



The Sizewell C Project

6.10 Volume 9 Rail

Chapter 10 Soils and Agriculture

Appendix 10A Green Rail Route: Agricultural Land Classification

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VOLUME 9 APPENDIX 10A: GREEN RAIL ROUTE: AGRICULTURAL LAND CLASSIFICATION

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Executive Summary

An assessment of agricultural land quality, involving a desktop study and a detailed Agricultural Land Classification (ALC) survey, has been undertaken to determine the quality of agricultural land in relation to the proposed green rail route for Sizewell C. The assessment was undertaken in accordance with the ALC system for England and Wales, October 1988 ('the ALC Guidelines').

The detailed survey found agricultural land in grades 3a (8.6 hectares (ha)), 3b (11.7ha) and 4 (1.7ha), along with a small area of non-agricultural land (1.0ha). Grade 3a land is considered to be among the best and most versatile agricultural land in England and Wales, the lowest ALC grade to fall in this category.

1. Agricultural Land Classification

1.1 Introduction

1.1.1 This report presents an assessment of agricultural land quality (agricultural land classification; ALC) at the proposed Rail Improvements development (hereafter referred to as the proposed development) for Sizewell C. The purpose of this report is to present details of the agricultural land quality at the site. This report has been prepared by Arcadis on behalf of SZC Co.

1.1.2 The site is 23ha in size and is located to the north-east of Leiston.

1.1.3 When surveyed in in 2016 and 2019 the site was under arable production.

1.2 Agricultural land planning policy and context

1.2.1 This ALC assessment is consistent with the direction given by the National Planning Policy Framework¹ (NPPF).

1.2.2 Section 15 of the NPPF deals with conserving and enhancing the natural environment. This includes a requirement that planning policies and decisions should recognise:

“the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland.”

1.2.3 A footnote to this adds that:

“Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality.”

1.2.4 Agricultural land in England and Wales is graded between 1 and 5, depending on the extent to which physical or chemical characteristics impose long-term limitations on agricultural use. Grade 1 land is excellent quality agricultural land with very minor or no limitations to agricultural use, and Grade 5 is very poor quality land, with severe limitations due to adverse soil characteristics, relief, climate or a combination of these.

¹ National Planning Policy Framework. Department for Communities and Local Government, February 2019
<https://www.gov.uk/government/publications/national-planning-policy-framework--2>

Grade 3 land is subdivided into subgrade 3a (good quality land) and subgrade 3b (moderate quality land).

1.2.5 Grades 1, 2 and 3a are defined as the Best and Most Versatile (BMV) land.

1.2.6 The site falls within the administrative area for the Suffolk Coastal District Local Plan². A number of references are made to the need to, where possible, preserve prime agricultural land for essential food production. No specific policy is, however, set out and it should be considered therefore that guidance related to BMV reverts to the NPPF.

1.3 Agricultural Land Classification methodology

a) Ministry of Agriculture, Food and Fisheries Agricultural Land Classification system

1.3.1 The Ministry of Agriculture Fisheries and Food (MAFF) ALC³ system of grading land quality for use in land use planning purposes divides farmland into five grades according to the degree of limitation imposed upon land use by the inherent physical characteristics of climate, site and soils. As detailed above, grade 1 land is of an excellent quality, whilst grade 5 land has very severe limitations for agricultural use.

1.3.2 Accordingly, a detailed assessment of the proposal site has been undertaken using the MAFF revised guidelines and criteria for ALC published October 1988. The proposed approach to undertake detailed ALC surveys on areas which had not previously been surveyed was accepted by Natural England during consultation in 2016.

1.3.3 The detailed survey involved examination of the soil's physical properties at 23 locations on a 100 metre (m) by 100m grid. The grid reference of the sample locations was recorded to enable these to be relocated for verification, if necessary.

1.3.4 At each location, the soil profile was examined to a maximum depth of approximately 1.2m by hand with the use of a 5 centimetre (cm) diameter Dutch (Edleman) soil auger. A number of soil pits were excavated at selected locations with a spade in order to examine the physical soil profile

² Suffolk Coastal Core Strategy Adopted July 2013 <http://www.eastsuffolk.gov.uk/planning/local-plans/suffolk-coastal-district-local-plan/>

³ Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land. Ministry of Agriculture Fisheries and Food, October 1988. <http://archive.defra.gov.uk/foodfarm/landmanage/land-use/documents/alc-guidelines-1988.pdf>

characteristics, including subsoil structure, of the main representative soil types.

