

**A1**  
**Maidstone Borough Local Plan**  
**Site 71 Furfield Quarry,**  
**Boughton Monchelsea**  
**Agricultural Land Classification,**  
**ALC Map & Report**  
**April 1995**

# AGRICULTURAL LAND CLASSIFICATION REPORT

## MAIDSTONE BOROUGH LOCAL PLAN

### SITE 71 FURFIELD QUARRY, BOUGHTON MONCHELSEA

#### 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 71 comprises 21.8 hectares of land to the south of Maidstone and north-east of Boughton Monchelsea, Kent. An Agricultural Land Classification (ALC) survey was carried out during April 1995. The agricultural land on the site was surveyed at a detailed level of approximately one boring per hectare. A total of 14 borings and one soil inspection pit were described in accordance with 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 a long term limitation on its use for agriculture.
- 1.3 The work was carried out by members of the Resource Planning Team in the Eastern Statutory Centre of ADAS.
- 1.4 At the time of the survey the agricultural land was under permanent grassland. Land mapped as non-agricultural comprises woodland and scrub bordering the disused workings. The area not surveyed represents a reinstated landfill site which is likely to comprise poor quality agricultural land, and be of limited use in agricultural terms.
- 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.

**Table 1 Distribution of Grades and Subgrades**

Grade	Area (ha)	% of Site	% of Agricultural Land
3a	10.5	48.2	86.1
3b	1.7	7.8	<u>13.9</u>
Woodland	0.8	3.7	100% (12.2 ha)
Not surveyed	7.6	34.8	
Non-Agricultural	<u>1.2</u>	<u>5.5</u>	
Total area of site	21.8	100%	

- 1.6 Appendix 1 gives a general description of the grades, subgrades and land use categories identified in this survey. The main classes are described in terms of the

type of limitation that can occur the typical cropping range and expected level and consistency of yield

- 1 7 The majority of the agricultural land on the site has been assigned to Subgrade 3a, good quality land on the basis of a soil droughtiness (and occasionally soil wetness) limitation. Soils typically comprise very slightly to moderately stony clay loams passing to clayey subsoils and resting on ragstone at variable depths. A small area of land has been classified as Subgrade 3b moderate quality land, where profiles are particularly shallow over ragstone the soil droughtiness restriction thereby being more limiting to agricultural use

## 2 Climate

- 2 1 Estimates of climatic variables relevant to the assessment of agricultural land quality were obtained by interpolation from a 5 km grid point dataset (Met Office 1989) for representative locations in the survey area

**Table 2 Climatic Interpolations**

Grid Reference	TQ 781 520	TQ 784 514
Altitude (m AOD)	100	90
Accumulated Temperature (day degrees C Jan-June)	1394	1405
Average Annual Rainfall (mm)	707	696
Field Capacity (days)	144	143
Moisture Deficit Wheat (mm)	111	112
Moisture Deficit Potatoes (mm)	104	105
Overall Climatic Grade	1	1

- 2 2 Climatic factors are considered first when classifying land since climate can be overriding in the sense that adverse climatic conditions may restrict land quality irrespective of favourable site and soil conditions. The details in the table above show that there is no overall climatic limitation affecting this site. In addition no local climatic factors such as exposure or frost risk are believed to affect the site
- 2 3 However climatic factors do interact with soil factors to influence soil wetness and droughtiness limitations. At this locality the climate is relatively dry in regional terms thereby increasing the likelihood of soil droughtiness problems

## 3 Relief

- 3 1 The site lies at an altitude of 85 100 m AOD falling gently from north to south. Across most of the site gradient and relief are not significant in terms of agricultural land quality. However across the area mapped as not surveyed which represents a restored landfill site small scale but regular changes in microrelief and the frequent occurrence of landfill gas vents will act to restrict the agricultural use of this land

#### **4 Geology and Soils**

- 4 1 British Geological Survey (1976) sheet 288 shows the entire site to be underlain by Hythe Beds which comprise sandy limestone and calcareous sand
- 4 2 Soil Survey of England and Wales (1983) sheet 6 shows the entire site to comprise soils of the Malling association. These soils are described as fine loamy typical argillic brown earths over sandy limestone (ragstone) usually with a thin clayey layer at the junction of soil and limestone (SSEW 1984)
- 4 3 Detailed field examination of the soils on the site confirmed the presence of clay loam and clay profiles overlying ragstone at variable depths

#### **5 Agricultural Land Classification**

- 5 1 Table 1 provides the details of the area measurements for each grade and the distribution of each grade is shown on the attached map
- 5 2 The location of the soil observation points are shown on the attached sample point map

