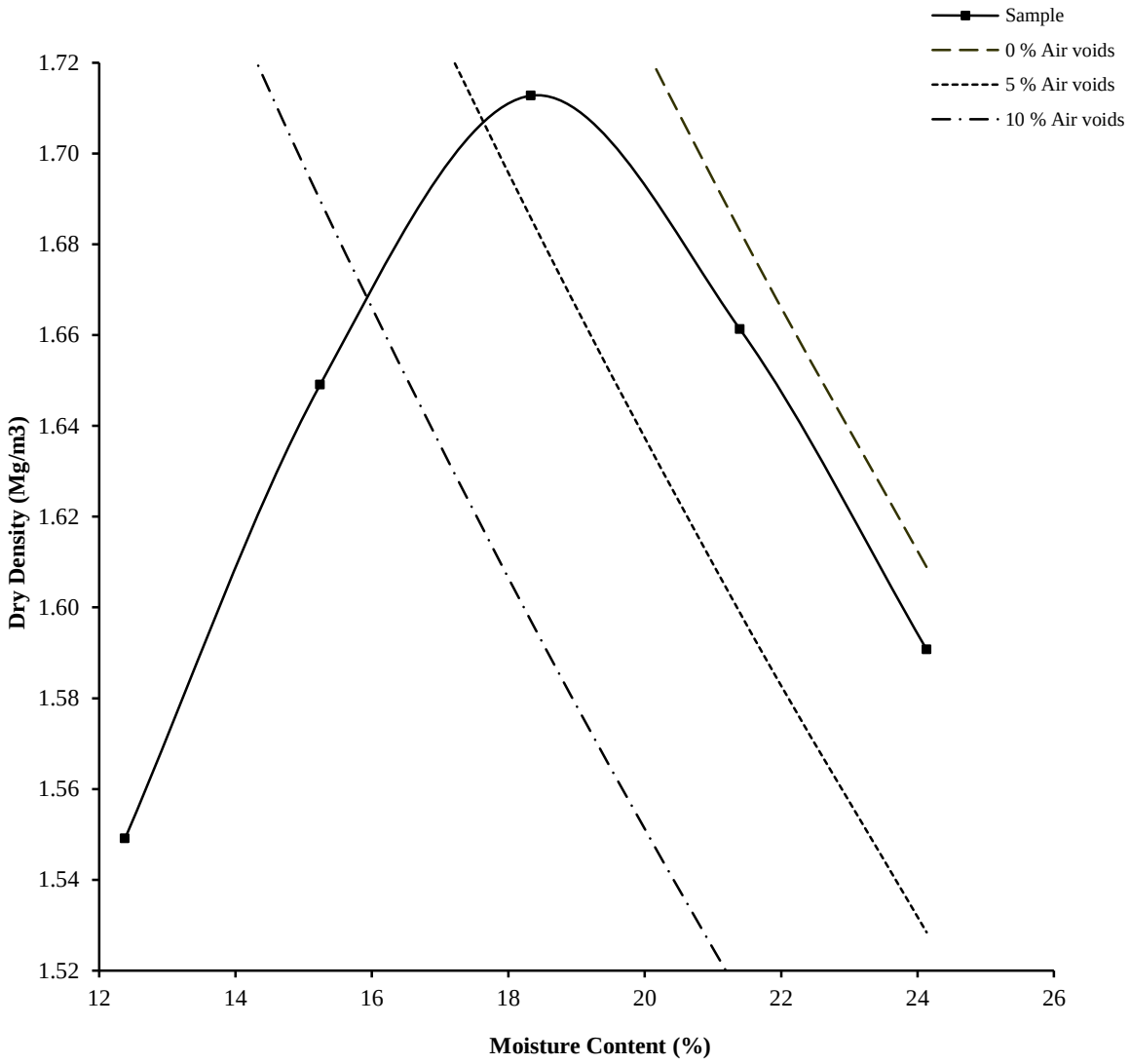
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP107 **Depth (m) :** 3.00

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	21	Method of Compaction	2.5kg / Separate Sample	
Particle Density (Mg/m3):	2.63	Measured	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.71	Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):		18		
Remarks	Optimum point handvane = 76 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

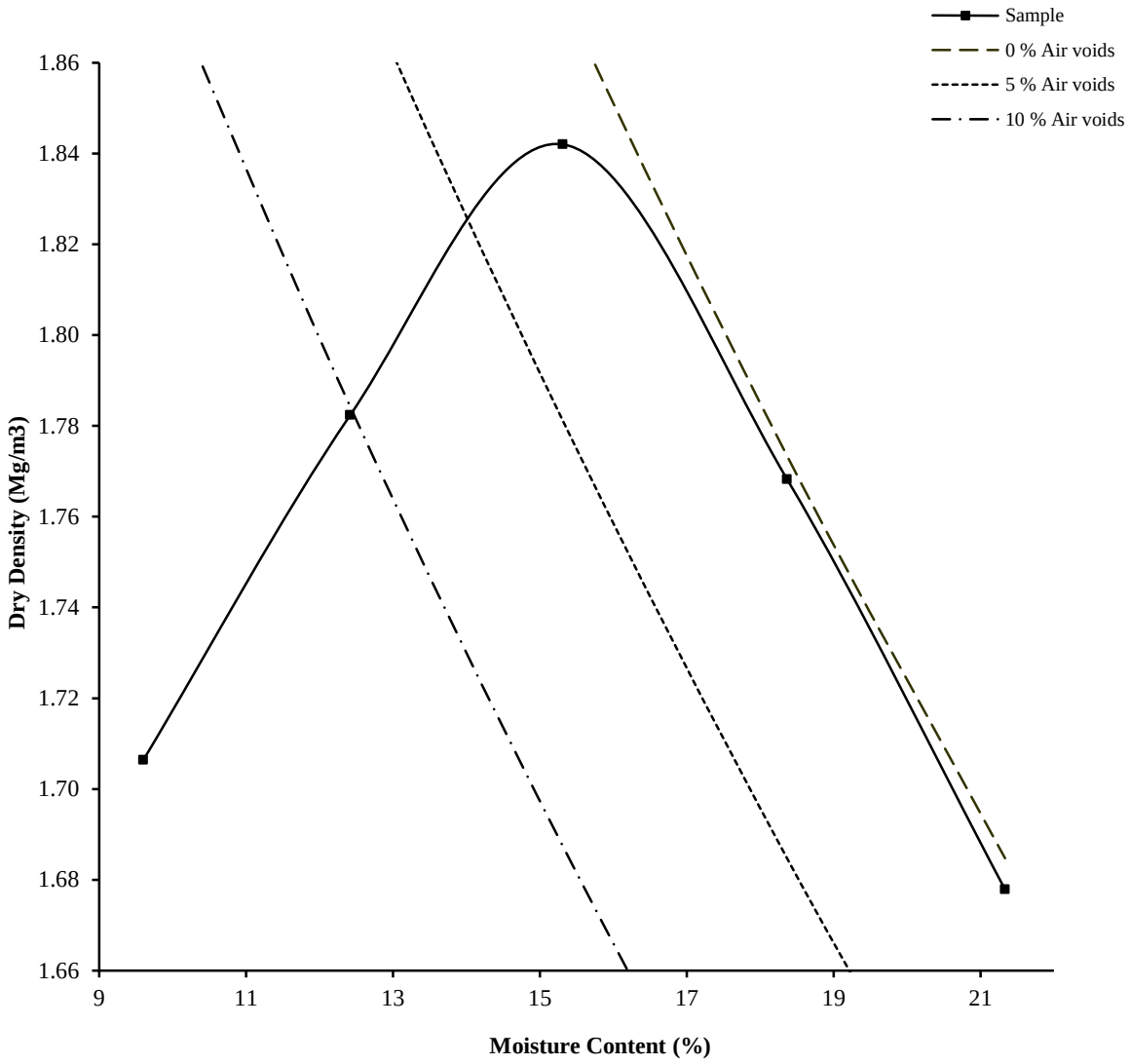
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP107 **Depth (m) :** 3.00

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	21	Method of Compaction	4.5kg / Separate Sample	
Particle Density (Mg/m3):	2.63	Measured	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.84	Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):		15		
Remarks	Optimum point handvane = >140 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

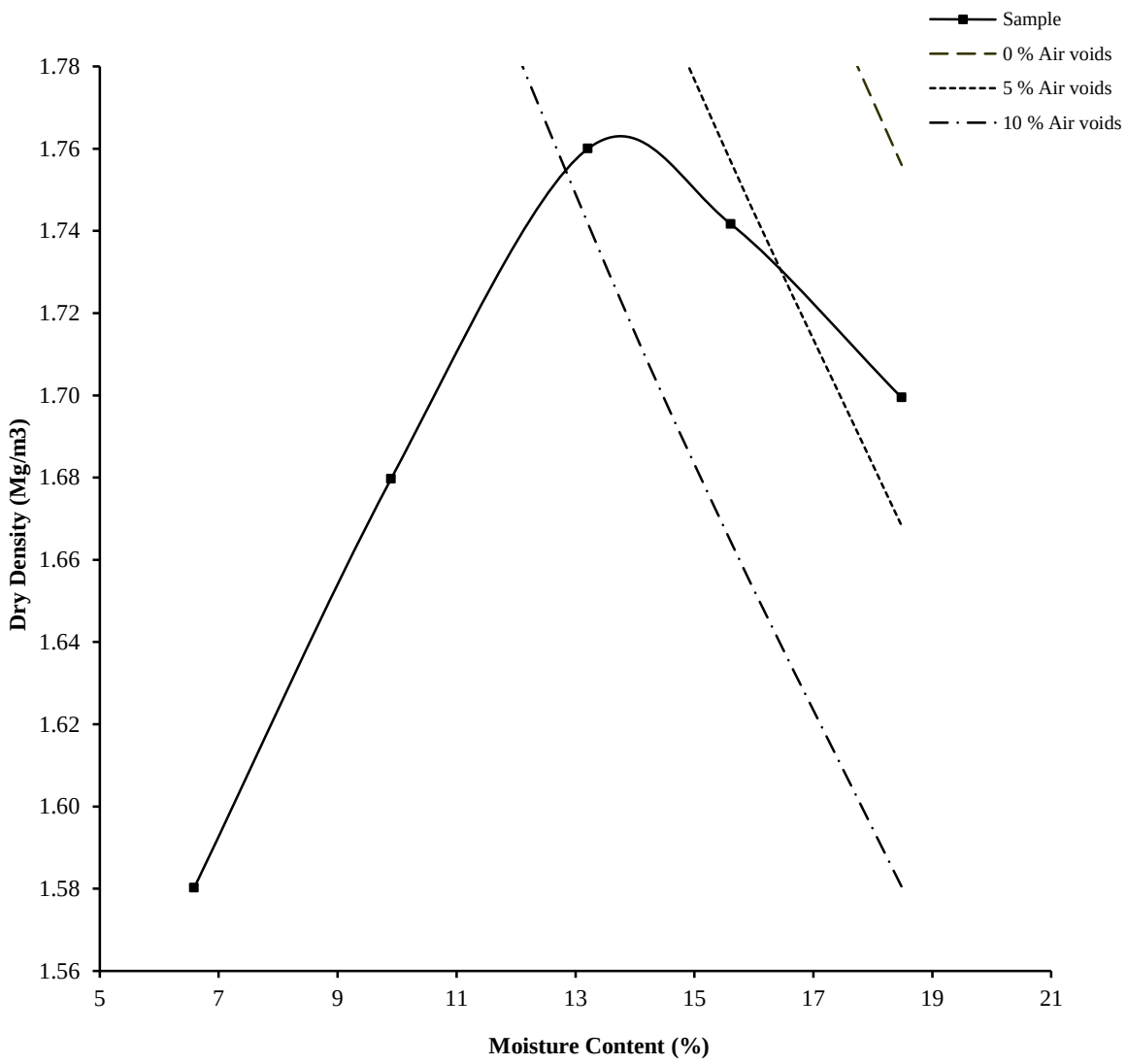
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP110 **Depth (m) :** 1.00

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	16	Method of Compaction	2.5kg / Separate Sample	
Particle Density (Mg/m3):	2.6	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.76	Material Retained on 20.0 mm Test Sieve (%):	3
Optimum Moisture Content (%):		13		
Remarks	Optimum point handvane = >140 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

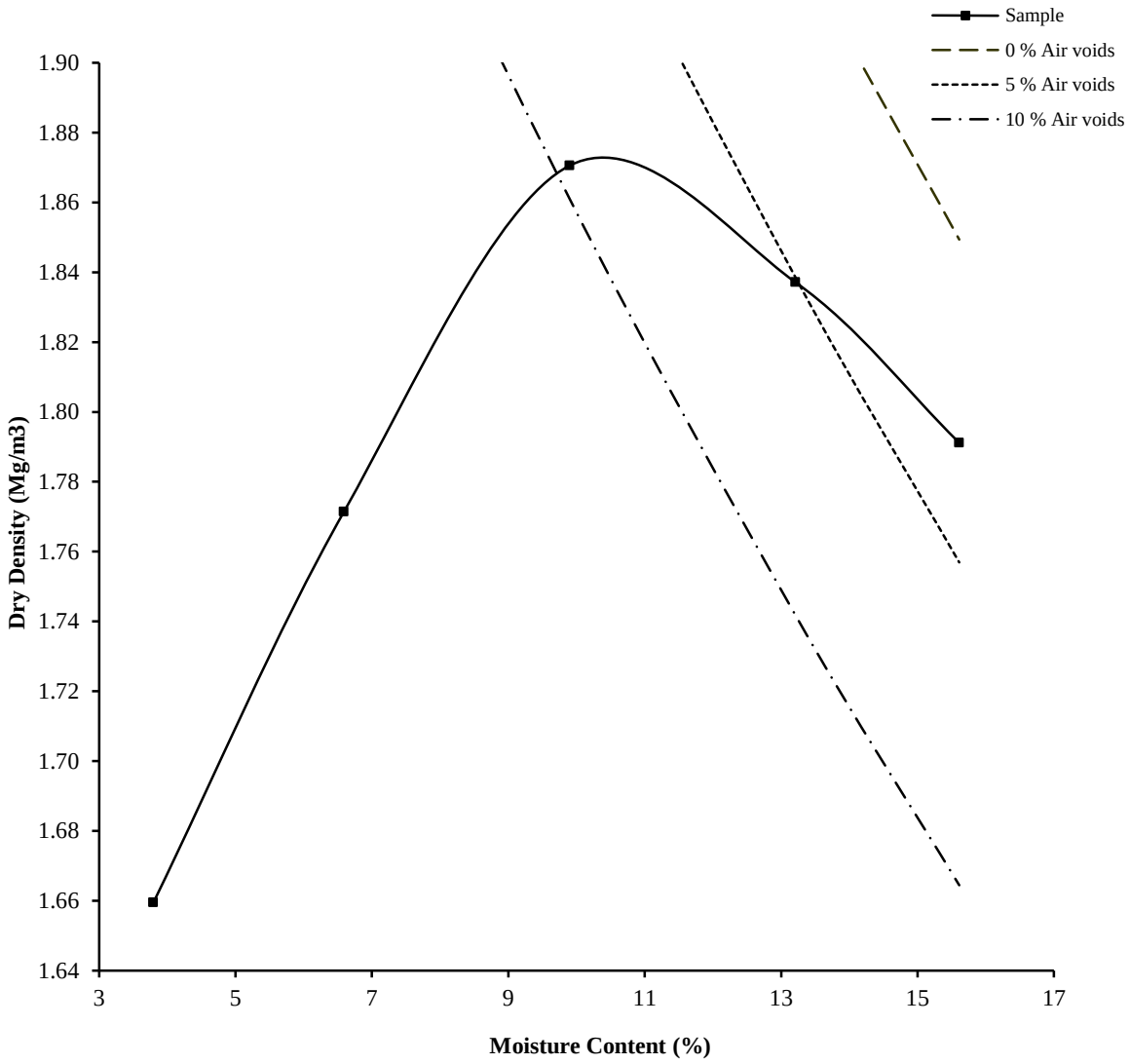
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP110 **Depth (m) :** 1.00

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	16	Method of Compaction	4.5kg / Separate Sample	
Particle Density (Mg/m3):	2.6	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.87	Material Retained on 20.0 mm Test Sieve (%):	3
Optimum Moisture Content (%):		10		
Remarks	Optimum point handvane = >140 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

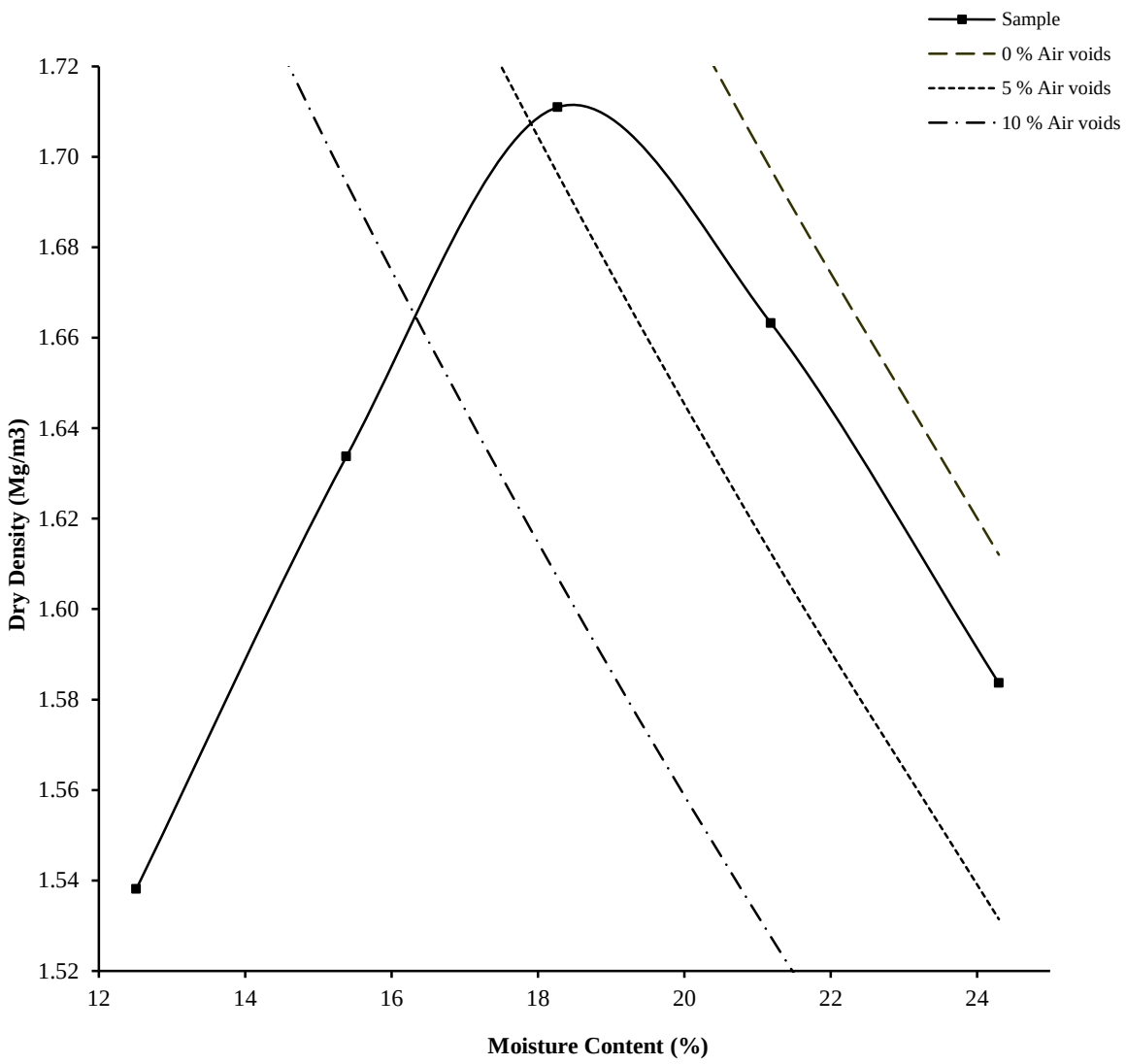
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP117 **Depth (m) :** 2.50

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	21	Method of Compaction	2.5Kg / Separate Sample	
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.71	Material Retained on 20.0 mm Test Sieve (%):	3
Optimum Moisture Content (%):		18		
Remarks	Optimum point handvane = 90 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

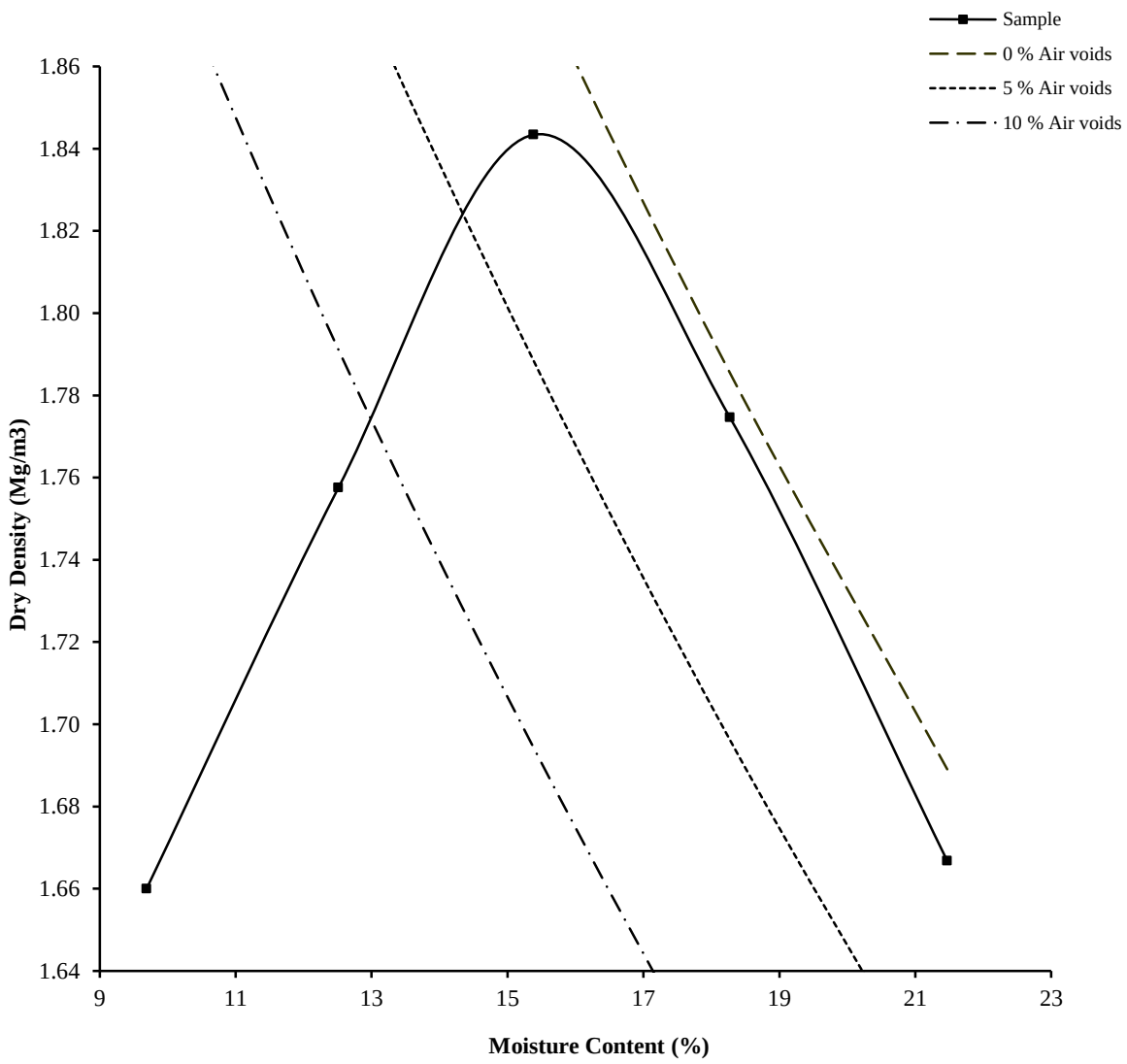
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP117 **Depth (m) :** 2.50

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	21	Method of Compaction	4.5Kg / Separate Sample	
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.84	Material Retained on 20.0 mm Test Sieve (%):	3
Optimum Moisture Content (%):		15		
Remarks	Optimum point handvane = >140 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

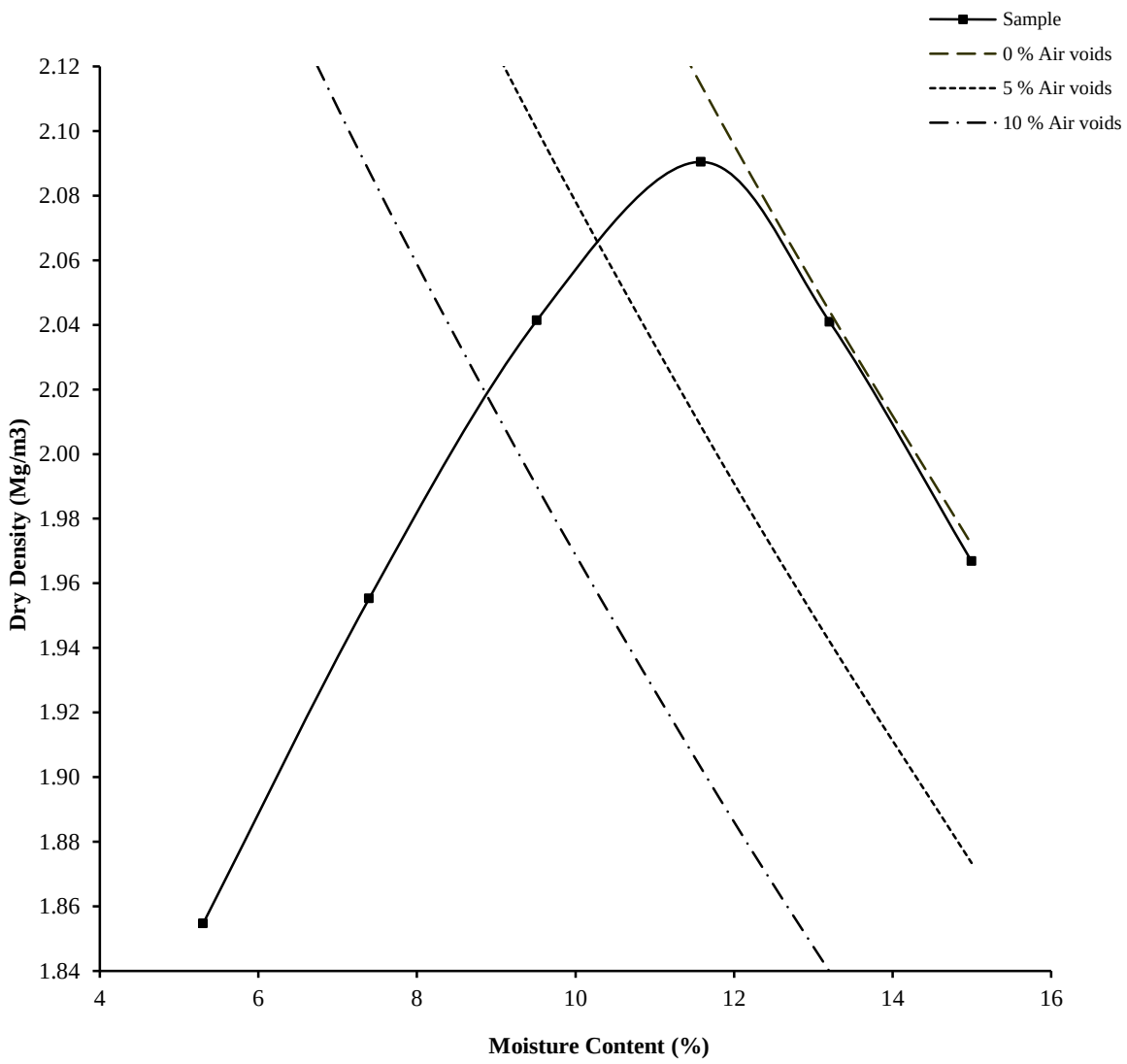
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP120 **Depth (m) :** 0.50

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	5.3	Method of Compaction	2.5kg / Separate Sample	
Particle Density (Mg/m3):	2.80	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		2.09	Material Retained on 20.0 mm Test Sieve (%):	12
Optimum Moisture Content (%):		12		
Remarks	Optimum handvane point = >140 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

