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Maidstone Borough Local Plan
Site 82 Land at Ledian Farm,
Leeds, Kent
Agricultural Land Classification
ALC Map and Report
May 1995

AGRICULTURAL LAND CLASSIFICATION, REPORT

MAIDSTONE BOROUGH LOCAL PLAN SITE 82 LAND AT LEDIAN FARM, LEEDS

1 Summary

- 1.1 ADAS was commissioned by MAFF's Land Use Planning Unit to provide information on land quality for a number of sites in the Maidstone Borough of Kent. The work forms part of MAFF's statutory input to the Maidstone Borough Local Plan.
- 1.2 Site 82 comprises 11.8 hectares of land to the south west of Leeds in Kent. An Agricultural Land Classification (ALC) survey was carried out in April 1995. The survey was undertaken at a detailed level of approximately one boring per hectare. A total of 13 borings and one soil inspection pit were assessed according to MAFF's revised guidelines and criteria for grading the quality of agricultural land (MAFF 1988). These guidelines provide a framework for classifying land according to the extent to which its physical or chemical characteristics impose long term limitations on its use for agriculture. In addition information from a previous survey carried out during 1990 was used in the assessment of land quality on this site.
- 1.3 The work was carried out by members of the Resource Planning Team in the Guildford Statutory Group of ADAS.
- 1.4 At the time of the survey the agricultural land was under ley grass and fruit primarily strawberries. The Urban area shown is part of the farm yard. The Non-agricultural areas are unsurfaced tracks and storage areas.
- 1.5 The distribution of grades and subgrades is shown on the attached ALC map and the areas are given in the table below. The map has been drawn at a scale of 1:10,000. It is accurate at this scale but any enlargement would be misleading. This map supersedes any previous ALC survey information for this site.

Table 1 Distribution of Grades and Subgrades

Grade	Area (ha)	% of Site	% of Agricultural Area
1	3.8	32.2	35.5
2	3.7	31.4	34.6
3a	3.2	27.1	<u>29.9</u>
Non agricultural	0.9	7.6	100% (10.7ha)
Urban	<u>0.2</u>	<u>1.7</u>	
Total area of Site	11.8ha	100%	

- 1.6 Appendix I gives a general description of the grades, subgrades and land use categories identified in the survey. The main classes are described in terms of the type of limitation that can occur, the typical cropping range and the expected level and consistency of yield.

1 7 The agricultural land at this site has been classified as Grade 1 (excellent quality) to Subgrade 3a (good quality) including substantial quantities of Grade 2 (very good quality) The principal limitation is soil wetness although soil droughtiness is occasionally significant The soils observed were found to be variable over short distances leading to the complex pattern of land classification grades mapped Soils comprise deep clay loams or silty clay loams which may pass to slowly permeable clay resulting in soil wetness restrictions or which may extend to depth thus equating to Grade 1 land Profiles are typically very slightly to slightly stony throughout containing fragments of ragstone and may become impenetrable as a result

2 Climate

2 1 The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions

2 2 The main parameters used in the assessment of an overall climatic limitation are average annual rainfall as a measure of overall wetness and accumulated temperature as a measure of the relative warmth of a locality

2 3 A detailed assessment of the prevailing climate was made by interpolation from a 5km gridpoint dataset (Met Office 1989) The details are given in the table below and these show that there is no overall climatic limitation affecting the site

2 4 No local climatic factors such as exposure or frost risk are believed to affect the site However climatic and soil factors interact to influence soil wetness and droughtiness limitations

Table 2 Climatic Interpolation

Grid Reference	TQ816528	TQ814527
Altitude (m AOD)	100	105
Accumulated Temperature (day degrees C Jan June)	1393	1387
Average Annual Rainfall (mm)	722	723
Field Capacity Days	149	149
Moisture deficit wheat (mm)	109	108
Moisture deficit potatoes (mm)	101	101
Overall Climatic Grade	1	1

3 Relief

3 1 The site lies between approximately 95 and 105m AOD Overall the site slopes gently from south to north Nowhere on the site does the gradient of these slopes influence land quality

4 Geology and Soils

4 1 The published geological information (BGS 1976) shows the site to be underlain by Cretaceous Hythe Beds

4 2 The most recent published soils information (SSEW 1983) shows the site to be underlain by soils of the Malling Association. The legend accompanying the map describes these as well drained non calcareous fine loamy soils over limestone at depth. Some well-drained coarse loamy and similar fine loamy over clayey soils. Some fine loamy soils with slowly permeable subsoils and slight seasonal waterlogging. Occasional shallower calcareous soils over limestone. Landslips and associated irregular terrain locally (SSEW 1983). The soils encountered at this site were of this broad type except that at this location the limestone is replaced by the argillaceous sandstone fraction of the Hythe beds known as hassock.