1.3.5 The soil profile at each sample location was described using the Soil Survey Field Handbook: Describing and Sampling Soil Profiles⁴. Each soil profile was ascribed an ALC grade following the MAFF ALC Guidelines.

1.3.6 These MAFF guidelines require that the following factors be investigated:

- Climate: average annual rainfall and Accumulated Temperature above 0°C between January and June (AT0).
- Site: gradient, micro relief and flooding.
- Soils: texture, structure, depth, stoniness, and chemical toxicity.
- Interactive factors: soil wetness, soil droughtiness and liability to erosion.

1.3.7 To confirm soil texture topsoil samples were collected from 2 auger locations and sent to an accredited laboratory for particle size distribution analysis. The data sheets are included as **Appendix 10A2** of this volume.

b) [Natural England technical advice note 049](#)

1.3.8 Use of the ALC methodology is also supported by Natural England Technical Advice Note 049⁵ (TIN049), published in 2012.

1.3.9 TIN049 describes a detailed ALC survey as having approximately one sample point per hectare. To achieve this sample density and to remove surveyor selection bias, as noted above, sample points were set at 100m intersections aligned with the national grid, located in the field by hand held Global Positioning System.

1.4 Agricultural Land Classification assessment

a) Climate

1.4.1 Climatological data for ALC are provided for 5 kilometre (km) intersections of the National Grid by the Meteorological Office, in collaboration with the

⁴ Soil Survey Field Handbook: Describing and Sampling Soil Profiles' (Ed. J.M. Hodgson, Cranfield University, 1997).

⁵ Agricultural Land Classification: protecting the best and most versatile agricultural land (TIN049). Natural England, 2012. <http://publications.naturalengland.org.uk/publication/35012>

National Soil Resources Institute. The data from these points can be interpolated providing climate data for specific sites. Interpolated data for the proposal site is given in **Table 1.1**.

Table 1.1: Green rail route ALC climate data.

Reference Point.	National Grid Reference TM 472 640.
Altitude (m)	2
Average annual rainfall (mm).	571
Accumulated Temperature AT0 (day degrees).	1441
Moisture Deficit for wheat (mm).	127
Moisture Deficit for potatoes (mm).	125
Field Capacity Days (FCD).	102

1.4.2 The main parameters used in the assessment of an overall climatic limitation are average annual rainfall as a measure of overall wetness, and AT0 as a measure of the warmth in the growing season.

1.4.3 Climate does not impose an overall limitation on ALC grade at this site. Climate does, however, have an important influence on the interactive limitations of soil wetness and soil droughtiness. The site has both relatively low rainfall and a long growing season, acting to decrease the severity of any potential soil wetness limitation, but increasing the severity of any potential soil droughtiness limitation.

b) The site

1.4.4 Land within the proposal site slopes gently upwards from north to south before sloping downwards toward the centre of the site before sloping back upward to the most southern point of the site. Gradient and microtopography do not limit ALC grade within the site.

1.4.5 No natural watercourses adjoin the site and there is no evidence that flood risk limits ALC grade at any part of the site⁶.

⁶ Environment Agency Flood map for Planning. <http://apps.environment-agency.gov.uk/wiyby/37837.aspx>

NOT PROTECTIVELY MARKED

c) Soils and parent materials

- 1.4.6 The site is underlain by the Crag Group (quaternary shallow-water marine and estuarine sands, gravels, silts and clays), with an overlying drift deposit of Lowestoft Formation (superficial diamicton deposits comprising an extensive sheet of poorly-sorted matrix-supported chalky till as well as outwash sands and gravels, silts and clays).
- 1.4.7 In the eastern part of the site the soils are mapped as being freely draining slightly acid sandy soils. These are shown to belong to the Newport Soil Association (representing a group of soil types which are typically found occurring together in a landscape). The main land use on these soils is described as being arable crops such as barley, other cereals and sugar beet, with some coniferous woodland and lowland heath habitats.
- 1.4.8 In the central part of the site the soils are described as being freely draining slightly acid but base-rich soils. These belong to the Melford Soil Association. The main land use on these soils where they occur in Eastern England is described as being arable crops.
- 1.4.9 In the south-western part of the site the soils are described as slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils. These belong to the Ragdale Soil Association. The main land use on these soils is described as being winter cereals.
- 1.4.10 Field survey work at the site found soil material that was a mixture of medium to heavy textured (loams to clays) in the more southern section of the site and in the centre and to the north of the site material comprised lighter textured (sandy) material as well as the heavier textured material.
- 1.4.11 Stone content often rises in the lower subsoil but the topsoil content of larger stones (above 2cm) is not enough to limit ALC grade.