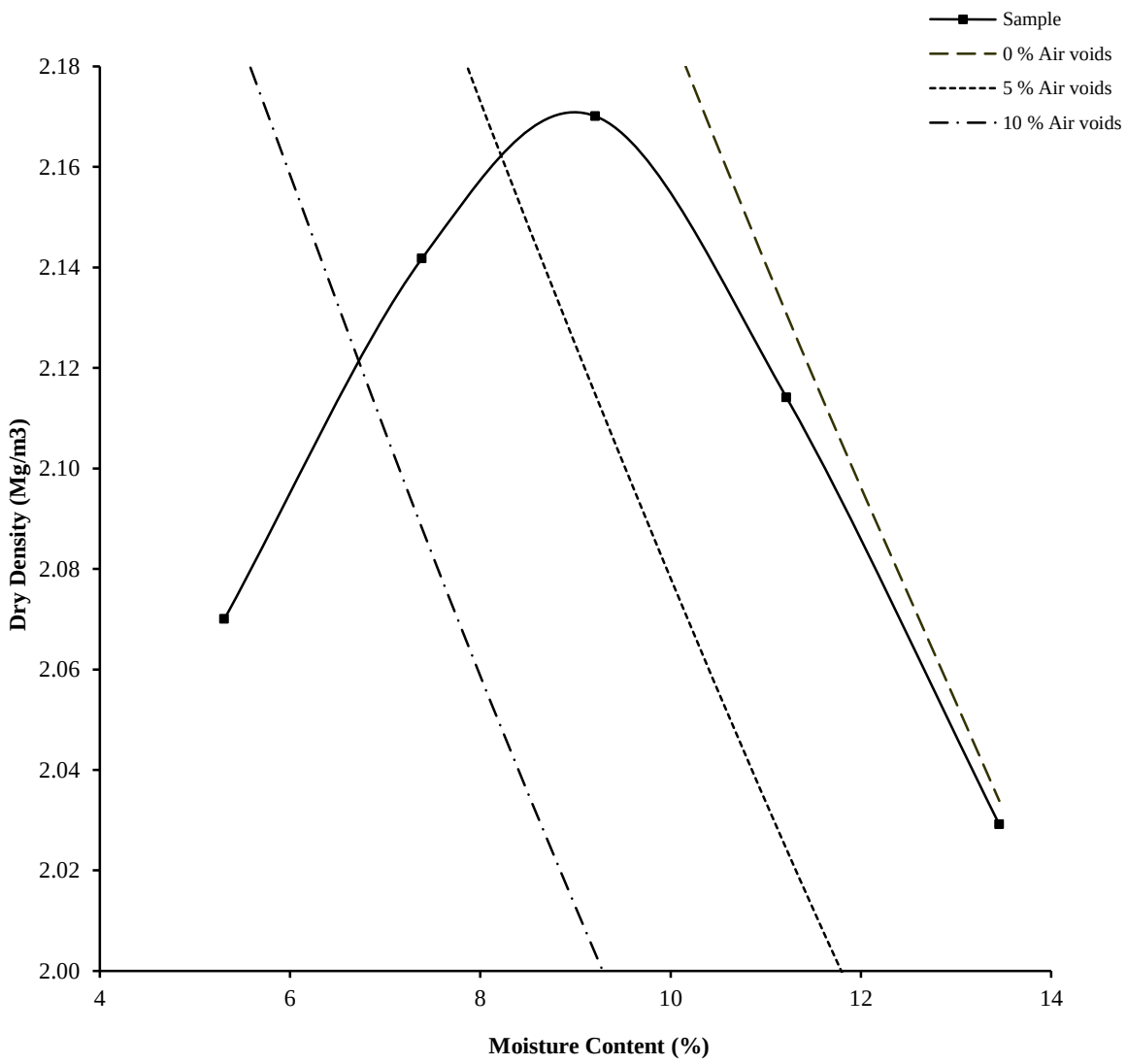
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP120 **Depth (m) :** 0.50

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	5.3	Method of Compaction	4.5kg / Separate Sample	
Particle Density (Mg/m3):	2.80	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		2.17	Material Retained on 20.0 mm Test Sieve (%):	12
Optimum Moisture Content (%):		9		
Remarks	Optimum point handvane = >140 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

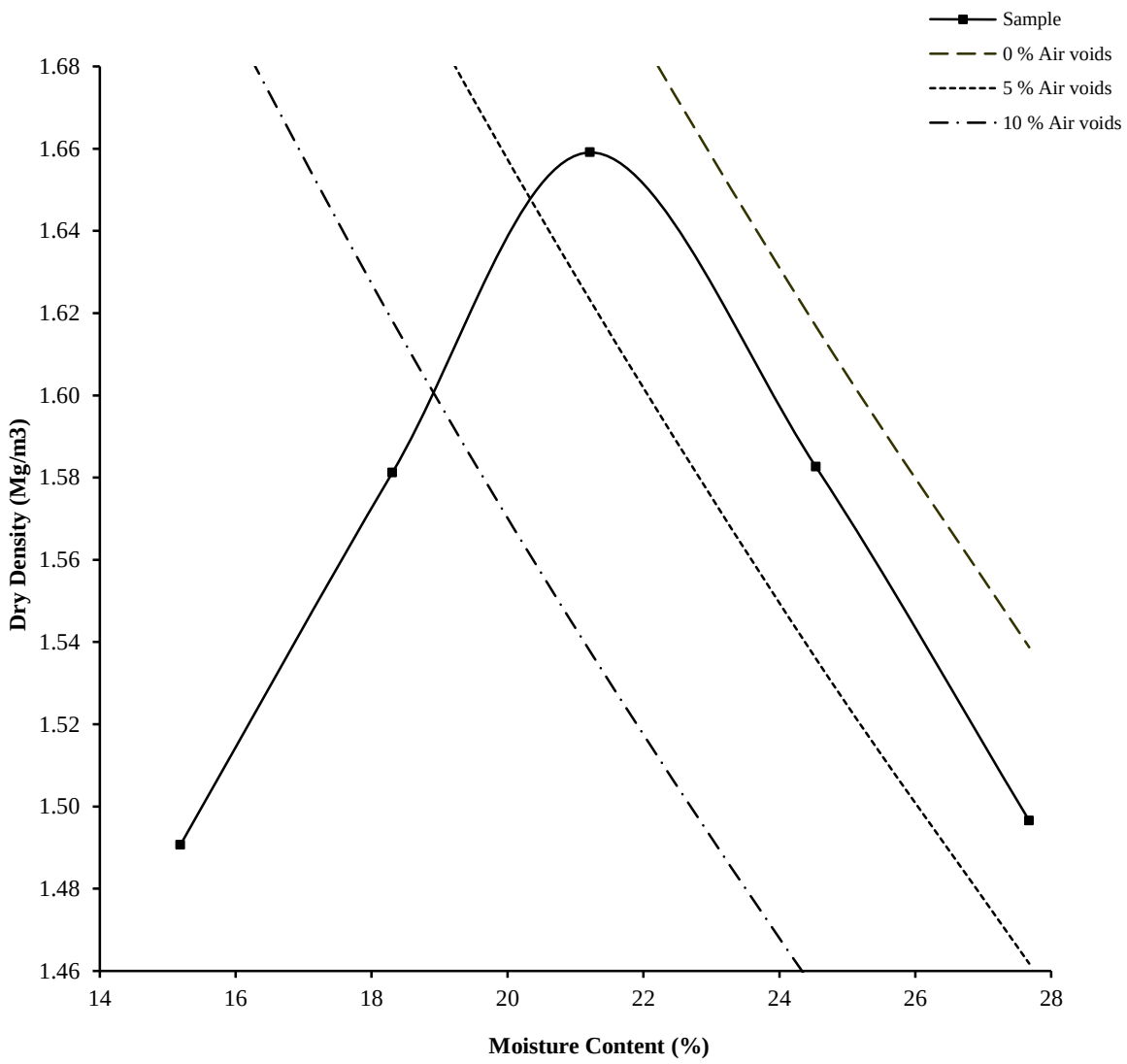
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP124 **Depth (m) :** 1.00

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	18	Method of Compaction	2.5kg / Separate Sample	
Particle Density (Mg/m3):	2.68	Measured	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.66	Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):		21		
Remarks	Optimum point handvane = 88 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

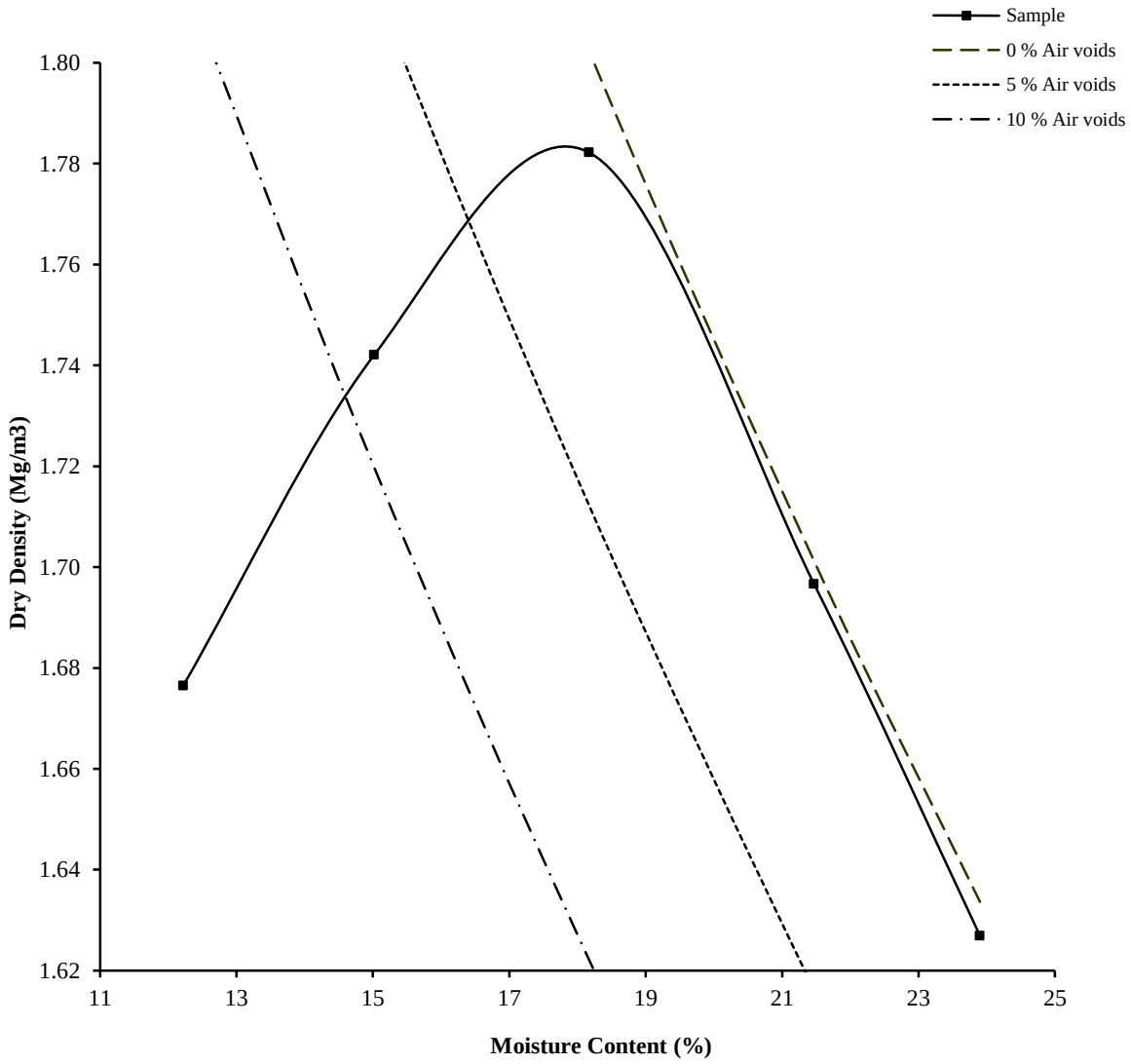
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP124 **Depth (m) :** 1.00

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	18	Method of Compaction	4.5kg / Separate Sample	
Particle Density (Mg/m3):	2.68	Measured	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.78	Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):		18		
Remarks	Optimum point handvane = 116 kPa.			

Checked By	Date	Approved By	Date
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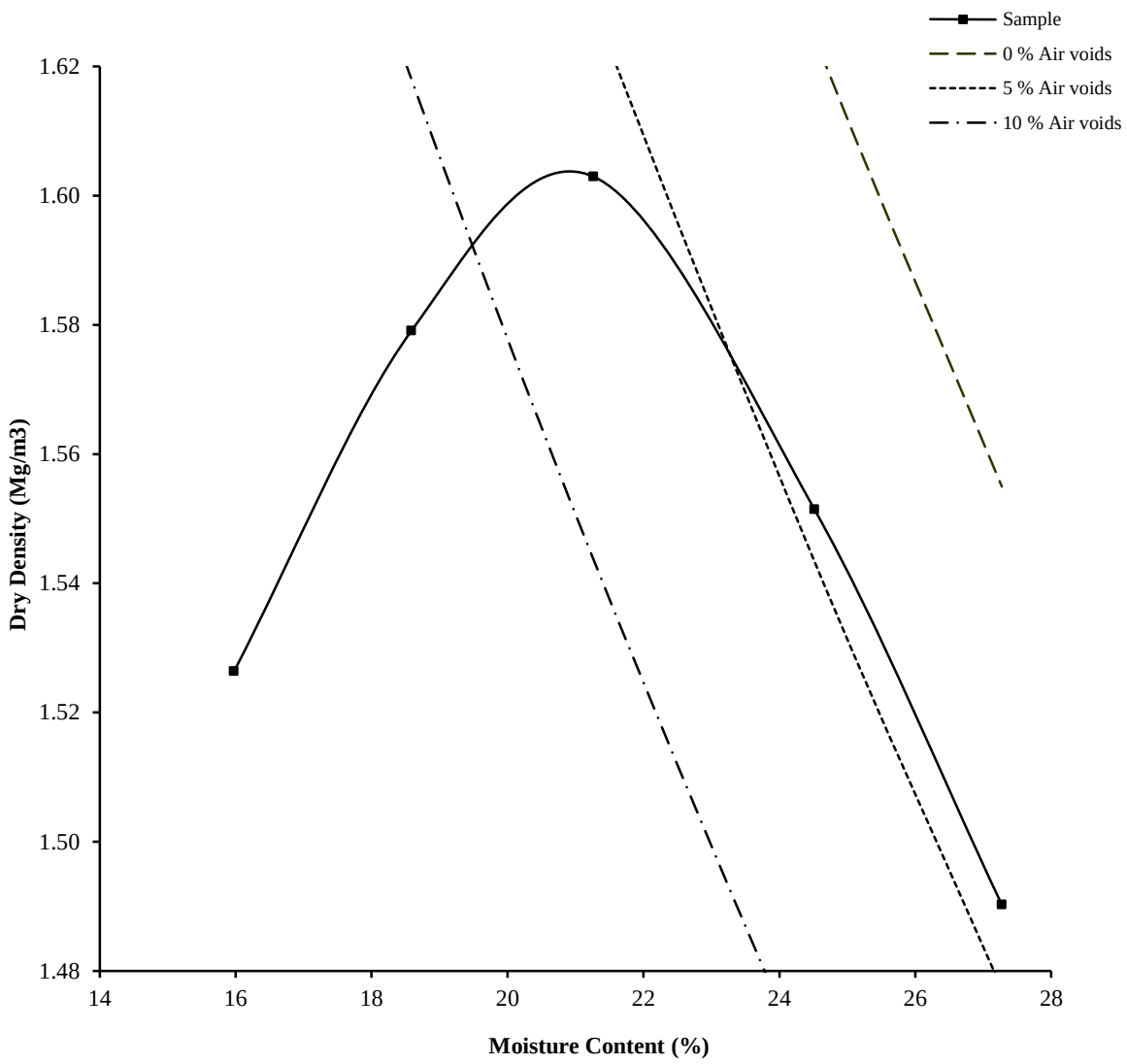
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP127 **Depth (m) :** 1.00

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	21	Method of Compaction	2.5kg / Separate Sample	
Particle Density (Mg/m3):	2.70	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.60	Material Retained on 20.0 mm Test Sieve (%):	3
Optimum Moisture Content (%):		21		
Remarks	Optimum point handvane = 75 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

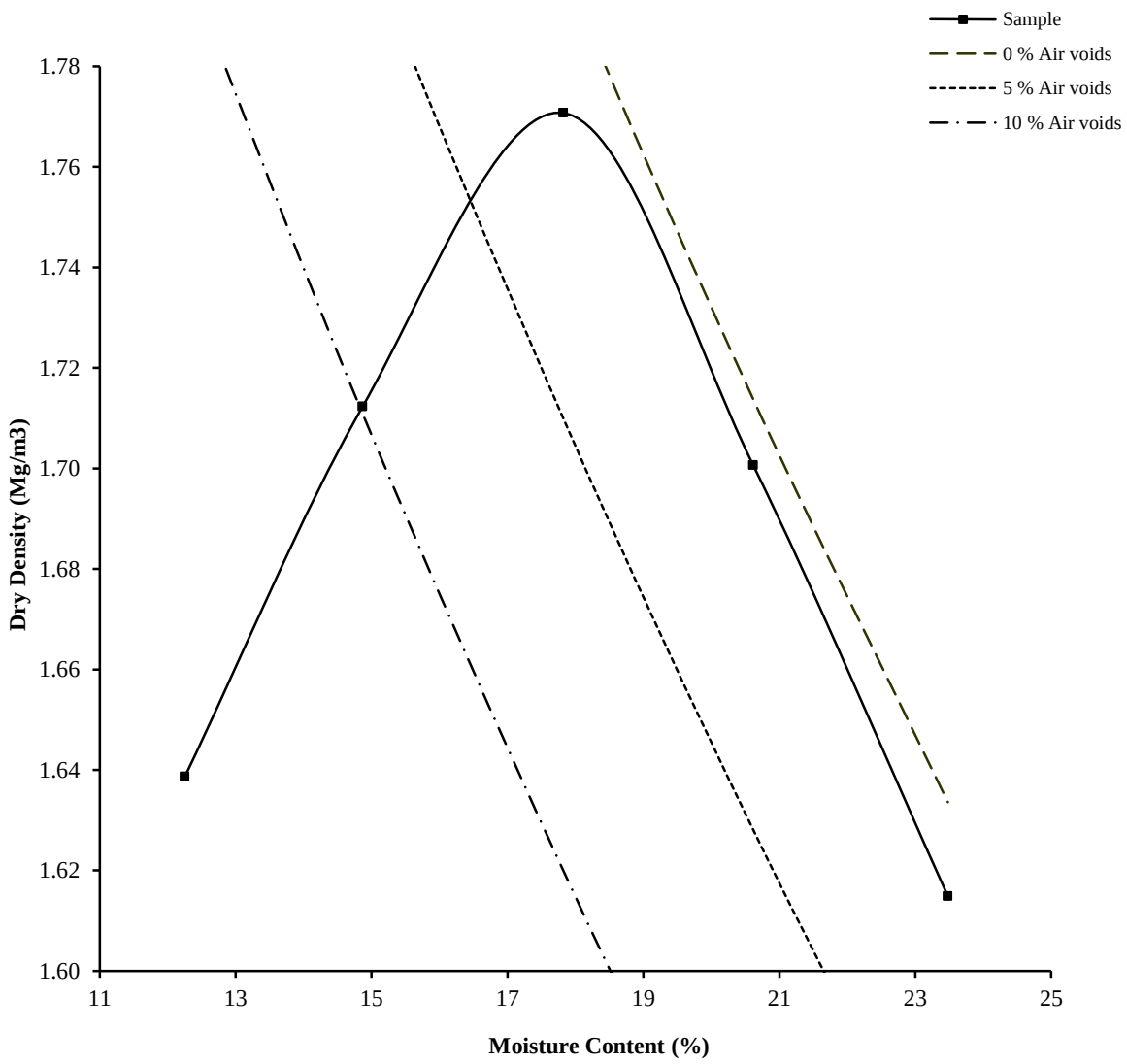
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP127 **Depth (m) :** 1.00

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	21	Method of Compaction	4.5kg / Separate Sample	
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.77	Material Retained on 20.0 mm Test Sieve (%):	3
Optimum Moisture Content (%):		18		
Remarks	Optimum point handvane = 120 kPa.			

Checked By	Date	Approved By	Date
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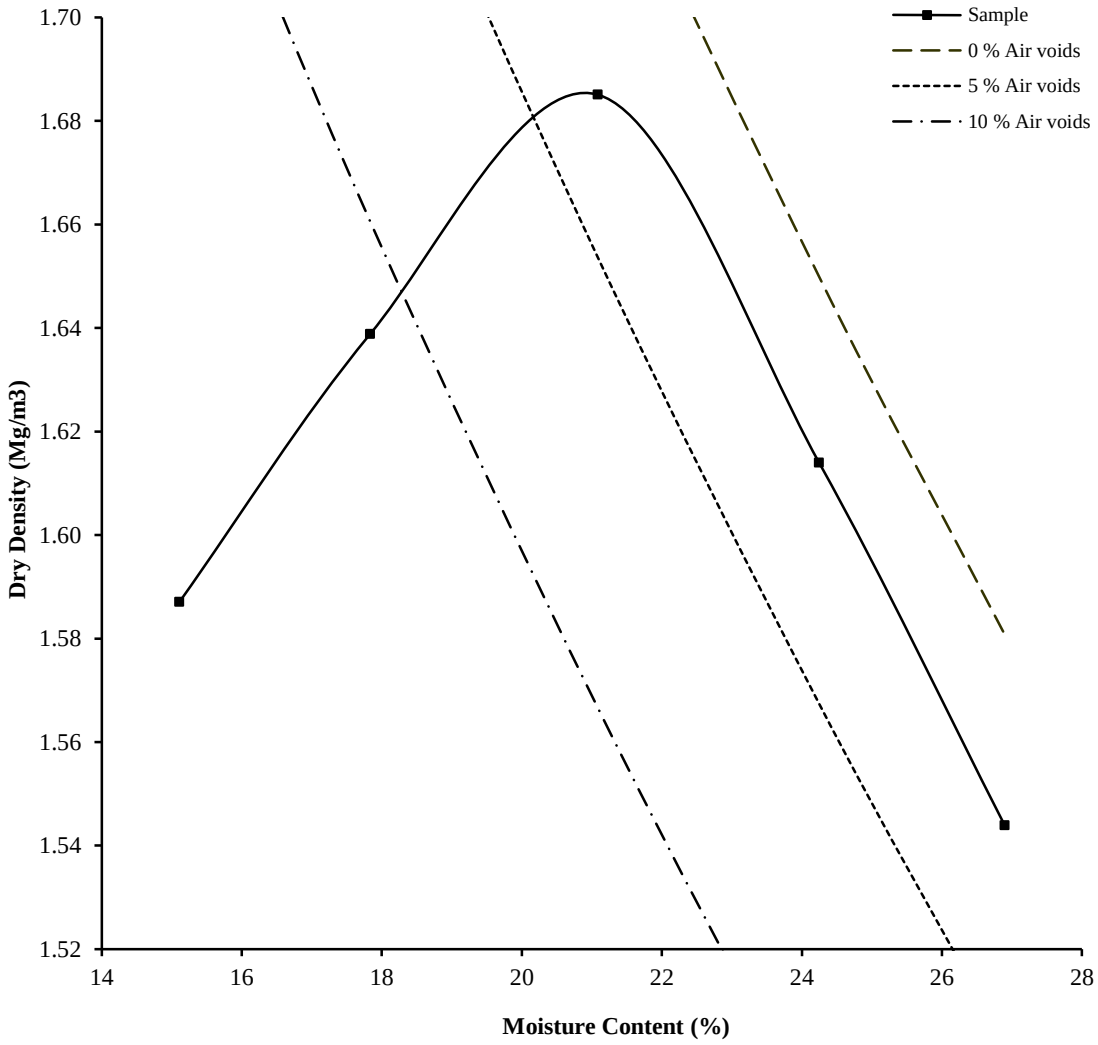
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number:	**TP131**	**Depth (m) :**	**0.70**
Sample Number:	**1**	**Sample Type:**	**B**



Initial Moisture Content:	24	Method of Compaction	2.5kg / Separate Sample	
Particle Density (Mg/m3):	2.75	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.69	Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):		21		
Remarks	Optimum point handvane = 70 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

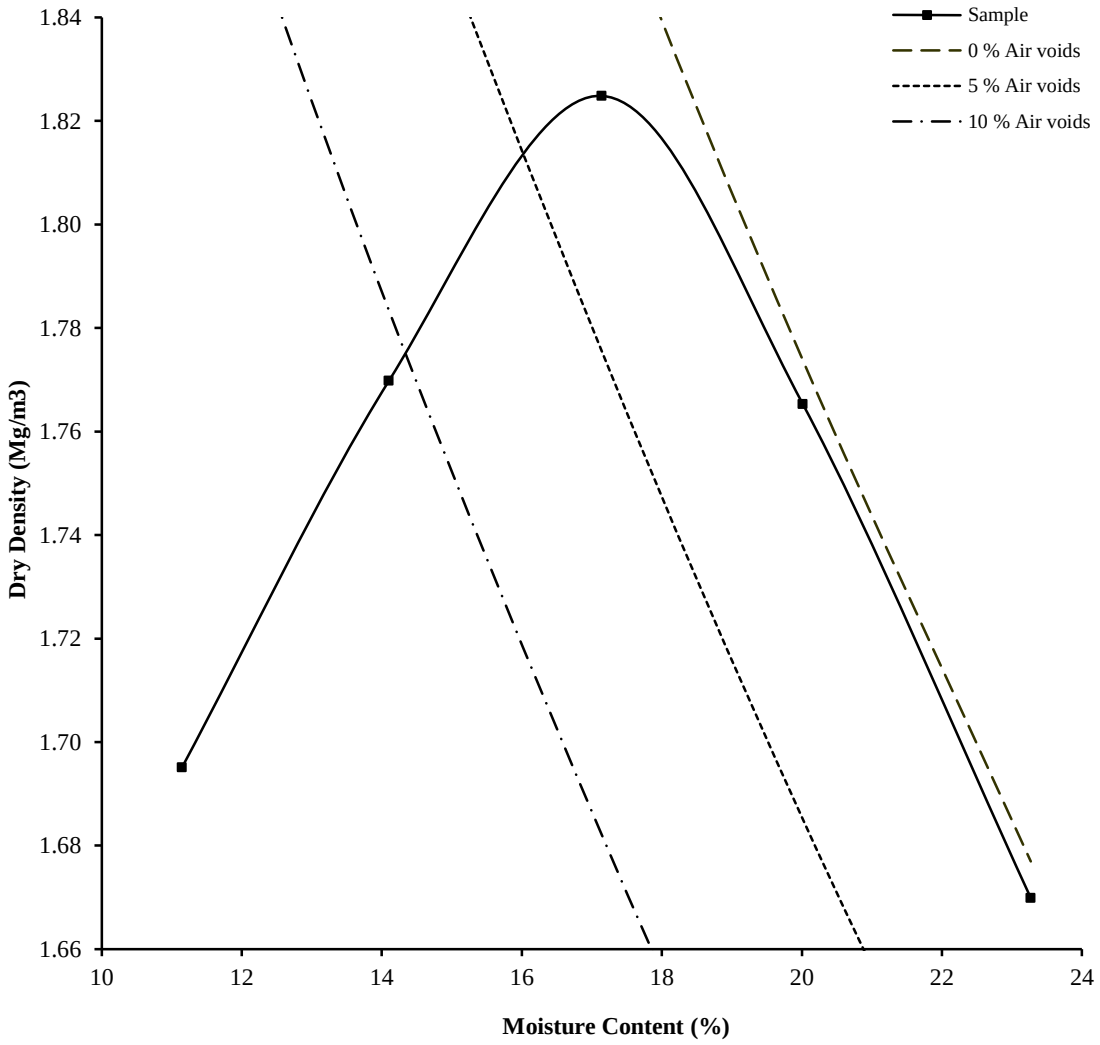
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP131 **Depth (m) :** 0.70

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	23	Method of Compaction	4.5kg / Separate Sample	
Particle Density (Mg/m3):	2.75	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.82	Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):		17		
Remarks	Optimum point handvane = >140 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