5 Agricultural Land Classification

5 1 Paragraph 1.5 provides the details of the area measurements for each grade and the distribution of each grade is shown on the attached ALC map.

5 2 The location of the soil observation points are shown on the attached sample point map.

Grade 1

5 3 Excellent quality agricultural land capable of supporting a wide range of arable and horticultural crops has been identified in two mapping units to the north and south of the area surveyed. Profiles observed comprise a stoneless to very slightly stony (up to 4% v/v total flints) medium clay loam or medium silty clay loam topsoil. This passes to a similar upper subsoil horizon which occasionally occurs to depth (120cm). However the majority of the observations contained a lower subsoil comprising a stoneless to slightly stony (up to 10% soft sandstone) medium silty clay loam from between 55 and 80cm. Pit information (pit near Boring 25) from a previous survey covering part of this site (ADAS ref 2007/12/90) is typical of this soil type. These deep well drained (Wetness Class I) medium textured profiles have good reserves of available water for plant growth and soil droughtiness is not likely to be a problem in the local climate.

Grade 2

5 4 Land of very good quality has been mapped across the central southern area of the site. Principal limitations include soil wetness and soil droughtiness. The profiles affected by soil wetness are typified by the soil pit Pit 1 (see Appendix III). They comprise a very slightly stony (up to 2% v/v total flints) medium clay loam topsoil passing to a similarly stony or stoneless occasionally gleyed medium clay loam or medium silty clay loam upper subsoil. In some instances this passes to a slightly stony (up to 10% v/v total flints) medium silty clay loam horizon. Between approximate 65 and 75cm this lies over a gleyed and slowly permeable poorly

structured slightly stony (5% v/v soft sandstone) clay that occurs to depth (120cm) Given the local climate the depth to the drainage impeding clay horizon is sufficient to restrict this area to Wetness Class II and Grade 2 when the workability status of the topsoil is taken into account Soil wetness both affects plant growth and yield and it restricts the number of days when cultivations and/or grazing may occur without causing structural damage to the soil

- 5 5 Within the Grade 2 unit some observations were limited by soil droughtiness Where this occurred profiles typically comprise a very slightly stony (2% v/v total flints) medium clay loam topsoil passing to a stoneless to slightly stony (up to 5% soft sandstone) medium silty clay loam This overlies a fine sandy silt loam lower subsoil containing sufficient (up to c 20% by volume) hassock type sandstone to cause the profile to become impenetrable to the soil auger The pit observation near boring 25 on the previous survey (ADAS ref 2007/12/90) shows that the sandstone content of the lower subsoil horizon increases to around 30% and becomes impenetrable from 90cm The sandstone content of the profile causes a reduction in available water which in the local climate leads to Grade 2 being applied on the basis of slight soil droughtiness This affects plant growth and yield

Subgrade 3a

- 5 6 Land of good quality has been mapped across the central northern area of the site The principal limitation is soil wetness Profiles are similar to those described above in paragraph 5 3 except that the slowly permeable clay horizon occurs at a shallower depth typically between 40 and 50cm This causes the drainage impedance to be of a moderate nature such that Wetness Class III is appropriate Given local climate data and the medium workability status of the topsoils this leads to Subgrade 3a being applied Soil wetness affects plant growth and yield as well as reducing the opportunities for cultivation and/or grazing without causing structural damage to the soil

ADAS Ref 2007/088/95
MAFF Ref EL20/862

Resource Planning Team
Guildford Statutory Group
ADAS Reading

SOURCES OF REFERENCE

ADAS (1990) Leeds and Langley By pass Kent Agricultural Land Classification ADAS Ref 2007/12/90 MAFF Ref EL20/10307