d) Interactive factors

- 1.4.12 Of two typical soil profiles found at the site, the first consisted of a clay loam topsoil over a clayey subsoil. The clayey subsoil impedes the drainage of excess water down through the soil profile, trapping water in the topsoil after rain and leaving this land vulnerable to persistent structural damage from livestock hooves, vehicle wheels and cultivators.
- 1.4.13 Avoiding or minimising such damage limits land management options. However, due to the relatively low rainfall the land is only occasionally wet (Wetness Class III) rather than seasonally waterlogged. Soil wetness limitations at the site are dependent on the topsoil clay content and the presence of carbonates. A higher clay content increases the vulnerability of

topsoil to structural damage when wet, giving rise to a stronger soil wetness limitation. The presence of calcium carbonate in the topsoil can mitigate this limitation as it acts to improve soil structural development.

- 1.4.14 The slowly permeable clayey subsoil has a poor structure that limits root penetration as well as drainage. As a result, the volume of water held by the soil that is available to the plant is further limited.
- 1.4.15 These soil profiles are limited to ALC grade 3a to 3b by soil droughtiness with some having an equal or greater limitation from soil wetness.
- 1.4.16 The second typical soil profile found at the site was of lightly textured loamy sands overlaying sandy subsoils. The sandy subsoil allows free draining of water therefore maintaining a high wetness class I across these profiles.
- 1.4.17 The permeable sandy subsoil has moderate to good structure that does not limit root penetration. However, the free draining nature of the soils limits the volume of water held by the soil that is available to the plant.
- 1.4.18 These soil profiles are limited by droughtiness to ALC grades 3a to 4.

e) [Agricultural Land Classification grade distribution](#)

- 1.4.19 A small area of the site is classed as non-agricultural land. This compromises a section of Buckleswood Road. The remainder of the site is agricultural land in ALC grades 3a, 3b and 4.
- 1.4.20 The extent of ALC grades across the site shown on **Figure 10.3** presented as part of the **Environmental Statement** chapter, with area measurements given in **Table 1.2**.

Table 1.2: ALC grade distribution.

ALC Grade.	Area (ha).	Area (%).
1 – excellent quality agricultural land.	0	0
2 – very good quality agricultural land.	0	0
3a – good quality agricultural land.	8.6	37.39
3b – moderate quality agricultural land.	11.7	50.87
4 – poor quality agricultural land.	1.7	7.39
5 – very poor quality agricultural land.	0	0
Non-agricultural	1.0	4.35
Total	23.0	100

NOT PROTECTIVELY MARKED

- 1.4.21 Grade 3a land covers an area of 8.6ha (approximately 37.39% of the site). In these areas the 3a land contains medium textured clay loam topsoils overlying clayey subsoils. Some of these profiles are also calcareous in the topsoil. In these areas the grade is limited to by droughtiness or droughtiness and wetness. The land is occasionally waterlogged (Wetness Class III).
- 1.4.22 Grade 3b land covers 11.7ha in total (approximately 50.87% of the site). In these areas the 3b land contains either medium to heavy textured clay loams overlying clayey subsoils which are slowly permeable or lightly textured loamy sands overlying permeable sands. The grade in these areas is limited by droughtiness and/or wetness in the heavier textured clay areas and droughtiness in the lightly textured sandy areas.
- 1.4.23 Grade 4 land comprises 1.7ha in total (approximately 7.39% of the site) in one part of the site. Land is not limited by wetness (Wetness Class I) however due to lightly textured sandy subsoils with high permeability soils are limited by droughtiness.