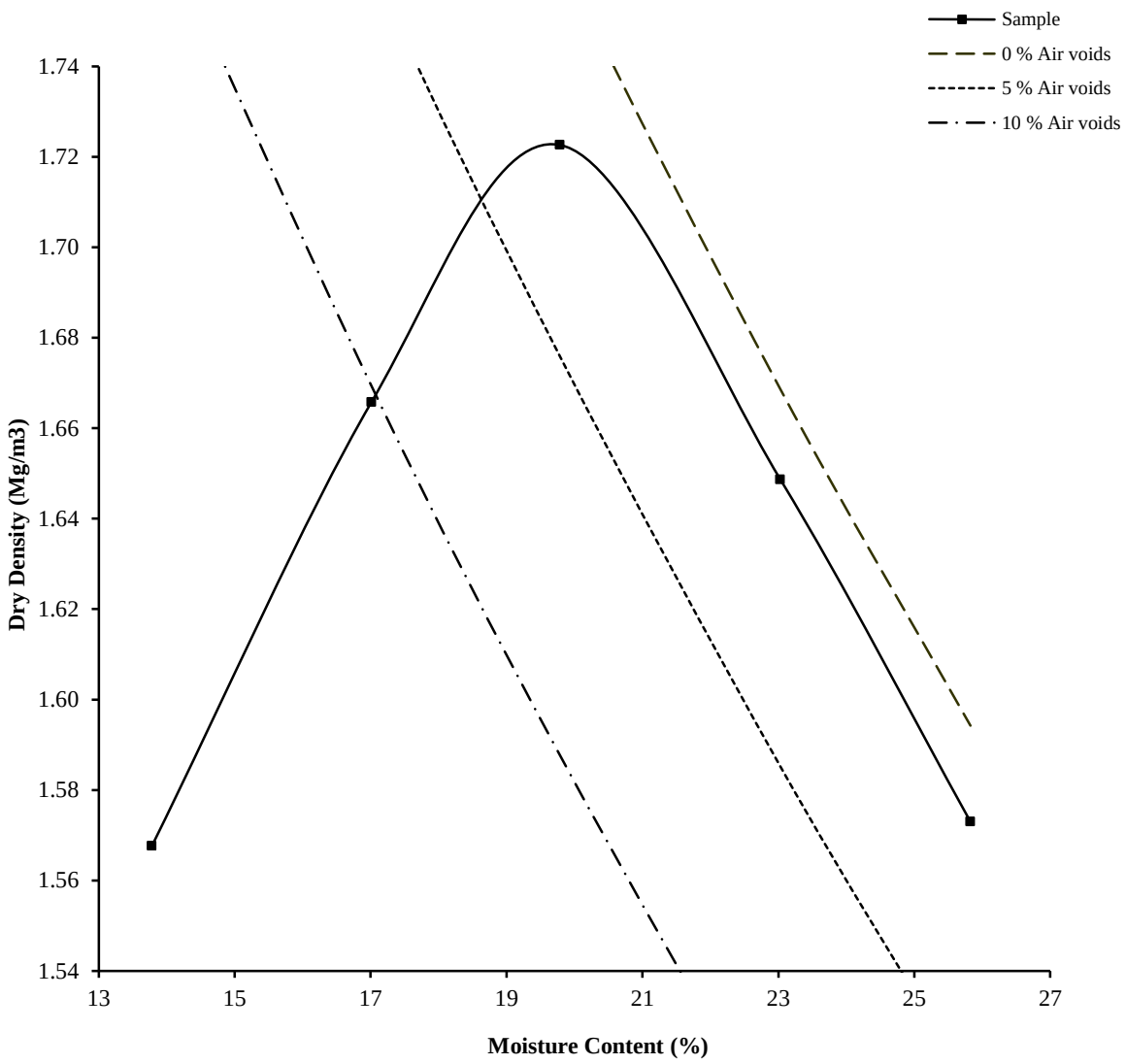
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP134 **Depth (m) :** 2.00

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	20	Method of Compaction	2.5kg / Separate Sample	
Particle Density (Mg/m3):	2.71	Measured	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.72	Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):		20		
Remarks	Optimum point handvane= 82 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

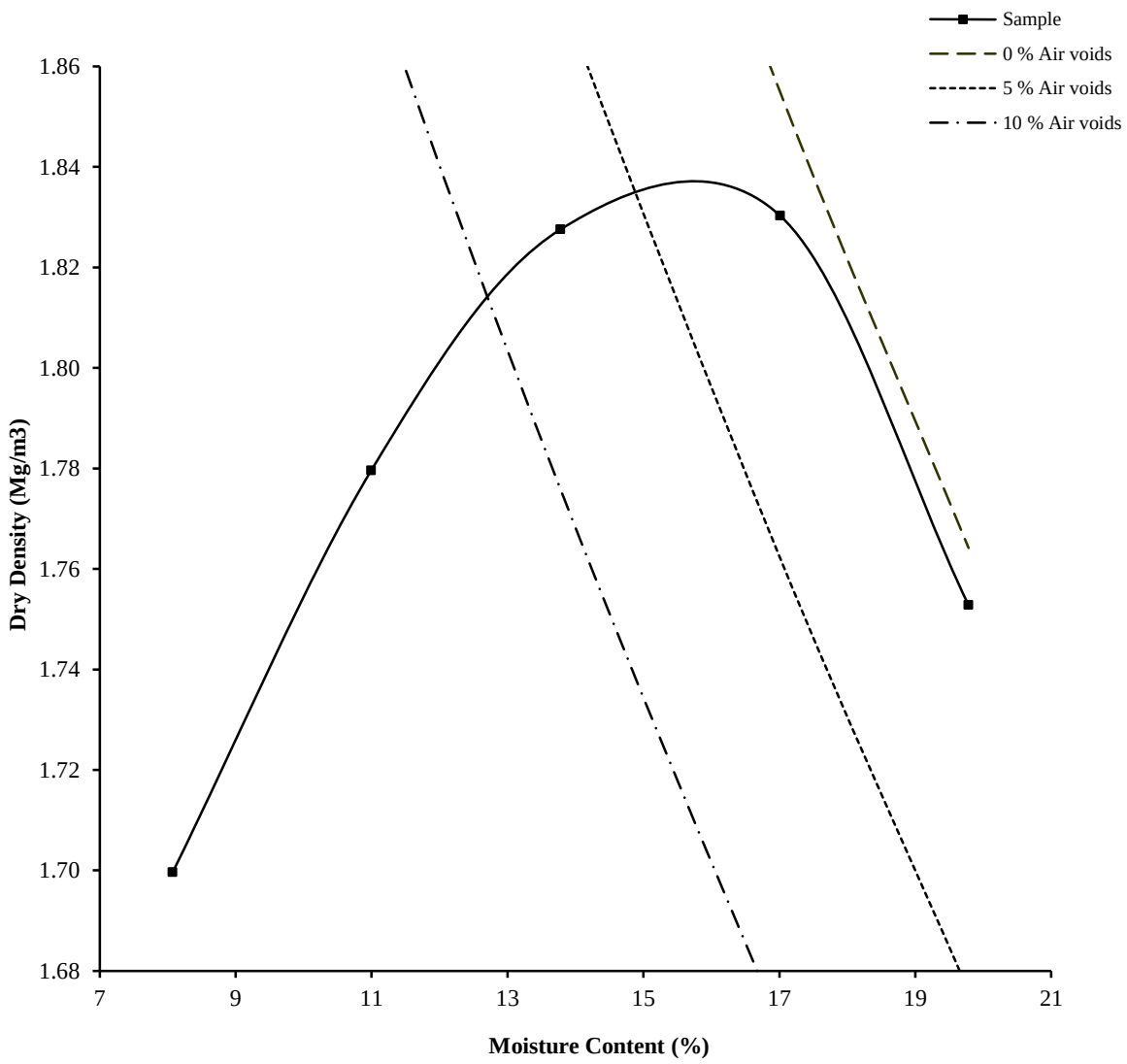
PSL Professional Soils Laboratory	**HAVERHILL 15-0210.02**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP134 **Depth (m) :** 2.00

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	20	Method of Compaction	4.5kg / Separate Sample	
Particle Density (Mg/m3):	2.71	Measured	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.83	Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):		16		
Remarks	Optimum point handvane= >140 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

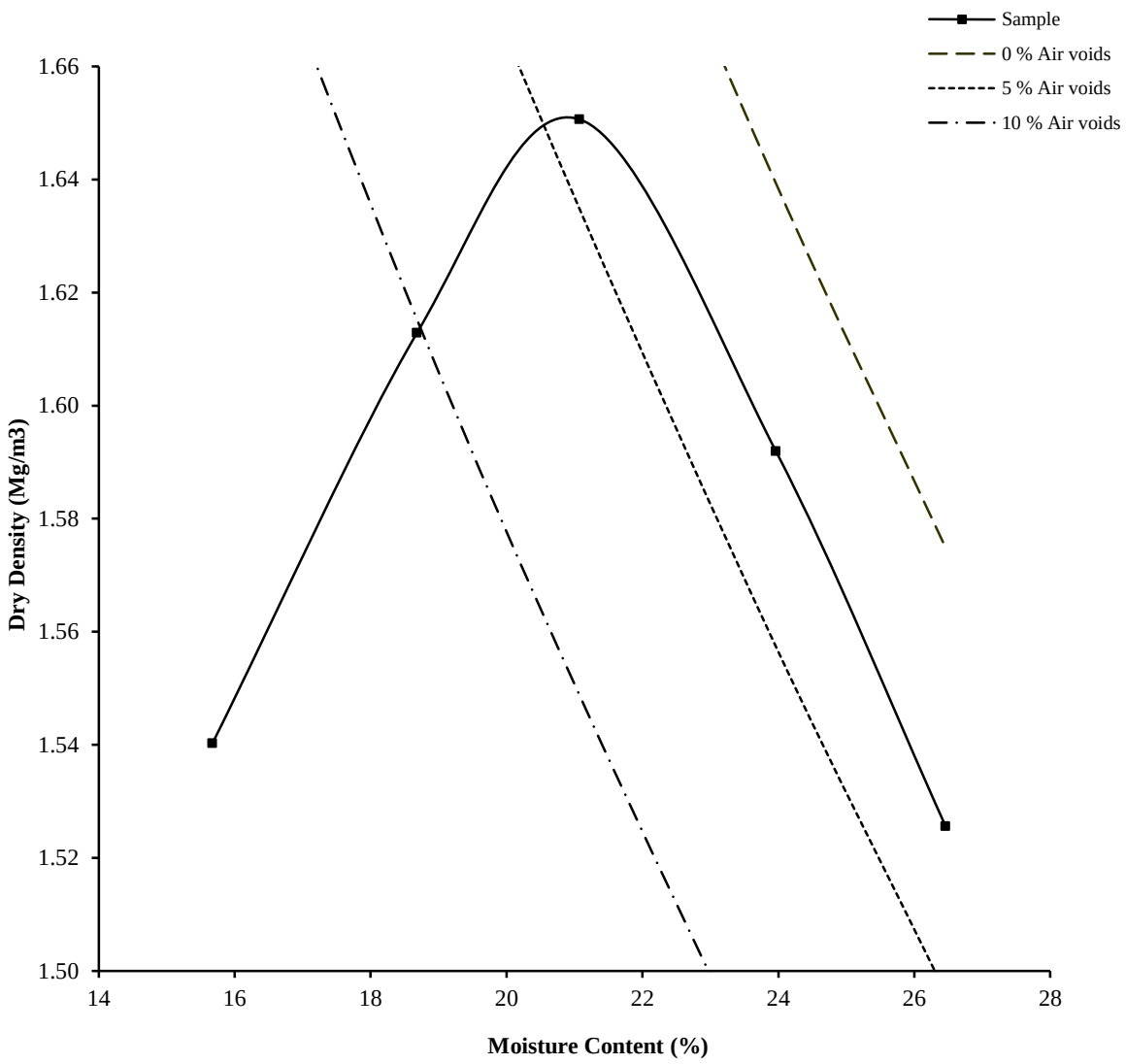
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP138 **Depth (m) :** 0.90

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	21	Method of Compaction	2.5kg / Separate Sample	
Particle Density (Mg/m3):	2.70	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.65	Material Retained on 20.0 mm Test Sieve (%):	3
Optimum Moisture Content (%):		21		
Remarks	Optimum point handvane = 76 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

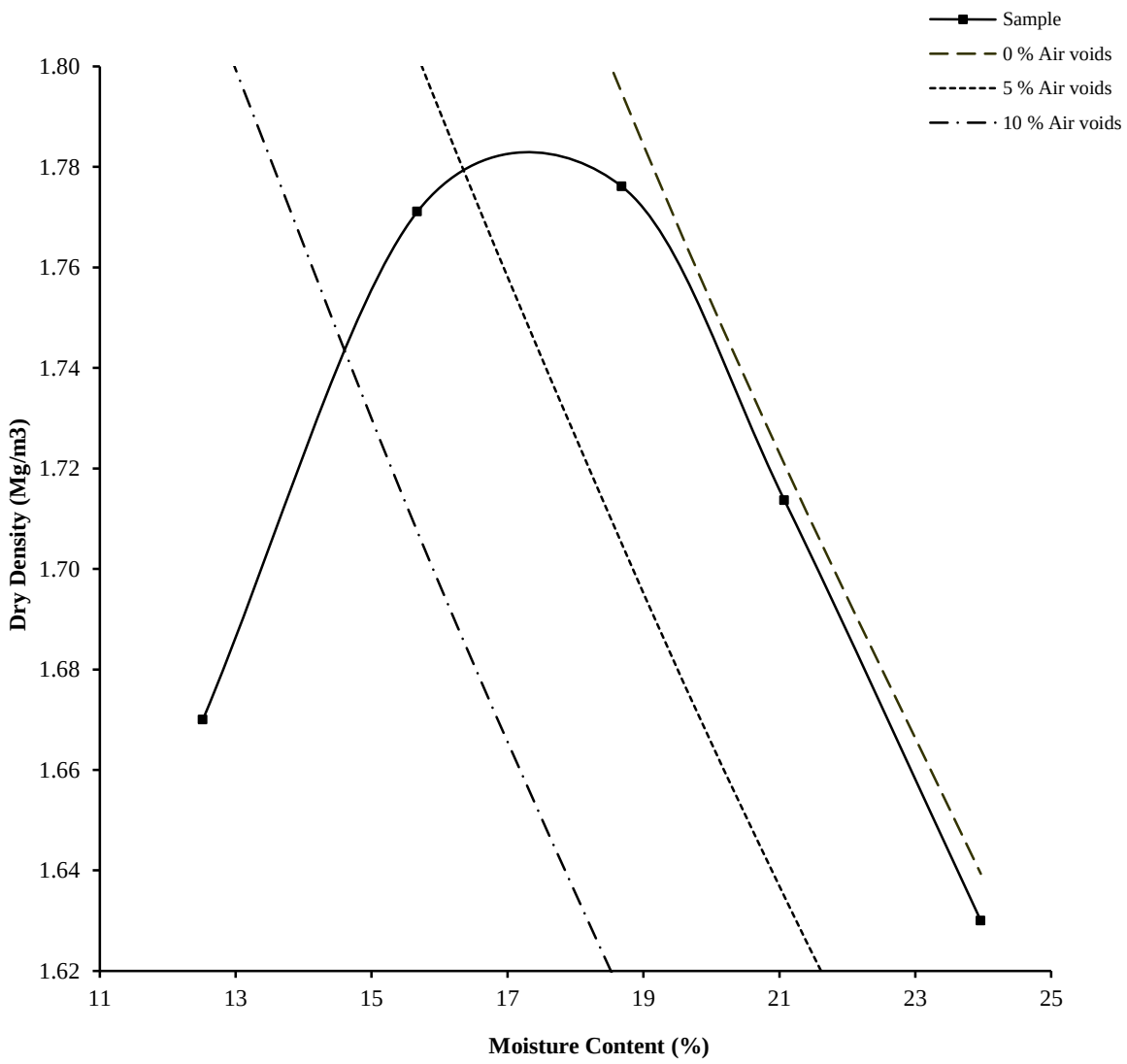
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP138 **Depth (m) :** 0.90

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	21	Method of Compaction	4.5kg / Separate Sample	
Particle Density (Mg/m3):	2.70	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.78	Material Retained on 20.0 mm Test Sieve (%):	3
Optimum Moisture Content (%):		17		
Remarks	Optimum point handvane = >140 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

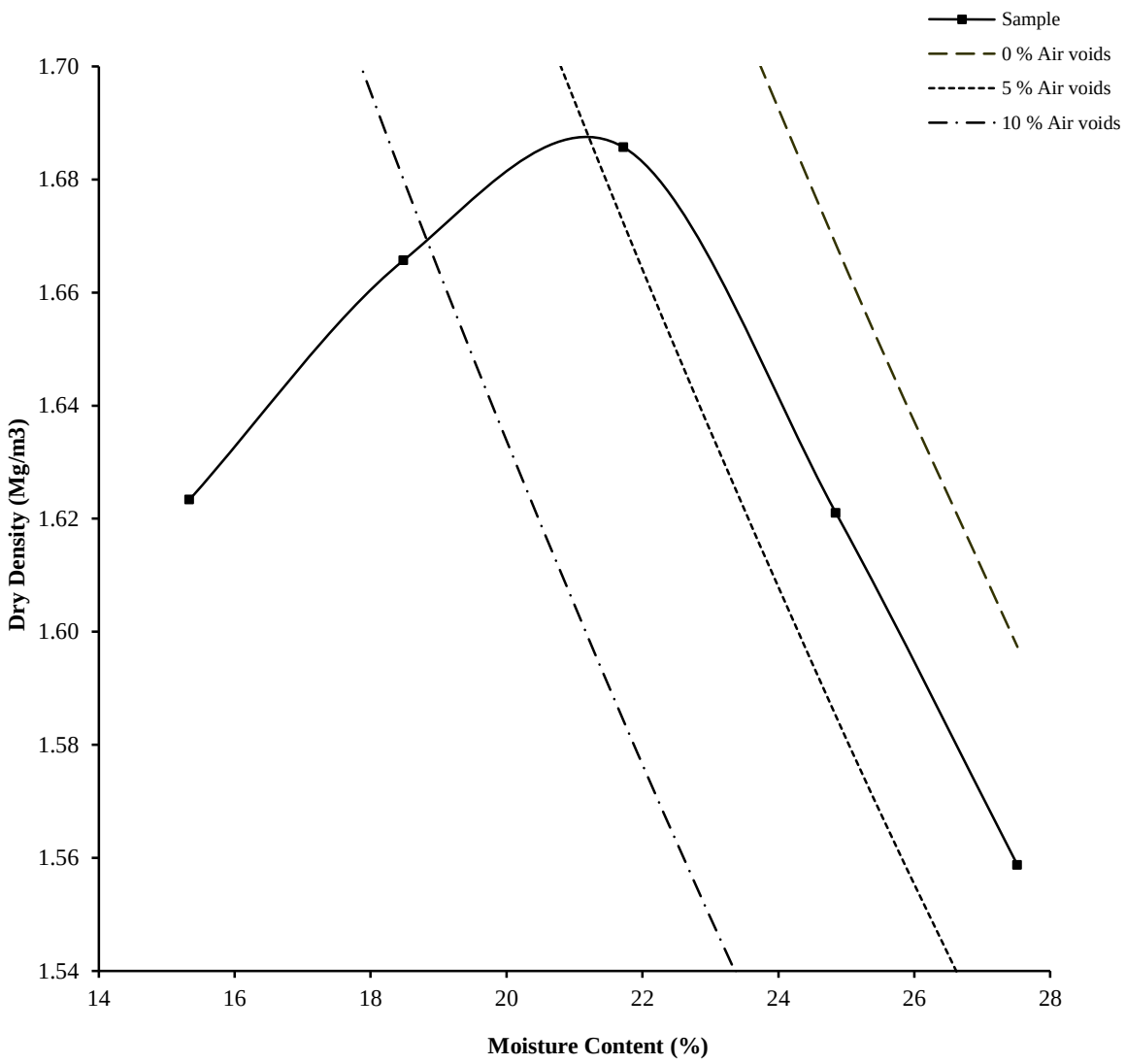
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP140 **Depth (m) :** 3.00

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	22	Method of Compaction	2.5kg / Separate Sample	
Particle Density (Mg/m3):	2.85	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.69	Material Retained on 20.0 mm Test Sieve (%):	4.2
Optimum Moisture Content (%):		21		
Remarks	Optimum point handvane = 92 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

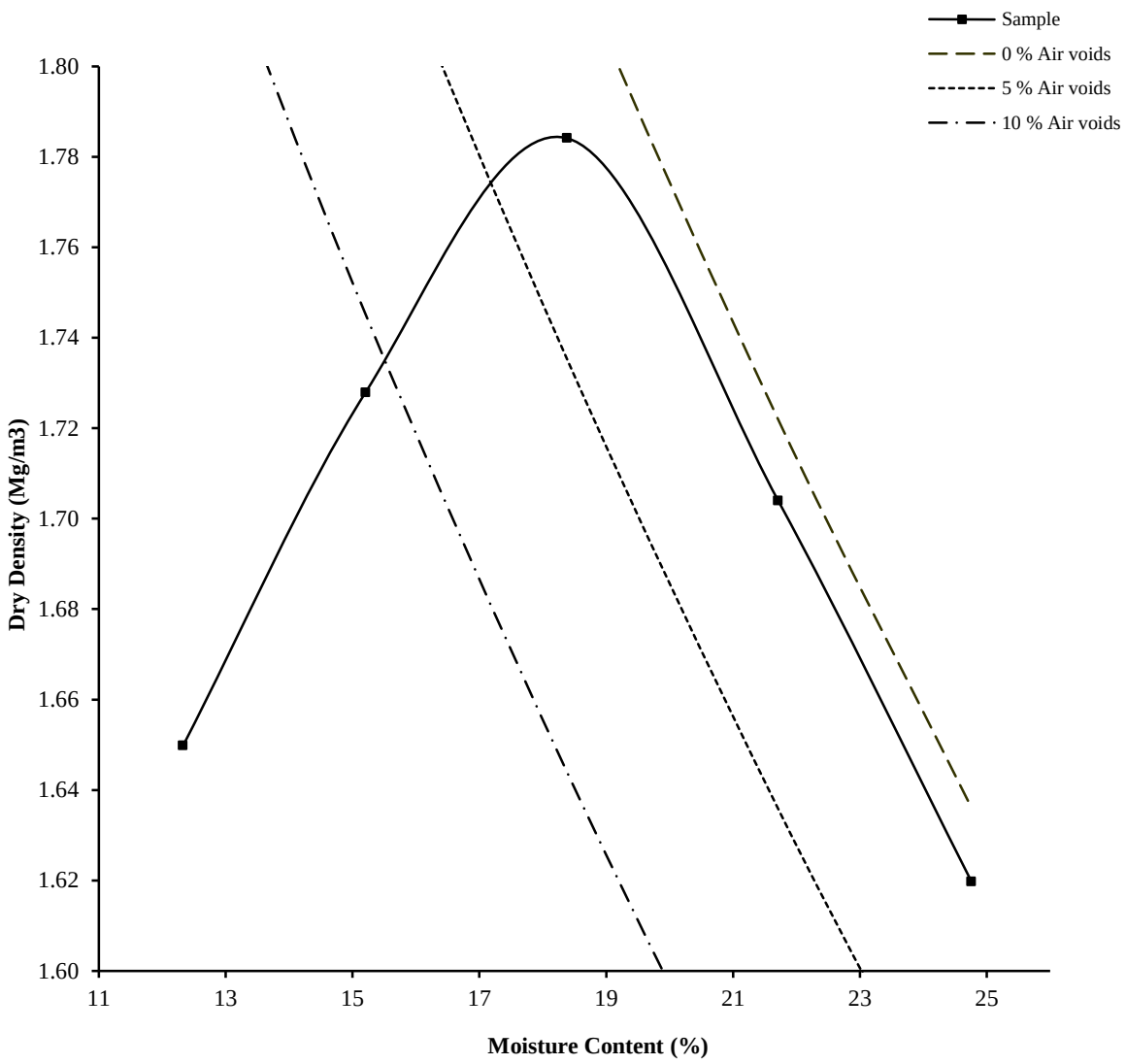
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Dry Density/Moisture Content Relationship Test

BS 1377 : Part 4 : 1990

Hole Number: TP140 **Depth (m) :** 3.00

Sample Number: 1 **Sample Type:** B



Initial Moisture Content:	22	Method of Compaction	4.5kg / Separate Sample	
Particle Density (Mg/m3):	2.75	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):		1.78	Material Retained on 20.0 mm Test Sieve (%):	4.2
Optimum Moisture Content (%):		18		
Remarks	Optimum point handvane= >140 kPa.			

Checked By	Date	Approved By	Date
	17/07/15		17/07/15

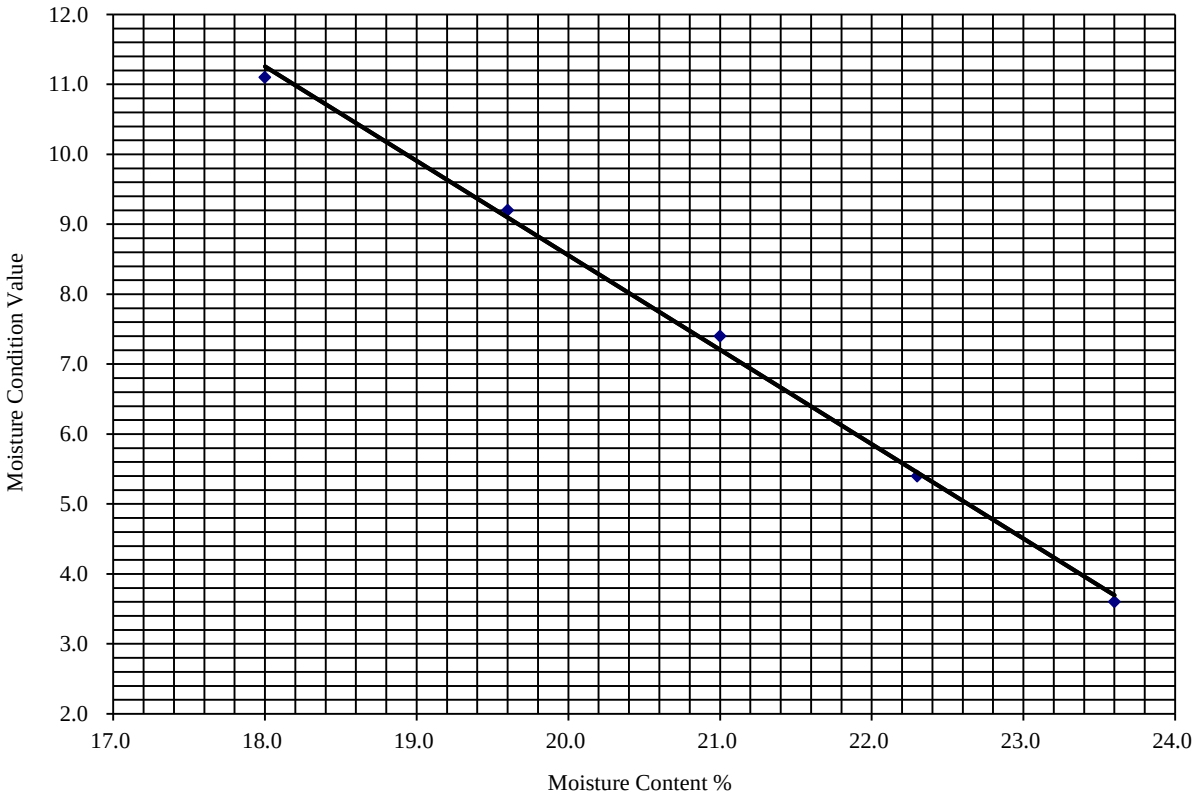
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

MOISTURE CONDITION VALUE CALIBRATION
BS1377 : Part 4 : 1990.

Hole Number: **BH101** **Depth (m):** **2.00**

Sample Number: **2** **Sample Type:** **B**

Initial Moisture Content (%).:	19.6
Single/Separate Samples Tested.	Separate
Material Retained on the 20mm BS Test Sieve (%).:	2



Test Results.

