



Certificate of Analysis

Client: ELEMENT ENVIRONMENTAL
(K920) LABS DEESIDE UNIT 3
DEESIDE POINT ZONE 3
DEESIDE IND PK
FLINTSHIRE
CH5 2UA

Originator: 25 8875
25 8875

Lab ID: 94926 - 753057
Sample ID: 25/8875-4
Sample Weight: 1036g

Date Received: 04/06/2025
Date Reported: 16/06/2025

BS 3882 : 2015 SPECIFICATION FOR TOPSOIL Fails BS 3882

				Compliant with range (Y/N)					
				Multi-P	Acid	Calc	Low-F	Low-F	Low-F
								Acid	Calc
		Unit	Result						
Texture:	Clay	% w/w	20						
	Silt	% w/w	31						
	Sand	% w/w	49						
	Textural Class		Clay Loam	Y	Y	Y	Y	Y	Y
				<i>See area of permitted soil textural classes in Fig. 1.</i>					
Organic Matter:		% w/w	2.7	N	N	N	Y	Y	Y
Coarse	>2 mm	% w/w	26.7	Y	Y	Y	Y	Y	Y
Fragment	>20 mm	% w/w	10.2	N	N	N	N	N	N
Content:	>50 mm	% w/w	0.0	Y	Y	Y	Y	Y	Y
Soil pH:			8.1	Y	N	Y	Y	N	Y
Carbonate:		% w/w	2.4			Y			Y
Available	Nitrogen	% w/w	0.217	Y	Y	Y			
Plant	Phosphorus	mg/l	6.2 (0)*	N	N	N	Y	Y	Y
Nutrients:	Potassium	mg/l	89.0 (1)*	N	N	N			
	Magnesium	mg/l	67.7 (2)*	Y	Y	Y			
Carbon:Nitrogen Ratio:		:1	7.2	Y	Y	Y	Y	Y	Y
Exchangeable Sodium Percentage:		%	0.3						
Phytotoxic	Total Zinc	mg/kg	38.5	Y	Y	Y	Y	Y	Y
Contaminants:	Total Copper	mg/kg	8.6	Y	Y	Y	Y	Y	Y
	Total Nickel	mg/kg	20.1	Y	Y	Y	Y	Y	Y
Visible	> 2mm	% w/w	0.00	Y	Y	Y	Y	Y	Y
Contaminants:	Plastics	% w/w	0.00	Y	Y	Y	Y	Y	Y
	Number of Sharps		0	Y	Y	Y	Y	Y	Y
Additional	Available Sodium	mg/l	10.1						
Analysis:	Available Calcium	mg/l	2983.6						
	Conductivity	uS/cm	2013	Y					
Compliance:				N	N	N	N	N	N

Results are expressed on a dry matter basis.

* Soil indices from RB209

Released by:

Teresa Clyne

Date: 16/06/2025

DECLARATION:

I certify that this sample has been analysed by NRM in accordance with BS 3882 Specification for Topsoil (2015).

NRM Coopers Bridge, Braziers Lane, Bracknell, Berkshire RG42 6NS

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Analytical Report

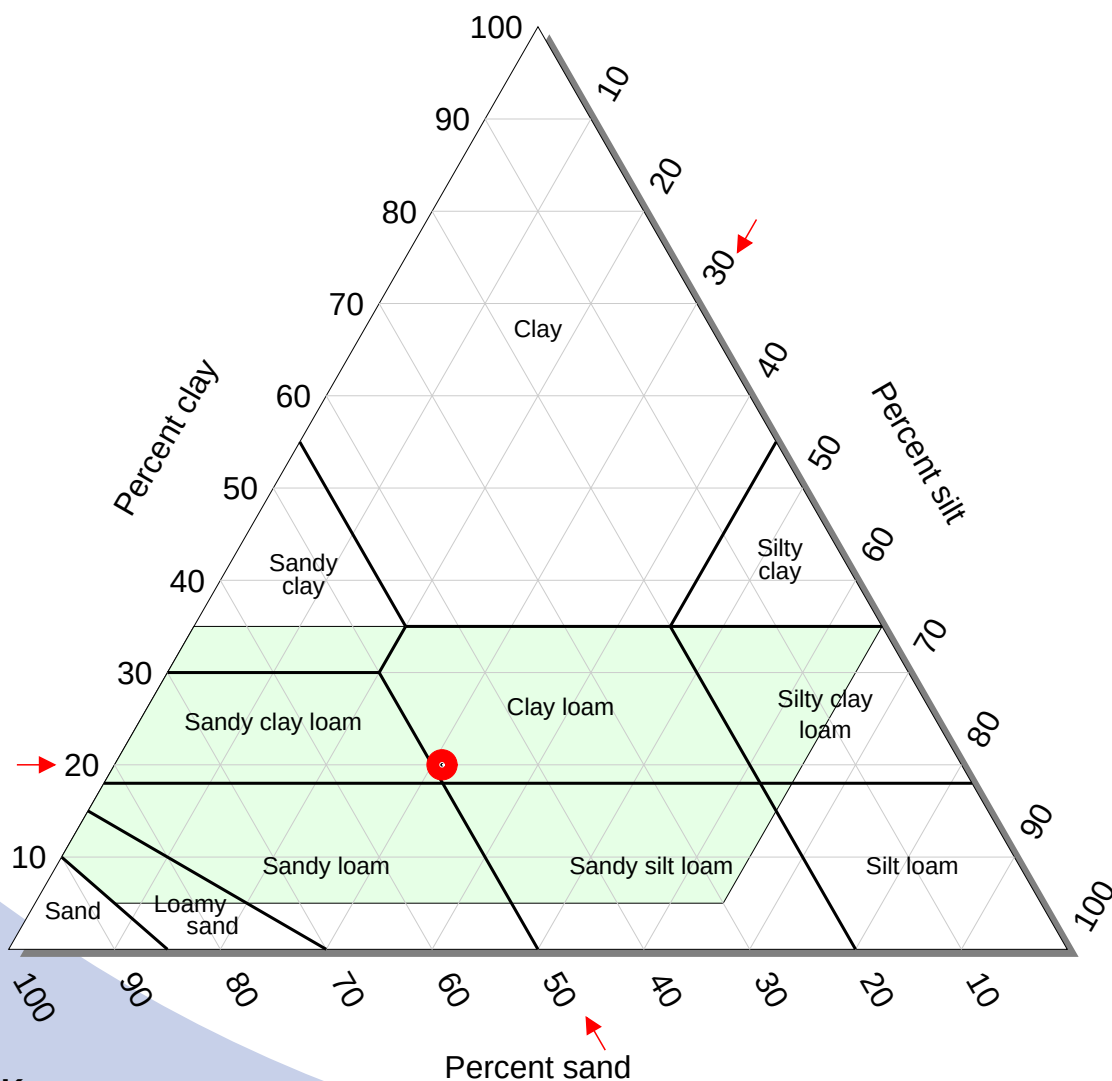
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Fig. 1. Textural Class: Clay Loam (compliant)



Key

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Originator: 25 8875
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Lab ID: 94926 - 753058
Sample ID: 25/8875-11
Sample Weight: 1280g

Date Received: 04/06/2025
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				Compliant with range (Y/N)					
				Multi-P	Acid	Calc	Low-F	Low-F	Low-F
								Acid	Calc
		Unit	Result						
Texture:	Clay	% w/w	17						
	Silt	% w/w	20						
	Sand	% w/w	63						
	Textural Class		Sandy Loam	Y	Y	Y	Y	Y	Y
				<i>See area of permitted soil textural classes in Fig. 1.</i>					
Organic Matter:		% w/w	3.7	Y	Y	Y	Y	Y	Y
Coarse	>2 mm	% w/w	57.1	N	N	N	N	N	N
Fragment	>20 mm	% w/w	28.9	N	N	N	N	N	N
Content:	>50 mm	% w/w	6.2	N	N	N	N	N	N
Soil pH:			6.6	Y	N	N	Y	N	N
Carbonate:		% w/w	<1			N			N
Available	Nitrogen	% w/w	0.202	Y	Y	Y			
Plant	Phosphorus	mg/l	11.5 (1)*	N	N	N	Y	Y	Y
Nutrients:	Potassium	mg/l	95.5 (1)*	N	N	N			
	Magnesium	mg/l	80.6 (2)*	Y	Y	Y			
Carbon:Nitrogen Ratio:		:1	10.6	Y	Y	Y	Y	Y	Y
Exchangeable Sodium Percentage:		%	0.3						
Phytotoxic	Total Zinc	mg/kg	74.2	Y	Y	Y	Y	Y	Y
Contaminants:	Total Copper	mg/kg	11.5	Y	Y	Y	Y	Y	Y
	Total Nickel	mg/kg	22.3	Y	Y	Y	Y	Y	Y
Visible	> 2mm	% w/w	0.00	Y	Y	Y	Y	Y	Y
Contaminants:	Plastics	% w/w	0.00	Y	Y	Y	Y	Y	Y
	Number of Sharps		0	Y	Y	Y	Y	Y	Y
Additional	Available Sodium	mg/l	8.1						
Analysis:	Available Calcium	mg/l	2011.8						
	Conductivity	uS/cm	1996	Y					
Compliance:				N	N	N	N	N	N