1.5 Conclusions

- 1.5.1 A detailed ALC survey of the proposed green rail route site found agricultural land in grades 3a (8.6ha), 3b (11.7ha) and 4 (1.7). Grade 3a land is considered to be among the best and most versatile agricultural land in England and Wales, the lowest ALC grade to fall in this category.

Appendix 10A1: Auger log and key

Point	Grid ref.			Alt	Land use	Depth (cm)			Soil matrix	Mottle 1		Mottle 2		Gley	Texture	Stones		SUBS STR	Calc.	Mn C	SPL	Drought			Wet		Classification		Point notes	
	Sqr.	E	N			Munsell colour	Form	Munsell colour	Form	Munsell colour	%	Type	MBw			MBp	Gd					WC	Gw	Grade	Limitation					
1	TM	43600	63049	22	CER	0 30	30 85	30 55	10YR32 10YR53	C	10YR61	C	10YR56	Y	MCL C IMP	5 2	HR HR	P	N N			Y	-26.005	-3.425	3b	III	3a	3b	Drought	Disturbed (ceramics and glass) Almost dry, resistant to auger
2	TM	43070	63115	22	CER	0 30 60 70	30 60 70	30 30 10 50	10YR32 10YR63 10YR63 10YR51	C C C	10YR61 10YR61 10YR56	F F	10YR68 10YR68	Y Y Y	MCL HCL HCL C	10 2 10 15	HR HR CH CH	P P P	M M M M			Y Y Y	-11.215	-29.89	3a	III	2	3a	Drought	Sand lense @ 100cm
3	TM	43153	63104	22	CER	0 30 60 70	30 60 70	30 30 10 50	10YR31 10YR63 10YR63 10YR51	C C C	10YR61 10YR61 10YR56	F F	10YR68 10YR68	Y Y Y	MCL HCL HCL C	5 2 10 15	HR HR CH CH	P P P	M M M M			Y Y Y	-8.665	-27.34	3a	III	2	3a	Drought	
4	TM	43326	63147	23	CER	0 25 45 70	25 45 70	25 20 25 50	10YR32 10YR53 10YR51	C C	10YR61 10YR56	C	10YR56	Y Y	HCL HCL C C	2 2 10 50	HR HR CH CH	P P P	M M M M			Y Y	-21.96	-27.81	3b	III	3a	3b	Drought	Almost dry, resistant to auger
5	TM	43400	63149	22	CER	0 25 35 60	25 35 60	25 10 25 10	10YR32 10YR61 10YR51 10YR51	C C C	10YR56 10YR56 10YR56			Y Y Y	MCL HCL C C IMP	8 2 10 30	HR HR CH CH	P P P	N N M M			Y Y Y	-44.53	-42.13	3b	III	3a	3b	Drought	2>2, large flints Almost dry, resistant to auger
6	TM	43499	63146	22	CER	0 30 60 70	30 60 70	30 30 10 10	10YR32 10YR51 10YR32 10YR51	C C	10YR56 10YR56			Y Y	HCL C HCL C IMP	5 2 5 2	HR HR HR HR	P M P	N N N N	C C	Y Y	-26.785	-20.05	3b	III	3b	3b	Wet/Drought	Buried topsoil Almost dry, resistant to auger	
7	TM	43499	63200	22	CER	0 25 40 60	25 40 60	25 15 20 10	10YR32 10YR51 10YR51 10YR51	C C C	10YR56 10YR56 10YR56			Y Y Y	HCL C C C IMP	2 2 5 30	HR HR CH CH	P P P	S S M M			Y Y	-19.4	-36.925	3b	III	3a	3b	Drought	Almost dry, resistant to auger
8	TM	43600	63300	21	CER	0 30 70	30 70 90	30 40 20	10YR32 10YR61 10YR61	C C	10YR56,66 10YR56,66			Y Y	MCL C C IMP	2 2 20	HR HR CH	P P	N N M			Y Y	-13.58	-21.02	3a	III	3a	3a	Wet/Drought	Almost dry, resistant to auger
9	TM	43650	63400	19	CER	0 30 70 90	30 70 90	30 40 20 30	10YR32 25Y61	M	10YR58			Y	MCL C C IMP	5 2 20	HR HR HR	P P P	N N	C	Y	-15.11	-22.55	3a	III	3a	3a	Wet/Drought	STONE	
10	TM	43750	63500	17	CER	0 25 60 100	25 60 100	25 35 40 20	10YR32 10YR54 10YR54 10YR54	C C C	10YR51 10YR51 10YR51	C C	10YR56 10YR56	Y Y Y	HCL C C C	2 2 10 30	HR HR CH CH	P P P	N N M M	F F F	Y Y Y	15.795	-24.425	3a	III	3b	3b	Wetness		