British Geological Survey (1976) Sheet 288 Maidstone Solid & Drift Edition 1 50 000

Geological Survey of Great Britain (1963) Geology of the Country around Maidstone (Explanation of Geological Sheet 288) HMSO

MAFF (1988) Agricultural Land Classification of England and Wales Revised guidelines and criteria for grading the quality of agricultural land

Meteorological Office (1989) Climatic datasets for Agricultural Land Classification

Soil Survey of England and Wales (1980) Bulletin No 9 Soils of Kent

Soil Survey of England and Wales (1983) Sheet No 6 Soils of South-East England 1 250 000 and Accompanying Legend

Soil Survey of England and Wales (1984) Bulletin No 15 Soils and their use in South East England

APPENDIX I

DESCRIPTION OF THE GRADES AND SUBGRADES

Grade 1 Excellent Quality Agricultural Land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2 Very Good Quality Agricultural Land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural or horticultural crops can usually be grown but on some land of this grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1 land.

Grade 3 Good to Moderate Quality Land

Land with moderate limitations which affect the choice of crops, the timing and type of cultivation, harvesting or the level of yield. When more demanding crops are grown, yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a Good Quality Agricultural Land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b Moderate Quality Agricultural Land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass, or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4 Poor Quality Agricultural Land

Land with severe limitations which significantly restrict the range of crops and/or the level of yields. It is mainly suited to grass with occasional arable crops (eg cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5 Very Poor Quality Agricultural Land

Land with severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

Urban

Built up or 'hard' uses with relatively little potential for a return to agriculture including housing industry commerce education, transport religious buildings cemeteries Also hard surfaced sports facilities, permanent caravan sites and vacant land all types of derelict land, including mineral workings which are only likely to be reclaimed using derelict land grants

Non-agricultural

'Soft' uses where most of the land could be returned relatively easily to agriculture including private parkland public open spaces sports fields allotments and soft surfaced areas on airports Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply

Woodland

Includes commercial and non commercial woodland A distinction may be made as necessary between farm and non farm woodland

Agricultural Buildings

Includes the normal range of agricultural buildings as well as other relatively permanent structures such as glasshouses Temporary structures (eg polythene tunnels erected for lambing) may be ignored

Open Water

Includes lakes ponds and rivers as map scale permits

Land Not Surveyed

Agricultural land which has not been surveyed

Where the land use includes more than one of the above eg buildings in large grounds and where map scale permits the cover types may be shown separately Otherwise the most extensive cover type will be shown

APPENDIX II

FIELD ASSESSMENT OF SOIL WETNESS CLASS

SOIL WETNESS CLASSIFICATION

Soil wetness is classified according to the depth and duration of waterlogging in the soil profile. Six soil wetness classes are identified and are defined in the table below.

Definition of Soil Wetness Classes

Wetness Class	Duration of Waterlogging ¹
I	The soil profile is not wet within 70 cm depth for more than 30 days in most years ²
II	The soil profile is wet within 70 cm depth for 31-90 days in most years or if there is no slowly permeable layer within 80 cm depth it is wet within 70 cm for more than 90 days but only wet within 40 cm depth for 30 days in most years
III	The soil profile is wet within 70 cm depth for 91-180 days in most years or if there is no slowly permeable layer present within 80 cm depth it is wet within 70 cm for more than 180 days but only wet within 40 cm depth for between 31-90 days in most years
IV	The soil profile is wet within 70 cm depth for more than 180 days but not wet within 40 cm depth for more than 210 days in most years or if there is no slowly permeable layer present within 80 cm depth it is wet within 40 cm depth for 91-210 days in most years
V	The soil profile is wet within 40 cm depth for 211-335 days in most years
VI	The soil profile is wet within 40 cm depth for more than 335 days in most years

Soils can be allocated to a wetness class on the basis of quantitative data recorded over a period of many years or by the interpretation of soil profile characteristics, site and climatic factors. Adequate quantitative data will rarely be available for ALC surveys and therefore the interpretative method of field assessment is used to identify soil wetness class in the field. The method adopted here is common to ADAS and the SSLRC.