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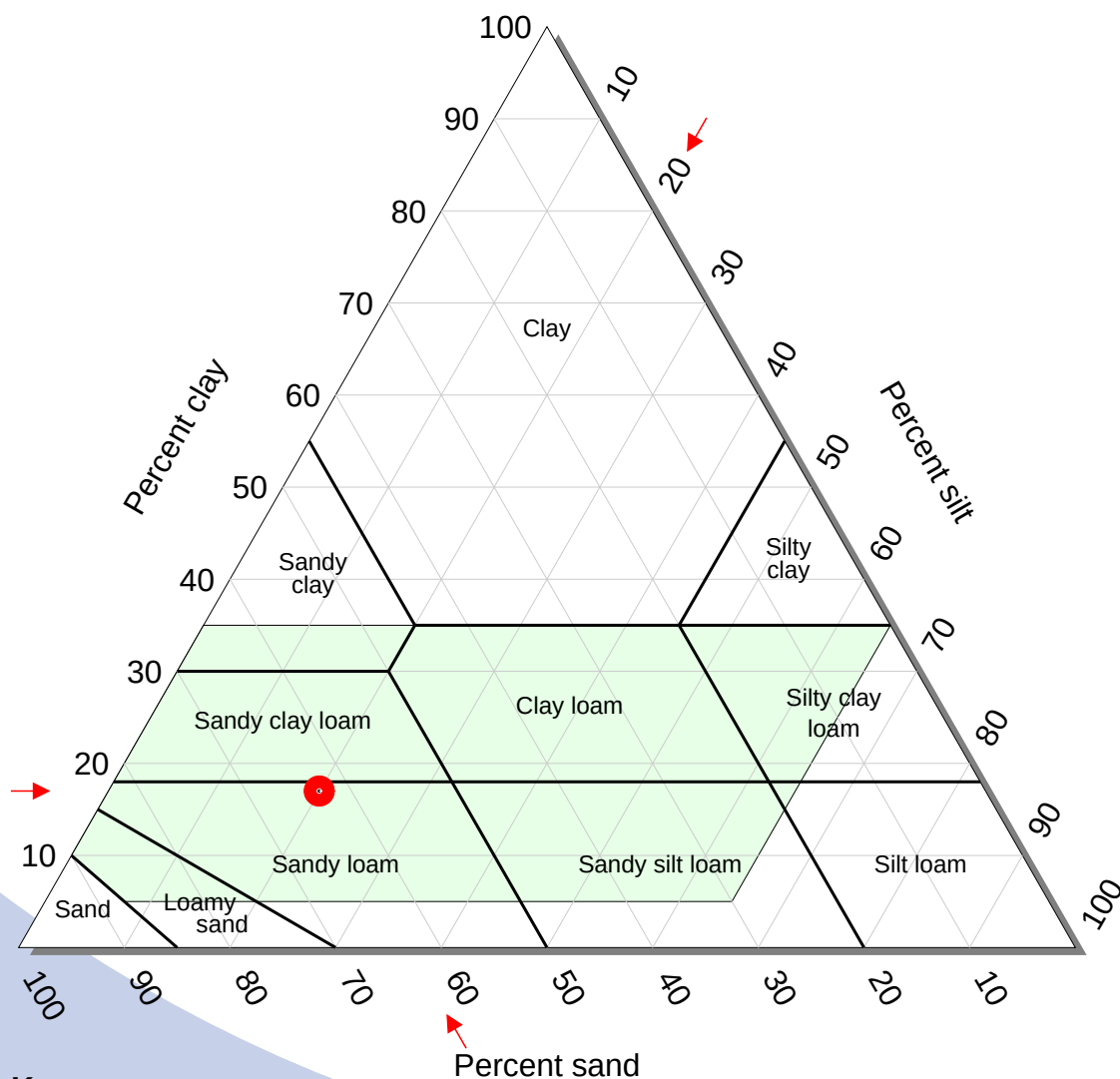
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Originator: 25 8875
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Lab ID: 94926 - 753059
Sample ID: 25/8875-20
Sample Weight: 991g

Date Received: 04/06/2025
Date Reported: 16/06/2025

BS 3882 : 2015 SPECIFICATION FOR TOPSOIL Specific Purpose: Low Fertility

				Compliant with range (Y/N)					
				Multi-P	Acid	Calc	Low-F	Low-F Acid	Low-F Calc
Texture:	Clay	% w/w	22						
	Silt	% w/w	27						
	Sand	% w/w	51						
	Textural Class		Sandy Clay Loam	Y	Y	Y	Y	Y	Y
				<i>See area of permitted soil textural classes in Fig. 1.</i>					
Organic Matter:		% w/w	4.5	N	N	N	Y	Y	Y
Coarse	>2 mm	% w/w	13.2	Y	Y	Y	Y	Y	Y
Fragment	>20 mm	% w/w	5.3	Y	Y	Y	Y	Y	Y
Content:	>50 mm	% w/w	0.0	Y	Y	Y	Y	Y	Y
Soil pH:			7.8	Y	N	Y	Y	N	Y
Carbonate:		% w/w	1.5			Y			Y
Available	Nitrogen	% w/w	0.230	Y	Y	Y			
Plant	Phosphorus	mg/l	15.8 (2)*	N	N	N	Y	Y	Y
Nutrients:	Potassium	mg/l	91.0 (1)*	N	N	N			
	Magnesium	mg/l	80.6 (2)*	Y	Y	Y			
Carbon:Nitrogen Ratio:		:1	11.3	Y	Y	Y	Y	Y	Y
Exchangeable Sodium Percentage:		%	0.2						
Phytotoxic	Total Zinc	mg/kg	72.3	Y	Y	Y	Y	Y	Y
Contaminants:	Total Copper	mg/kg	10.7	Y	Y	Y	Y	Y	Y
	Total Nickel	mg/kg	16.7	Y	Y	Y	Y	Y	Y
Visible	> 2mm	% w/w	0.00	Y	Y	Y	Y	Y	Y
Contaminants:	Plastics	% w/w	0.00	Y	Y	Y	Y	Y	Y
	Number of Sharps		0	Y	Y	Y	Y	Y	Y
Additional	Available Sodium	mg/l	6.3						
Analysis:	Available Calcium	mg/l	2962.0						
	Conductivity	uS/cm	2021	Y					
Compliance:				N	N	N	Y	N	Y

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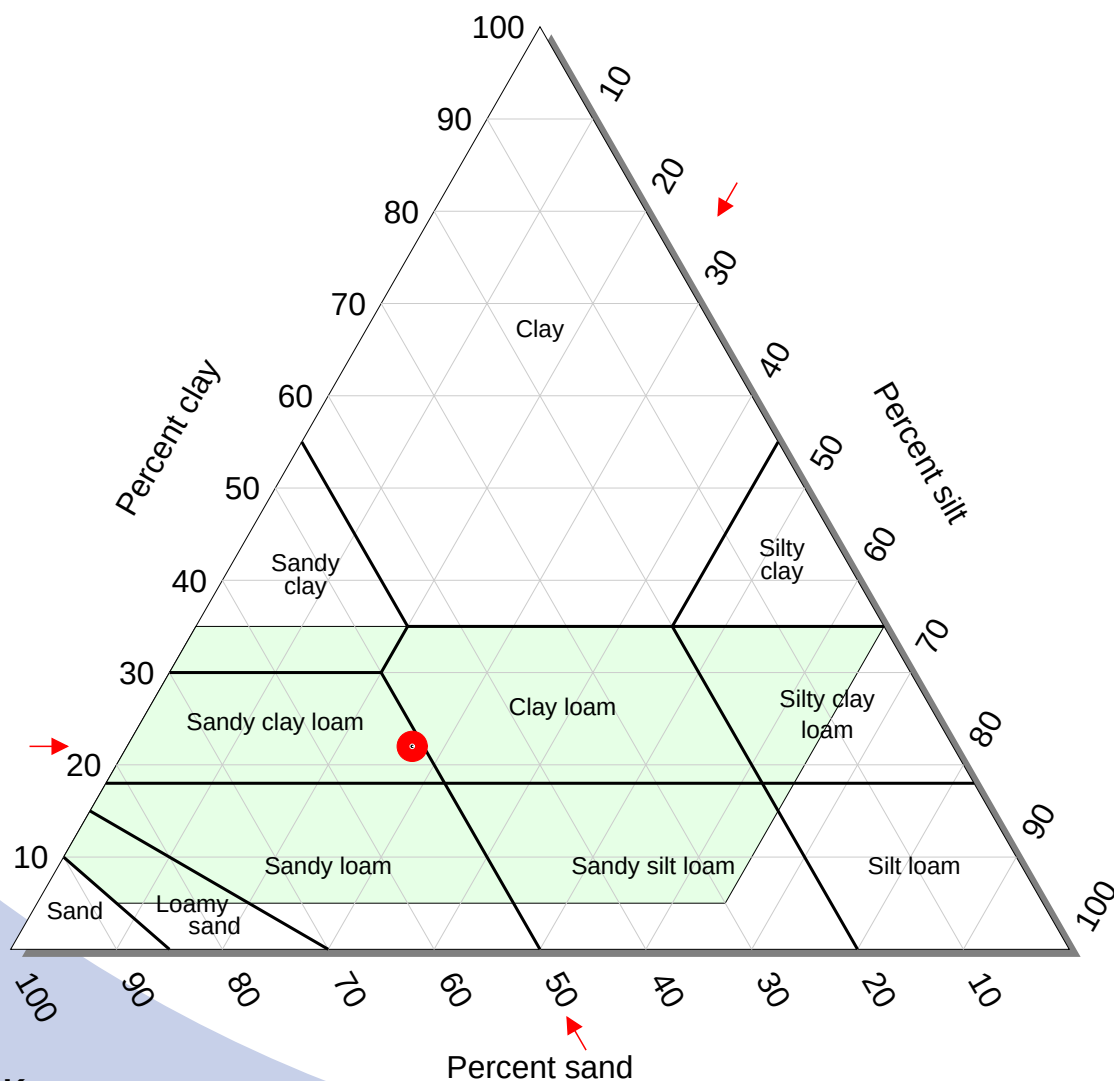
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Originator: 25 8875
25 8875