11	TM	43850	63600	17	CER	0 30 30 30 80 50 80 100 20 100 120 20	75YR32 75YR54 75YR54 75YR56				MSL MCL MCL LMS	5 2 2 0	HR HR HR HR	M M M M	N N N N				14.03	-13.64	3a	I	1	3a	Drought		
12	TM	43862	63610	13	OTH	0 25 25 25 120 95	10YR42 10YR58				LS S	2 2	HR HR	M						-43.53	-62.14	4	I	1	4	Drought	Granular, Point very sandy. Granular / SAB
13	TM	43962	63710	13	OTH	0 30 30 30 120 90	10YR33 10YR44				SZL LS	2 5	HR HR	M		S				-46.005	-64.59	4	I	1	4	Drought	Coarse Granular SAB / Granular
14	TM	44460	63732	9	Cereals	0 50 50 50 75 25 75 120 45	10YR42 10YR44 10YR54				LS LS S	2 1 1	HR HR HR	M M M						-26.04	64.81	3b	I	1	3b	Drought	Granular Granular / SAB Granular / SAB
15	TM	44062	63810	14	Cereals	0 32 32 32 62 30 62 120 58	10YR32 10YR44 10YR53	F 10YR41 F Gley 1 6 N		Y	ZCL C C	1 2 30	HR/CH HR/CH CH/HR	P P P		S M V		F F F	Y Y Y	5.036	-16.816	3a	III	2	3a	Drought	Very Coarse SAB Massive SAB / Massive
16	TM	44162	63810	13	Cereals	0 35 35 35 85 50 85 120 35	10YR32 10YR54 10YR52	F Gley 1 6 N F 10YR58		Y	ZC C C	2 10 5	HR CH CH	P P P		V V S		F F F	Y Y Y	-4.195	-13.52	3a	III	2	3a	Drought/Wet	Very Coarse / Med SAB Massive Granular / Fine SAB
17	TM	44262	63810	12	Cereals	0 45 45 45 70 25 70 120 50	10YR43 10YR43 10YR56				LS S S	2 1 1	HR HR HR	M M M						-13.785	-32.59	3a	I	1	3a	Drought	Granular / Very Fine SAB Granular Granular
18	TM	44362	63810	11	Cereals	0 40 40 40 55 15 55 75 20 75 120 45	10YR32 10YR54 2.5Y62 10YR54	C 7.5YR58 C Gley 1 6N	C 7.5YR68	Y Y	SL S SL C	2 1 1 1	HR HR HR HR	G G P P		S S S S			Y	-17.505	-45.715	3b	II	1	3b	Drought	Granular Granular Granular / SAB Massive
19	TM	44462	63810	9	Cereals	0 40 40 40 68 28 68 120 52	10YR43 10YR54 10YR56				LS S S	2 1 1	HR HR HR	M M M		S				-34.335	-53.14	3b	I	1	3b	Drought	Granular / Med SAB Granular / Med SAB Granular
20	TM	44062	63910	17	Cereals	0 35 35 35 85 50 85 105 20 105 120 15	10YR32 10YR54 10YR54 Gley1 5N	C 7.5YR56 C 7.5YR56 F 10YR58	C Gley 1 6N C Gley 1 6N	Y Y Y	SZCL C C C	5 1 5 20	HR/CH HR/CH CH CH	M P P P		S S V V		F C F F	Y	33.8475	-6.405	2	III	3a	3a	Wet	Coarse SAB Massive, Flint; >2cm 2% Massive Massive
21	TM	44162	63910	16	Cereals	0 40 40 40 55 15	10YR42 2.5Y64	C Gley 1 6N	C 10YR56	Y	SCL C	5 10	HR CH	P		S V		F F	Y	23.5	-13.775	3a	II	1	3a	Drought	Granular / SAB, Flint; >2cm 2% Massive