¹The number of days specified is not necessarily a continuous period

²In most years is defined as more than 10 out of 20 years

APPENDIX III

SOIL PIT AND SOIL BORING DESCRIPTIONS

Contents

Soil Abbreviations - Explanatory Note

Soil Pit Descriptions

Database Printout - Boring Level Information

Database Printout - Horizon Level Information

SOIL PROFILE DESCRIPTIONS EXPLANATORY NOTE

Soil pit and auger boring information collected during ALC fieldwork is held on a computer database. This uses notations and abbreviations as set out below.

Boring Header Information

- 1 **GRID REF** national 100 km grid square and 8 figure grid reference
- 2 **USE** Land use at the time of survey. The following abbreviations are used:

ARA Arable	WHT Wheat	BAR Barley
CER Cereals	OAT Oats	MZE Maize
OSR Oilseed rape	BEN Field Beans	BRA Brassicae
POT Potatoes	SBT Sugar Beet	FCD Fodder Crops
LIN Linseed	FRT Soft and Top Fruit	FLW Fallow
PGR Permanent Pasture	LEY Ley Grass	RGR Rough Grazing
SCR Scrub	CFW Coniferous Woodland	DCW Deciduous Wood
HTH Heathland	BOG Bog or Marsh	FLW Fallow
PLO Ploughed	SAS Set aside	OTH Other
HRT Horticultural Crops		
- 3 **GRDNT** Gradient as estimated or measured by a hand held optical clinometer
- 4 **GLEYSPL** Depth in centimetres (cm) to gleying and/or slowly permeable layers
- 5 **AP (WHEAT/POTS)** Crop adjusted available water capacity
- 6 **MB (WHEAT/POTS)** Moisture Balance (Crop adjusted AP - crop adjusted MD)
- 7 **DRT** Best grade according to soil droughtiness
- 8 If any of the following factors are considered significant 'Y' will be entered in the relevant column:

MREL Microrelief limitation	FLOOD Flood risk	EROSN Soil erosion risk
EXP Exposure limitation	FROST Frost prone	DIST Disturbed land
CHEM Chemical limitation		
- 9 **LIMIT** The main limitation to land quality. The following abbreviations are used:

OC Overall Climate	AE Aspect	EX Exposure
FR Frost Risk	GR Gradient	MR Microrelief
FL Flood Risk	TX Topsoil Texture	DP Soil Depth
CH Chemical	WE Wetness	WK Workability
DR Drought	ER Erosion Risk	WD Soil Wetness/Droughtiness
ST Topsoil Stoniness		

Soil Pits and Auger Borings

- 1 **TEXTURE** soil texture classes are denoted by the following abbreviations

S	Sand	LS	Loamy Sand	SL	Sandy Loam
SZL	Sandy Silt Loam	CL	Clay Loam	ZCL	Silty Clay Loam
ZL	Silt Loam	SCL	Sandy Clay Loam	C	Clay
SC	Sandy Clay	ZC	Silty Clay	OL	Organic Loam
P	Peat	SP	Sandy Peat	LP	Loamy Peat
PL	Peaty Loam	PS	Peaty Sand	MZ	Marine Light Silts

For the sand loamy sand sandy loam and sandy silt loam classes the predominant size of sand fraction will be indicated by the use of the following prefixes

F	Fine (more than 66% of the sand less than 0.2mm)
M	Medium (less than 66% fine sand and less than 33% coarse sand)
C	Coarse (more than 33% of the sand larger than 0.6mm)

The clay loam and silty clay loam classes will be sub divided according to the clay content **M** Medium (<27% clay) **H** Heavy (27-35% clay)

- 2 **MOTTLE COL** Mottle colour using Munsell notation
- 3 **MOTTLE ABUN** Mottle abundance expressed as a percentage of the matrix or surface described

F few <2% **C** common 2-20% **M** many 20-40% **VM** very many 40% +

- 4 **MOTTLE CONT** Mottle contrast

F faint indistinct mottles evident only on close inspection
D distinct mottles are readily seen
P prominent - mottling is conspicuous and one of the outstanding features of the horizon

- 5 **PED COL** Ped face colour using Munsell notation

- 6 **GLEY** If the soil horizon is gleyed a **Y** will appear in this column. If slightly gleyed an **S** will appear