Lab ID: 94926 - 753060
Sample ID: 25/8875-25
Sample Weight: 1063g

Date Received: 04/06/2025
Date Reported: 16/06/2025

BS 3882 : 2015 SPECIFICATION FOR TOPSOIL Fails BS 3882

				Compliant with range (Y/N)					
				Multi-P	Acid	Calc	Low-F	Low-F	Low-F
								Acid	Calc
		Unit	Result						
Texture:	Clay	% w/w	17						
	Silt	% w/w	32						
	Sand	% w/w	51						
	Textural Class		Sandy Loam	Y	Y	Y	Y	Y	Y
				<i>See area of permitted soil textural classes in Fig. 1.</i>					
Organic Matter:		% w/w	3.1	Y	Y	Y	Y	Y	Y
Coarse	>2 mm	% w/w	31.2	N	N	N	N	N	N
Fragment	>20 mm	% w/w	18.3	N	N	N	N	N	N
Content:	>50 mm	% w/w	0.0	Y	Y	Y	Y	Y	Y
Soil pH:			6.6	Y	N	N	Y	N	N
Carbonate:		% w/w	<1			N			N
Available	Nitrogen	% w/w	0.194	Y	Y	Y			
Plant	Phosphorus	mg/l	29.9 (3)*	Y	Y	Y	N	N	N
Nutrients:	Potassium	mg/l	54.0 (0)*	N	N	N			
	Magnesium	mg/l	42.5 (1)*	N	N	N			
Carbon:Nitrogen Ratio:		:1	9.3	Y	Y	Y	Y	Y	Y
Exchangeable Sodium Percentage:		%	0.6						
Phytotoxic	Total Zinc	mg/kg	42.4	Y	Y	Y	Y	Y	Y
Contaminants:	Total Copper	mg/kg	11.1	Y	Y	Y	Y	Y	Y
	Total Nickel	mg/kg	11.2	Y	Y	Y	Y	Y	Y
Visible	> 2mm	% w/w	0.00	Y	Y	Y	Y	Y	Y
Contaminants:	Plastics	% w/w	0.00	Y	Y	Y	Y	Y	Y
	Number of Sharps		0	Y	Y	Y	Y	Y	Y
Additional	Available Sodium	mg/l	11.6						
Analysis:	Available Calcium	mg/l	1673.4						
	Conductivity	uS/cm	2000	Y					
Compliance:				N	N	N	N	N	N

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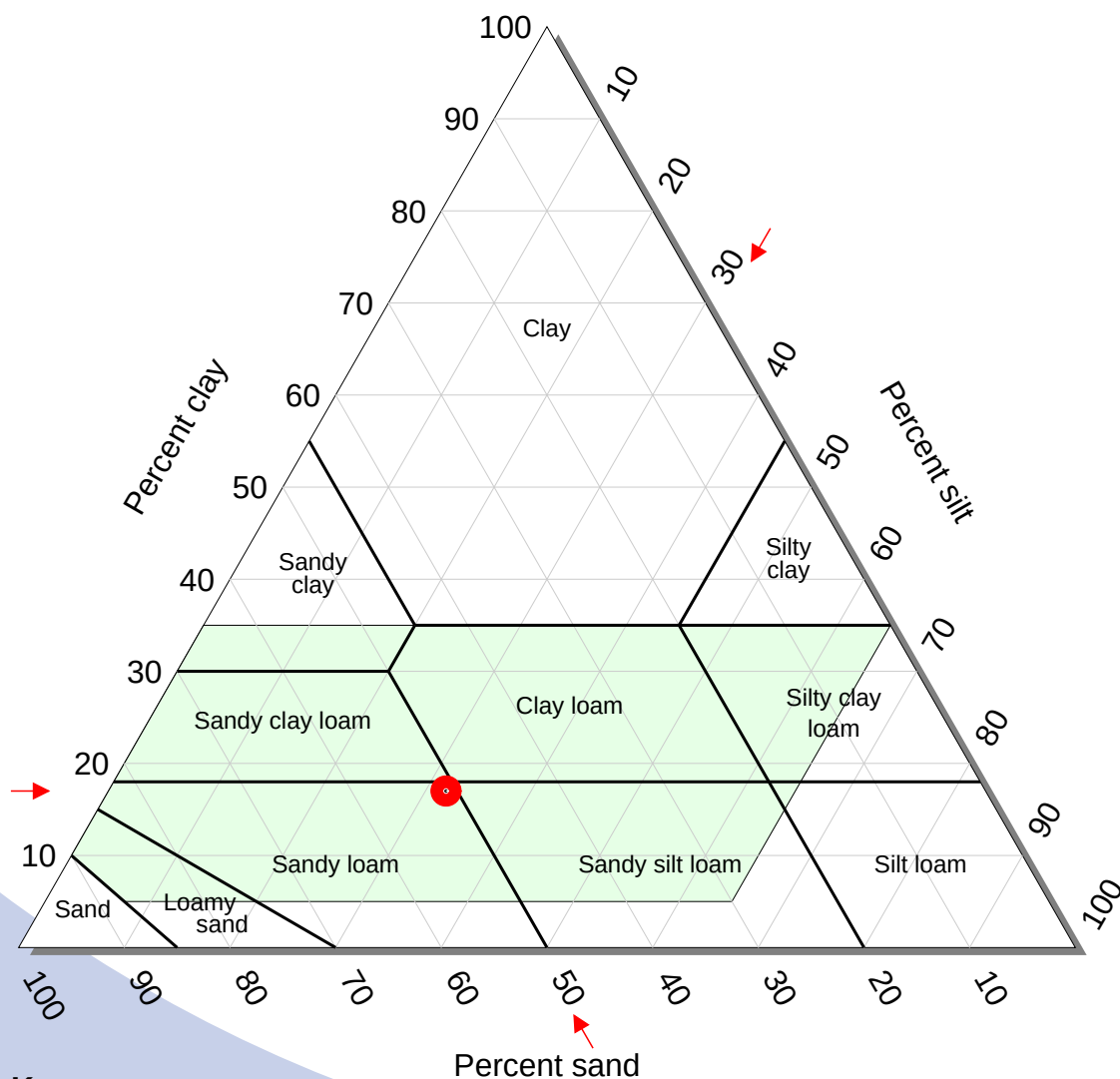
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Lab ID: 94926 - 753061
Sample ID: 25/8875-39
Sample Weight: 1080g

Date Received: 04/06/2025
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				Compliant with range (Y/N)					
				Multi-P	Acid	Calc	Low-F	Low-F	Low-F
								Acid	Calc
		Unit	Result						
Texture:	Clay	% w/w	21						
	Silt	% w/w	30						
	Sand	% w/w	49						
	Textural Class		Clay Loam	Y	Y	Y	Y	Y	Y
				<i>See area of permitted soil textural classes in Fig. 1.</i>					
Organic Matter:		% w/w	2.9	N	N	N	Y	Y	Y
Coarse	>2 mm	% w/w	30.6	N	N	N	N	N	N
Fragment	>20 mm	% w/w	17.4	N	N	N	N	N	N
Content:	>50 mm	% w/w	0.0	Y	Y	Y	Y	Y	Y
Soil pH:			8.2	Y	N	Y	Y	N	Y
Carbonate:		% w/w	6.9			Y			Y
Available	Nitrogen	% w/w	0.166	Y	Y	Y			
Plant	Phosphorus	mg/l	6.4 (0)*	N	N	N	Y	Y	Y
Nutrients:	Potassium	mg/l	75.8 (1)*	N	N	N			
	Magnesium	mg/l	64.0 (2)*	Y	Y	Y			
Carbon:Nitrogen Ratio:		:1	10.1	Y	Y	Y	Y	Y	Y
Exchangeable Sodium Percentage:		%	0.2						
Phytotoxic	Total Zinc	mg/kg	34.2	Y	Y	Y	Y	Y	Y
Contaminants:	Total Copper	mg/kg	8.5	Y	Y	Y	Y	Y	Y
	Total Nickel	mg/kg	17.8	Y	Y	Y	Y	Y	Y
Visible	> 2mm	% w/w	0.00	Y	Y	Y	Y	Y	Y
Contaminants:	Plastics	% w/w	0.00	Y	Y	Y	Y	Y	Y
	Number of Sharps		0	Y	Y	Y	Y	Y	Y
Additional	Available Sodium	mg/l	8.2						
Analysis:	Available Calcium	mg/l	2944.1						
	Conductivity	uS/cm	2018	Y					
Compliance:				N	N	N	N	N	N