Auger Log key

Depth - Top

xx Underlining denotes depth to the top of a slowly permeable layer

Land use		Mottle 1,2 - Form		Texture		Limitations	
ARA	Arable	FF	Few Feint	CS	Coarse Sand	NN	None
CER	Cereal	FD	Few Distinct	MS	Medium sand	OC	Overall climate
WHT	Wheat	FP	Few Prominent	FS	Fine Sand	AE	Aspect
BAR	Barley	CF	Common Feint	LCS	Loamy Coarse Sand	EX	Exposure
MZE	Maize	CD	Common Distinct	LMS	Loamy Medium Sand	FR	Frost risk
OAT	Oats	CP	Common Prominent	LFS	Loamy Fine Sand	GR	Gradient
OSR	Oilseed rape	MF	Many Feint	CSL	Coarse Sandy Loam	MR	Microrelief
LIN	Linseed	MD	Many Distinct	MSL	Medium sandy loam	FL	Flood risk
FBE	Field beans	MP	Many Prominent	FSL	Fine Sandy Loam	TX	Texture
POT	Potatoes	VF	Very many Feint	CSZL	Coarse Sandy Silt Loam	DP	Soil depth
SBT	Sugar beet	VD	Very many Distinct	MSZL	Medium Sandy Silt Loam	CH	Chemical
BRA	Brassicas	VP	Very many Prominent	FSZL	Fine Sandy Silt Loam	WE	Wetness
FOD	Fodder crops			ZL	Silt Loam	WK	Workability
FRT	Soft and top fruit			SCL	Sandy Clay Loam	DR	Droughtiness
HRT	Horticultural crops			MCL	Medium Clay Loam	ER	Erosion risk
PAS	Pasture			HCL	Heavy Clay Loam	WD	Wetness/Droughtiness
LEY	Ley grass			MZCL	Medium Silty Clay loam	ST	Topsoil stoniness
PGR	Permanent pasture			HZCL	Heavy Silty Clay Loam		
RGR	Rough grazing			SC	Sandy Clay		
SCR	Scrub			ZL	Silty Clay		
HTH	Heathland			C	Clay		
BOG	Bog or marsh			P	Peat		
DCW	Deciduous Woodland			SP	Sandy Peat		
CFW	Coniferous woodland			LP	Loamy Peat		
PLO	Ploughed			PL	Peaty Loam		
STB	Crop stubble			PS	Peaty Sand		
FLW	Fallow (inc. set aside)			MZ	Marine Light Silts		
SAS	Set aside (where known)			IMP	Impenetrable to roots		
OTH	Other						

Stones - Type

HR	All hard rocks and stones
MSST	Soft, medium or coarse grained sandstone
SI	Soft weathered igneous or metamorphic rock
SLST	Soft oolitic or dolomitic limestone
FSST	Soft, fine grained sandstone
ZR	Soft, argillaceous or silty rocks
CH	Chalk or chalk stones
GH	Gravel composed of non-porous (hard) stones
GS	Gravel composed of porous (soft) stones

Subs Str (subsoil structural condition)

G	Good
M	Moderate
P	Poor

Calcareousness

N	Non-calcareous (<0.5% CaCO ₃)
VS	Very slightly calcareous (0.5 - 1% CaCO ₃)
S	Slightly calcareous (1 - 5% CaCO ₃)
M	Moderately calcareous (5 - 10% CaCO ₃)
V	Very calcareous (>10% CaCO ₃)
Y	Calcareous (>1% CaCO ₃)

Mn C (ferrimanganous concretions)

F	Few
C	Common
M	Many
V	Very many
Y	Common or greater

Appendix 10A2: Particle size distribution data sheets



Analysis Results (SOIL)