Test Number	1	2	3	4	5
Moisture Content (%)	18.0	19.6	21.0	22.3	23.6
MCV	11.1	9.2	7.4	5.4	3.6

Checked	Date	Approved	Date
	17/07/15		17/07/15

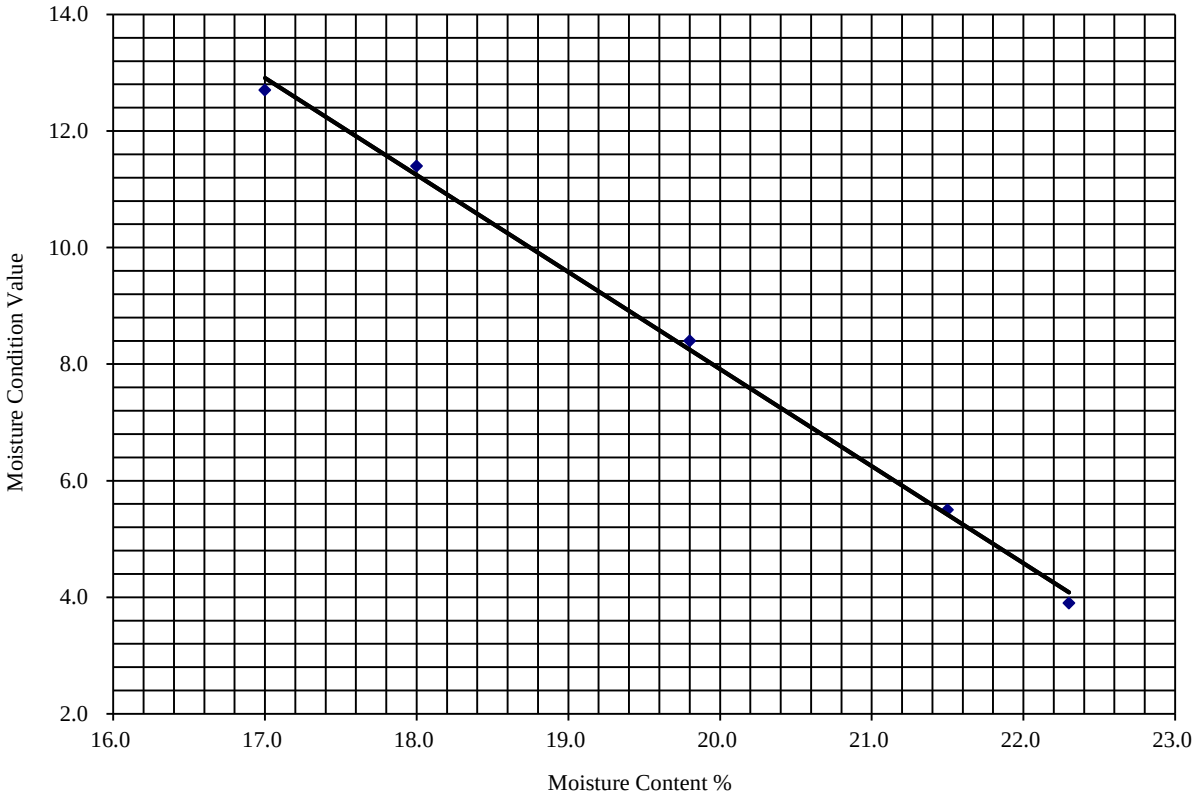
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No:** **PSL15/3101**

MOISTURE CONDITION VALUE CALIBRATION
BS1377 : Part 4 : 1990.

Hole Number: **BH105** **Depth (m):** **1.00**

Sample Number: **1** **Sample Type:** **B**

Initial Moisture Content (%).:	18.0
Single/Separate Samples Tested.	Separate
Material Retained on the 20mm BS Test Sieve (%).:	4



Test Results.

Test Number	1	2	3	4	5
Moisture Content (%)	17.0	18.0	19.8	21.5	22.3
MCV	12.7	11.4	8.4	5.5	3.9

Checked	Date	Approved	Date
	17/07/15		17/07/15

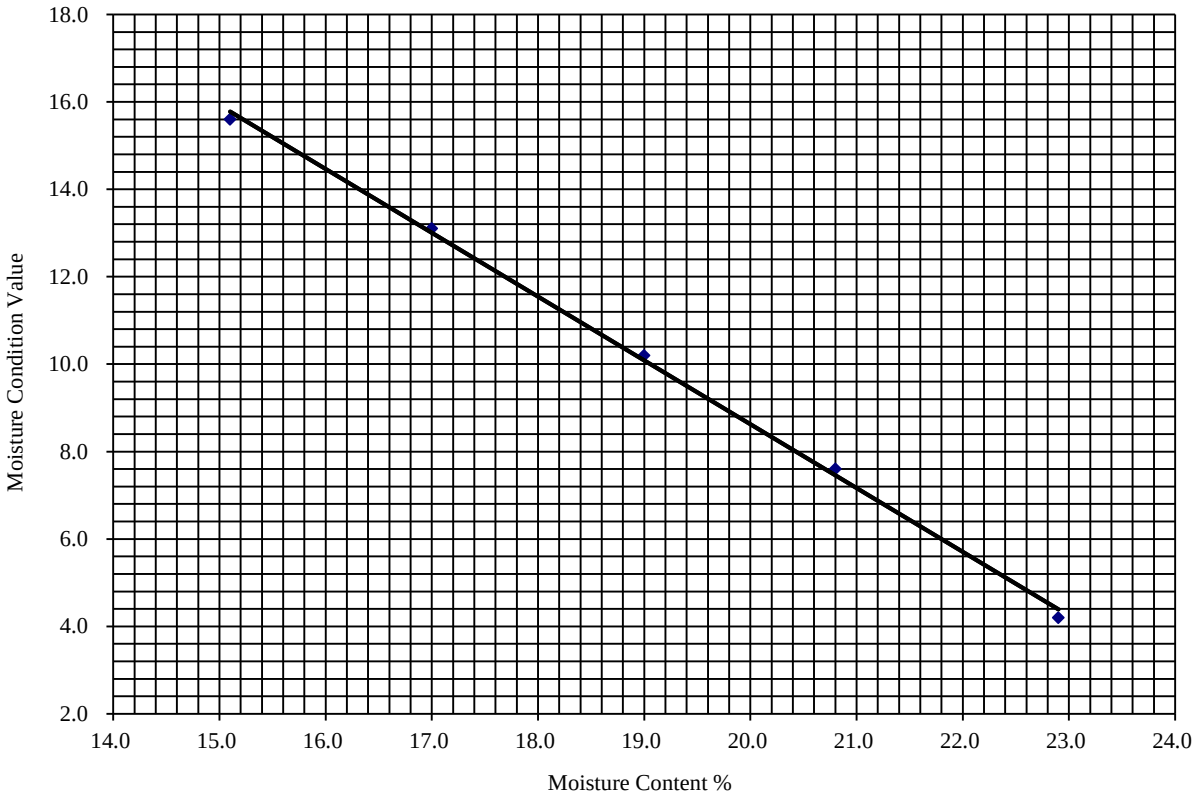
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No:** **PSL15/3101**

MOISTURE CONDITION VALUE CALIBRATION
BS1377 : Part 4 : 1990.

Hole Number: **TP114** **Depth (m):** **2.00**

Sample Number: **1** **Sample Type:** **B**

Initial Moisture Content (%).:	15.1
Single/Separate Samples Tested.	Separate
Material Retained on the 20mm BS Test Sieve (%).:	0



Test Results.

Test Number	1	2	3	4	5
Moisture Content (%)	15.1	17.0	19.0	20.8	22.9
MCV	15.6	13.1	10.2	7.6	4.2

Checked	Date	Approved	Date
	17/07/15		17/07/15

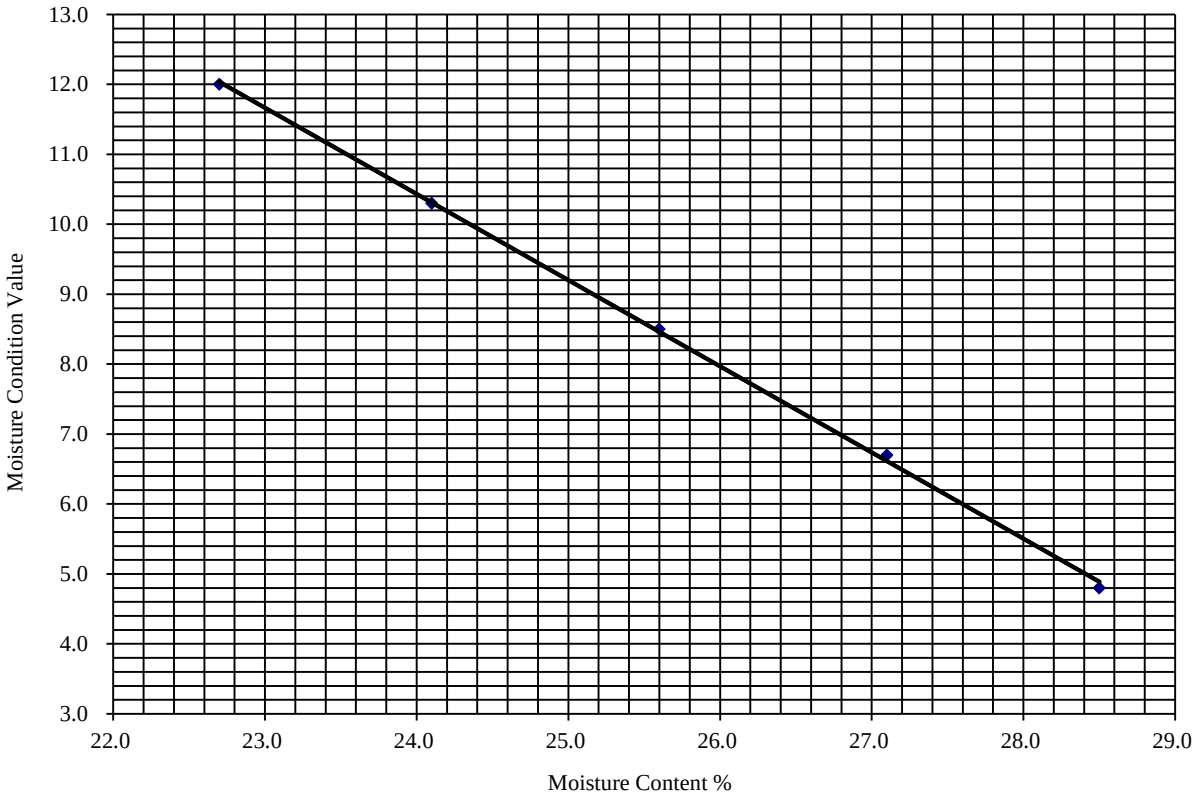
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No:** **PSL15/3101**

MOISTURE CONDITION VALUE CALIBRATION
BS1377 : Part 4 : 1990.

Hole Number: **TP125** **Depth (m):** **1.90**

Sample Number: **1** **Sample Type:** **B**

Initial Moisture Content (%).:	25.6
Single/Separate Samples Tested.	Separate
Material Retained on the 20mm BS Test Sieve (%).:	0



Test Results.

Test Number	1	2	3	4	5
Moisture Content (%)	22.7	24.1	25.6	27.1	28.5
MCV	12.0	10.3	8.5	6.7	4.8

Checked	Date	Approved	Date
	17/07/15		17/07/15

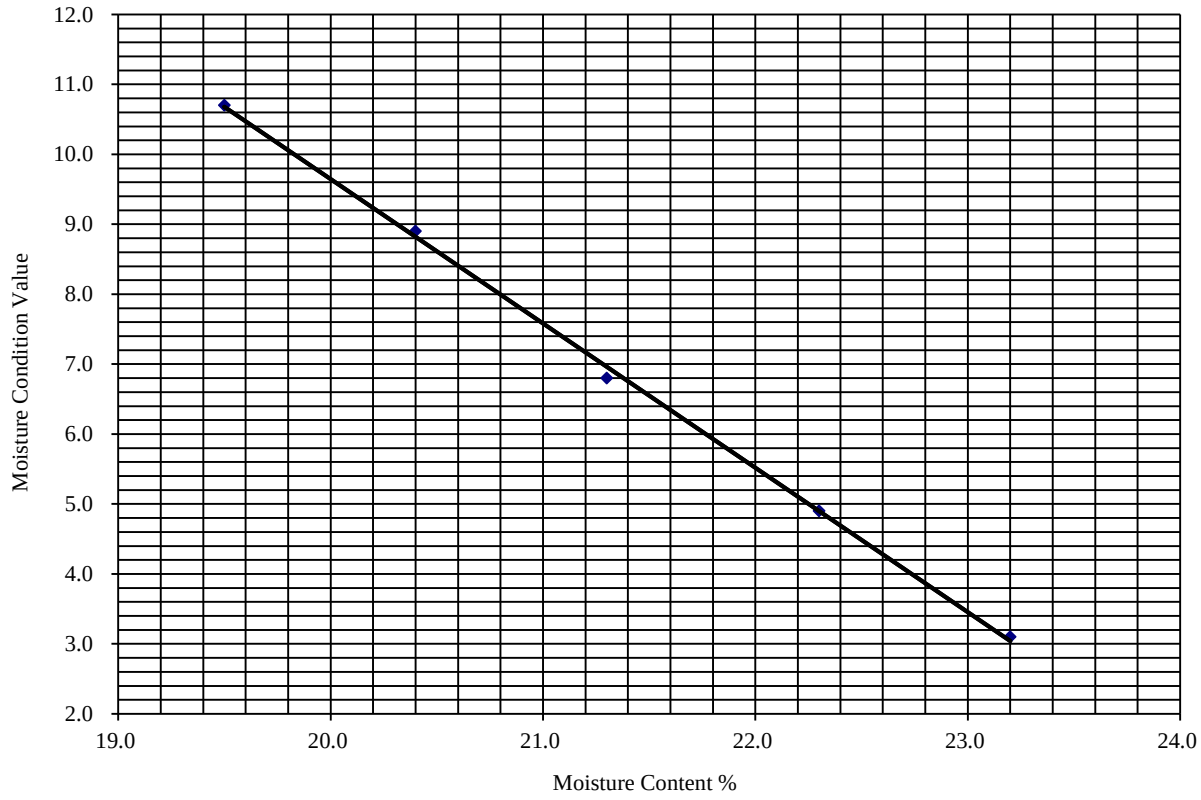
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No:** **PSL15/3101**

MOISTURE CONDITION VALUE CALIBRATION
BS1377 : Part 4 : 1990.

Hole Number: **TP136** **Depth (m):** **1.00**

Sample Number: **1** **Sample Type:** **B**

Initial Moisture Content (%).:	20.4
Single/Separate Samples Tested.	Separate
Material Retained on the 20mm BS Test Sieve (%).:	2



Test Results.

Test Number	1	2	3	4	5
Moisture Content (%)	19.5	20.4	21.3	22.3	23.2
MCV	10.7	8.9	6.8	4.9	3.1

Checked	Date	Approved	Date
	17/07/15		17/07/15

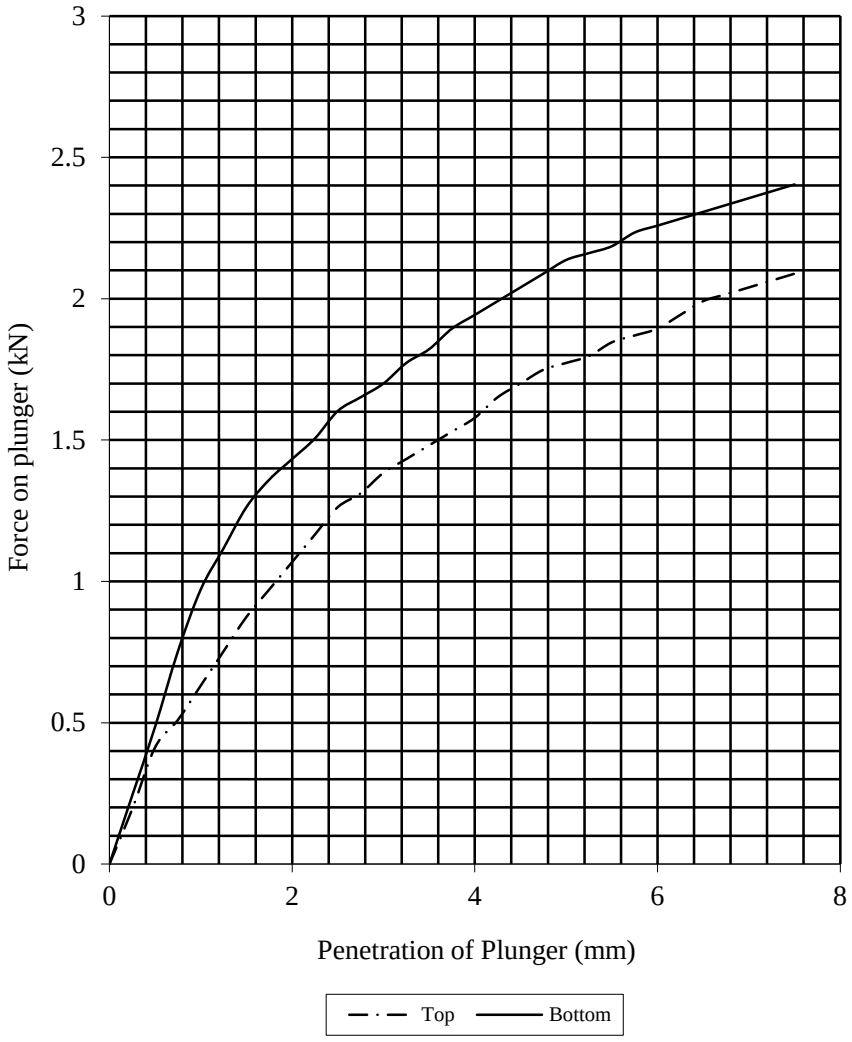
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No:** **PSL15/3101**

California Bearing Ratio Test.

BS 1377 : Part 4 : 1990

Hole Number: **BH103** **Depth (m):** **4.00-5.00**

Sample Number: **4** **Sample Type:** **B**



Initial Sample Conditions		Test Conditions		Method of compaction 2.5Kg Rammer			
Moisture Content:	16	Surcharge Kg:	4.00	Final Moisture Content %		C.B.R. Value %	
Bulk Density Mg/m3:	2.08	Soaking Time hrs	0	Sample Top	16	Sample Top	9.6
Dry Density Mg/m3:	1.79	Swelling mm:	0	Sample Bottom	16	Sample Bottom	12.1
Percentage retained on 20mm BS test sieve:	0	Remarks: See Summary of Soil Description.					

Checked by	Date	Approved By	Date
	17/07/15		17/07/15

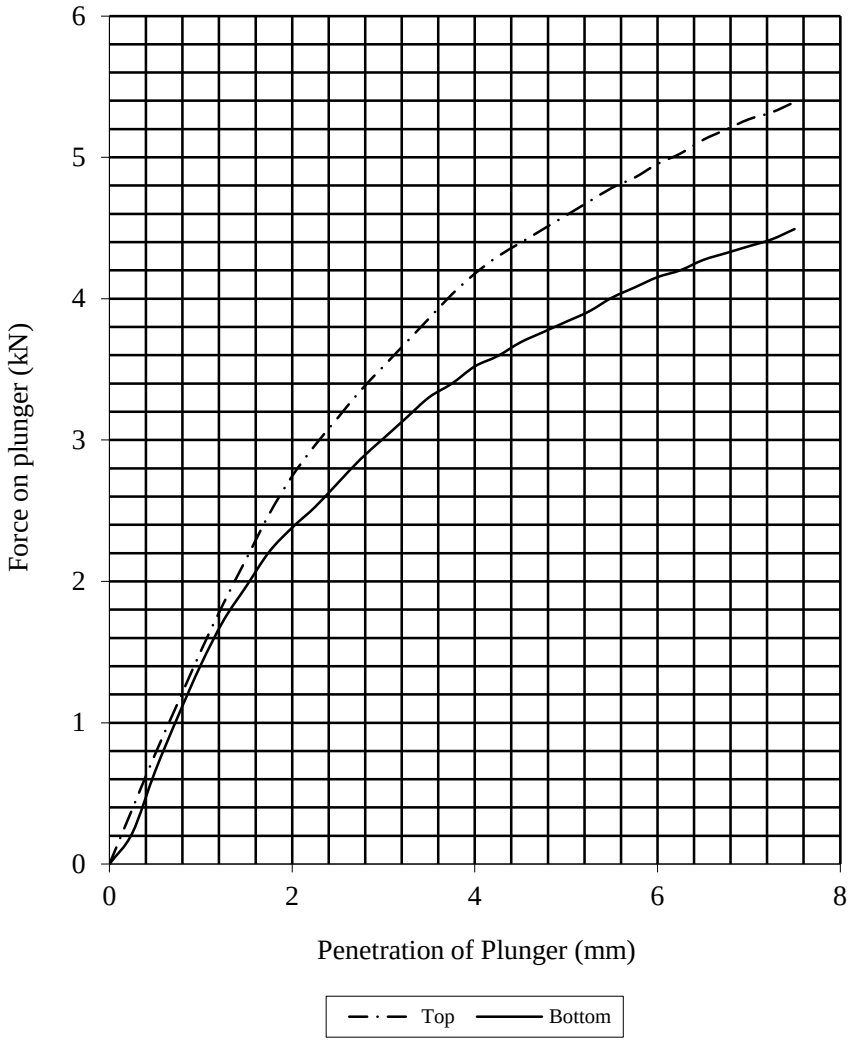
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

California Bearing Ratio Test.

BS 1377 : Part 4 : 1990

Hole Number: **BH105** **Depth (m):** **4.00**

Sample Number: **4** **Sample Type:** **B**



Initial Sample Conditions		Test Conditions		Method of compaction 4.5Kg Rammer			
Moisture Content:	14	Surcharge Kg:	4.00	Final Moisture Content %		C.B.R. Value %	
Bulk Density Mg/m3:	2.15	Soaking Time hrs	0	Sample Top	14	Sample Top	23.9
Dry Density Mg/m3:	1.89	Swelling mm:	0	Sample Bottom	14	Sample Bottom	20.4
Percentage retained on 20mm BS test sieve:	0	Remarks: See Summary of Soil Description.					

Checked by	Date	Approved By	Date
	17/07/15		17/07/15

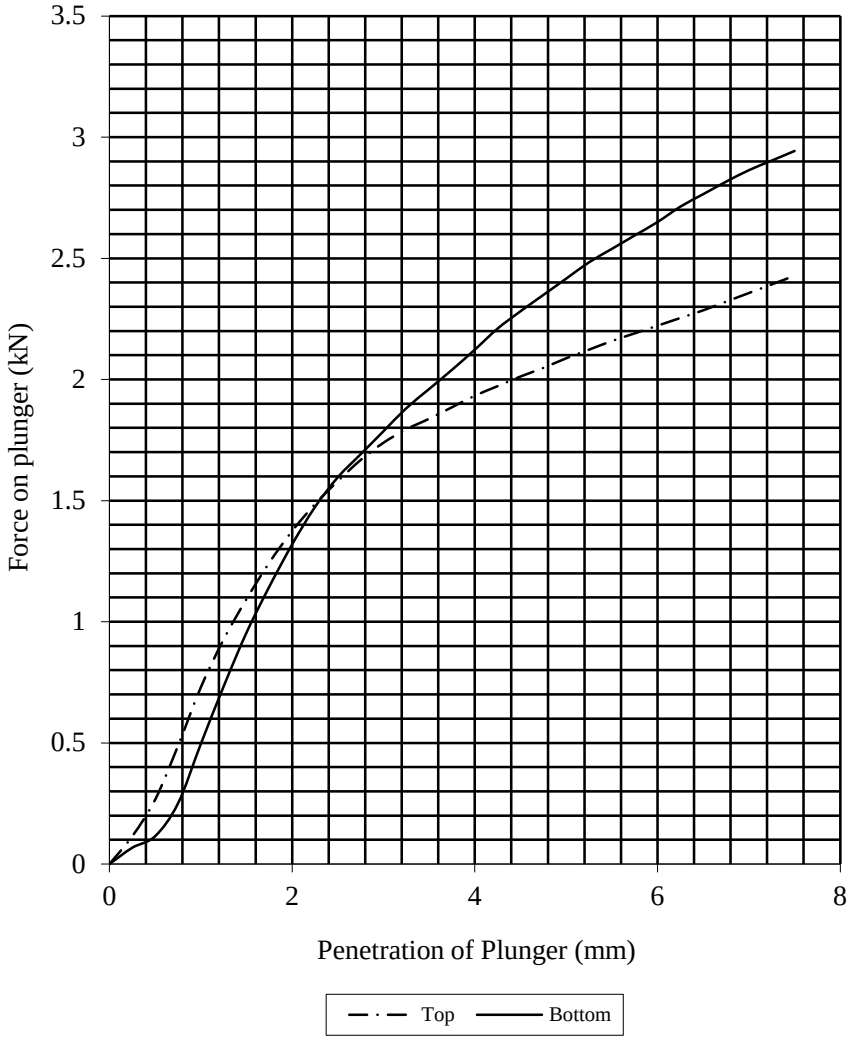
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

California Bearing Ratio Test.

BS 1377 : Part 4 : 1990

Hole Number: **BH107** **Depth (m):** **7.30**

Sample Number: **4** **Sample Type:** **B**



Initial Sample Conditions		Test Conditions		Method of compaction 2.5Kg Rammer			
Moisture Content:	18	Surcharge Kg:	4.00	Final Moisture Content %		C.B.R. Value %	
Bulk Density Mg/m3:	1.99	Soaking Time hrs	0	Sample Top	18	Sample Top	12.0
Dry Density Mg/m3:	1.68	Swelling mm:	0	Sample Bottom	18	Sample Bottom	12.1
Percentage retained on 20mm BS test sieve:	2	Remarks: See Summary of Soil Description.					

Checked by	Date	Approved By	Date
	17/07/15		17/07/15

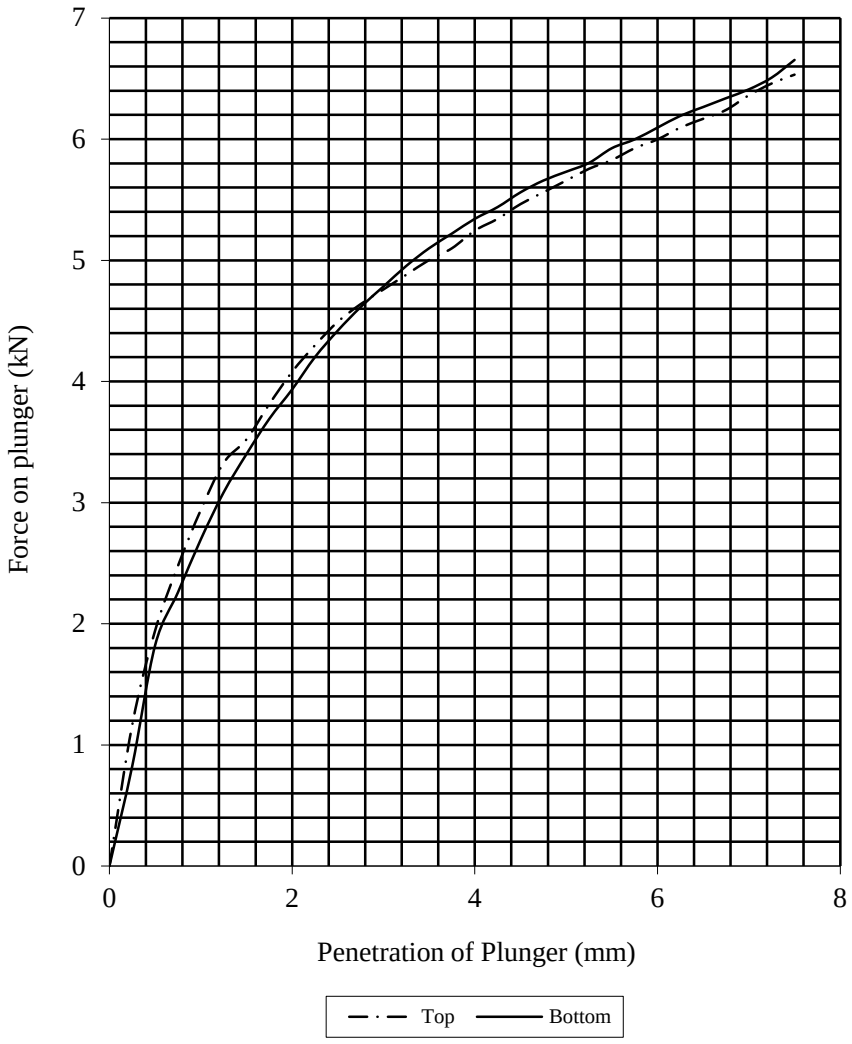
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

California Bearing Ratio Test.

BS 1377 : Part 4 : 1990

Hole Number: **TP101** **Depth (m):** **2.00**

Sample Number: **1** **Sample Type:** **B**



Initial Sample Conditions		Test Conditions		Method of compaction 2.5Kg Rammer			
Moisture Content:	16	Surcharge Kg:	4.00	Final Moisture Content %		C.B.R. Value %	
Bulk Density Mg/m3:	2.09	Soaking Time hrs	0	Sample Top	16	Sample Top	34.0
Dry Density Mg/m3:	1.80	Swelling mm:	0	Sample Bottom	17	Sample Bottom	33.5
Percentage retained on 20mm BS test sieve:	0	Remarks: See Summary of Soil Description.					