##### **Subgrade 3a**

- 5 3 Good quality land has been identified across most of the area surveyed. Soil droughtiness (and occasionally soil wetness) limitations act to slightly restrict the agricultural use of the land
- 5 4 Profiles comprise medium or occasionally heavy clay loam topsoils which may be calcareous or non calcareous and which contain 2-10% total ragstone fragments by volume. These overlie similarly textured upper subsoils which are typically slightly more stony than the topsoils having up to 25% total ragstone fragments. Profiles become heavier with depth commonly passing to clay below 40-50 cm. Where clay horizons in the lower subsoil are reddish in colour they were found to be slowly permeable (see 1p). Some soils could not be penetrated by a soil auger with impenetrable horizons encountered between 45 and 95 cm depth as a result of 25-30% ragstone fragments within these horizons
- 5 5 Soils having such textural and structural characteristics as well as stony horizons have reduced reserves of moisture which can be made available for plant growth. Consequently, plants may suffer drought stress particularly during the drier parts of the year. Yield potential may be suppressed as a result
- 5 6 As well as this droughtiness limitation a number of profiles are also affected by soil wetness. Slowly permeable clay horizons below 55-75 cm act to impede soil drainage thereby causing seasonal waterlogging and restricting crop growth and development. Cultivations and grazing by livestock

**Subgrade 3b**

- 5 7 A small area of land has been classified as moderate quality, where profiles similar to those described above but shallower and/or more stony over ragstone are restricted by soil droughtiness to a greater extent. Impenetrable horizons were encountered between 30 and 40 cm depth thereby severely restricting profile available water.
- 5 8 This land may also have been disturbed in conjunction with the adjacent restored working.

ADAS Ref 2007/86/95  
MAFF Ref EL20/862

Resource Planning Team  
Guildford Statutory Group  
ADAS Reading

## **SOURCES OF REFERENCE**

- British Geological Survey (1976) Sheet 288 Maidstone 1 50 000
- MAFF (1988) Agricultural Land Classification of England and Wales  
Revised guidelines and criteria for grading the quality of agricultural land
- Meteorological Office (1987) Agroclimatic datasite for Agricultural Land Classification
- Soil Survey of England and Wales (1983) Sheet 6 Soils of South East England  
Soil Survey of England and Wales (1984) Bulletin 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 <sup>1</sup>
I	The soil profile is not wet within 70 cm depth for more than 30 days in most years <sup>2</sup>
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.

<sup>1</sup>The number of days specified is not necessarily a continuous period

<sup>2</sup>In 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:

<b>ARA</b> Arable	<b>WHT</b> Wheat	<b>BAR</b> Barley
<b>CER</b> Cereals	<b>OAT</b> Oats	<b>MZE</b> Maize
<b>OSR</b> Oilseed rape	<b>BEN</b> Field Beans	<b>BRA</b> Brassicae
<b>POT</b> Potatoes	<b>SBT</b> Sugar Beet	<b>FCD</b> Fodder Crops
<b>LIN</b> Linseed	<b>FRT</b> Soft and Top Fruit	<b>FLW</b> Fallow
<b>PGR</b> Permanent Pasture	<b>LEY</b> Ley Grass	<b>RGR</b> Rough Grazing
<b>SCR</b> Scrub	<b>CFW</b> Coniferous Woodland	<b>DCW</b> Deciduous Wood
<b>HTH</b> Heathland	<b>BOG</b> Bog or Marsh	<b>FLW</b> Fallow
<b>PLO</b> Ploughed	<b>SAS</b> Set aside	<b>OTH</b> Other
<b>HRT</b> 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:

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

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

## Soil Pits and Auger Borings

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

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

<b>F</b>	Fine (more than 66% of the sand less than 0.2mm)
<b>M</b>	Medium (less than 66% fine sand and less than 33% coarse sand)
<b>C</b>	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 **GLEYS** 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

<b>HR</b>	all hard rocks and stones	<b>SLST</b>	soft oolitic or dolomitic limestone
<b>CH</b>	chalk	<b>FSST</b>	soft fine grained sandstone
<b>ZR</b>	soft argillaceous or silty rocks	<b>GH</b>	gravel with non porous (hard) stones
<b>MSST</b>	soft medium grained sandstone	<b>GS</b>	gravel with porous (soft) stones
<b>SI</b>	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 MADISTONE LP SITE 71 Pit Number 1P

Grid Reference TQ78405160 Average Annual Rainfall 707 mm  
 Accumulated Temperature 1405 degree days  
 Field Capacity Level 144 days  
 Land Use Permanent Grass  
 Slope and Aspect 02 degrees S

HORIZON	TEXTURE	COLOUR	STONES >2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 28	MCL	10YR42 00	5	5	HR					
28 60	C	10YR44 00	0	25	HR	C	MDCSAB	FR	M	
60 75	C	10YR44 00	0	30	HR	C	MDCSAB	FR	M	
75 100	C	10YR66 00	0	5	HR	M	MDCOPL	FR	P	