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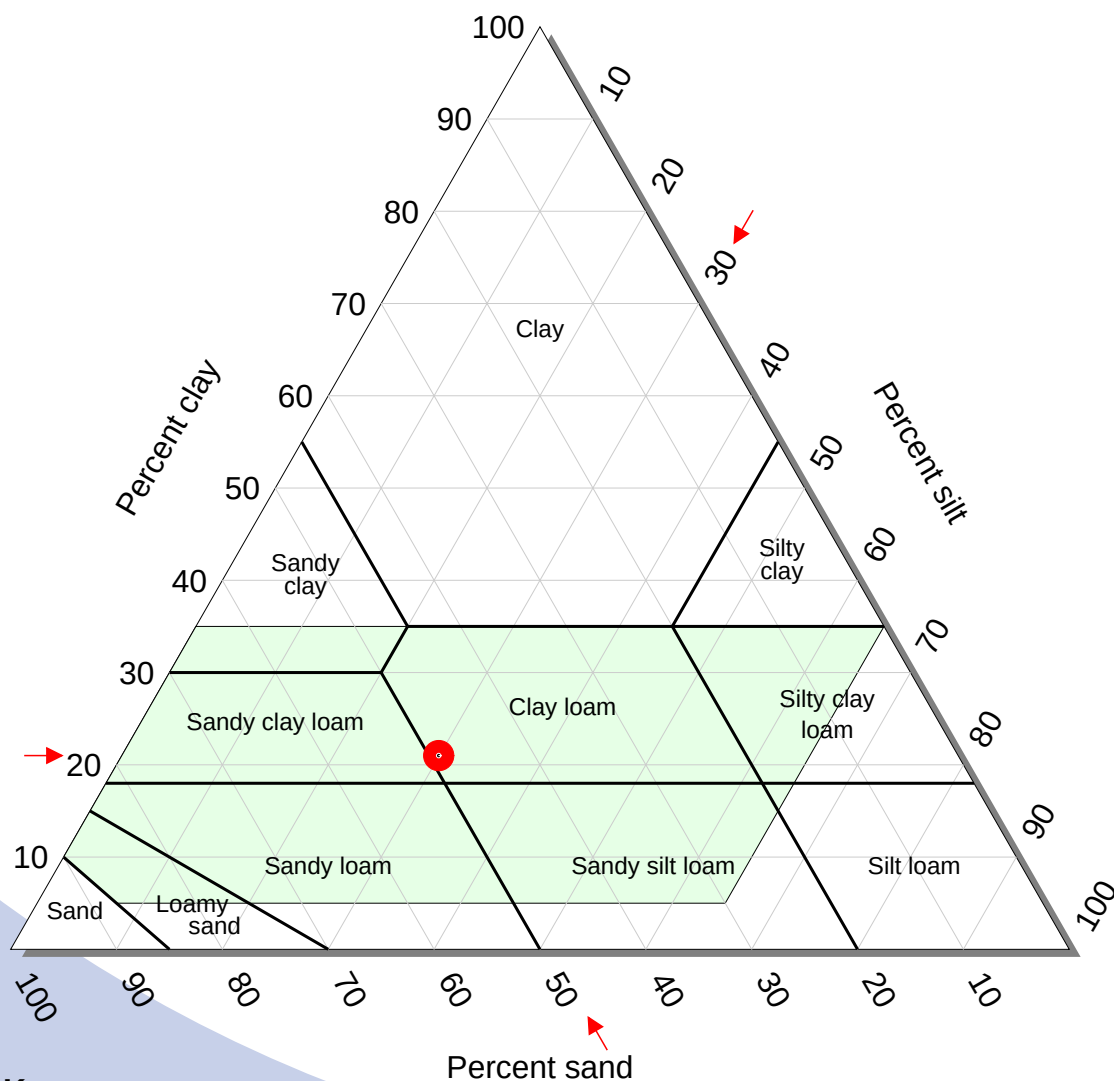
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Analytical Notes

Final page must indicate end of report. Page 11

Accreditation and method details

NRM is a UKAS-accredited testing laboratory (No 2334), accredited to BS EN ISO 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF communique dated April 2017). <http://ilac.org/?download=120917>

NRM is accredited for particular determinands in specific matrices as set out in the laboratory's current UKAS schedule of accreditation https://www.ukas.com/wp-content/uploads/schedule_uplds/00002/2334Testing_Multiple.pdf

Accreditation applies to the following parameters in this report and is applicable to SOIL samples only. All other tests within this report are unaccredited.

Test	Analysis SOP	Method Description
Fluoride	JAS-487	Sulphuric acid extraction (1:10 ratio) and determination by ion selective electrode
Arsenic	JAS-510 / JAS-300	Aqua regia digest on hot block and determination by ICP-OES
Barium		
Beryllium		
Cadmium		
Chromium		
Cobalt		
Copper		
Lead		
Molybdenum		
Mercury		
Nickel		
Vanadium		
Zinc		
Selenium	JAS-510 / JAS-455	Aqua regia digest on hot block and determination by AFS

Analysis Notes

Analysis is carried out on the air-dried (<30°C) and ground sample.

The results as reported relate only to the item(s) submitted for testing.

The results are presented on a dry matter basis.

Indices are derived solely from the numerical value and test result without reference to measurement uncertainty.

Document Control

This test report shall not be reproduced, except in full, without the written approval of the laboratory.

We cannot offer interpretation or opinions for results.

Sampling information

BS ISO 18512:2007 (Soil quality – Guidance on long and short-term storage of soil samples) states that for pH the period of stability and therefore holding time for a wet or 'fresh' soil sample is one week from sampling. Other determinants in the fresh sample may be considered stable for up to a month. Once the sample has been dried the sample may then be considered stable for up to 3 years. No records are maintained by NRM on date sampled or date dried so all samples within this report are considered not to be meeting the requirements of this BS / ISO. Consequently, all pH results given are those of the as-received sample and may not reflect the pH value of the sample when taken.

END OF REPORT

Appendix E

Soil Technical Note

Land off Kirton's Farm Road, Reading

Soil Resource Survey

Document 30280066-AUK-XX-ZZ-TR-ZZ-0077-P002-Soil Resource Survey

12 August 2026

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Figures

Figure 1 Site Location Plan and Soil Sampling Locations Error! Bookmark not defined.

Appendices

Appendix A Soil Laboratory Analysis 10

1 Introduction

Arcadis Consulting (UK) Limited ("Arcadis") has been commissioned by M&G Real Estate (M&G) acting on behalf of Prudential Assurance Company Ltd ("the Client") to undertake a Soil Resource Survey in support of a Town and Country Planning Act (TCPA) for the removal of soils and subsequent restoration of a site for future agricultural use (the Proposed Development), for a parcel of land off Kirton's Farm Road, near Reading, Berkshire. The Site is currently vacant with scrub and vegetation growth present. A quantity of natural soils generated as a result of forming a development platform for an adjacent historical development in the area were located to part of the site under agreement with Englefield Estate Trust Corporation Limited (the 'Freeholders') and have been present at the Site for over 20 years.

A Site Location Plan with sampling locations is presented as Figure 1.

The Proposed Development involves the removal of the previously Imported Soils (approximately 18,000 m³) currently stored on part of the Site, including required enabling works, followed by the restoration and reprofiling of the land to its original level (using only Indigenous Material, placed elsewhere on the Site) and condition for future agricultural use, as originally intended.

The Soil Resource Survey was undertaken to further characterise the Indigenous Materials, comprising the naturally occurring soils in the west of the Site.

1.1 Aim & Objectives

The key aim of the assessment is to provide relevant information to provide confidence that the Indigenous Materials can be reprofiled, to restore the Site as best as practicable its original elevation.

The assessment of soil resources and condition across the Site have been informed by this Soil Resource Survey, alongside the previously completed Indigenous Material Sampling Report^{Error! Bookmark not defined.}. The following details the aims and objectives of the Soil Resource Survey:

- Assess nutrient levels within the Indigenous Materials;
- Characterise the physical properties of the Indigenous Materials; and
- Evaluate the suitability of the Indigenous Materials for reprofiling.