Checked by	Date	Approved By	Date
	17/07/15		17/07/15

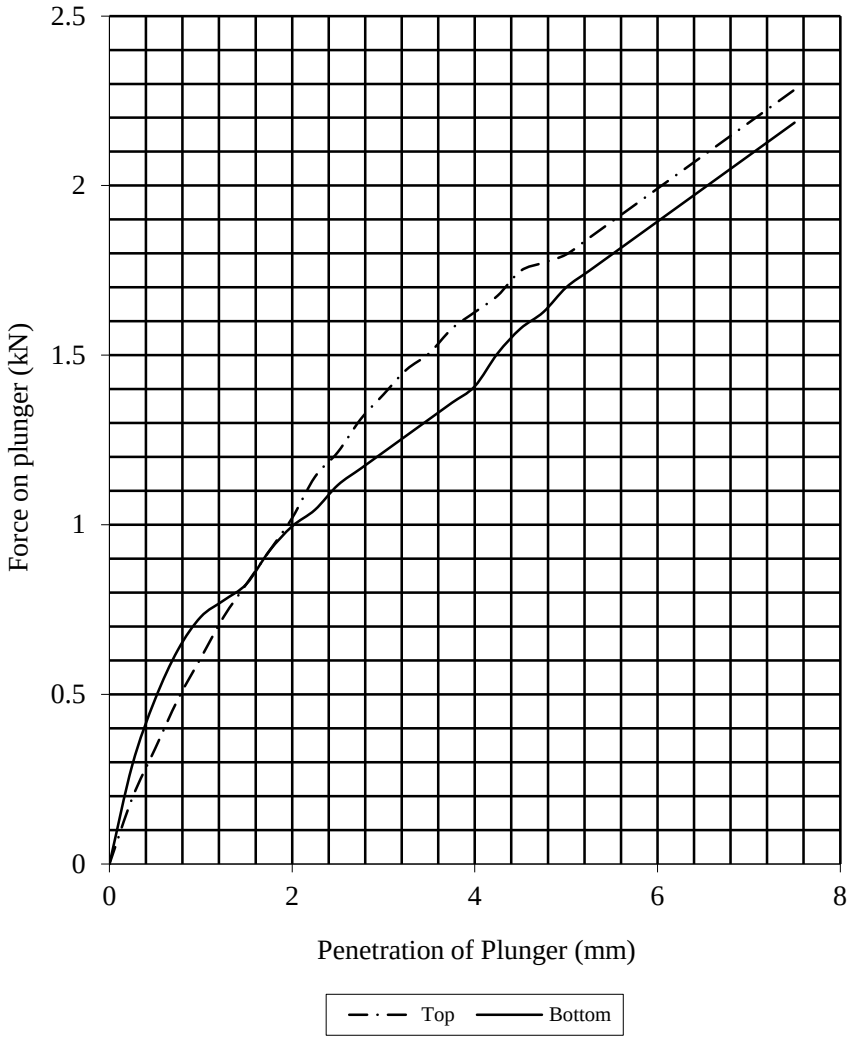
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

California Bearing Ratio Test.

BS 1377 : Part 4 : 1990

Hole Number: **TP107** **Depth (m):** **3.00**

Sample Number: **1** **Sample Type:** **B**



Initial Sample Conditions		Test Conditions		Method of compaction	2.5Kg Rammer		
Moisture Content:	18	Surcharge Kg:	4.00	Final Moisture Content %		C.B.R. Value %	
Bulk Density Mg/m3:	2.03	Soaking Time hrs	0	Sample Top	18	Sample Top	9.2
Dry Density Mg/m3:	1.71	Swelling mm:	0	Sample Bottom	19	Sample Bottom	8.5
Percentage retained on 20mm BS test sieve:	0	Remarks: See Summary of Soil Description.					

Checked by	Date	Approved By	Date
	17/07/15		17/07/15

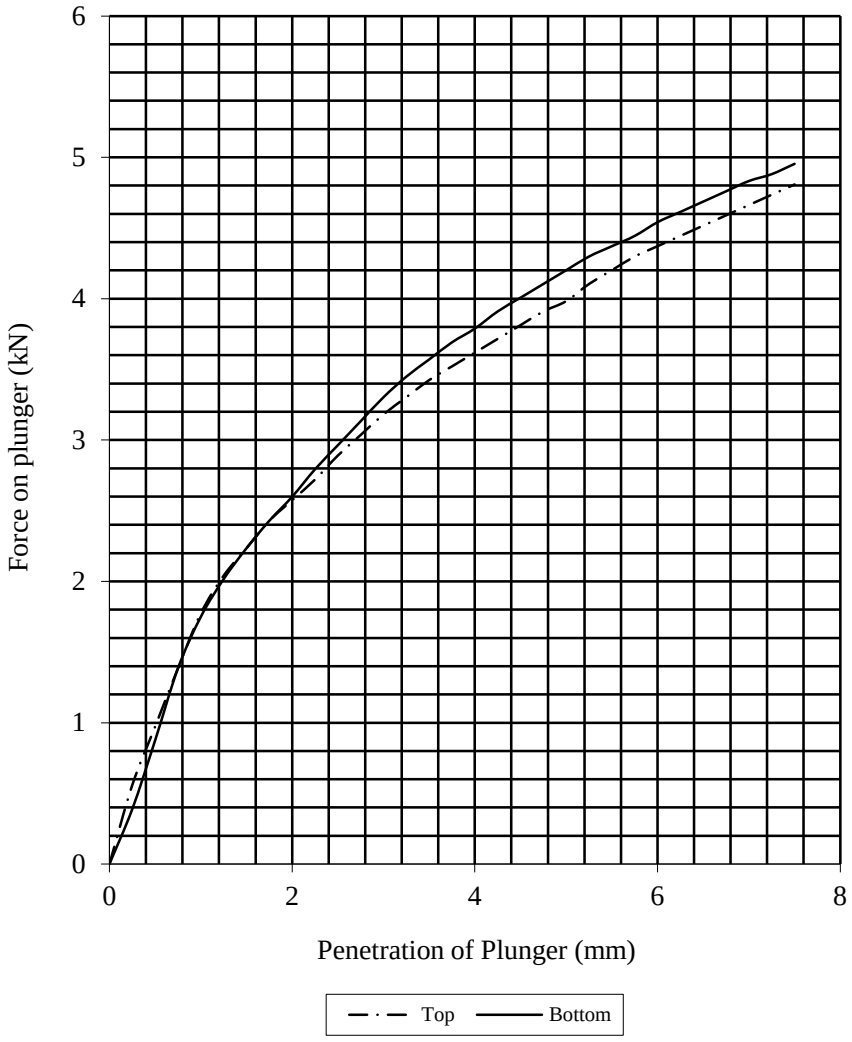
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

California Bearing Ratio Test.

BS 1377 : Part 4 : 1990

Hole Number: **TP110** **Depth (m):** **1.00**

Sample Number: **1** **Sample Type:** **B**



Initial Sample Conditions		Test Conditions		Method of compaction 2.5Kg Rammer			
Moisture Content:	10	Surcharge Kg:	4.20	Final Moisture Content %		C.B.R. Value %	
Bulk Density Mg/m3:	2.06	Soaking Time hrs	0	Sample Top	10	Sample Top	21.9
Dry Density Mg/m3:	1.87	Swelling mm:	0	Sample Bottom	10	Sample Bottom	22.4
Percentage retained on 20mm BS test sieve:	3	Remarks: See Summary of Soil Description.					

Checked by	Date	Approved By	Date
	17/07/15		17/07/15

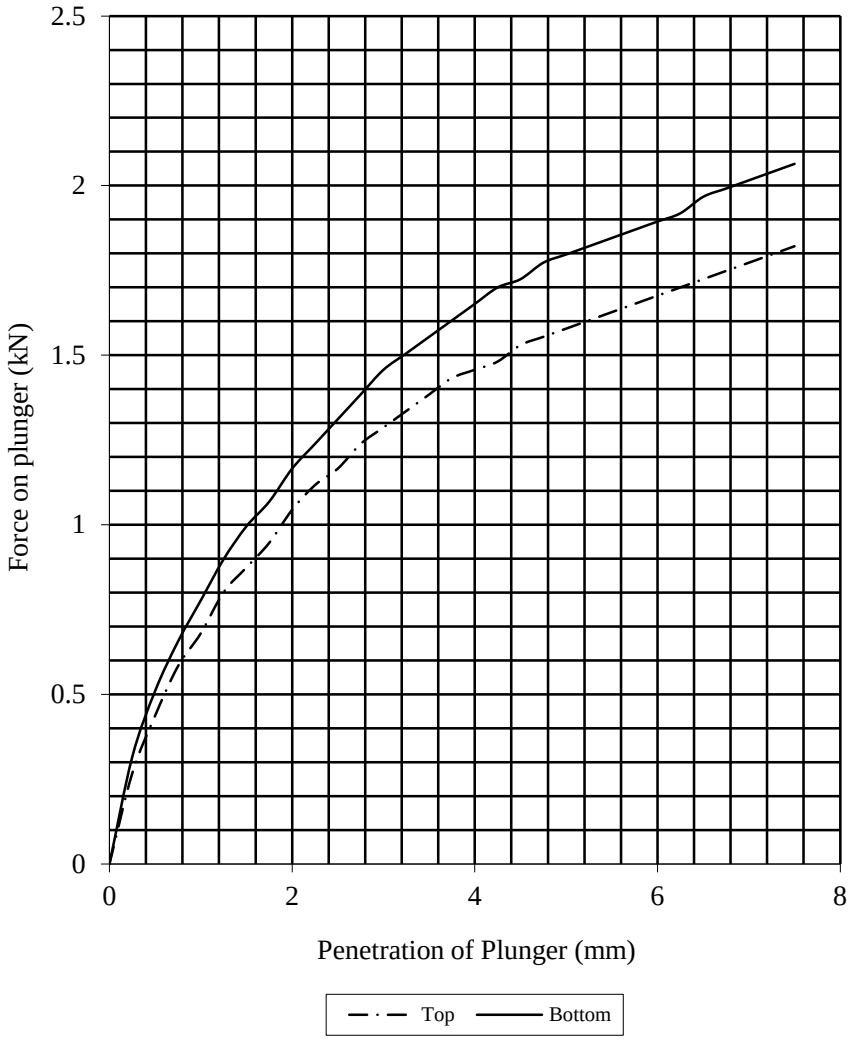
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

California Bearing Ratio Test.

BS 1377 : Part 4 : 1990

Hole Number: **TP117** **Depth (m):** **2.50**

Sample Number: **1** **Sample Type:** **B**



Initial Sample Conditions		Test Conditions		Method of compaction 2.5Kg Rammer			
Moisture Content:	19	Surcharge Kg:	4.20	Final Moisture Content %		C.B.R. Value %	
Bulk Density Mg/m3:	2.03	Soaking Time hrs	0	Sample Top	19	Sample Top	8.8
Dry Density Mg/m3:	1.71	Swelling mm:	0	Sample Bottom	19	Sample Bottom	9.9
Percentage retained on 20mm BS test sieve:	3	Remarks: See Summary of Soil Description.					

Checked by	Date	Approved By	Date
	17/07/15		17/07/15

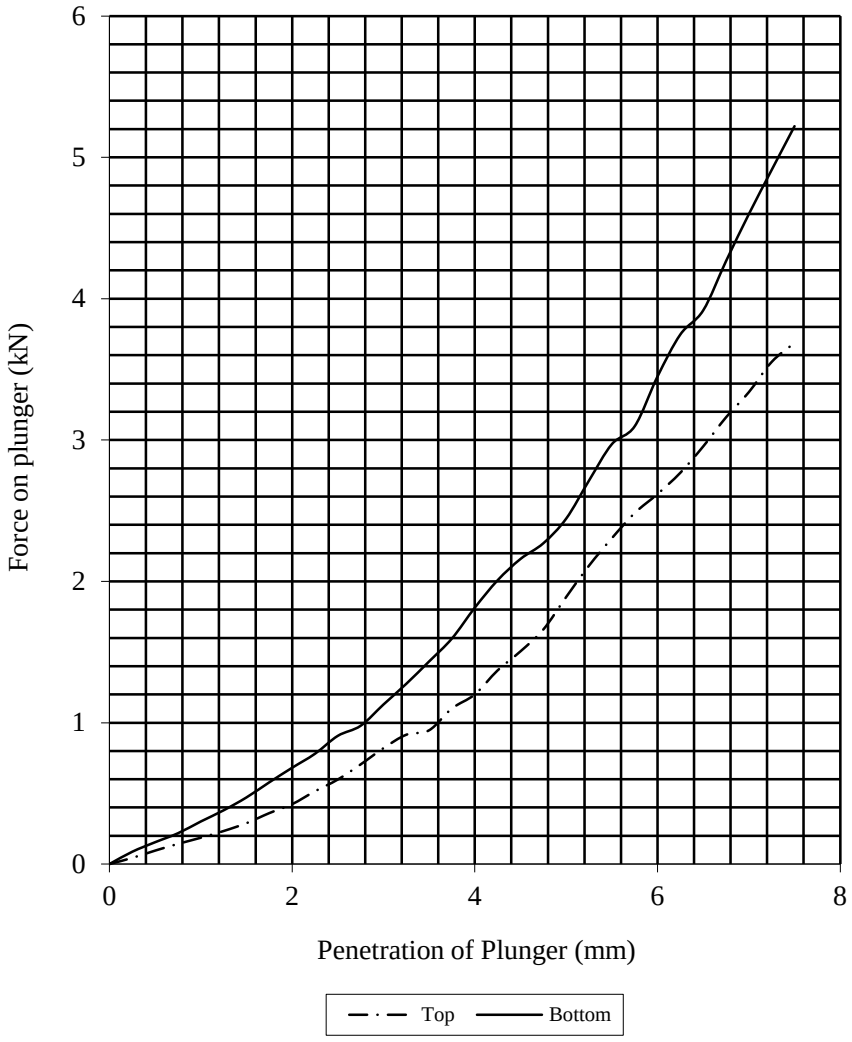
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

California Bearing Ratio Test.

BS 1377 : Part 4 : 1990

Hole Number: **TP120** **Depth (m):** **0.50**

Sample Number: **1** **Sample Type:** **B**



Initial Sample Conditions		Test Conditions		Method of compaction	2.5Kg Rammer		
Moisture Content:	9.2	Surcharge Kg:	4.00	Final Moisture Content %		C.B.R. Value %	
Bulk Density Mg/m3:	2.37	Soaking Time hrs	0	Sample Top	9.0	Sample Top	9.4
Dry Density Mg/m3:	2.17	Swelling mm:	0	Sample Bottom	9.4	Sample Bottom	12.2
Percentage retained on 20mm BS test sieve:	12	Remarks: See Summary of Soil Description.					

Checked by	Date	Approved By	Date
	17/07/15		17/07/15

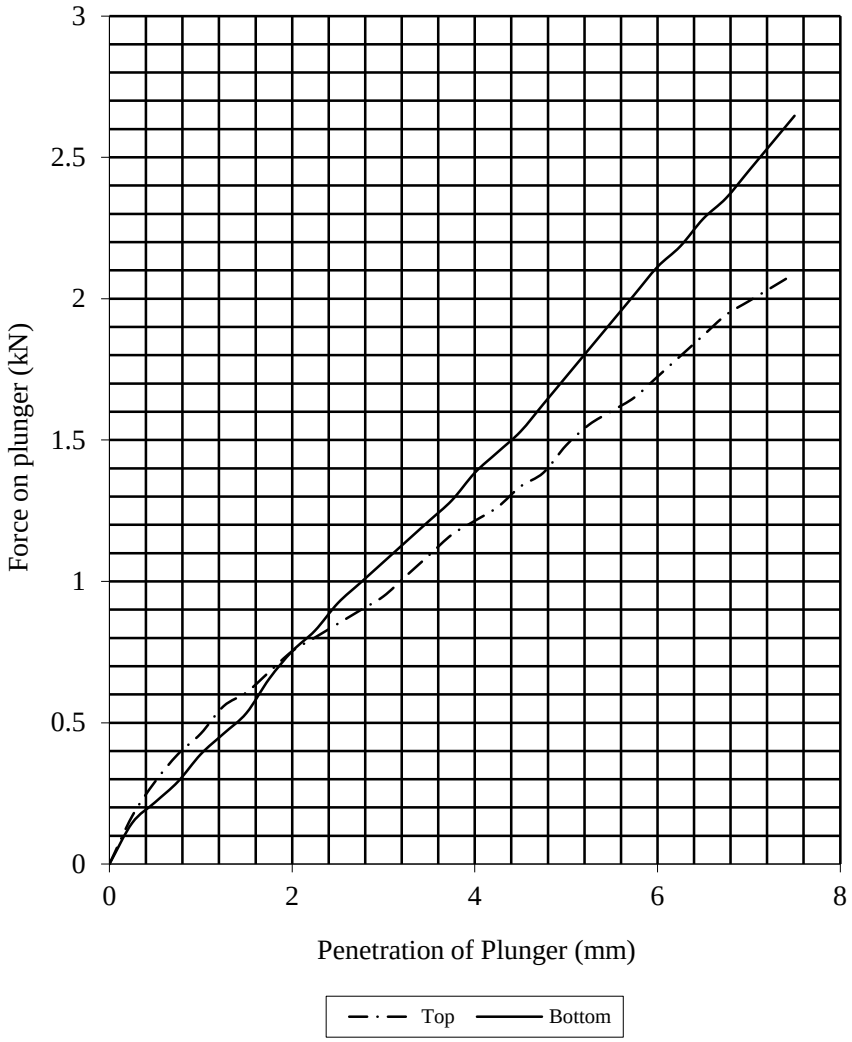
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

California Bearing Ratio Test.

BS 1377 : Part 4 : 1990

Hole Number: **TP124** **Depth (m):** **1.00**

Sample Number: **1** **Sample Type:** **B**



Initial Sample Conditions		Test Conditions		Method of compaction 2.5Kg Rammer			
Moisture Content:	21	Surcharge Kg:	4.00	Final Moisture Content %		C.B.R. Value %	
Bulk Density Mg/m3:	2.01	Soaking Time hrs	0	Sample Top	21	Sample Top	7.4
Dry Density Mg/m3:	1.66	Swelling mm:	0	Sample Bottom	21	Sample Bottom	8.6
Percentage retained on 20mm BS test sieve:	0	Remarks: See Summary of Soil Description.					

Checked by	Date	Approved By	Date
	17/07/15		17/07/15

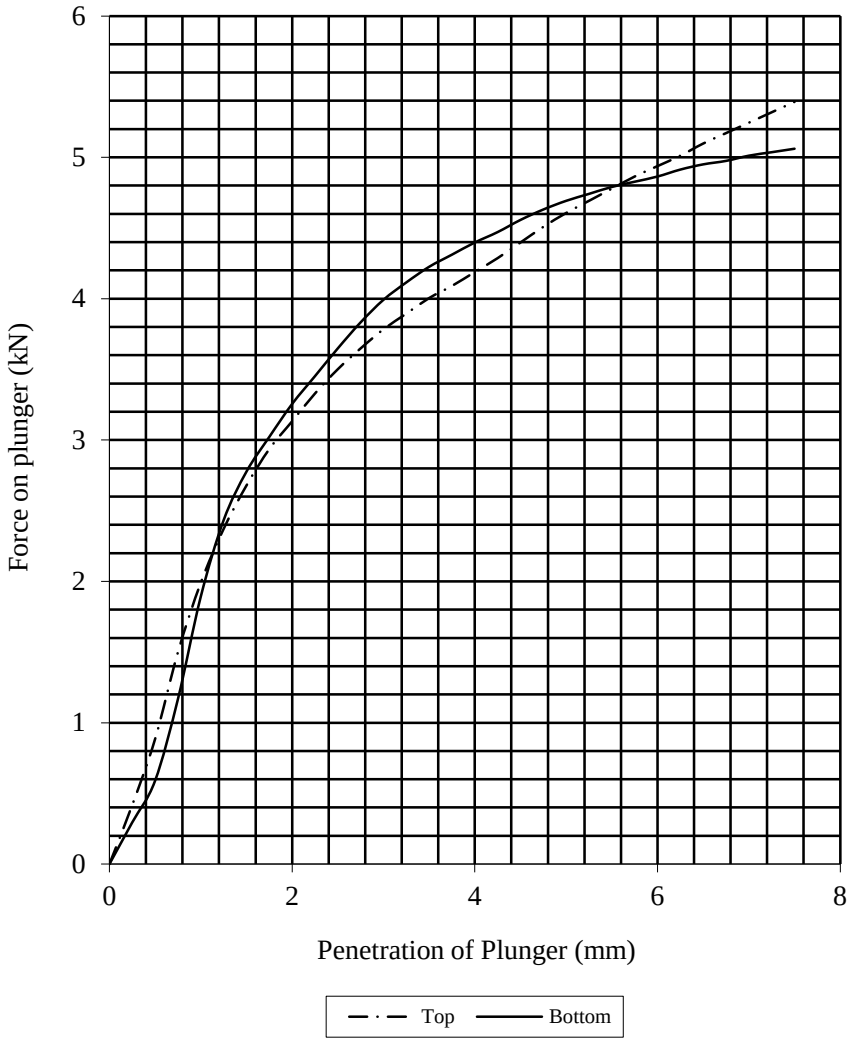
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

California Bearing Ratio Test.

BS 1377 : Part 4 : 1990

Hole Number: **TP127** **Depth (m):** **1.00**

Sample Number: **1** **Sample Type:** **B**



Initial Sample Conditions		Test Conditions		Method of compaction		4.5Kg Rammer	
Moisture Content:	18	Surcharge Kg:	4.00	Final Moisture Content %		C.B.R. Value %	
Bulk Density Mg/m3:	2.09	Soaking Time hrs	0	Sample Top	18	Sample Top	26.5
Dry Density Mg/m3:	1.77	Swelling mm:	0	Sample Bottom	18	Sample Bottom	27.6
Percentage retained on 20mm BS test sieve:	3	Remarks:	See Summary of Soil Description.				

Checked by	Date	Approved By	Date
	17/07/15		17/07/15

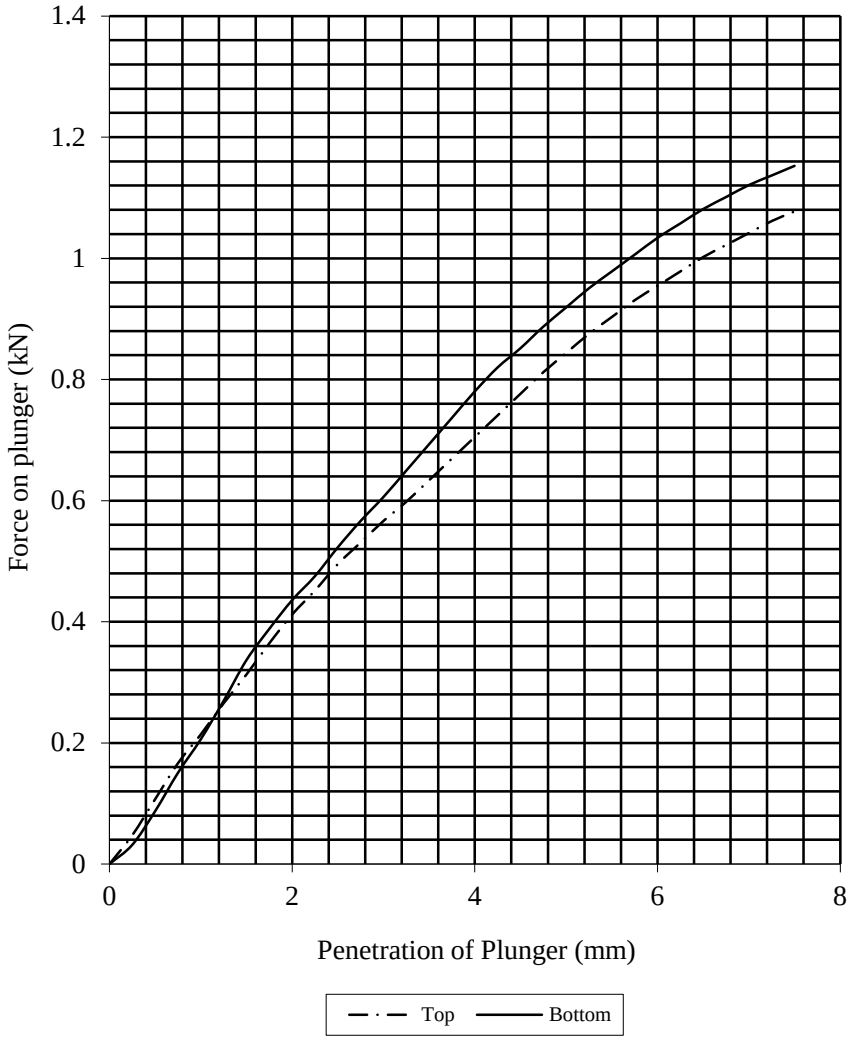
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

California Bearing Ratio Test.

BS 1377 : Part 4 : 1990

Hole Number: **TP131** **Depth (m):** **0.70**

Sample Number: **1** **Sample Type:** **B**



Initial Sample Conditions		Test Conditions		Method of compaction 2.5Kg Rammer			
Moisture Content:	21	Surcharge Kg:	4.20	Final Moisture Content %		C.B.R. Value %	
Bulk Density Mg/m3:	2.06	Soaking Time hrs	0	Sample Top	22	Sample Top	4.2
Dry Density Mg/m3:	1.70	Swelling mm:	0	Sample Bottom	21	Sample Bottom	4.6
Percentage retained on 20mm BS test sieve:	0	Remarks: See Summary of Soil Description.					

Checked by	Date	Approved By	Date
	17/07/15		17/07/15

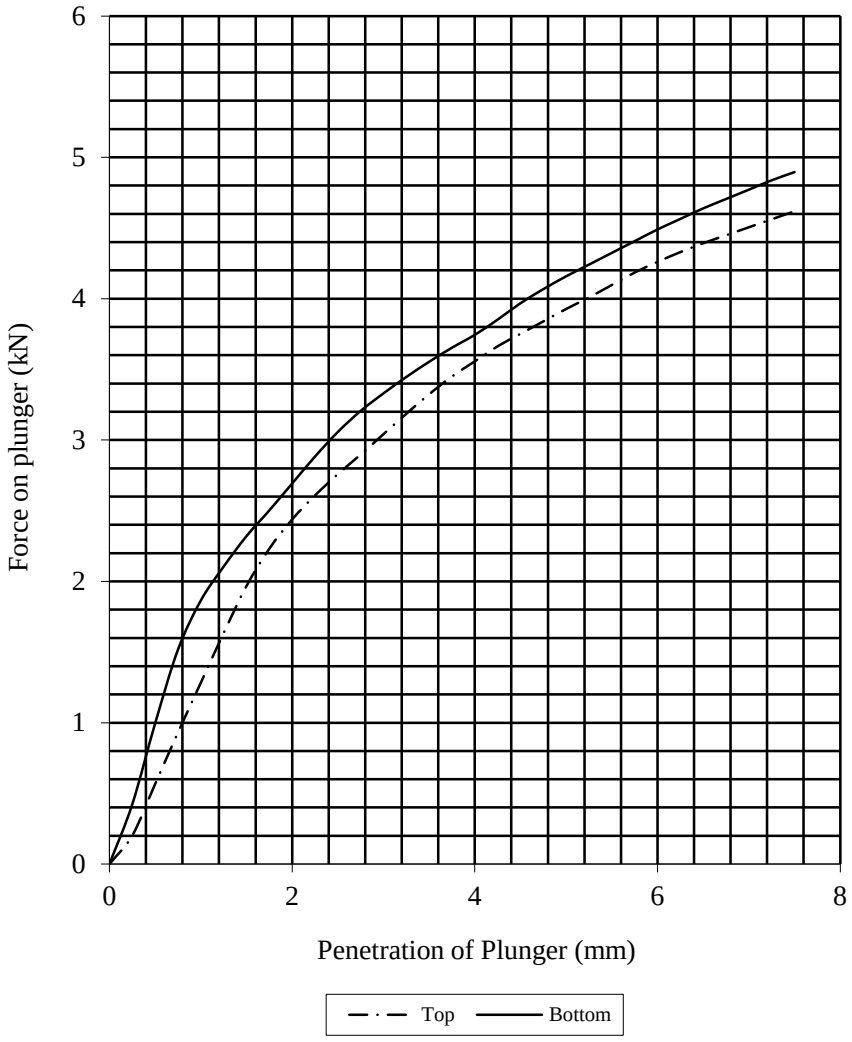
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

California Bearing Ratio Test.