- 7 **STONE LITH** Stone Lithology One of the following is used

HR	all hard rocks and stones	SLST	soft oolitic or dolimitic limestone
CH	chalk	FSST	soft fine grained sandstone
ZR	soft argillaceous or silty rocks	GH	gravel with non porous (hard) stones
MSST	soft medium grained sandstone	GS	gravel with porous (soft) stones
SI	soft weathered igneous/metamorphic rock		

Stone contents (>2cm >6cm and total) are given in percentages (by volume)

- 8 **STRUCT** the degree of development size and shape of soil peds are described using the following notation

degree of development **WK** weakly developed **MD** moderately developed
 ST strongly developed

ped size **F** fine **M** medium
 C coarse **VC** very coarse

ped shape **S** single grain **M** massive
 GR granular **AB** angular blocky
 SAB sub angular blocky **PR** prismatic
 PL platy

- 9 **CONSIST** Soil consistence is described using the following notation

L loose **VF** very friable **FR** friable **FM** firm **VM** very firm
EM extremely firm **EH** extremely hard

- 10 **SUBS STR** Subsoil structural condition recorded for the purpose of calculating profile droughtiness **G** good **M** moderate **P** poor

- 11 **POR** Soil porosity If a soil horizon has less than 0.5% biopores >0.5 mm a 'Y' will appear in this column

- 12 **IMP** If the profile is impenetrable to rooting a 'Y' will appear in this column at the appropriate horizon

- 13 **SPL** Slowly permeable layer If the soil horizon is slowly permeable a 'Y' will appear in this column

- 14 **CALC** If the soil horizon is calcareous a 'Y' will appear in this column

- 15 Other notations

APW available water capacity (in mm) adjusted for wheat
APP available water capacity (in mm) adjusted for potatoes
MBW moisture balance wheat
MBP moisture balance potatoes

SOIL PIT DESCRIPTION

Site Name MAIDSTONE LP SITE 82 Pit Number 1P

Grid Reference TQ81705280 Average Annual Rainfall 722 mm
 Accumulated Temperature 1393 degree days
 Field Capacity Level 149 days
 Land Use Ley
 Slope and Aspect degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0 31	MCL	10YR41 00	1	2	HR					
31- 53	MZCL	10YR44 00	0	2	HR		MDCSAB	FR	M	
53- 67	MZCL	10YR44 00	0	10	HR		MDCSAB	FR	M	
67 100	C	05YR58 00	0	5	MSST	C	WKMAB	FM	P	

Wetness Grade 2 Wetness Class 11
 Gleying 67 cm
 SPL 67 cm

Drought Grade 2 APW 124mm MBW 15 mm
 APP 117mm MBP 16 mm

FINAL ALC GRADE 2
 MAIN LIMITATION Wetness

SAMPLE NO	GRID REF	ASPECT USE	WETNESS--		WHEAT		POTS		M REL		EROSN	FROST	CHEM	ALC	COMMENTS
			GRDNT	GLEY SPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	
1	TQ81505300	FRT			1	1	152	44	119	18	1				1
1P	TQ81705280	LEY	67	67	2	2	124	15	117	16	2		WE	2	
2	TQ81605300	LEY			1	1	147	39	112	11	1				1
3	TQ81505290	LEY	40	40	3	3A	107	-1	105	4	3A		WE	3A	IMP STONE 90
4	TQ81605290	LEY	42	42	3	3A	125	17	103	2	2		WE	3A	
5	TQ81705290	LEY	50	50	3	3A	113	5	105	4	2		WE	3A	
6	TQ81505280	FRT	23	75	2	2	138	30	116	15	1		WE	2	
7	TQ81605280	LEY			1	1	084	-24	084	-17	3B		DR	3B	IMP STONE 50
8	TQ81705280	LEY	65	65	2	2	141	32	120	19	1		WE	2	
9	TQ81405270	FRT			1	1	150	41	117	16	1				1
10	TQ81505270	FRT			1	1	157	48	121	20	1				1
11	TQ81605270	FRT			1	1	157	48	121	20	1				1
12	TQ81765272	PLO			1	1	121	12	121	20	2		DR	2	IMP STONE 80
13	TQ81575262	FRT	65		1	1	160	51	124	23	1				1