The maximum target depth for sample collection of the Indigenous Materials was 1.2 m below ground level.

1.2 Reliability of Information / Limitations

This report has been prepared by Arcadis with all reasonable skill, care and diligence within the terms of the Appointment and with the resources and manpower agreed with the Client. This report is only valid when used in its entirety. Any information or advice included in the report should not be relied upon until considered in the context of the whole report and previous work. Whilst this report and the opinions made are correct to the best of Arcadis' belief, Arcadis cannot guarantee the accuracy or completeness of any information provided by third parties. Arcadis has taken reasonable steps to ensure that the information sources used for this assessment provided accurate information, and has therefore assumed this to be the case. The copyright of this document shall remain the property of Arcadis.

The surface layer of the Indigenous Material was observed to be dry, hard, and stony, which limited penetration and prevented assessment of the soil materials in comparison to the target depth of 1.2 m. The maximum depth of investigation was limited to shallow depths of approximately 10cm as a result. Consequently, the assessment of soil conditions and nutrient status was limited, but the Indigenous Material Sampling Report^{Error! Bookmark not defined.} has been used to supplement the findings presented in this technical note.

Arcadis' liability, pursuant to the terms of the appointment of Arcadis by the Client, is strictly limited to the work undertaken and the matters contained and specifically referred to in this report.

1.3 Reliance

This report is prepared for the use of the Client. The contents of this report may not be used or relied upon by any person other than this party without the express written consent and authorisation of Arcadis.

2 Methodology

The Soil Resource Survey for the investigation of the Indigenous Material physical properties was undertaken in accordance with The Soil Survey Handbook: Describing and Sampling Soil Profiles. Soil nutrient sampling followed the Natural England Technical Information Note TIN035¹. The sampling methodology also adhered to the guidance set out in British Standards BS 3882:2015².

The Soil Resource Survey included soil sampling of the Indigenous Materials to assess soil fertility, alongside soil profile examinations to characterise the physical properties of the soil.

A 5cm diameter, 120cm long Edelman hand auger was used, where the soil profile was intended to be exposed down to a maximum depth of 120cm or bedrock, whichever was shallower. However, the ground conditions meant that a depth of circa 10cm could be investigated.

Samples were collected from nine locations across the top surficial layer of the Indigenous Material, as shown on Figure 1, to produce a representative composite sample.

The sample was stored in a plastic bag and was clearly labelled prior to being sent away for laboratory analysis of key soil nutrients; and

NRM laboratories (UKAS accredited) undertook the analysis. Soil laboratory analysis results are presented in Appendix A.

The sample was analysed for the following chemical properties:

- Soil texture;
- Organic matter (OM);
- pH;
- Carbonate;
- Total nitrogen (N);
- Extractable phosphorus (P);
- Extractable potassium (K);
- Extractable magnesium (Mg);
- Carbon:nitrogen(C:N) ratio;
- Electrical conductivity (EC);
- Available Sodium (Na);
- Available Calcium (Ca);
- Potentially phytotoxic elements:
- Zinc (Zn);
- Copper (Cu);
- Nickel (Ni); and
- Visible contaminants.

¹ Natural England, (2008). Soil sampling for habitat reaction and restoration (TIN035).

² British Standard, BS 3882:2015 Specification for topsoil.

3 Survey results

3.1 Soil Physical Properties

Table 3-1 summarises the Indigenous Material physical characteristics determined in-situ during the site visit, including soil texture, depth, carbonate, mottling, and stone content. Refer to Figure 1 for the corresponding soil sample locations.

In-situ soil investigations indicated the top layer (0 to 10cm) was characterised as slightly stoney medium clay loam, as confirmed by laboratory analysis. The underlying materials were not characterised due to dry, hard, and stony conditions, which limited penetration and prevented a full assessment of the soil profile to the target depth of 1.2 m.

Table 3-1 Soil Resource Survey Soil Log – Indigenous Materials

Sampling Location	Horizon Top (cm)	Horizon Bottom (cm)	Texture	Matrix Colour	CaCO ₃	Hard Stone Content (%) >2mm	Hard Stone Content (%) >2cm	Hard Stone Content (%) >6cm	Soft Stone Content (%)	Soft Stone Type
18	0	10	SCL	10YR3/3	Very Calcareous	15	8	4	3	Chalk
19	0	10	SCL	10YR3/3	Very Calcareous	15	8	4	3	Chalk
20	0	10	SCL	10YR3/3	Very Calcareous	15	8	4	3	Chalk
21	0	10	SCL	10YR3/3	Very Calcareous	15	8	4	3	Chalk
22	0	10	SCL	10YR3/3	Very Calcareous	15	8	4	3	Chalk
23	0	10	SCL	10YR3/3	Very Calcareous	15	8	4	3	Chalk
24	0	10	SCL	10YR3/3	Very Calcareous	15	8	4	3	Chalk
25	0	10	SCL	10YR3/3	Very Calcareous	15	8	4	3	Chalk
26	0	10	SCL	10YR3/3	Very Calcareous	15	8	4	3	Chalk

3.2 Chemical properties, soil nutrients, pH, organic matter

Table 3-2 presents the detailed soil analytical result of the composite soil sample. These results have been assessed with reference to the Indigenous Material Sampling Report^{Error! Bookmark not defined.}, with relevant comparisons included in Section 3.2.1 below to supplement the findings presented in this technical note.

Table 3-2 Soil nutrient results. Key: vL – very low, L – Low, M – Moderated, H – high, vH – very high.

Parameter	Indigenous Materials (0 – 10 cm Depth)
Texture	Sandy Clay Loam
OM %	11.5
Mass Loss on Ignition %	-
pH	7.1
Carbonate %	2
N %	0.506 (L – M)
P mg/l	31.2 (M)
K mg/l	353.7 (H)
Mg mg/l	164 (vH)
C:N Ratio %	13.2
Exchangeable Na %	0.2
Zn mg/kg	53.1
Cu mg/kg	11.7
Ni mg/kg	30.0
Visible contaminants %	0.0
Available Na mg/l	8.0
Available Ca mg/l	2345
EC uS/cm	2088
EC CaSO ₄ uS/cm	-
Results	
BS3882:2015 Specification for Topsoil	Multipurpose Topsoil

3.3 Assessment of Findings

The surficial layer of the Indigenous Material (0 – 0.1 m) have been specified as multipurpose topsoils, which would be suitable for the reprofiling of the Site to tie in to surrounding field levels. The multipurpose topsoils have moderate levels of P (>21mg/l), meaning that these soil materials are suitable for multipurpose use as defined by BS 3882:2015 but are not suitable for the establishment of low nutrient botanically diverse habitats, such as species-rich grassland, due to the high P levels. These soils would, however, be suitable for the future establishment of improved grassland, such as perennial ryegrass, without the need for significant soil amendments.

The Indigenous Material has an organic matter content greater than 10%, indicating the topsoil is organic. Soils with these levels of soil organic matter generally have a better structure, water holding capacity and workability, as well as a more established biological soil community when compared to soils with lower soil organic matter contents.

No phytotoxic concentrations of Zn, Cu or Ni are evident in the Indigenous Materials, and no visible contaminants are present. However, it should be considered soil samples were taken from point locations across the stockpile, and the potential for soil contamination cannot be discarded.

The Indigenous Material Sampling Report^{Error! Bookmark not defined.} did not analyse the surficial topsoil layer of the Indigenous Materials. Ten point samples were collected between 0.3 and 0.85 m depth with five samples scheduled for BS 3882:2015 testing. Four of the five samples did not meet the BS 3882:2015 criteria, primarily due to low organic matter and/or nutrient concentrations, including P and K. One sample was classified as Specific Purpose Low Fertility Topsoil.

However, these results should be interpreted in the context of the sampling approach and the material profile. The samples were collected as discrete point samples from below the surficial layer and are therefore unlikely to fully represent the soil material following stripping, mixing and resspreading. The surficial layer is expected to contain higher organic matter content as a result of vegetation growth and the development of roots and rootlets during the period since the soils were stockpiled. Mixing of this surficial layer of the Indigenous Material with the underlying Indigenous Material is therefore likely to increase the overall organic matter content. In addition, the P concentrations recorded across the five deeper samples varied from 6.2 to 29.9 mg/l^{Error! Bookmark not defined.}; as such, blending of the Indigenous Material may also achieve a more consistent available P concentration suitable for topsoil reuse.

Additional sampling and testing of a blended material could not be undertaken due to the dry and hard soil conditions encountered during the Soil Resource Survey. Based on the available information, it is considered that the Indigenous Material can be restored as topsoil to reinstate the land.

4 Conclusions

The surficial layer of the Indigenous Material was classified as Multipurpose Topsoil under BS3882:2015. This material has higher organic matter content and is considered suitable reprofiling and restoration of the Site. Although previous deeper samples from the Indigenous Material did not consistently meet BS3882:2015 criteria, these samples excluded the surficial layer and are not considered fully representative of the blended material likely to be used during restoration. On this basis, the Indigenous Material is considered suitable for topsoil reuse.