BS 1377 : Part 4 : 1990

Hole Number: **TP134** **Depth (m):** **2.00**

Sample Number: **1** **Sample Type:** **B**



Initial Sample Conditions		Test Conditions		Method of compaction 2.5Kg Rammer			
Moisture Content:	16	Surcharge Kg:	4.20	Final Moisture Content %		C.B.R. Value %	
Bulk Density Mg/m3:	2.11	Soaking Time hrs	0	Sample Top	16	Sample Top	20.9
Dry Density Mg/m3:	1.82	Swelling mm:	0	Sample Bottom	16	Sample Bottom	23.2
Percentage retained on 20mm BS test sieve:	0	Remarks: See Summary of Soil Description.					

Checked by	Date	Approved By	Date
	17/07/15		17/07/15

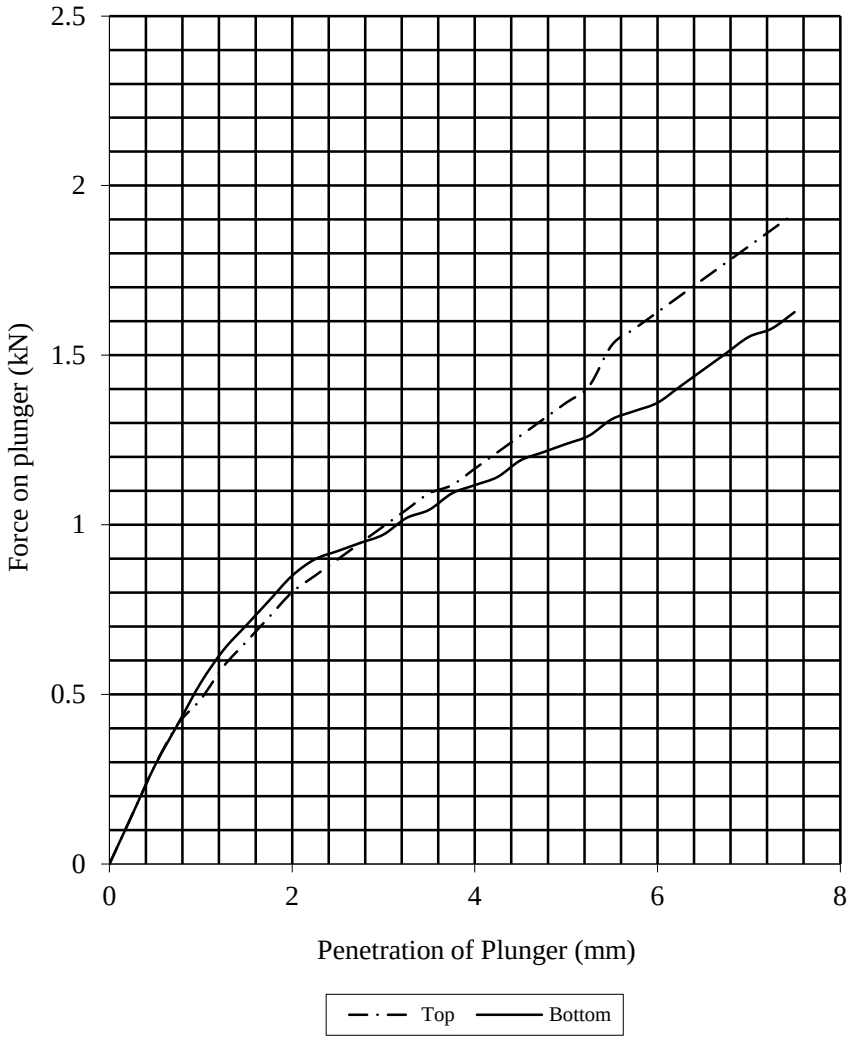
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

California Bearing Ratio Test.

BS 1377 : Part 4 : 1990

Hole Number: **TP138** **Depth (m):** **0.90**

Sample Number: **1** **Sample Type:** **B**



Initial Sample Conditions		Test Conditions		Method of compaction 4.5Kg Rammer			
Moisture Content:	21	Surcharge Kg:	4.20	Final Moisture Content %		C.B.R. Value %	
Bulk Density Mg/m3:	2.00	Soaking Time hrs	0	Sample Top	21	Sample Top	6.8
Dry Density Mg/m3:	1.65	Swelling mm:	0	Sample Bottom	21	Sample Bottom	7.0
Percentage retained on 20mm BS test sieve:	3	Remarks: CBR carried out at OMC.					

Checked by	Date	Approved By	Date
	17/07/15		17/07/15

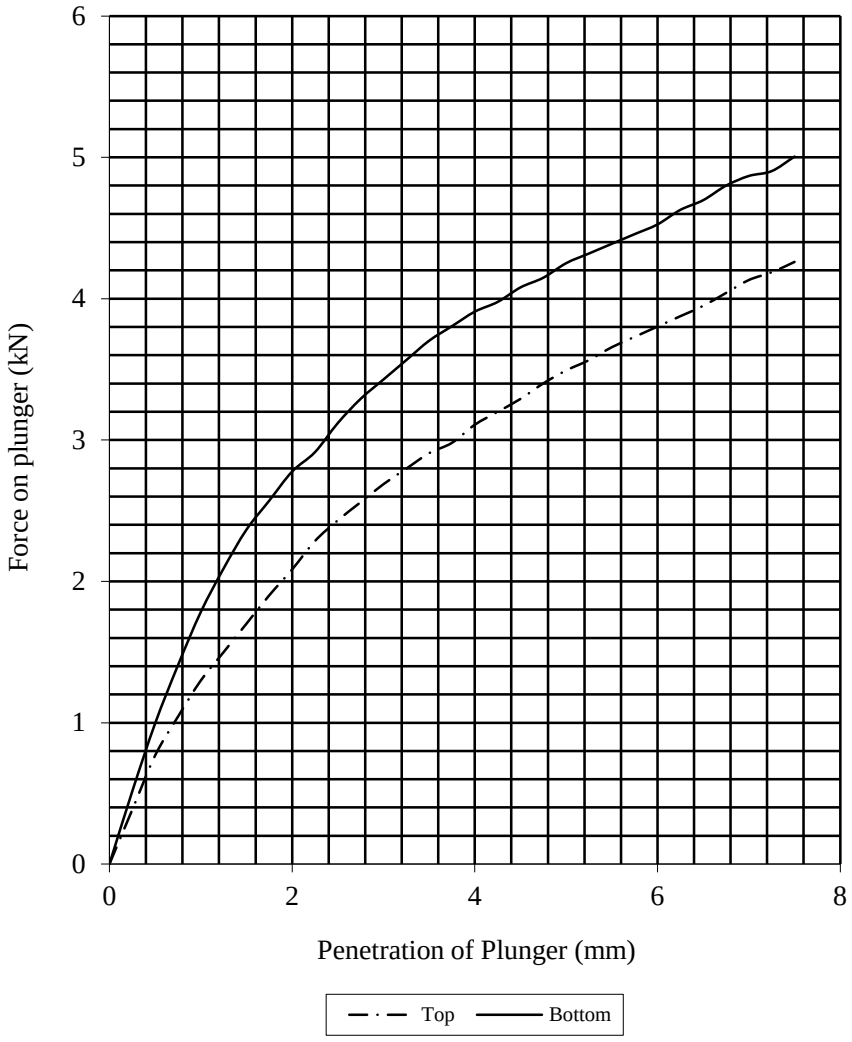
PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

California Bearing Ratio Test.

BS 1377 : Part 4 : 1990

Hole Number: **TP140** **Depth (m):** **3.00**

Sample Number: **1** **Sample Type:** **B**



Initial Sample Conditions		Test Conditions		Method of compaction 2.5Kg Rammer			
Moisture Content:	18	Surcharge Kg:	4.00	Final Moisture Content %		C.B.R. Value %	
Bulk Density Mg/m3:	2.11	Soaking Time hrs	0	Sample Top	18	Sample Top	18.4
Dry Density Mg/m3:	1.78	Swelling mm:	0	Sample Bottom	18	Sample Bottom	23.6
Percentage retained on 20mm BS test sieve:	4	Remarks: See Summary of Soil Description.					

Checked by	Date	Approved By	Date
	17/07/15		17/07/15

PSL Professional Soils Laboratory	**HAVERHILL.**	**Contract No. PSL15/3101**

Appendix VI

Delta-Simons Adopted Human Health Generic Assessment Criteria

For

Commercial End Use

Version 4.0 – January 2015

Guidance Notes – Using Human Health Soil Screening Values

A tiered risk assessment approach is used for the assessment of soil analysis results considering the 'pollutant linkages' on the basis of a 'source-pathway-receptor' relationship.

The following tables present conservative Tier 1 generic screening assessment criteria (GAC) used by Delta-Simons to provide an initial assessment of risk to Human Health in the context of the proposed redevelopment of the Site.

GACs are intended to assess:

- Chronic (long-term) on-site exposure risk to contaminants in the soil to future users and occupiers of the Site.
- Concentrations below the GAC considered tolerable or to pose a minimal risk to human health, or low risk in relation to the Category 4 Screening Levels (C4SLs).

GACs are not relevant for assessing:

- Acute (short-term) exposure risks (e.g. construction workers during development);
- Non-human receptors such as controlled waters, ecosystems, buildings and services, animals, domestic pets or plants;
- Aesthetic issues which may render a soil unsuitable for use such as odour or colour;
- GACs do not take account of other non-soil based sources of contamination such as contamination in groundwater or surface waters; and
- GACs are not suitable for assessing whether a soil provides a suitable growing medium for crops or plants.

Exceedences of Generic Assessment Criteria

An exceedence of a GAC:

- Is not an indicator of a significant risk to human health;
- Is an indication that the contaminant *may* pose a possibility harm to human health and, therefore, further consideration is required.

In assessing the significance of an exceedence consideration should be given to:

- The *nature* of the contaminant (e.g. volatile or non-volatile contaminants)
- Site design and potential exposure *pathways* (e.g. hard cover, buildings, landscaping)
- The *distribution* of exceedences (widespread or localised, numerous or few exceedences – ***NB: Consider data limitations – site coverage and gaps in data.***
- The *margin* of the exceedence(s);
- The *duration* and *frequency* of exposure; and
- Any other *site specific* factors.

Generic Assessment Criteria used by Delta-Simons

In the absence of a complete regulatory set of screening values derived using the CLEA Framework, Delta-Simons screening values are based on the following:

- The current Soil Guidance Values (SGVs) published by the EA;
- Category 4 Screening Levels (C4SLs) published by DEFRA;
- The 2014 Land Quality Management (LQM) / Chartered Institute of Environmental Health (CIEH) Suitable for Use Levels for Human Health Risk Assessment (S4ULs);
- The guidance values produced by the Environmental Industries Commission (EIC), the Association of Geotechnical and Geoenvironmental Specialists (AGS) and Contaminated Land: Application in Real Environments (CL:AIRE) in December 2009; and
- In house Generic Screening Values (DS-GACs) derived by Delta-Simons.

Contaminants for which Generic Assessment Criteria are Unavailable

Insufficient toxicological data is available to derive GAC for a number of potential contaminants of concern and GAC cannot be derived for derived for mixtures of compounds (e.g. total petroleum hydrocarbons). In such cases Delta-Simons will endeavour to use conservative surrogate GAC values to provide an initial screening assessment based on the known chemical and physical properties of the contaminant.

Notes and References used in the Tables

Generic Assessment Criteria Source	
SGV	Soil Guidance Values published by the EA
DS-GAC	Delta-Simons Generic Assessment Criteria derived using CLEA V.1.06.
C4SL	Category 4 Screening Levels, DEFRA December 2014
SGV v.1.05	Environment Agency Soil Guideline Values for dioxins, furans and dioxin-like PCBs calculated within CLEA V.1.05.
LQM	LQM/CIEH Suitable for Use Levels for Human Health Risk Assessment (S4UL), November 2014. (*Copyright Land Quality Management Limited, reduced with permission; Publication Number S4UL3087. All rights reserved*).
EIC	EIC/AGS/CL:AIRE Soil Generic Assessment Criteria for Human Health Risk Assessment derived using CLEA V.1.06.
Abbreviations	
Units	All values mg/kg unless otherwise stated.
SOM	Soil Organic Matter – GAC have been derived for a range of soil organic matter content – 1%, 2.5 or 3% and 6%. In the absence of site specific data or robust soil characterisation the most conservative value of 1% soil organic matter should be used as the initial screening value.
(##)	GAC exceed saturation/vapour concentration (given in brackets). Soil concentrations above the soil saturation may indicate that non-aqueous phase liquid (NAPL) is present. Risks from NAPL may need to be considered separately. Reference should always be made to the site investigation observations and soil logs were available.

Use of C4SLs as Screening Criteria

Only the lead C4SL should be used as an initial screening level, as there is no 'minimal risk' screening value available. Though primarily designed for assessing the risk of land being determined as 'contaminated' under Part 2A, Defra have confirmed[1] that the C4SL could be used under the planning regime. Where applicable, the 'minimal risk' level should be used as the initial screening level and where exceedances are identified reference to, and consideration of the C4SL levels may be made in the risk assessment process.

[1] Defra/Lord de Mauley letter to all Local Authorities dated 3rd September 2014.

Metals

Compound	1% SOM	Source	2.5 - 3% SOM	Source	6% SOM	Source
Antimony	*7500*	*EIC*	*7500*	*EIC*	7500	EIC
Arsenic	*640*	*SGV*	*640*	*SGV*	640	SGV
Arsenic	*640*	*LQM*	*640*	*LQM*	640	LQM
Arsenic	*640*	*C4SL*	*640*	*C4SL*	640	C4SL
Barium	*22000*	*EIC*	*22000*	*EIC*	22000	EIC
Beryllium	*12*	*LQM*	*12*	*LQM*	12	LQM
Boron	*240000*	*LQM*	*240000*	*LQM*	240000	LQM
Cadmium	*230*	*SGV*	*230*	*SGV*	230	SGV
Cadmium	*190*	*LQM*	*190*	*LQM*	190	LQM
Cadmium	*410*	*C4SL*	*410*	*C4SL*	410	C4SL
Chromium III	*8600*	*LQM*	*8600*	*LQM*	8600	LQM
Chromium VI	*33*	*LQM*	*33*	*LQM*	33	LQM
Chromium (VI)	*49*	*C4SL*	*49*	*C4SL*	49	C4SL
Copper	*68000*	*LQM*	*68000*	*LQM*	68000	LQM
Lead	*2300*	*C4SL*	*2300*	*C4SL*	2300	C4SL
Mercury (elemental)	(4.3)	DS-GAC	(13)	DS-GAC	(26)	SGV
Mercury (elemental)	-	-	-	-	58 (25.8)	LQM
Mercury (inorganic)	3600	DS-GAC	3600	DS-GAC	3600	SGV
Mercury (inorganic)	*1100*	*LQM*	*1100*	*LQM*	1100	LQM
Mercury (methyl)	(73)	DS-GAC	400	DS-GAC	410	SGV
Mercury (methyl)	-	-	-	-	320	LQM
Molybdenum	17000	EIC	17000	EIC	17000	EIC
Nickel	*1800*	*SGV*	*1800*	*SGV*	1800	SGV
Nickel	*980*	*LQM*	*980*	*LQM*	980	LQM
Selenium	*13000*	*SGV*	*13,000*	*SGV*	13000	SGV
Selenium	*12000*	*LQM*	*12000*	*LQM*	12000	LQM
Vanadium	*9000*	*LQM*	*9000*	*LQM*	9000	LQM
Zinc	*730000*	*LQM*	*730000*	*LQM*	730000	LQM

Italics– These values were derived based on a 6% SOM, however, the supporting documentation indicates that SOM has a negligible influence for these metals.

Petroleum Hydrocarbons

Compound	1% SOM	Source	2.5 - 3% SOM	Source	6% SOM	Source
Aliphatic EC5-EC6	3200 (304)	LQM	5900 (558)	LQM	12000 (1150)	LQM
Aliphatic >EC6-EC8	7800 (144)	LQM	17000 (322)	LQM	40000 (736)	LQM
Aliphatic >EC8-EC10	2000 (78)	LQM	4800 (190)	LQM	11000 (451)	LQM
Aliphatic >EC10-EC12	9700 (48)	LQM	23000 (118)	LQM	47000 (283)	LQM
Aliphatic >EC12-EC16	59000 (24)	LQM	82000 (59)	LQM	90000 (142)	LQM
Aliphatic >EC16-EC35	1600000	LQM	1700000	LQM	1800000	LQM
Aliphatic >EC35-EC44	1600000	LQM	1700000	LQM	1800000	LQM
Aromatic >EC5-EC7	26000 (1220)	LQM	46000 (2260)	LQM	86000 (4710)	LQM
Aromatic >EC7-EC8	56000 (869)	LQM	110000 (1920)	LQM	180000 (4360)	LQM
Aromatic >EC8-EC10	3500 (613)	LQM	8100 (1500)	LQM	17000 (3580)	LQM
Aromatic >EC10-EC12	16000 (364)	LQM	28000 ^{S}(899)	LQM	34000 (2150)	LQM
Aromatic >EC12-EC16	36000 (169)	LQM	37000	LQM	38000	LQM
Aromatic >EC16-EC21	28000	LQM	28000	LQM	28000	LQM
Aromatic >EC21-EC35	28000	LQM	28000	LQM	28000	LQM
Aromatic >EC35-EC44	28000	LQM	28000	LQM	28000	LQM
Aromatic and Aliphatic >EC44-EC70	28000	LQM	28000	LQM	28000	LQM

Polycyclic Aromatic Hydrocarbons (PAH)

Compound	1% SOM	Source	2.5 - 3% SOM	Source	6% SOM	Source
Naphthalene	190 (76.4)	LQM	460 (183)	LQM	1100 (432)	LQM
Acenaphthylene	83000 (86.1)	LQM	97000 (212)	LQM	100000	LQM
Acenaphthene	84000 (57)	LQM	97000 (141)	LQM	100000	LQM
Fluorene	63000 (30.9)	LQM	68000	LQM	71000	LQM
Phenanthrene	22000	LQM	22000	LQM	23000	LQM
Anthracene	520000	LQM	540000	LQM	540000	LQM
Fluoranthene	23000	LQM	23000	LQM	23000	LQM
Pyrene	54000	LQM	54000	LQM	54000	LQM
Benzo[a]anthracene	170	LQM	170	LQM	180	LQM
Chrysene	350	LQM	350	LQM	350	LQM
Benzo[b]fluoranthene	44	LQM	44	LQM	45	LQM
Benzo[k]fluoranthene	1200	LQM	1200	LQM	1200	LQM
Benzo[a]pyrene	35	LQM	35	LQM	36	LQM
Benzo[a]pyrene	*77*	*C4SL*	*77*	*C4SL*	77	C4SL
Indeno[123-cd]pyrene	500	LQM	510	LQM	510	LQM
Dibenz[ah]anthracene	3.5	LQM	3.6	LQM	3.6	LQM
Benzo[ghi]perylene	3900	LQM	4000	LQM	4000	LQM

C4SL for benzo(a)pyrene is based on 6% SOM only, however, the published C4SL Final Project Report indicates that SOM has a negligible influence for this compound.

Volatile Organic Compounds (VOC)

Compound	1% SOM	Source	2.5 - 3% SOM	Source	6% SOM	Source
BTEX/MTBE						
Benzene					95	SGV
Benzene	27	LQM	47	LQM	90	LQM
Benzene	27	C4SL	-	-	98	C4SL
Toluene					(4400)	SGV
Toluene	56000 (869)	LQM	110000 (1920)	LQM	180000 (4360)	LQM
Ethylbenzene					(2,800)	SGV
Ethylbenzene	5700 (518)	LQM	13000 (1220)	LQM	27000 (2840)	LQM
Xylene – m					(3500)	SGV
Xylene – m	6200 (625)	LQM	14000 (1470)	LQM	31000 (3460)	LQM
Xylene – o					(2,600)	SGV
Xylene – o	6600 (478)	LQM	15000 (1120)	LQM	33000 (2620)	6600 (478)
Xylene – p					(3,200)	SGV
Xylene – p	5900 (576)	LQM	14000 (1350)	LQM	30000 (3170)	LQM
Methyl *tert*-butyl ether	7900	EIC	13000	EIC	24000	EIC
Chlorinated Solvents						
Vinyl Chloride (Chloroethene)	0.059	LQM	0.077	LQM	0.12	LQM
Trichloromethane (Chloroform)	99	LQM	170	LQM	350	LQM
1,2-Dichloroethane (1,2-DCA)	0.67	LQM	0.97	LQM	1.7	LQM
Trichloroethene (TCE)	1.2	LQM	2.6	LQM	5.7	LQM
1,1,1-Trichloroethane	660	LQM	1300	LQM	3000	LQM
Tetrachloroethene (PCE)	19	LQM	42	LQM	95	LQM
1,1,1,2-Tetrachlroroethanes	110	LQM	250	LQM	560	LQM
1,1,2,2-Tetrachlroroethane	270	LQM	550	LQM	1100	LQM
Tetrachloromethane	2.9	LQM	6.3	LQM	14	LQM
1,1,2 Trichloroethane	94	EIC	190	EIC	400	EIC
1,1-Dichloroethane	280	EIC	450	EIC	850	EIC
1,1-Dichloroethene	26	EIC	46	EIC	92	EIC
Cis 1,2-Dichloroethene	14	EIC	24	EIC	47	EIC
Trans 1,2-dichloroethene	22	EIC	40	EIC	81	EIC
Benzenes						
Chlorobenzene	56	LQM	130	LQM	290	LQM
1,2,4-Trimethylbenzene	42	EIC	99	EIC	220	EIC
Iso-propylbenzene	1400 (390)	EIC	3300 (950)	EIC	7700 (2250)	EIC
Propylbenzene	4100 (402)	EIC	9700 (981)	EIC	21000 (2330)	EIC
Other						
Bromobenzene	97	EIC	220	EIC	520	EIC
Bromodichloromethane	2.1	EIC	3.7	EIC	7.6	EIC

Compound	1% SOM	Source	2.5 - 3% SOM	Source	6% SOM	Source
Carbon Disulphide	11	LQM	22	LQM	47	LQM
Chloroethane	960	EIC	1300	EIC	2100	EIC
Chloromethane	1	EIC	1.2	EIC	1.6	EIC
Dichloromethane	270	EIC	360	EIC	560	EIC
1,2-Dichloropropane	3.3	EIC	5.9	EIC	12	EIC
Hexachlorobutadiene	31	LQM	66	LQM	120	LQM
Styrene	3300 (626)	EIC	6500 (1440)	EIC	11000 (3350)	EIC

Semi-Volatile Organic Compounds (SVOC) and Other Organic Compounds

Compound	1% SOM	Source	2.5 - 3% SOM	Source	6% SOM	Source
Chlorobenzenes						
1,2-Dichlorobenzene	2000 (571)	LQM	4800 (1370)	LQM	11000 (3240)	LQM
1,3-Dichlorobenzene	30	LQM	73	LQM	170	LQM
1,4-Dichlorobenzene	4400 (224)	LQM	10000 (540)	LQM	25000 (1280)	LQM
1,2,3-Trichlorobenzene	102	LQM	250	LQM	590	LQM
1,2,4-Trichlorobenzene	220	LQM	530	LQM	1300	LQM
1,3,5-Trichlorobenzene	23	LQM	55	LQM	130	LQM
1,2,3,4-Tetrachlorobenzene	1700 (122)	LQM	3080 (304)	LQM	4400 (728)	LQM
1,2,3,5-Tetrachlorobenzene	49 (39.4)	LQM	120 (98.1)	LQM	240 (235)	LQM
1,2,4,5-Tetrachlorobenzene	42 (19.7)	LQM	72 (49.1)	LQM	96	LQM
Pentachlorobenzene	640 (43)	LQM	770 (107)	LQM	830	LQM
Hexachlorobenzene	110 (0.2)	LQM	120	LQM	120	LQM
Pthtalates						
Bis (2-ethylhexyl)phthalate	85,000 (8.68)	EIC	86,000 (21.6)	EIC	86,000 (51.7)	EIC
Diethyl phthalate	150,000 (13.7)	EIC	220,000 (29.1)	EIC	290,000 (65)	EIC
Di-*n*-butyl phthalate	15,000 (4.65)	EIC	15,000 (11.4)	EIC	15,000 (27.3)	EIC
Di-*n*-octyl phthalate	89,000 (32.6)	EIC	89,000 (81.5)	EIC	89,000 (196)	EIC
Butyl benzyl phthalate	940,000 (26.3)	EIC	940,000 (64.7)	EIC	950,000 (154)	EIC
Phenols						
Phenol	760	LQM	1500	LQM	3200	LQM
2,4-Dimethylphenol	16000 (1380)	EIC	24000 (3140)	EIC	30000 (7240)	EIC
Total Cresols (2-, 3- and 4-methylphenol)	160000 (15000)	EIC	180000 (32500)	EIC	180000 (73300)	EIC
Chlorophenols						
Chlorophenols (except Pentachlorophenol)	3500	LQM	4000	LQM	4300	LQM
Pentachlorophenol	400	LQM	400	LQM	400	LQM
Other						
Biphenyl	18000 (34.4)	EIC	33000 (84.3)	EIC	48000 (201)	EIC
Bromoform	760	EIC	1500	EIC	3100	EIC
2-Chloronaphthalene	390 (114)	EIC	960 (280)	EIC	2,200 (669)	EIC
2,4-Dinitrotoluene	3,700 (141)	EIC	3,700 (299)	EIC	3,800 (669)	EIC
2,6-Dinitrotoluene	1,900 (287)	EIC	1,900 (622)	EIC	1,900 (1400)	EIC
Hexachloroethane	22 (8.17)	EIC	53 (20.1)	EIC	120 (48.1)	EIC
Tributyl tin oxide	130 (41.3)	EIC	180 (101)	EIC	200 (241)	EIC

PCBs, Furans and Dioxins

Compound	1% SOM	Source	2.5 - 3% SOM	Source	6% SOM	Source
Sum of PCDDs, PCDFs and dioxin-like PCBs	-	-	-	-	0.24	SGV v.1.05

Pesticides and Herbicides

Compound	1% SOM	Source	2.5 - 3% SOM	Source	6% SOM	Source
Aldrin	170	LQM	170	LQM	170	LQM
Dieldrin	170	LQM	170	LQM	170	LQM
Atrazine	9300	LQM	9400	LQM	9400	LQM
Dichlorvos	140	LQM	140	LQM	140	LQM
Endosulfan (alpha)	5600 (0.003)	LQM	7400 (0.007)	LQM	8400 (0.016)	LQM
Endosulfan (beta)	6300 (0.00007)	LQM	7800 (0.0002)	LQM	8700	LQM
alpha-Hexachlorocyclohexanes	170	LQM	180	LQM	180	LQM
beta-Hexachlorocyclohexanes	65	LQM	65	LQM	65	LQM
gamma-Hexachlorocyclohexanes (inc. Lindane)	67	LQM	69	LQM	70	LQM

Explosives

Compound	1% SOM	Source	2.5 - 3% SOM	Source	6% SOM	Source
2,4,6 Trinitrotoluene (TNT)	1000	LQM	1000	LQM	1000	LQM
RDX	210000	LQM	210000	LQM	210000	LQM
HMX	110000	LQM	110000	LQM	110000	LQM

Appendix VII

Waste Classification Report

GNAVE-XELS8-FJ49Q

Job name

Haverhill Business Park - Natural

Waste Stream

Updated Waste Stream September 2013

Comments

Natural Soils

Project

15-0210.02

Site

Classified by

Name:
Huteson, Paul
Date:
23/07/2015 12:23 UTC
Telephone:
01522 823335

Company:
Delta-Simons
3 Chalkhill House
19 Rosary Road
Norwich
NR1 1SZ

Report

Created by: Huteson, Paul
Created date: 23/07/2015 12:23 UTC

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazardous properties	Page
1	RA104	6.5	Non Hazardous		2
2	TP112	3	Non Hazardous		3
3	TP118	2.5	Non Hazardous		4
4	TP123	1	Non Hazardous		5
5	TP132	0.5	Non Hazardous		7
6	TP135	1	Non Hazardous		9

Classification of sample: RA104

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
RA104
Sample Depth:
6.5 m
Moisture content: **15%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 15%, dry weight correction)

pH: (Whole conc. entered as: 8.4 pH, converted to conc.:8.4 pH or 8.4 pH)