Customer ARCADIS (UK) LIMITED
THE MILL
BRIMSCOMBE PORT
STROUD
GL5 2QG

Distributor ARCADIS (UK) LTD
THE MILL
BRIMSCOMBE PORT
BRIMSCOMBE
STROUD
GLOS
GL5 2QG

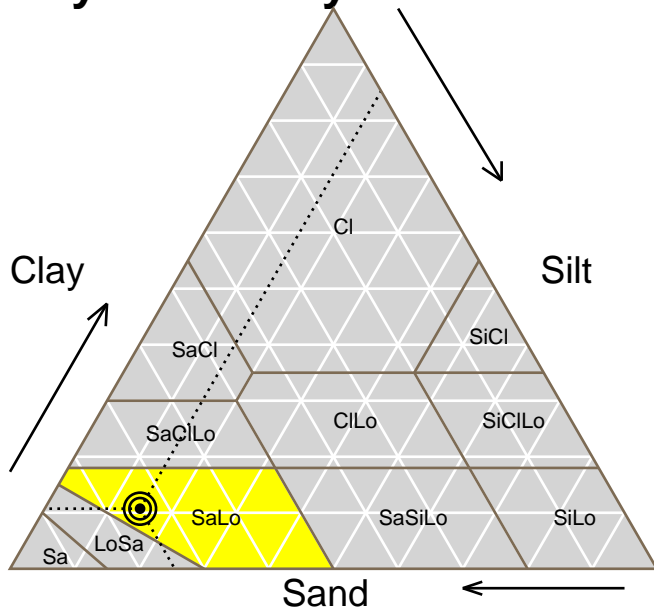
Sample Ref TOPSOIL GRR 6

Date Received 30/07/2019 (Date Issued: 05/08/2019)

Sample No E337879/02

Crop

Physical Analysis



Analysis	Result (%)
Sand	74.53
Silt	14.74
Clay	10.73
Very Fine Sand	2.53
Fine Sand	20.00
Medium Sand	19.34
Coarse Sand	11.69
Very Coarse Sand	20.98
Stones >2mm	3.50
Soil Type	SaLo Sandy Loam

Property	Assessment
Available Water	Low to Medium
Drainage Rate	Rapid
Inherent Fertility	Low to Medium
Potential C.E.C.	Low to Medium
Leaching Risk	High to Moderate
Warming Rate	Rapid



Analysis Results (SOIL)

Customer ARCADIS (UK) LIMITED
THE MILL
BRINSCOMBE PORT
STROUD
GL5 2QG

Distributor ARCADIS (UK) LTD
THE MILL
BRINSCOMBE PORT
BRINSCOMBE
STROUD
GLOS
GL5 2QG

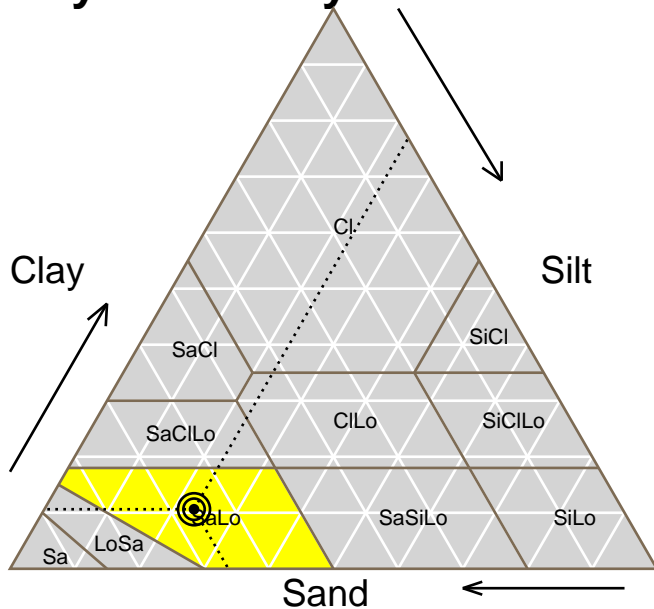
Sample Ref TOPSOIL GRR 7

Date Received 30/07/2019 (Date Issued: 05/08/2019)

Sample No E337879/03

Crop

Physical Analysis



Analysis	Result (%)
Sand	66.24
Silt	23.13
Clay	10.63
Very Fine Sand	5.15
Fine Sand	25.51
Medium Sand	30.12
Coarse Sand	5.46
Very Coarse Sand	< 0.01
Stones >2mm	7.20
Soil Type	SaLo Sandy Loam

Property	Assessment
Available Water	Low to Medium
Drainage Rate	Rapid
Inherent Fertility	Low to Medium
Potential C.E.C.	Low to Medium
Leaching Risk	High to Moderate
Warming Rate	Rapid