5 Recommendations

Given the limited number of samples from the blended Indigenous Material and the localised nature of sampling, soil reprofiling works using the Indigenous Material should be appropriately supervised by a suitably experienced soil scientist.



N

Site Boundary

Soil Sampling Locations

Notes

GB Background: Contains OS data © Crown Copyright and database right 2026. Contains data from OS Zoomstack
World Imagery: Microsoft, Vantor

Reading Green Park

01	07/08/26	INITIAL ISSUE	MP	LH	ZL
Rev	Date	Description	Drawn	Check	Approv

PROJECT:

LAND OFF KIRTON'S FARM ROAD, READING

Client

M&G Real Estate
10 Fenchurch Avenue
London
EC3M 5AG
United Kingdom

Site

Land off Kirton's Farm Road,
Reading

ARCADIS

Registered office:
80Fen
80 Fenchurch Street
London
EC3M 4BY
www.arcadis.com

Coordinating Office:
80Fen
80 Fenchurch Street
London
EC3M 4BY

Title:

Figure 1
Site Location Plan and
Soil Sampling Locations

Designed	L. Hoyland	Date	07 AUG 26	Signed	
Drawn	M. Pawaskar	Date	07 AUG 26	Signed	
Checked	L. Hoyland	Date	07 AUG 26	Signed	
Approved	Z. Liu	Date	07 AUG 26	Signed	
Scale:	1:1,500	Datum:	AOD		
Original Size:	A3	Grid:	OS		
Suitability Code:	S2	Project Number:	30336140		

Suitability Description:

For Information

Drawing Number:

30280066-AUK-XX-ZZ-DR-KK-0053

Revision:

P01

Appendix A. Laboratory Analysis



Certificate of Analysis

Client: ARCADIS HUMAN RESOURCES
(B106) LTD
80 FENCHURCH STREET
LONDON
EC3M 4BY

Originator: M AND G 040626LH
SOIL

Lab ID: 56238 - 798851
Sample ID: S2 TS
Sample Weight: 521g

Date Received: 11/06/2026
Date Reported: 19/06/2026

BS 3882 : 2015 SPECIFICATION FOR TOPSOIL Multipurpose Grade

				Compliant with range (Y/N)					
				Multi-P	Acid	Calc	Low-F	Low-F Acid	Low-F Calc
Texture:	Clay	% w/w	22						
	Silt	% w/w	27						
	Sand	% w/w	51						
	Textural Class		Sandy Clay Loam	Y	Y	Y	Y	Y	Y
					See area of permitted soil textural classes in Fig. 1.				
Organic Matter:		% w/w	11.5	Y	Y	Y	Y	Y	Y
Coarse	>2 mm	% w/w	5.7	Y	Y	Y	Y	Y	Y
Fragment	>20 mm	% w/w	2.1	Y	Y	Y	Y	Y	Y
Content:	>50 mm	% w/w	0.0	Y	Y	Y	Y	Y	Y
Soil pH:			7.1	Y	N	N	Y	N	N
Carbonate:		% w/w	2.0			Y			Y
Available	Nitrogen	% w/w	0.506	Y	Y	Y			
Plant	Phosphorus	mg/l	31.2 (3)*	Y	Y	Y	N	N	N
Nutrients:	Potassium	mg/l	353.7 (3)*	Y	Y	Y			
	Magnesium	mg/l	164.0 (3)*	Y	Y	Y			
Carbon:Nitrogen Ratio:		:1	13.2	Y	Y	Y	Y	Y	Y
Exchangeable Sodium Percentage:		%	0.2						
Phytotoxic	Total Zinc	mg/kg	53.1	Y	Y	Y	Y	Y	Y
Contaminants:	Total Copper	mg/kg	11.7	Y	Y	Y	Y	Y	Y
	Total Nickel	mg/kg	30.0	Y	Y	Y	Y	Y	Y
Visible	> 2mm	% w/w	0.00	Y	Y	Y	Y	Y	Y
Contaminants:	Plastics	% w/w	0.00	Y	Y	Y	Y	Y	Y
	Number of Sharps		0	Y	Y	Y	Y	Y	Y
Additional	Available Sodium	mg/l	8.0						
Analysis:	Available Calcium	mg/l	2345.0						
	Conductivity	uS/cm	2088	Y					
Compliance:				Y	N	N	N	N	N

Results are expressed on a dry matter basis.

* Soil indices from RB209

Released by:

Teresa Clyne

Date: 19/06/2026

DECLARATION:

I certify that this sample has been analysed by NRM in accordance with BS 3882 Specification for Topsoil (2015).

Analytical Report

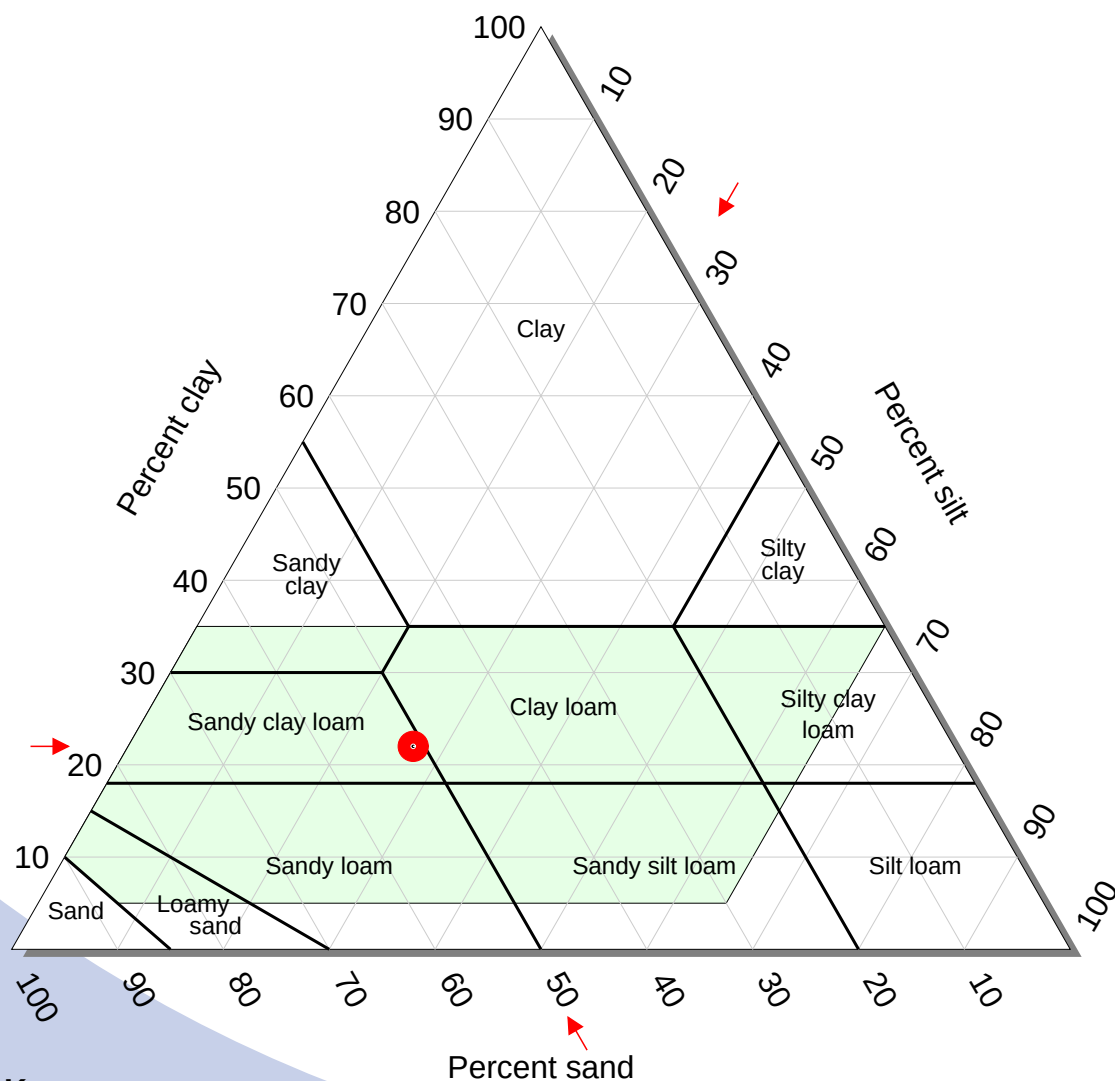
Client: ARCADIS HUMAN RESOURCES
(B106) LTD
80 FENCHURCH STREET
LONDON
EC3M 4BY

Originator: M AND G 040626LH
SOIL

Lab ID: 56238 - 798851
Sample ID: S2 TS
Sample Weight: 521g

Date Received: 11/06/2026
Date Reported: 19/06/2026

Fig. 1. Textural Class: Sandy Clay Loam (compliant)



Key



Area within which texture of topsoil is required to fall.