Notes utilised in assessment

None

Classification of sample: TP112

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP112
Sample Depth:
3 m
Moisture content: **12%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 12%, dry weight correction)

pH: (Whole conc. entered as: 8.3 pH, converted to conc.:8.3 pH or 8.3 pH)

Notes utilised in assessment

None

Classification of sample: TP118

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP118
Sample Depth:
2.5 m
Moisture content: **15%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 15%, dry weight correction)

pH: (Whole conc. entered as: 8.2 pH, converted to conc.:8.2 pH or 8.2 pH)

Notes utilised in assessment

None

Classification of sample: TP123

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP123
Sample Depth:
1 m
Moisture content: **15%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 15%, dry weight correction)

acenaphthene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
acenaphthylene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
arsenic trioxide: (Cation conc. entered: 25 mg/kg, converted to compound conc.:28.703 mg/kg or 0.00287%)
benzo[a]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
benzo[b]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
benzo[ghi]perylene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
benzo[k]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
cadmium sulfide: (Cation conc. entered: 0.21 mg/kg, converted to compound conc.:0.235 mg/kg or 0.0000235%, Note 1 conc.: 0.0000183%)
chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
copper (I) oxide: (Cation conc. entered: 13 mg/kg, converted to compound conc.:12.727 mg/kg or 0.00127%)
dibenz[a,h]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
fluorene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
indeno[123-cd]pyrene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
lead chromate: (Cation conc. entered: 14 mg/kg, converted to compound conc.:18.989 mg/kg or 0.0019%, Note 1 conc.: 0.00122%)
mercury dichloride: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.118 mg/kg or <0.0000118%) IGNORED Because: "<LOD"
molybdenum(VI) oxide: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.13 mg/kg or <0.000013%) IGNORED Because: "<LOD"
naphthalene: (Whole conc. entered as: 31 mg/kg or 0.0027%)
pH: (Whole conc. entered as: 8.2 pH, converted to conc.:8.2 pH or 8.2 pH)
phenanthrene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
phenol: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
pyrene: (Whole conc. entered as: <0.2 mg/kg or <0.0000174%) IGNORED Because: "<LOD"
zinc chromate: (Cation conc. entered: 40 mg/kg, converted to compound conc.:96.492 mg/kg or 0.00965%)

Notes utilised in assessment

C14: Step 5
"identify whether any individual ecotoxic substance is present at or above a cut-off value ..." , used on:

Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "arsenic trioxide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "copper (I) oxide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "lead chromate"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "naphthalene"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "zinc chromate"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "cadmium sulfide"

Note 1 , used on:

Test: "HP 5 on STOT SE 1; H370, STOT RE 1; H372" for determinand: "cadmium sulfide"
Test: "HP 5 on STOT SE 2; H371, STOT RE 2; H373" for determinand: "cadmium sulfide"
Test: "HP 6 on Acute Tox. 4; H302" for determinand: "cadmium sulfide"
Test: "HP 7 on Carc. 1B; H350, Carc. 1A; H350, Carc. 1B; H350i, Carc. 1A; H350i" for determinand: "cadmium sulfide"
Test: "HP 10 on Repr. 1A; H360, Repr. 1B; H360, Repr. 1B; H360F, Repr. 1A; H360F, Repr. 1A; H360D, Repr. 1B; H360D, Repr. 1B; H360FD, Repr. 1A; H360FD, Repr. 1A; H360Fd, Repr. 1B; H360Fd, Repr. 1B; H360Df, Repr. 1A; H360Df" for determinand: "lead chromate"
Test: "HP 10 on Repr. 2; H361, Repr. 2; H361f, Repr. 2; H361d, Repr. 2; H361fd" for determinand: "cadmium sulfide"
Test: "HP 11 on Muta. 2; H341" for determinand: "cadmium sulfide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "lead chromate"

Determinand notes

Note 1 , used on:

determinand: "cadmium sulfide"
determinand: "lead chromate"

Note A , used on:

determinand: "zinc chromate"

Classification of sample: TP132

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP132
Sample Depth:
0.5 m
Moisture content: **17%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 17%, dry weight correction)

acenaphthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
acenaphthylene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
arsenic trioxide: (Cation conc. entered: 23 mg/kg, converted to compound conc.:25.955 mg/kg or 0.0026%)
benzo[a]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
benzo[b]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
benzo[ghi]perylene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
benzo[k]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
cadmium sulfide: (Cation conc. entered: 0.17 mg/kg, converted to compound conc.:0.187 mg/kg or 0.0000187%, Note 1 conc.: 0.0000145%)
chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
copper (I) oxide: (Cation conc. entered: 13 mg/kg, converted to compound conc.:12.51 mg/kg or 0.00125%)
dibenz[a,h]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
fluorene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
indeno[123-cd]pyrene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
lead chromate: (Cation conc. entered: 14 mg/kg, converted to compound conc.:18.664 mg/kg or 0.00187%, Note 1 conc.: 0.0012%)
mercury dichloride: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.116 mg/kg or <0.0000116%) IGNORED Because: "<LOD"
molybdenum(VI) oxide: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.128 mg/kg or <0.0000128%) IGNORED Because: "<LOD"
naphthalene: (Whole conc. entered as: 29 mg/kg or 0.00248%)
phenanthrene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
phenol: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
pyrene: (Whole conc. entered as: <0.2 mg/kg or <0.0000171%) IGNORED Because: "<LOD"
TPH (C6 to C40) petroleum group: (Whole conc. entered as: <10 mg/kg or <0.000855%) IGNORED Because: "<LOD"
zinc chromate: (Cation conc. entered: 46 mg/kg, converted to compound conc.:109.069 mg/kg or 0.0109%)

Notes utilised in assessment

C14: Step 5
"identify whether any individual ecotoxic substance is present at or above a cut-off value ..." , used on:

Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "arsenic trioxide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "copper (I) oxide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "lead chromate"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "naphthalene"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "zinc chromate"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "cadmium sulfide"

Note 1 , used on:

Test: "HP 5 on STOT SE 1; H370, STOT RE 1; H372" for determinand: "cadmium sulfide"
Test: "HP 5 on STOT SE 2; H371, STOT RE 2; H373" for determinand: "cadmium sulfide"
Test: "HP 6 on Acute Tox. 4; H302" for determinand: "cadmium sulfide"
Test: "HP 7 on Carc. 1B; H350, Carc. 1A; H350, Carc. 1B; H350i, Carc. 1A; H350i" for determinand: "cadmium sulfide"
Test: "HP 10 on Repr. 1A; H360, Repr. 1B; H360, Repr. 1B; H360F, Repr. 1A; H360F, Repr. 1A; H360D, Repr. 1B; H360D, Repr. 1B; H360FD, Repr. 1A; H360FD, Repr. 1A; H360Fd, Repr. 1B; H360Fd, Repr. 1B; H360Df, Repr. 1A; H360Df" for determinand: "lead chromate"
Test: "HP 10 on Repr. 2; H361, Repr. 2; H361f, Repr. 2; H361d, Repr. 2; H361fd" for determinand: "cadmium sulfide"
Test: "HP 11 on Muta. 2; H341" for determinand: "cadmium sulfide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "lead chromate"

Determinand notes

Note 1 , used on:

determinand: "cadmium sulfide"
determinand: "lead chromate"

Note A , used on:

determinand: "zinc chromate"

Classification of sample: TP135

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP135
Sample Depth:
1 m
Moisture content: **16%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 16%, dry weight correction)

pH: (Whole conc. entered as: 8.1 pH, converted to conc.:8.1 pH or 8.1 pH)

Notes utilised in assessment

None

Appendix A: Classifier defined and non CLP determinands

pH

Comments: Appendix C, C4.5
Data source: WM2 - Interpretation of the definition and classification of hazardous waste (Second Edition, version2.2), Environment Agency
Data source date: 30/05/2008
Risk Phrases: None.
Hazard Statements: None.

acenaphthene (CAS Number: 83-32-9)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=133563&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: R36, R37, R38, N; R50/53, N; R51/53
Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Aquatic Chronic 2; H411

acenaphthylene (CAS Number: 208-96-8)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=59285&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: R22, R26, R27, R36, R37, R38
Hazard Statements: Acute Tox. 4; H302, Acute Tox. 1; H330, Acute Tox. 1; H310, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315

anthracene (CAS Number: 120-12-7)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=101102&HarmOnly=no
Data source date: 08/03/2013
Risk Phrases: R36, R37, R38, R43, N; R50/53
Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

benzo[ghi]perylene (CAS Number: 191-24-2)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=15793&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: N; R50/53
Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410

fluoranthene (CAS Number: 206-44-0)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=56375&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: R20, R22, R36, N; R50/53
Hazard Statements: Acute Tox. 4; H302, Acute Tox. 4; H332, Eye Irrit. 2; H319, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

fluorene (CAS Number: 86-73-7)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=81845&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: N; R50/53, R53
Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Aquatic Chronic 4; H413

indeno[123-cd]pyrene (CAS Number: 193-39-5)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=128806&HarmOnly=no
Data source date: 08/03/2013
Risk Phrases: R40
Hazard Statements: Carc. 2; H351

phenanthrene (CAS Number: 85-01-8)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=109754&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: R22, R36, R37, R38, R40, R43, N; R50/53
Hazard Statements: Acute Tox. 4; H302, Eye Irrit. 2; H319, STOT SE 3; H335, Carc. 2; H351, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Skin Irrit. 2; H315

pyrene (CAS Number: 129-00-0)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=87484&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: R23, N; R50/53
Hazard Statements: Acute Tox. 3; H331, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

TPH (C6 to C40) petroleum group

Comments: Risk phrase data given on page A41
Data source: WM2 3rd edition, 2013
Data source date: 01/08/2013
Risk Phrases: R10, R45, R46, R51/53, R63, R65
Hazard Statements: Flam. Liq. 3; H226, Asp. Tox. 1; H304, STOT RE 2; H373, Muta. 1B; H340, Carc. 1B; H350, Repr. 2; H361d, Aquatic Chronic 2; H411

Appendix B: Notes

C14: Step 5

from section: WM3: C14 in the document: "WM3 - Waste Classification"

"identify whether any individual ecotoxic substance is present at or above a cut-off value ..."

Note 1

from section: 1.1.3.2, Annex VI in the document: "CLP Regulations"

"The concentration stated or, in the absence of such concentrations, the generic concentrations of this Regulation (Table 3.1) or the generic concentrations of Directive 1999/45/EC (Table 3.2), are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture."

Note A

from section: 1.1.3.1, Annex VI in the document: "CLP Regulations"

"Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '... compounds' or '... salts'. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4."

Appendix C: Version

Classification utilises the following:

- CLP Regulations - Regulation 1272/2008/EC of 16 December 2008
  REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
- 1st ATP - Regulation 790/2009/EC of 10 August 2009
  COMMISSION REGULATION (EC) No 790/2009 of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 2nd ATP - Regulation 286/2011/EC of 10 March 2011
  COMMISSION REGULATION (EU) No 286/2011 of 10 March 2011 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 3rd ATP - Regulation 618/2012/EU of 10 July 2012
  COMMISSION REGULATION (EU) No 618/2012 of 10 July 2012 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 4th ATP - Regulation 487/2013/EU of 8 May 2013
  COMMISSION REGULATION (EU) No 487/2013 of 8 May 2013 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
  COMMISSION REGULATION (EU) No 758/2013 of 7 August 2013 correcting Annex VI to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 5th ATP - Regulation 944/2013/EU of 2 October 2013
  COMMISSION REGULATION (EU) No 944/2013 of 2 October 2013 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 6th ATP - Regulation 605/2014/EU of 5 June 2014
  COMMISSION REGULATION (EU) No 605/2014 of 5 June 2014 amending, for the purposes of introducing hazard and precautionary statements in the Croatian language and its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
  COMMISSION REGULATION (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives
- Revised List of Wastes 2014 - Decision 2014/955/EU of 18 December 2014
  COMMISSION DECISION of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council (2014/955/EU)
- WM3 - Waste Classification - May 2015
  Technical Guidance WM3 - Guidance on the classification and assessment of waste (1st edition 2015)
- POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004
  REGULATION (EC) No 850/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC
- 1st ATP to POPs Regulation - Regulation 756/2010/EU of 24 August 2010
  COMMISSION REGULATION (EU) No 756/2010 of 24 August 2010 amending Regulation (EC) No 850/2004 of the European Parliament and of the Council on persistent organic pollutants as regards Annexes IV and V
- 2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010
  COMMISSION REGULATION (EU) No 757/2010 of 24 August 2010 amending Regulation (EC) No 850/2004 of the European Parliament and of the Council on persistent organic pollutants as regards Annexes I and III

HazWasteOnline Engine: WM3 1st Edition, May 2015
HazWasteOnline Engine Version: 2015.169.2852.5804 (18 Jun 2015)
HazWasteOnline Database: 2015.169.2852.5804 (18 Jun 2015)

Waste Classification Report

NFG45-W2CZ9-VMUV3

Job name

Haverhill Business Park - MG

Waste Stream

Updated Waste Stream September 2013

Comments

Made Ground

Project

15-0210.02

Site

Classified by

Name:
Huteson, Paul
Date:
23/07/2015 12:21 UTC
Telephone:
01522 823335

Company:
Delta-Simons
3 Chalkhill House
19 Rosary Road
Norwich
NR1 1SZ

Report

Created by: Huteson, Paul
Created date: 23/07/2015 12:21 UTC

Job summary

Classification of sample: TP103

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP103
Sample Depth:
1 m
Moisture content: **12%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 12%, dry weight correction)

pH: (Whole conc. entered as: 8.3 pH, converted to conc.:8.3 pH or 8.3 pH)

Notes utilised in assessment

None

Classification of sample: TP105

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP105
Sample Depth:
1 m
Moisture content: **16%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 16%, dry weight correction)

acenaphthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000862%) IGNORED Because: "<LOD"
acenaphthylene: (Whole conc. entered as: <0.1 mg/kg or <0.00000862%) IGNORED Because: "<LOD"
anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000862%) IGNORED Because: "<LOD"
arsenic trioxide: (Cation conc. entered: 3.2 mg/kg, converted to compound conc.:3.642 mg/kg or 0.000364%)
benzo[a]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000862%) IGNORED Because: "<LOD"
benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.00000862%) IGNORED Because: "<LOD"
benzo[b]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000862%) IGNORED Because: "<LOD"
benzo[ghi]perylene: (Whole conc. entered as: <0.1 mg/kg or <0.00000862%) IGNORED Because: "<LOD"
benzo[k]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000862%) IGNORED Because: "<LOD"
cadmium sulfide: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.111 mg/kg or <0.0000111%, Note 1 conc.: <0.00000862%) IGNORED Because: "<LOD"
chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.00000862%) IGNORED Because: "<LOD"
copper (I) oxide: (Cation conc. entered: 5 mg/kg, converted to compound conc.:4.853 mg/kg or 0.000485%)
dibenz[a,h]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000862%) IGNORED Because: "<LOD"
fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000862%) IGNORED Because: "<LOD"
fluorene: (Whole conc. entered as: <0.1 mg/kg or <0.00000862%) IGNORED Because: "<LOD"
indeno[123-cd]pyrene: (Whole conc. entered as: <0.1 mg/kg or <0.00000862%) IGNORED Because: "<LOD"
lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 4 mg/kg, converted to compound conc.:5.207 mg/kg or 0.000521%, Note 1 conc.: 0.000345%)
mercury dichloride: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.117 mg/kg or <0.0000117%) IGNORED Because: "<LOD"
molybdenum(VI) oxide: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.129 mg/kg or <0.0000129%) IGNORED Because: "<LOD"
naphthalene: (Whole conc. entered as: 5.1 mg/kg or 0.00044%)
pH: (Whole conc. entered as: 8.2 pH, converted to conc.:8.2 pH or 8.2 pH)
phenanthrene: (Whole conc. entered as: <0.1 mg/kg or <0.00000862%) IGNORED Because: "<LOD"
phenol: (Whole conc. entered as: <0.1 mg/kg or <0.00000862%) IGNORED Because: "<LOD"
pyrene: (Whole conc. entered as: <0.2 mg/kg or <0.0000172%) IGNORED Because: "<LOD"
zinc chromate: (Cation conc. entered: 16 mg/kg, converted to compound conc.:38.264 mg/kg or 0.00383%)

Notes utilised in assessment

C14: Step 5
"identify whether any individual ecotoxic substance is present at or above a cut-off value ..." , used on:

Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "arsenic trioxide"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "copper (I) oxide"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "naphthalene"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "zinc chromate"

Note 1 , used on:

Test: "HP 5 on STOT SE 2; H371, STOT RE 2; H373" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 6 on Acute Tox. 4; H302" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 6 on Acute Tox. 4; H332" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 7 on Carc. 2; H351" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 10 on Repr. 1A; H360, Repr. 1B; H360, Repr. 1B; H360F, Repr. 1A; H360F, Repr. 1A; H360D, Repr. 1B; H360D, Repr. 1B; H360FD, Repr. 1A; H360FD, Repr. 1A; H360Fd, Repr. 1B; H360Fd, Repr. 1B; H360Df, Repr. 1A; H360Df" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 10 on Repr. 2; H361, Repr. 2; H361f, Repr. 2; H361d, Repr. 2; H361fd" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"

Determinand notes

Note 1 , used on:

determinand: "lead compounds (with the exception of those listed separately in this Annex)"

Note A , used on:

determinand: "lead compounds (with the exception of those listed separately in this Annex)"
determinand: "zinc chromate"

Classification of sample: TP110

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP110
Sample Depth:
1 m
Moisture content: **13%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 13%, dry weight correction)

pH: (Whole conc. entered as: 7.8 pH, converted to conc.:7.8 pH or 7.8 pH)

Notes utilised in assessment

None

Classification of sample: TP113

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP113
Sample Depth:
0.5 m
Moisture content: **12%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 12%, dry weight correction)

acenaphthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000893%) IGNORED Because: "<LOD"
acenaphthylene: (Whole conc. entered as: <0.1 mg/kg or <0.00000893%) IGNORED Because: "<LOD"
anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000893%) IGNORED Because: "<LOD"
arsenic trioxide: (Cation conc. entered: 27 mg/kg, converted to compound conc.:31.829 mg/kg or 0.00318%)
benzo[a]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000893%) IGNORED Because: "<LOD"
benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.00000893%) IGNORED Because: "<LOD"
benzo[b]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000893%) IGNORED Because: "<LOD"
benzo[ghi]perylene: (Whole conc. entered as: <0.1 mg/kg or <0.00000893%) IGNORED Because: "<LOD"
benzo[k]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000893%) IGNORED Because: "<LOD"
cadmium sulfide: (Cation conc. entered: 0.26 mg/kg, converted to compound conc.:0.298 mg/kg or 0.0000298%, Note 1 conc.: 0.0000232%)
chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.00000893%) IGNORED Because: "<LOD"
copper (I) oxide: (Cation conc. entered: 14 mg/kg, converted to compound conc.:14.074 mg/kg or 0.00141%)
dibenz[a,h]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000893%) IGNORED Because: "<LOD"
fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000893%) IGNORED Because: "<LOD"
fluorene: (Whole conc. entered as: <0.1 mg/kg or <0.00000893%) IGNORED Because: "<LOD"
indeno[123-cd]pyrene: (Whole conc. entered as: <0.1 mg/kg or <0.00000893%) IGNORED Because: "<LOD"
lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 22 mg/kg, converted to compound conc.:29.661 mg/kg or 0.00297%, Note 1 conc.: 0.00196%)
mercury dichloride: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.121 mg/kg or <0.0000121%) IGNORED Because: "<LOD"
molybdenum(VI) oxide: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.134 mg/kg or <0.0000134%) IGNORED Because: "<LOD"
naphthalene: (Whole conc. entered as: 30 mg/kg or 0.00268%)
phenanthrene: (Whole conc. entered as: <0.1 mg/kg or <0.00000893%) IGNORED Because: "<LOD"
phenol: (Whole conc. entered as: <0.1 mg/kg or <0.00000893%) IGNORED Because: "<LOD"
pyrene: (Whole conc. entered as: <0.2 mg/kg or <0.0000179%) IGNORED Because: "<LOD"
TPH (C6 to C40) petroleum group: (Whole conc. entered as: <10 mg/kg or <0.000893%) IGNORED Because: "<LOD"
zinc chromate: (Cation conc. entered: 51 mg/kg, converted to compound conc.:126.323 mg/kg or 0.0126%)

Notes utilised in assessment

C14: Step 5
"identify whether any individual ecotoxic substance is present at or above a cut-off value ..." , used on:

Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "cadmium sulfide"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "arsenic trioxide"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "copper (I) oxide"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "naphthalene"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "zinc chromate"

Note 1 , used on:

Test: "HP 5 on STOT SE 1; H370, STOT RE 1; H372" for determinand: "cadmium sulfide"
Test: "HP 5 on STOT SE 2; H371, STOT RE 2; H373" for determinand: "cadmium sulfide"
Test: "HP 6 on Acute Tox. 4; H302" for determinand: "cadmium sulfide"
Test: "HP 6 on Acute Tox. 4; H332" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 7 on Carc. 1B; H350, Carc. 1A; H350, Carc. 1B; H350i, Carc. 1A; H350i" for determinand: "cadmium sulfide"
Test: "HP 7 on Carc. 2; H351" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 10 on Repr. 1A; H360, Repr. 1B; H360, Repr. 1B; H360F, Repr. 1A; H360F, Repr. 1A; H360D, Repr. 1B; H360D, Repr. 1B; H360FD, Repr. 1A; H360FD, Repr. 1A; H360Fd, Repr. 1B; H360Fd, Repr. 1B; H360Df, Repr. 1A; H360Df" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 10 on Repr. 2; H361, Repr. 2; H361f, Repr. 2; H361d, Repr. 2; H361fd" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 11 on Muta. 2; H341" for determinand: "cadmium sulfide"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "cadmium sulfide"

Determinand notes

Note 1 , used on:

determinand: "cadmium sulfide"
determinand: "lead compounds (with the exception of those listed separately in this Annex)"

Note A , used on:

determinand: "lead compounds (with the exception of those listed separately in this Annex)"
determinand: "zinc chromate"

Classification of sample: TP114

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP114
Sample Depth:
0.5 m
Moisture content: **14%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 14%, dry weight correction)

pH: (Whole conc. entered as: 8.7 pH, converted to conc.:8.7 pH or 8.7 pH)

Notes utilised in assessment

None

Classification of sample: TP126

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP126
Sample Depth:
1 m
Moisture content: **21%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 21%, dry weight correction)

acenaphthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000826%) IGNORED Because: "<LOD"
acenaphthylene: (Whole conc. entered as: <0.1 mg/kg or <0.00000826%) IGNORED Because: "<LOD"
anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000826%) IGNORED Because: "<LOD"
arsenic trioxide: (Cation conc. entered: 21 mg/kg, converted to compound conc.:22.915 mg/kg or 0.00229%)
benzo[a]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000826%) IGNORED Because: "<LOD"
benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.00000826%) IGNORED Because: "<LOD"
benzo[b]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000826%) IGNORED Because: "<LOD"
benzo[ghi]perylene: (Whole conc. entered as: <0.1 mg/kg or <0.00000826%) IGNORED Because: "<LOD"
benzo[k]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000826%) IGNORED Because: "<LOD"
cadmium sulfide: (Cation conc. entered: 0.35 mg/kg, converted to compound conc.:0.372 mg/kg or 0.0000372%, Note 1 conc.: 0.0000289%)
chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.00000826%) IGNORED Because: "<LOD"
copper (I) oxide: (Cation conc. entered: 19 mg/kg, converted to compound conc.:17.679 mg/kg or 0.00177%)
dibenz[a,h]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000826%) IGNORED Because: "<LOD"
fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000826%) IGNORED Because: "<LOD"
fluorene: (Whole conc. entered as: <0.1 mg/kg or <0.00000826%) IGNORED Because: "<LOD"
indeno[123-cd]pyrene: (Whole conc. entered as: <0.1 mg/kg or <0.00000826%) IGNORED Because: "<LOD"
lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 40 mg/kg, converted to compound conc.:49.917 mg/kg or 0.00499%, Note 1 conc.: 0.00331%)
mercury dichloride: (Cation conc. entered: 0.13 mg/kg, converted to compound conc.:0.145 mg/kg or 0.0000145%)
molybdenum(VI) oxide: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.124 mg/kg or <0.0000124%) IGNORED Because: "<LOD"
naphthalene: (Whole conc. entered as: 37 mg/kg or 0.00306%)
pH: (Whole conc. entered as: 7.9 pH, converted to conc.:7.9 pH or 7.9 pH)
phenanthrene: (Whole conc. entered as: <0.1 mg/kg or <0.00000826%) IGNORED Because: "<LOD"
phenol: (Whole conc. entered as: <0.1 mg/kg or <0.00000826%) IGNORED Because: "<LOD"
pyrene: (Whole conc. entered as: <0.2 mg/kg or <0.0000165%) IGNORED Because: "<LOD"
zinc chromate: (Cation conc. entered: 74 mg/kg, converted to compound conc.:169.659 mg/kg or 0.017%)

Notes utilised in assessment

C14: Step 5
"identify whether any individual ecotoxic substance is present at or above a cut-off value ..." , used on:

Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "arsenic trioxide"

Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "copper (I) oxide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "mercury dichloride"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "naphthalene"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "zinc chromate"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "cadmium sulfide"

Note 1 , used on:

Test: "HP 5 on STOT SE 1; H370, STOT RE 1; H372" for determinand: "cadmium sulfide"
Test: "HP 5 on STOT SE 2; H371, STOT RE 2; H373" for determinand: "cadmium sulfide"
Test: "HP 6 on Acute Tox. 4; H302" for determinand: "cadmium sulfide"
Test: "HP 6 on Acute Tox. 4; H332" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 7 on Carc. 1B; H350, Carc. 1A; H350, Carc. 1B; H350i, Carc. 1A; H350i" for determinand: "cadmium sulfide"
Test: "HP 7 on Carc. 2; H351" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 10 on Repr. 1A; H360, Repr. 1B; H360, Repr. 1B; H360F, Repr. 1A; H360F, Repr. 1A; H360D, Repr. 1B; H360D, Repr. 1B; H360FD, Repr. 1A; H360FD, Repr. 1A; H360Fd, Repr. 1B; H360Fd, Repr. 1B; H360Df, Repr. 1A; H360Df" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 10 on Repr. 2; H361, Repr. 2; H361f, Repr. 2; H361d, Repr. 2; H361fd" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"
Test: "HP 11 on Muta. 2; H341" for determinand: "cadmium sulfide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "lead compounds (with the exception of those listed separately in this Annex)"

Determinand notes

Note 1 , used on:

determinand: "cadmium sulfide"
determinand: "lead compounds (with the exception of those listed separately in this Annex)"

Note A , used on:

determinand: "lead compounds (with the exception of those listed separately in this Annex)"
determinand: "zinc chromate"

Appendix A: Classifier defined and non CLP determinands

pH

Comments: Appendix C, C4.5
Data source: WM2 - Interpretation of the definition and classification of hazardous waste (Second Edition, version2.2), Environment Agency
Data source date: 30/05/2008
Risk Phrases: None.
Hazard Statements: None.

acenaphthene (CAS Number: 83-32-9)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=133563&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: R36, R37, R38, N; R50/53, N; R51/53
Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Aquatic Chronic 2; H411

acenaphthylene (CAS Number: 208-96-8)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=59285&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: R22, R26, R27, R36, R37, R38
Hazard Statements: Acute Tox. 4; H302, Acute Tox. 1; H330, Acute Tox. 1; H310, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315

anthracene (CAS Number: 120-12-7)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=101102&HarmOnly=no
Data source date: 08/03/2013
Risk Phrases: R36, R37, R38, R43, N; R50/53
Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

benzo[ghi]perylene (CAS Number: 191-24-2)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=15793&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: N; R50/53
Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410

fluoranthene (CAS Number: 206-44-0)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=56375&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: R20, R22, R36, N; R50/53
Hazard Statements: Acute Tox. 4; H302, Acute Tox. 4; H332, Eye Irrit. 2; H319, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

fluorene (CAS Number: 86-73-7)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=81845&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: N; R50/53, R53
Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Aquatic Chronic 4; H413

indeno[123-cd]pyrene (CAS Number: 193-39-5)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=128806&HarmOnly=no
Data source date: 08/03/2013
Risk Phrases: R40
Hazard Statements: Carc. 2; H351

phenanthrene (CAS Number: 85-01-8)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=109754&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: R22, R36, R37, R38, R40, R43, N; R50/53
Hazard Statements: Acute Tox. 4; H302, Eye Irrit. 2; H319, STOT SE 3; H335, Carc. 2; H351, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Skin Irrit. 2; H315

pyrene (CAS Number: 129-00-0)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=87484&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: R23, N; R50/53
Hazard Statements: Acute Tox. 3; H331, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

TPH (C6 to C40) petroleum group

Comments: Risk phrase data given on page A41
Data source: WM2 3rd edition, 2013
Data source date: 01/08/2013
Risk Phrases: R10, R45, R46, R51/53, R63, R65
Hazard Statements: Flam. Liq. 3; H226, Asp. Tox. 1; H304, STOT RE 2; H373, Muta. 1B; H340, Carc. 1B; H350, Repr. 2; H361d, Aquatic Chronic 2; H411

Appendix B: Notes

C14: Step 5

from section: WM3: C14 in the document: "WM3 - Waste Classification"

"identify whether any individual ecotoxic substance is present at or above a cut-off value ..."