SAMPLE	DEPTH	TEXTURE	COLOUR	--- MOTTLES---			PED COL	--- STONES			STRUCT/ CONSIST	SUBS			SPL	CALC	
				COL	ABUN	CONT		GLE	>2	>6		LITH	TOT	STR			POR
1	0 30	mc1	10YR42 43					2	0	HR	4						
	30 80	mzc1	75YR54 00	00MN00	00	F		0	0	HR	2		M				
	80 120	mzc1	75YR54 00					0	0	MSST	10		M				
1P	0-31	mc1	10YR41 00					1	0	HR	2						
	31 53	mzc1	10YR44 00					0	0	HR	2	MDCSAB	FR	M			
	53 67	mzc1	10YR44 00					0	0	HR	10	MDCSAB	FR	M			
	67-100	c	05YR58 00	10YR54	56	C	00MN00	00	Y	0	0	MSST	5	WKMB	FM	P	Y
2	0 25	mc1	10YR43 00					2	0	HR	4						
	25 55	mc1	75YR54 00					0	0	MSST	10		M				
	55 120	mzc1	10YR53 00					0	0	MSST	5		M				
3	0 29	mc1	10YR43 00					2	0	HR	4						
	29 40	hc1	75YR44 00	00MN00	00	F		0	0	MSST	5		M				
	40 90	c	05YR58 00	10YR56	00	C		Y	0	0	MSST	5		P		Y	IMP SOFT SANDSTONE
4	0 19	mc1	10YR43 00					2	0	HR	4						
	19 42	mc1	10YR54 00					0	0	MSST	5		M				
	42-120	c	05YR58 00	10YR68	00	C		Y	0	0	MSST	5		P		Y	
5	0-25	mc1	10YR42 41					1	0	HR	2						
	25 50	mc1	10YR54 53					0	0	MSST	10		M				
	50 100	c	05YR58 00	10YR56	00	C		Y	0	0	MSST	10		P		Y	
6	0 23	mc1	10YR42 00					1	0	HR	2						
	23 75	mc1	10YR54 53	10YR58	00	C		Y	0	0	0		M				
	75 120	c	05YR58 00	10YR56	00	C		Y	0	0	MSST	10		P		Y	
7	0 25	mc1	75YR43 00					1	0	HR	3						
	25 50	mzc1	75YR54 00					0	0	MSST	5		M			IMP SOFT SANDSTONE	
8	0 30	mc1	10YR41 00					0	0		0						
	30-65	mzc1	10YR54 00					0	0		0		M				
	65 110	c	05YR58 00	10YR54	56	C	00MN00	00	Y	0	0	0		P		Y	
	110 120	c	05YR58 00	10YR54	56	C	00MN00	00	Y	0	0	MSST	10		P		Y
9	0 30	mc1	10YR41 00					0	0	HR	2						
	30 60	mc1	10YR56 00					0	0		0		M				
	60 120	mzc1	10YR64 00	10YR68	00	F	00MN00	00	0	0	MSST	10		M			
10	0 20	mzc1	10YR43 00					0	0	HR	5						
	20 55	mzc1	10YR44 00					0	0		0		M				
	55-120	mzc1	10YR54 53	10YR58	00	F	00MN00	00	0	0	0		M				
11	0 30	mc1	10YR41 42					0	0	HR	2						
	30-120	mzc1	10YR54 53	10YR58	00	F	00MN00	00	0	0	0		M				

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES			PED		STONES			-- STRUCT/	SUBS							
				COL	ABUN	CONT	COL	GLEY	>2	>6	LITH		TOT	CONSIST	STR	POR	IMP	SPL	CALC	
12	0 30	mc1	10YR41 00						0	0	HR	2								
	30 65	mzc1	10YR44 54	00MN00	00	F			0	0		0							M	
	65 80	fsz1	10YR64 00						0	0	MSST	20							M	
																				IMP SOFT SANDSTONE
13	0 33	mzc1	10YR42 00						0	0	HR	2								
	33-65	mzc1	10YR54 00						0	0		0								M
	65 120	mzc1	10YR53 52	10YR56	00	C	00MN00	00	Y	0	0		0							M