Analytical Notes

Final page must indicate end of report. Page 5

Accreditation and method details

NRM is a UKAS-accredited testing laboratory (No 2334), accredited to BS EN ISO 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF communique dated April 2017). <http://ilac.org/?ddownload=120917>

NRM is accredited for particular determinands in specific matrices as set out in the laboratory's current UKAS schedule of accreditation

https://www.ukas.com/wp-content/uploads/schedule_uploads/00002/2334Testing-Multiple.pdf

Accreditation applies to the following parameters in this report and is applicable to SOIL samples only. All other tests within this report are unaccredited.

Test	Analysis SOP	Method Description
Fluoride	JAS-487	Sulphuric acid extraction (1:10 ratio) and determination by ion selective electrode
Arsenic	JAS-510 / JAS-300	Aqua regia digest on hot block and determination by ICP-OES
Barium		
Beryllium		
Cadmium		
Chromium		
Cobalt		
Copper		
Lead		
Molybdenum		
Mercury		
Nickel		
Vanadium		
Zinc		
Selenium	JAS-510 / JAS-455	Aqua regia digest on hot block and determination by AFS

Analysis Notes

Analysis is carried out on the air-dried (<30°C) and ground sample.

The results as reported relate only to the item(s) submitted for testing.

The results are presented on a dry matter basis.

Indices are derived solely from the numerical value and test result without reference to measurement uncertainty.

Document Control

This test report shall not be reproduced, except in full, without the written approval of the laboratory.

We cannot offer interpretation or opinions for results.

Sampling information

BS ISO 18512:2007 (Soil quality – Guidance on long and short-term storage of soil samples) states that for pH the period of stability and therefore holding time for a wet or 'fresh' soil sample is one week from sampling. Other determinants in the fresh sample may be considered stable for up to a month. Once the sample has been dried the sample may then be considered stable for up to 3 years. No records are maintained by NRM on date sampled or date dried so all samples within this report are considered not to be meeting the requirements of this BS / ISO. Consequently, all pH results given are those of the as-received sample and may not reflect the pH value of the sample when taken.

Conformity Assessment

Where a result has been converted to an index or if it has been classified as a pass or fail to a certain specification anywhere in this report a rule has been applied to convert the analytical result to that index or a pass/fail. Statistically the rule is a simple acceptance rule which does not account for uncertainty and therefore has a zero guard band which nominally has a width w=0. This means there is a 50% probability that a result exactly equal to the specification limit will be outside the specification.

The uncertainty of measurement has been calculated for the tests in this report. This value can provide further information on the validity of conformity statements close to the specification limit and is available from the laboratory on request.

Customer-supplied information

The following information in this report has been supplied by the customer: customer details; client details; quotation number / analysis required; order number; sampling date (if present); sample identifications.

END OF REPORT



Certificate of Analysis

Client: ARCADIS HUMAN RESOURCES
(B106) LTD
80 FENCHURCH STREET
LONDON
EC3M 4BY

Originator: M AND G 040626LH
SOIL

Lab ID: 56238 - 798850
Sample ID: S1 TS
Sample Weight: 528g

Date Received: 11/06/2026
Date Reported: 19/06/2026

BS 3882 : 2015 SPECIFICATION FOR TOPSOIL Specific Purpose: Low Fertility

				Compliant with range (Y/N)					
				Multi-P	Acid	Calc	Low-F	Low-F Acid	Low-F Calc
Texture:	Clay	% w/w	32						
	Silt	% w/w	32						
	Sand	% w/w	36						
	Textural Class		Clay Loam	Y	Y	Y	Y	Y	Y
				See area of permitted soil textural classes in Fig. 1.					
Organic Matter:		% w/w	6.8	Y	Y	Y	Y	Y	Y
Coarse	>2 mm	% w/w	8.9	Y	Y	Y	Y	Y	Y
Fragment	>20 mm	% w/w	2.9	Y	Y	Y	Y	Y	Y
Content:	>50 mm	% w/w	0.0	Y	Y	Y	Y	Y	Y
Soil pH:			7.7	Y	N	Y	Y	N	Y
Carbonate:		% w/w	3.6			Y			Y
Available	Nitrogen	% w/w	0.309	Y	Y	Y			
Plant	Phosphorus	mg/l	15.4 (1)*	N	N	N	Y	Y	Y
Nutrients:	Potassium	mg/l	383.5 (3)*	Y	Y	Y			
	Magnesium	mg/l	233.9 (4)*	Y	Y	Y			
Carbon:Nitrogen Ratio:		:1	12.8	Y	Y	Y	Y	Y	Y
Exchangeable Sodium Percentage:		%	0.2						
Phytotoxic	Total Zinc	mg/kg	59.2	Y	Y	Y	Y	Y	Y
Contaminants:	Total Copper	mg/kg	16.6	Y	Y	Y	Y	Y	Y
	Total Nickel	mg/kg	30.6	Y	Y	Y	Y	Y	Y
Visible	> 2mm	% w/w	0.00	Y	Y	Y	Y	Y	Y
Contaminants:	Plastics	% w/w	0.00	Y	Y	Y	Y	Y	Y
	Number of Sharps		0	Y	Y	Y	Y	Y	Y
Additional	Available Sodium	mg/l	9.5						
Analysis:	Available Calcium	mg/l	3160.0						
	Conductivity	uS/cm	2203	Y					
Compliance:				N	N	N	Y	N	Y

Results are expressed on a dry matter basis.

* Soil indices from RB209

Released by:

Teresa Clyne

Date: 19/06/2026

DECLARATION:

I certify that this sample has been analysed by NRM in accordance with BS 3882 Specification for Topsoil (2015).

Analytical Report

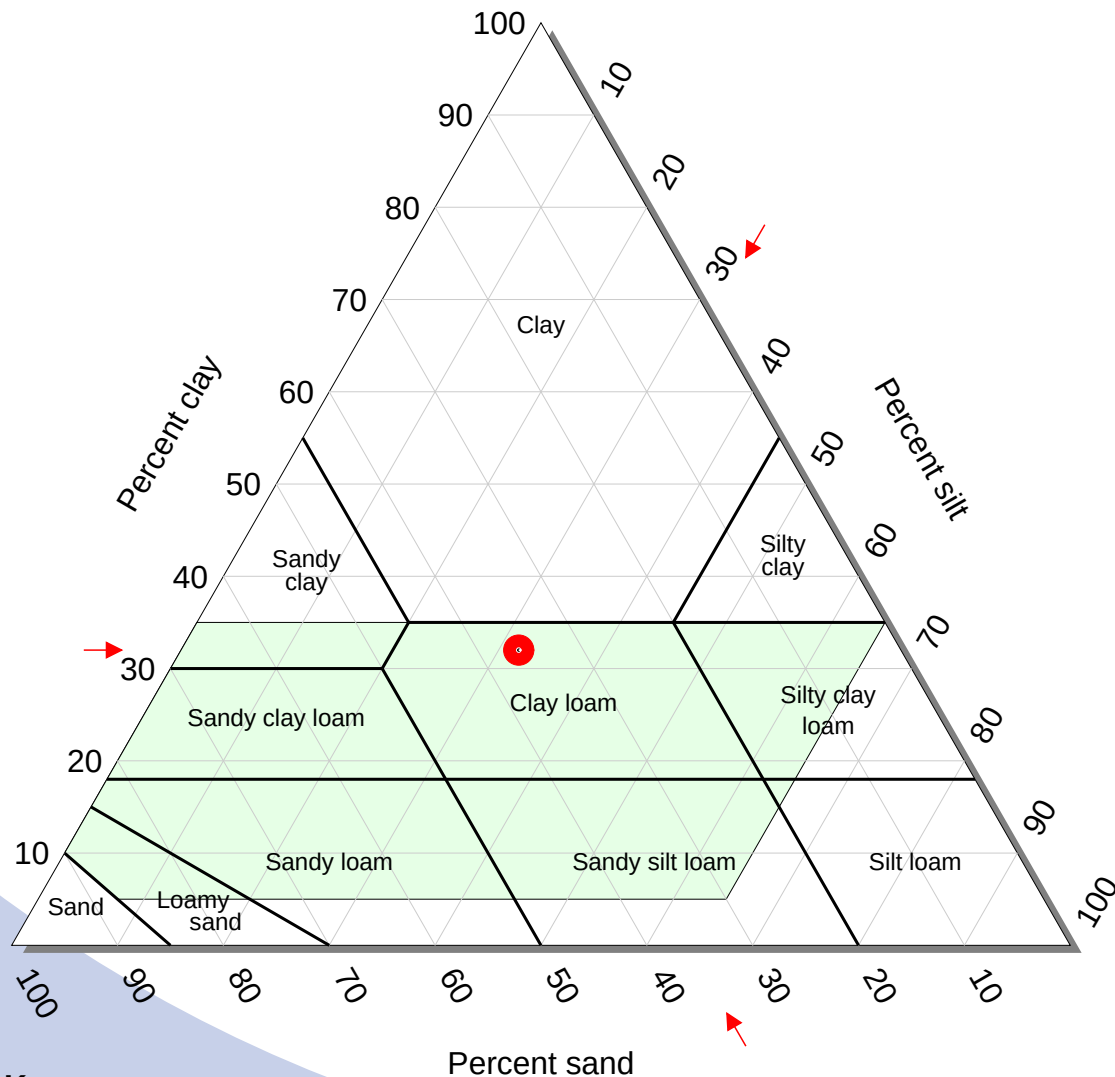
Client: ARCADIS HUMAN RESOURCES
(B106) LTD
80 FENCHURCH STREET
LONDON
EC3M 4BY

Originator: M AND G 040626LH
SOIL

Lab ID: 56238 - 798850
Sample ID: S1 TS
Sample Weight: 528g

Date Received: 11/06/2026
Date Reported: 19/06/2026

Fig. 1. Textural Class: Clay Loam (compliant)



Key



Area within which texture of topsoil is required to fall.