Note 1

from section: 1.1.3.2, Annex VI in the document: "CLP Regulations"

"The concentration stated or, in the absence of such concentrations, the generic concentrations of this Regulation (Table 3.1) or the generic concentrations of Directive 1999/45/EC (Table 3.2), are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture."

Note A

from section: 1.1.3.1, Annex VI in the document: "CLP Regulations"

"Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '... compounds' or '... salts'. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4."

Appendix C: Version

Classification utilises the following:

- CLP Regulations - Regulation 1272/2008/EC of 16 December 2008
  REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
- 1st ATP - Regulation 790/2009/EC of 10 August 2009
  COMMISSION REGULATION (EC) No 790/2009 of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 2nd ATP - Regulation 286/2011/EC of 10 March 2011
  COMMISSION REGULATION (EU) No 286/2011 of 10 March 2011 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 3rd ATP - Regulation 618/2012/EU of 10 July 2012
  COMMISSION REGULATION (EU) No 618/2012 of 10 July 2012 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 4th ATP - Regulation 487/2013/EU of 8 May 2013
  COMMISSION REGULATION (EU) No 487/2013 of 8 May 2013 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
  COMMISSION REGULATION (EU) No 758/2013 of 7 August 2013 correcting Annex VI to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 5th ATP - Regulation 944/2013/EU of 2 October 2013
  COMMISSION REGULATION (EU) No 944/2013 of 2 October 2013 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 6th ATP - Regulation 605/2014/EU of 5 June 2014
  COMMISSION REGULATION (EU) No 605/2014 of 5 June 2014 amending, for the purposes of introducing hazard and precautionary statements in the Croatian language and its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
  COMMISSION REGULATION (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives
- Revised List of Wastes 2014 - Decision 2014/955/EU of 18 December 2014
  COMMISSION DECISION of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council (2014/955/EU)
- WM3 - Waste Classification - May 2015
  Technical Guidance WM3 - Guidance on the classification and assessment of waste (1st edition 2015)
- POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004
  REGULATION (EC) No 850/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC
- 1st ATP to POPs Regulation - Regulation 756/2010/EU of 24 August 2010
  COMMISSION REGULATION (EU) No 756/2010 of 24 August 2010 amending Regulation (EC) No 850/2004 of the European Parliament and of the Council on persistent organic pollutants as regards Annexes IV and V
- 2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010
  COMMISSION REGULATION (EU) No 757/2010 of 24 August 2010 amending Regulation (EC) No 850/2004 of the European Parliament and of the Council on persistent organic pollutants as regards Annexes I and III

HazWasteOnline Engine: WM3 1st Edition, May 2015
HazWasteOnline Engine Version: 2015.169.2852.5804 (18 Jun 2015)
HazWasteOnline Database: 2015.169.2852.5804 (18 Jun 2015)

Waste Classification Report

4XZ37-SQYDZ-DQBZM

Job name

Haverhill Business Park

Waste Stream

Updated Waste Stream September 2013

Comments

Re-worked Natural

Project

15-0210.02

Site

Classified by

Name:
Huteson, Paul
Date:
23/07/2015 12:15 UTC
Telephone:
01522 823335

Company:
Delta-Simons
3 Chalkhill House
19 Rosary Road
Norwich
NR1 1SZ

Report

Created by: Huteson, Paul
Created date: 23/07/2015 12:15 UTC

Job summary

Classification of sample: RA101

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
RA101
Sample Depth:
0.5 m
Moisture content: **15%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 15%, dry weight correction)

acenaphthene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
acenaphthylene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
arsenic trioxide: (Cation conc. entered: 4.4 mg/kg, converted to compound conc.:5.052 mg/kg or 0.000505%)
benzo[a]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
benzo[b]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
benzo[ghi]perylene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
benzo[k]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
cadmium sulfide: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.112 mg/kg or <0.0000112%, Note 1 conc.: <0.0000087%) IGNORED Because: "<LOD"
chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
copper (I) oxide: (Cation conc. entered: 5 mg/kg, converted to compound conc.:4.895 mg/kg or 0.00049%)
dibenz[a,h]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
fluorene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
indeno[123-cd]pyrene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
lead chromate: (Cation conc. entered: 3.4 mg/kg, converted to compound conc.:4.612 mg/kg or 0.000461%, Note 1 conc.: 0.000296%)
mercury dichloride: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.118 mg/kg or <0.0000118%) IGNORED Because: "<LOD"
molybdenum(VI) oxide: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.13 mg/kg or <0.000013%) IGNORED Because: "<LOD"
naphthalene: (Whole conc. entered as: 2.5 mg/kg or 0.000217%)
pH: (Whole conc. entered as: 8.4 pH, converted to conc.:8.4 pH or 8.4 pH)
phenanthrene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
phenol: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
pyrene: (Whole conc. entered as: <0.2 mg/kg or <0.0000174%) IGNORED Because: "<LOD"
TPH (C6 to C40) petroleum group: (Whole conc. entered as: <10 mg/kg or <0.00087%) IGNORED Because: "<LOD"
zinc chromate: (Cation conc. entered: 19 mg/kg, converted to compound conc.:45.834 mg/kg or 0.00458%)

Notes utilised in assessment

C14: Step 5
"identify whether any individual ecotoxic substance is present at or above a cut-off value ..." , used on:

Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "arsenic trioxide"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "copper (I) oxide"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "lead chromate"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "naphthalene"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "zinc chromate"

Note 1 , used on:

Test: "HP 5 on STOT SE 2; H371, STOT RE 2; H373" for determinand: "lead chromate"
Test: "HP 7 on Carc. 1B; H350, Carc. 1A; H350, Carc. 1B; H350i, Carc. 1A; H350i" for determinand: "lead chromate"
Test: "HP 10 on Repr. 1A; H360, Repr. 1B; H360, Repr. 1B; H360F, Repr. 1A; H360F, Repr. 1A; H360D, Repr. 1B; H360D, Repr. 1B; H360FD, Repr. 1A; H360FD, Repr. 1A; H360Fd, Repr. 1B; H360Fd, Repr. 1B; H360Df, Repr. 1A; H360Df" for determinand: "lead chromate"
Test: "HP 14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "lead chromate"

Determinand notes

Note 1 , used on:

determinand: "lead chromate"

Note A , used on:

determinand: "zinc chromate"

Classification of sample: RA102

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
RA102
Sample Depth:
6 m
Moisture content: **16%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 16%, dry weight correction)

pH: (Whole conc. entered as: 8 pH, converted to conc.:8 pH or 8 pH)

Notes utilised in assessment

None

Classification of sample: RA108

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
RA108
Sample Depth:
8 m
Moisture content: **6.4%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 6.4%, dry weight correction)

pH: (Whole conc. entered as: 7.7 pH, converted to conc.:7.7 pH or 7.7 pH)

Notes utilised in assessment

None

Classification of sample: TP101

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP101
Sample Depth:
2 m
Moisture content: **15%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 15%, dry weight correction)

pH: (Whole conc. entered as: 7.8 pH, converted to conc.:7.8 pH or 7.8 pH)

Notes utilised in assessment

None

Classification of sample: TP102

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP102
Sample Depth:
1 m
Moisture content: **17%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 17%, dry weight correction)

acenaphthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
acenaphthylene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
arsenic trioxide: (Cation conc. entered: 11 mg/kg, converted to compound conc.:12.413 mg/kg or 0.00124%)
benzo[a]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
benzo[b]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
benzo[ghi]perylene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
benzo[k]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
cadmium sulfide: (Cation conc. entered: 0.17 mg/kg, converted to compound conc.:0.187 mg/kg or 0.0000187%, Note 1 conc.: 0.0000145%)
chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
copper (I) oxide: (Cation conc. entered: 11 mg/kg, converted to compound conc.:10.585 mg/kg or 0.00106%)
dibenz[a,h]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
fluorene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
indeno[123-cd]pyrene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
lead chromate: (Cation conc. entered: 9.1 mg/kg, converted to compound conc.:12.132 mg/kg or 0.00121%, Note 1 conc.: 0.000778%)
mercury dichloride: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.116 mg/kg or <0.0000116%) IGNORED Because: "<LOD"
molybdenum(VI) oxide: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.128 mg/kg or <0.0000128%) IGNORED Because: "<LOD"
naphthalene: (Whole conc. entered as: 18 mg/kg or 0.00154%)
pH: (Whole conc. entered as: 8 pH, converted to conc.:8 pH or 8 pH)
phenanthrene: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
phenol: (Whole conc. entered as: <0.1 mg/kg or <0.00000855%) IGNORED Because: "<LOD"
pyrene: (Whole conc. entered as: <0.2 mg/kg or <0.0000171%) IGNORED Because: "<LOD"
TPH (C6 to C40) petroleum group: (Whole conc. entered as: <10 mg/kg or <0.000855%) IGNORED Because: "<LOD"
zinc chromate: (Cation conc. entered: 35 mg/kg, converted to compound conc.:82.987 mg/kg or 0.0083%)

Notes utilised in assessment

C14: Step 5
"identify whether any individual ecotoxic substance is present at or above a cut-off value ..." , used on:

Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "arsenic trioxide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "copper (I) oxide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "lead chromate"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "naphthalene"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "zinc chromate"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "cadmium sulfide"

Note 1 , used on:

Test: "HP 5 on STOT SE 1; H370, STOT RE 1; H372" for determinand: "cadmium sulfide"
Test: "HP 5 on STOT SE 2; H371, STOT RE 2; H373" for determinand: "cadmium sulfide"
Test: "HP 6 on Acute Tox. 4; H302" for determinand: "cadmium sulfide"
Test: "HP 7 on Carc. 1B; H350, Carc. 1A; H350, Carc. 1B; H350i, Carc. 1A; H350i" for determinand: "cadmium sulfide"
Test: "HP 10 on Repr. 1A; H360, Repr. 1B; H360, Repr. 1B; H360F, Repr. 1A; H360F, Repr. 1A; H360D, Repr. 1B; H360D, Repr. 1B; H360FD, Repr. 1A; H360FD, Repr. 1A; H360Fd, Repr. 1B; H360Fd, Repr. 1B; H360Df, Repr. 1A; H360Df" for determinand: "lead chromate"
Test: "HP 10 on Repr. 2; H361, Repr. 2; H361f, Repr. 2; H361d, Repr. 2; H361fd" for determinand: "cadmium sulfide"
Test: "HP 11 on Muta. 2; H341" for determinand: "cadmium sulfide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "lead chromate"

Determinand notes

Note 1 , used on:

determinand: "cadmium sulfide"
determinand: "lead chromate"

Note A , used on:

determinand: "zinc chromate"

Classification of sample: TP138

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP138
Sample Depth:
0.9 m
Moisture content: **15%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 15%, dry weight correction)

acenaphthene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
acenaphthylene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
arsenic trioxide: (Cation conc. entered: 10 mg/kg, converted to compound conc.:11.481 mg/kg or 0.00115%)
benzo[a]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
benzo[b]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
benzo[ghi]perylene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
benzo[k]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
cadmium sulfide: (Cation conc. entered: 0.22 mg/kg, converted to compound conc.:0.246 mg/kg or 0.0000246%, Note 1 conc.: 0.0000191%)
chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
copper (I) oxide: (Cation conc. entered: 14 mg/kg, converted to compound conc.:13.706 mg/kg or 0.00137%)
dibenz[a,h]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
fluorene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
indeno[123-cd]pyrene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
lead chromate: (Cation conc. entered: 15 mg/kg, converted to compound conc.:20.345 mg/kg or 0.00203%, Note 1 conc.: 0.0013%)
mercury dichloride: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.118 mg/kg or <0.0000118%) IGNORED Because: "<LOD"
molybdenum(VI) oxide: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.13 mg/kg or <0.000013%) IGNORED Because: "<LOD"
naphthalene: (Whole conc. entered as: 23 mg/kg or 0.002%)
pH: (Whole conc. entered as: 7.9 pH, converted to conc.:7.9 pH or 7.9 pH)
phenanthrene: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
phenol: (Whole conc. entered as: <0.1 mg/kg or <0.0000087%) IGNORED Because: "<LOD"
pyrene: (Whole conc. entered as: <0.2 mg/kg or <0.0000174%) IGNORED Because: "<LOD"
zinc chromate: (Cation conc. entered: 73 mg/kg, converted to compound conc.:176.098 mg/kg or 0.0176%)

Notes utilised in assessment

C14: Step 5
"identify whether any individual ecotoxic substance is present at or above a cut-off value ..." , used on:

Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "arsenic trioxide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "copper (I) oxide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "lead chromate"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "naphthalene"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "zinc chromate"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "cadmium sulfide"

Determinand notes

Note 1 , used on:

determinand: "cadmium sulfide"
determinand: "lead chromate"

Note A , used on:

determinand: "zinc chromate"

Classification of sample: TP120

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP120
Sample Depth:
0.5 m
Moisture content: **4.7%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 4.7%, dry weight correction)

acenaphthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000955%) IGNORED Because: "<LOD"
acenaphthylene: (Whole conc. entered as: <0.1 mg/kg or <0.00000955%) IGNORED Because: "<LOD"
anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000955%) IGNORED Because: "<LOD"
arsenic trioxide: (Cation conc. entered: 15 mg/kg, converted to compound conc.:18.916 mg/kg or 0.00189%)
benzo[a]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000955%) IGNORED Because: "<LOD"
benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.00000955%) IGNORED Because: "<LOD"
benzo[b]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000955%) IGNORED Because: "<LOD"
benzo[ghi]perylene: (Whole conc. entered as: <0.1 mg/kg or <0.00000955%) IGNORED Because: "<LOD"
benzo[k]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000955%) IGNORED Because: "<LOD"
cadmium sulfide: (Cation conc. entered: 0.38 mg/kg, converted to compound conc.:0.466 mg/kg or 0.0000466%, Note 1 conc.: 0.0000363%)
chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.00000955%) IGNORED Because: "<LOD"
copper (I) oxide: (Cation conc. entered: 4.2 mg/kg, converted to compound conc.:4.516 mg/kg or 0.000452%)
dibenz[a,h]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000955%) IGNORED Because: "<LOD"
fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000955%) IGNORED Because: "<LOD"
fluorene: (Whole conc. entered as: <0.1 mg/kg or <0.00000955%) IGNORED Because: "<LOD"
indeno[123-cd]pyrene: (Whole conc. entered as: <0.1 mg/kg or <0.00000955%) IGNORED Because: "<LOD"
lead chromate: (Cation conc. entered: 19 mg/kg, converted to compound conc.:28.306 mg/kg or 0.00283%, Note 1 conc.: 0.00181%)
mercury dichloride: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.129 mg/kg or <0.0000129%) IGNORED Because: "<LOD"
molybdenum(VI) oxide: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.143 mg/kg or <0.0000143%) IGNORED Because: "<LOD"
naphthalene: (Whole conc. entered as: 8.3 mg/kg or 0.000793%)
pH: (Whole conc. entered as: 8.7 pH, converted to conc.:8.7 pH or 8.7 pH)
phenanthrene: (Whole conc. entered as: <0.1 mg/kg or <0.00000955%) IGNORED Because: "<LOD"
phenol: (Whole conc. entered as: <0.1 mg/kg or <0.00000955%) IGNORED Because: "<LOD"
pyrene: (Whole conc. entered as: <0.2 mg/kg or <0.0000191%) IGNORED Because: "<LOD"
zinc chromate: (Cation conc. entered: 23 mg/kg, converted to compound conc.:60.941 mg/kg or 0.00609%)

Notes utilised in assessment

C14: Step 5
"identify whether any individual ecotoxic substance is present at or above a cut-off value ..." , used on:

Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "arsenic trioxide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "copper (I) oxide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "lead chromate"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "naphthalene"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "zinc chromate"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "cadmium sulfide"

Note 1 , used on:

Test: "HP 5 on STOT SE 1; H370, STOT RE 1; H372" for determinand: "cadmium sulfide"
Test: "HP 5 on STOT SE 2; H371, STOT RE 2; H373" for determinand: "cadmium sulfide"
Test: "HP 6 on Acute Tox. 4; H302" for determinand: "cadmium sulfide"
Test: "HP 7 on Carc. 1B; H350, Carc. 1A; H350, Carc. 1B; H350i, Carc. 1A; H350i" for determinand: "cadmium sulfide"
Test: "HP 10 on Repr. 1A; H360, Repr. 1B; H360, Repr. 1B; H360F, Repr. 1A; H360F, Repr. 1A; H360D, Repr. 1B; H360D, Repr. 1B; H360FD, Repr. 1A; H360FD, Repr. 1A; H360Fd, Repr. 1B; H360Fd, Repr. 1B; H360Df, Repr. 1A; H360Df" for determinand: "lead chromate"
Test: "HP 10 on Repr. 2; H361, Repr. 2; H361f, Repr. 2; H361d, Repr. 2; H361fd" for determinand: "cadmium sulfide"
Test: "HP 11 on Muta. 2; H341" for determinand: "cadmium sulfide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "lead chromate"

Determinand notes

Note 1 , used on:

determinand: "cadmium sulfide"
determinand: "lead chromate"

Note A , used on:

determinand: "zinc chromate"

Classification of sample: TP122

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP122
Sample Depth:
1 m
Moisture content: **17%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 17%, dry weight correction)

pH: (Whole conc. entered as: 8.1 pH, converted to conc.:8.1 pH or 8.1 pH)

Notes utilised in assessment

None

Classification of sample: TP125

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP125
Sample Depth:
1.9 m
Moisture content: **20%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 20%, dry weight correction)

acenaphthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000833%) IGNORED Because: "<LOD"
acenaphthylene: (Whole conc. entered as: <0.1 mg/kg or <0.00000833%) IGNORED Because: "<LOD"
anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000833%) IGNORED Because: "<LOD"
arsenic trioxide: (Cation conc. entered: 23 mg/kg, converted to compound conc.:25.306 mg/kg or 0.00253%)
benzo[a]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000833%) IGNORED Because: "<LOD"
benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.00000833%) IGNORED Because: "<LOD"
benzo[b]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000833%) IGNORED Because: "<LOD"
benzo[ghi]perylene: (Whole conc. entered as: <0.1 mg/kg or <0.00000833%) IGNORED Because: "<LOD"
benzo[k]fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000833%) IGNORED Because: "<LOD"
cadmium sulfide: (Cation conc. entered: 0.34 mg/kg, converted to compound conc.:0.364 mg/kg or 0.0000364%, Note 1 conc.: 0.0000283%)
chrysene: (Whole conc. entered as: <0.1 mg/kg or <0.00000833%) IGNORED Because: "<LOD"
copper (I) oxide: (Cation conc. entered: 16 mg/kg, converted to compound conc.:15.012 mg/kg or 0.0015%)
dibenz[a,h]anthracene: (Whole conc. entered as: <0.1 mg/kg or <0.00000833%) IGNORED Because: "<LOD"
fluoranthene: (Whole conc. entered as: <0.1 mg/kg or <0.00000833%) IGNORED Because: "<LOD"
fluorene: (Whole conc. entered as: <0.1 mg/kg or <0.00000833%) IGNORED Because: "<LOD"
indeno[123-cd]pyrene: (Whole conc. entered as: <0.1 mg/kg or <0.00000833%) IGNORED Because: "<LOD"
lead chromate: (Cation conc. entered: 23 mg/kg, converted to compound conc.:29.896 mg/kg or 0.00299%, Note 1 conc.: 0.00192%)
mercury dichloride: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.113 mg/kg or <0.0000113%) IGNORED Because: "<LOD"
molybdenum(VI) oxide: (Cation conc. entered: <0.1 mg/kg, converted to compound conc.:<0.125 mg/kg or <0.0000125%) IGNORED Because: "<LOD"
naphthalene: (Whole conc. entered as: 36 mg/kg or 0.003%)
phenanthrene: (Whole conc. entered as: <0.1 mg/kg or <0.00000833%) IGNORED Because: "<LOD"
phenol: (Whole conc. entered as: <0.1 mg/kg or <0.00000833%) IGNORED Because: "<LOD"
pyrene: (Whole conc. entered as: <0.2 mg/kg or <0.0000167%) IGNORED Because: "<LOD"
TPH (C6 to C40) petroleum group: (Whole conc. entered as: <10 mg/kg or <0.000833%) IGNORED Because: "<LOD"
zinc chromate: (Cation conc. entered: 67 mg/kg, converted to compound conc.:154.89 mg/kg or 0.0155%)

Notes utilised in assessment

C14: Step 5
"identify whether any individual ecotoxic substance is present at or above a cut-off value ..." , used on:

Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "arsenic trioxide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "copper (I) oxide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "lead chromate"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "naphthalene"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "zinc chromate"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "cadmium sulfide"

Note 1 , used on:

Test: "HP 5 on STOT SE 1; H370, STOT RE 1; H372" for determinand: "cadmium sulfide"
Test: "HP 5 on STOT SE 2; H371, STOT RE 2; H373" for determinand: "cadmium sulfide"
Test: "HP 6 on Acute Tox. 4; H302" for determinand: "cadmium sulfide"
Test: "HP 7 on Carc. 1B; H350, Carc. 1A; H350, Carc. 1B; H350i, Carc. 1A; H350i" for determinand: "cadmium sulfide"
Test: "HP 10 on Repr. 1A; H360, Repr. 1B; H360, Repr. 1B; H360F, Repr. 1A; H360F, Repr. 1A; H360D, Repr. 1B; H360D, Repr. 1B; H360FD, Repr. 1A; H360FD, Repr. 1A; H360Fd, Repr. 1B; H360Fd, Repr. 1B; H360Df, Repr. 1A; H360Df" for determinand: "lead chromate"
Test: "HP 10 on Repr. 2; H361, Repr. 2; H361f, Repr. 2; H361d, Repr. 2; H361fd" for determinand: "cadmium sulfide"
Test: "HP 11 on Muta. 2; H341" for determinand: "cadmium sulfide"
Test: "HP 14 on R50, R52, R50/53, R51/53, R53, R52/53" for determinand: "lead chromate"

Determinand notes

Note 1 , used on:

determinand: "cadmium sulfide"
determinand: "lead chromate"

Note A , used on:

determinand: "zinc chromate"

Classification of sample: TP131

Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue

Sample details

Sample Name:
TP131
Sample Depth:
0.7 m
Moisture content: **19%**
(dry weight correction)

EWC Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands (Moisture content: 19%, dry weight correction)

pH: (Whole conc. entered as: 7.9 pH, converted to conc.:7.9 pH or 7.9 pH)

Notes utilised in assessment

None

Appendix A: Classifier defined and non CLP determinands

acenaphthene (CAS Number: 83-32-9)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=133563&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: R36, R37, R38, N; R50/53, N; R51/53
Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Aquatic Chronic 2; H411

acenaphthylene (CAS Number: 208-96-8)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=59285&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: R22, R26, R27, R36, R37, R38
Hazard Statements: Acute Tox. 4; H302, Acute Tox. 1; H330, Acute Tox. 1; H310, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315

anthracene (CAS Number: 120-12-7)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=101102&HarmOnly=no
Data source date: 08/03/2013
Risk Phrases: R36, R37, R38, R43, N; R50/53
Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

benzo[ghi]perylene (CAS Number: 191-24-2)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=15793&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: N; R50/53
Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410

fluoranthene (CAS Number: 206-44-0)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=56375&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: R20, R22, R36, N; R50/53
Hazard Statements: Acute Tox. 4; H302, Acute Tox. 4; H332, Eye Irrit. 2; H319, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

fluorene (CAS Number: 86-73-7)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=81845&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: N; R50/53, R53
Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Aquatic Chronic 4; H413

indeno[123-cd]pyrene (CAS Number: 193-39-5)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=128806&HarmOnly=no
Data source date: 08/03/2013
Risk Phrases: R40
Hazard Statements: Carc. 2; H351

pH

Comments: Appendix C, C4.5
Data source: WM2 - Interpretation of the definition and classification of hazardous waste (Second Edition, version2.2), Environment Agency
Data source date: 30/05/2008
Risk Phrases: None.
Hazard Statements: None.

phenanthrene (CAS Number: 85-01-8)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=109754&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: R22, R36, R37, R38, R40, R43, N; R50/53
Hazard Statements: Acute Tox. 4; H302, Eye Irrit. 2; H319, STOT SE 3; H335, Carc. 2; H351, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Skin Irrit. 2; H315

pyrene (CAS Number: 129-00-0)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source: http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=87484&HarmOnly=no
Data source date: 16/07/2012
Risk Phrases: R23, N; R50/53
Hazard Statements: Acute Tox. 3; H331, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

TPH (C6 to C40) petroleum group

Comments: Risk phrase data given on page A41
Data source: WM2 3rd edition, 2013
Data source date: 01/08/2013
Risk Phrases: R10, R45, R46, R51/53, R63, R65
Hazard Statements: Flam. Liq. 3; H226, Asp. Tox. 1; H304, STOT RE 2; H373, Muta. 1B; H340, Carc. 1B; H350, Repr. 2; H361d, Aquatic Chronic 2; H411

Appendix B: Notes

C14: Step 5

from section: WM3: C14 in the document: "WM3 - Waste Classification"

"identify whether any individual ecotoxic substance is present at or above a cut-off value ..."

Note 1

from section: 1.1.3.2, Annex VI in the document: "CLP Regulations"

"The concentration stated or, in the absence of such concentrations, the generic concentrations of this Regulation (Table 3.1) or the generic concentrations of Directive 1999/45/EC (Table 3.2), are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture."

Note A

from section: 1.1.3.1, Annex VI in the document: "CLP Regulations"

"Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '... compounds' or '... salts'. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4."

Appendix C: Version

Classification utilises the following:

- CLP Regulations - Regulation 1272/2008/EC of 16 December 2008
  REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
- 1st ATP - Regulation 790/2009/EC of 10 August 2009
  COMMISSION REGULATION (EC) No 790/2009 of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 2nd ATP - Regulation 286/2011/EC of 10 March 2011
  COMMISSION REGULATION (EU) No 286/2011 of 10 March 2011 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 3rd ATP - Regulation 618/2012/EU of 10 July 2012
  COMMISSION REGULATION (EU) No 618/2012 of 10 July 2012 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 4th ATP - Regulation 487/2013/EU of 8 May 2013
  COMMISSION REGULATION (EU) No 487/2013 of 8 May 2013 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
  COMMISSION REGULATION (EU) No 758/2013 of 7 August 2013 correcting Annex VI to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 5th ATP - Regulation 944/2013/EU of 2 October 2013
  COMMISSION REGULATION (EU) No 944/2013 of 2 October 2013 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- 6th ATP - Regulation 605/2014/EU of 5 June 2014
  COMMISSION REGULATION (EU) No 605/2014 of 5 June 2014 amending, for the purposes of introducing hazard and precautionary statements in the Croatian language and its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
  COMMISSION REGULATION (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives
- Revised List of Wastes 2014 - Decision 2014/955/EU of 18 December 2014
  COMMISSION DECISION of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council (2014/955/EU)
- WM3 - Waste Classification - May 2015
  Technical Guidance WM3 - Guidance on the classification and assessment of waste (1st edition 2015)
- POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004
  REGULATION (EC) No 850/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC
- 1st ATP to POPs Regulation - Regulation 756/2010/EU of 24 August 2010
  COMMISSION REGULATION (EU) No 756/2010 of 24 August 2010 amending Regulation (EC) No 850/2004 of the European Parliament and of the Council on persistent organic pollutants as regards Annexes IV and V
- 2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010
  COMMISSION REGULATION (EU) No 757/2010 of 24 August 2010 amending Regulation (EC) No 850/2004 of the European Parliament and of the Council on persistent organic pollutants as regards Annexes I and III

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