Certificate of Analysis

Client: ARCADIS HUMAN RESOURCES
(B106) LTD
80 FENCHURCH STREET
LONDON
EC3M 4BY

Originator: M AND G 040626LH
SOIL

Lab ID: 56239 - 798852
Sample ID: S1 MID
Fresh Sample Weight: 383 (g)

Date Received: 11/06/2026
Date Reported: 19/06/2026

BS 8601 : 2013 SPECIFICATION FOR SUBSOIL Fails BS 8601

				Compliant with range (Y/N)		
		Unit	Result	Multi-P	Acid	Calc
Texture:	Clay	% w/w	38	See area of permitted soil textural classes in Fig. 1.		
	Silt	% w/w	35			
	Sand	% w/w	27			
	Textural Class		Clay			
Mass Loss on Ignition:		% w/w	3.6	N	N	N
Coarse	>2 mm	% w/w	3.2	Y	Y	Y
Fragment	>20 mm	% w/w	0.9	Y	Y	Y
Content:	>75 mm	% w/w	0.0	Y	Y	Y
Soil pH:			7.4	Y	N	N
Carbonate:		% w/w	3.4			Y
Exchangeable Sodium Percentage:		%	0.1	Y	Y	Y
Phytotoxic	Total Zinc	mg/kg	64.3	Y	Y	Y
Contaminants:	Total Copper	mg/kg	17.4	Y	Y	Y
	Total Nickel	mg/kg	37.4	Y	Y	Y
Visible	> 2mm	% w/w	0.00	Y	Y	Y
Contaminants:	Plastics	% w/w	0.00	Y	Y	Y
	Sharps	% w/w	0.00	Y	Y	Y
	Weight of Sharps	g	0.0			
Available	Phosphorus	mg/l	8.0 (0)*			
Plant	Potassium	mg/l	161.6 (2-)*			
Nutrients:	Magnesium	mg/l	686.1 (7)*			
Additional Analysis:	Available Sodium	mg/l	10.5			
	Available Calcium	mg/l	5745.0			
	Conductivity	uS/cm	2379			
	Conductivity CaSO4 Adj.	uS/cm	419			
Compliance:				N	N	N

Results are expressed on a dry matter basis.

* Soil indices from RB209

Released by: *Teresa Clyne*

Date: 19/06/2026

DECLARATION: I certify that this sample has been analysed by NRM. in accordance with BS 8601 Specification for Subsoil (2013).

Analytical Report

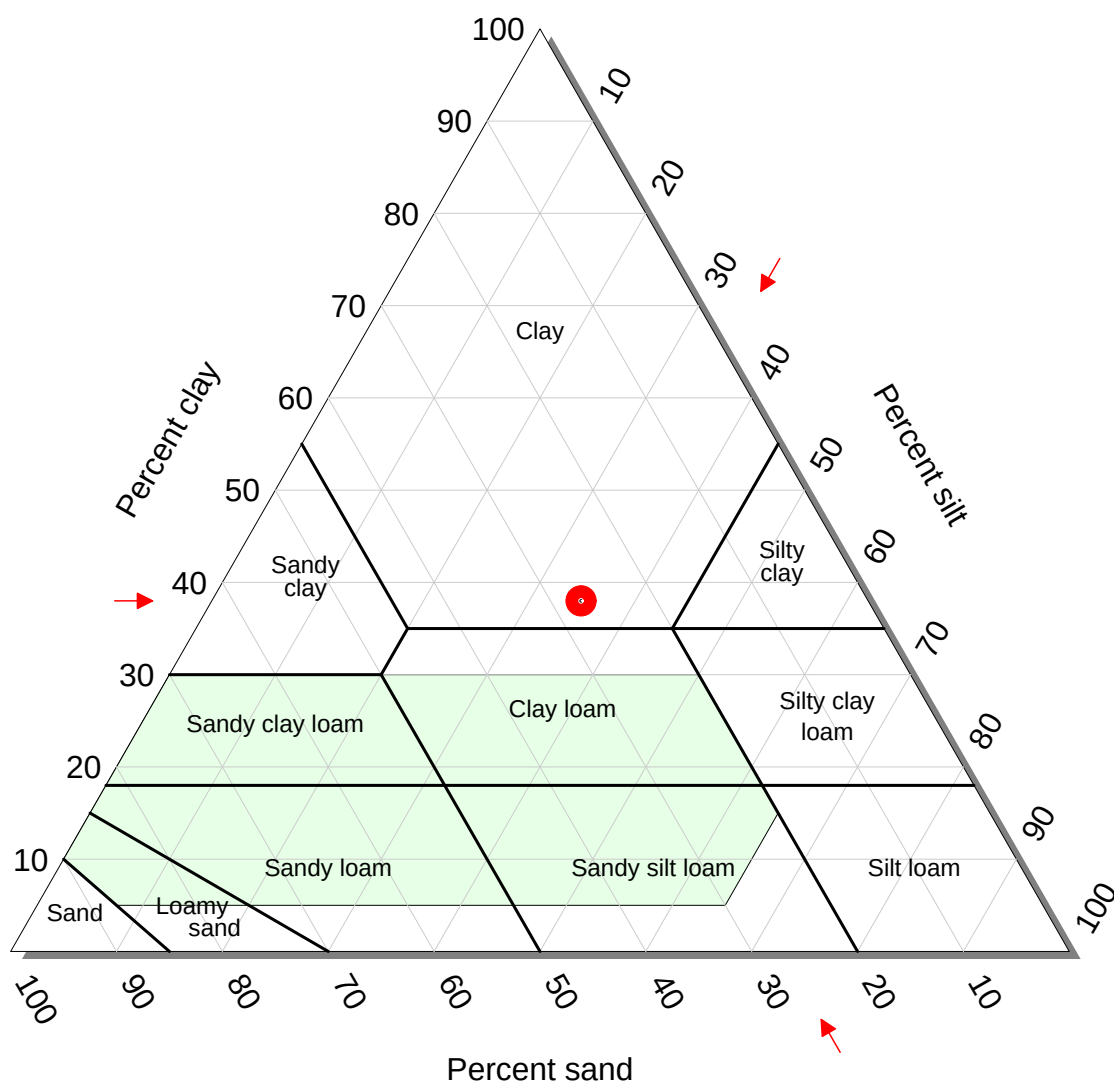
Client: ARCADIS HUMAN RESOURCES
(B106) LTD
80 FENCHURCH STREET
LONDON
EC3M 4BY

Originator: M AND G 040626LH
SOIL

Lab ID: 56239 - 798852
Sample ID: S1 MID
Fresh Sample Weight: 383 (g)

Date Received: 11/06/2026
Date Reported: 19/06/2026

Fig. 1. Textural Class: Clay (non-compliant)



Key

 Area within which texture of subsoil is required to fall.

Analytical Notes

Final page must indicate end of report. Page 3

Accreditation and method details

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Arsenic	JAS-510 / JAS-300	Aqua regia digest on hot block and determination by ICP-OES
Barium		
Beryllium		
Cadmium		
Chromium		
Cobalt		
Copper		
Lead		
Molybdenum		
Mercury		
Nickel		
Vanadium		
Zinc		
Selenium	JAS-510 / JAS-455	Aqua regia digest on hot block and determination by AFS

Analysis Notes

Analysis is carried out on the air-dried (<30°C) and ground sample.

The results as reported relate only to the item(s) submitted for testing.

The results are presented on a dry matter basis.

Indices are derived solely from the numerical value and test result without reference to measurement uncertainty.

Document Control

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Sampling information

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Conformity Assessment

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The uncertainty of measurement has been calculated for the tests in this report. This value can provide further information on the validity of conformity statements close to the specification limit and is available from the laboratory on request.

Customer-supplied information

The following information in this report has been supplied by the customer: customer details; client details; quotation number / analysis required; order number; sampling date (if present); sample identifications.

END OF REPORT

Arcadis Consulting (UK) Limited

Tempus Court

Guildford

GU1 4SS

[arcadis.com](https://www.arcadis.com)