Wetness Grade 2 Wetness Class II  
 Gleying cm  
 SPL 075 cm

Drought Grade 3A APW 106mm MBW 6 mm  
 APP 99 mm MBP 6 mm

FINAL ALC GRADE 3A  
 MAIN LIMITATION Droughtiness

SAMPLE NO	GRID REF	ASPECT USE	WETNESS -		WHEAT		POTS		M REL		EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
			GRDNT	GLEYSPL	CLASS	GRADE	AP	MB	AP	MB					
1	TQ78105200	PGR		043 055	2	2	107	-5 108	3	3A			DR	3A	See 1P
1P	TQ78405160	PGR S	02	075	2	2	106	6 99	-6	3A			DR	3A	S1 gley 28
2	TQ78005190	PGR S	01		1	1	69	43 69	-36	3B			DR	3A	See 1P
3	TQ78105190	PGR		060	2	3A	112	0 105	0	3A			WD	3A	S1 gley 38
6	TQ78005180	PGR			1	2	98	-14 104	1	3A			DR	3A	S1 gley 32
7	TQ78105180	PGR S	01		1	1	52	-60 52	53	4			DR	3B	Impen 35
8	TQ78205180	PGR		055	2	3A	100	-12 102	-3	3A			WD	3A	S1 gley 30
11	TQ78105170	PGR S	02		1	1	49	-63 49	56	4			DR	3B	Poss disturbed
12	TQ78205170	PGR S	01	025 075	2	2	114	2 112	7	3A			DR	3A	See 1P
13	TQ78305170	PGR SE	01	030 060	3	3A	115	3 108	3	3A			WD	3A	See 1P
18	TQ78305160	PGR SE	02	025	2	2	84	28 88	-17	3B			DR	3A	See 1P
19	TQ78405160	PGR S	02		1	1	84	28 91	-14	3B			DR	3A	S1 gley 29
21	TQ78305150	PGR SE	03		1	2	63	49 63	42	3B			DR	3B	Very shallow
22	TQ78405150	PGR S	03		1	2	114	2 114	9	3A			DR	3A	S1 gley 35
23	TQ78405140	PGR S	04	060	2	2	108	4 110	5	3A			DR	3A	S1 gley 60

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES		PED		STONES		STRUCT/	SUBS						
				COL	ABUN	CONT	COL	GLEYS >2	6 LITH		TOT	CONSIST	STR	POR	IMP	SPL	CALC
1	0 28	mc1	10YR43 00					0	0	HR	4						
	28 43	mc1	10YR53 00	75YR58 00	F			0	0	HR	2		M				
	43 55	hc1	10YR52 00	75YR58 00	C	10YR71 00	Y	0	0	HR	5		M				
	55 85	c	10YR51 00	75YR58 00	M			Y	0	0	HR	8		P		Y	Imp - ragstone
1P	0 28	mc1	10YR42 00					5	0	HR	5						
	28 60	c	10YR44 00	75YR58 00	C			S	0	0	HR	25	MDCSAB	FR	M		
	60 75	c	10YR44 00	75YR58 00	C			S	0	0	HR	30	MDCSAB	FR	M		
	75 100	c	10YR66 00	75YR58 00	M			S	0	0	HR	5	MDCOPL	FR	P		Y
2	0 30	mc1	10YR42 00					0	0	HR	10						
	30 38	mc1	10YR43 00					0	0	HR	12		M				
	38 45	hc1	10YR44 00					0	0	HR	25		M				Imp - ragstone
3	0 20	hc1	10YR42 00					0	0	HR	8						
	20 32	hc1	10YR42 00					0	0	HR	15		M				
	32 38	hc1	10YR54 00					0	0	HR	15		M				
	38 60	c	10YR66 00	75YR58 00	C			S	0	0	HR	2		M			
	60-100	c	10YR66 00	05YR56 00	M			S	0	0	HR	4		P		Y	
6	0 32	hc1	10YR43 00					0	0	HR	10						
	32 80	c	10YR66 00	75YR58 00	C			S	0	0	HR	15		M			Imp ragstone
7	0 30	mc1	10YR43 00					0	0	HR	15						
	30 35	hc1	10YR44 00					0	0	HR	25		M				Imp - ragstone
8	0 30	hc1	10YR43 00					0	0	HR	8						
	30 55	c	75YR58 00	25 Y53 00	C			S	0	0	HR	20		M			
	55 85	c	10YR66 00	05YR56 00	M			S	0	0	HR	2		P		Y	
11	0 30	mc1	10YR43 00					0	0	HR	10						Imp - ragstone
12	0 25	mc1	10YR43 00					0	0	HR	3						Y
	25 48	hc1	25 Y53 00	75YR58 00	C			Y	0	0	HR	10		M			Y
	48 75	c	25 Y53 00	75YR68 00	M			Y	0	0	HR	1		M			Y
	75 95	c	75YR58 00	00MN00 00	C			Y	0	0	HR	1		P		Y	Y
13	0 30	mc1	10YR42 00					0	0	HR	5						Y
	30 50	hc1	10YR53 00	75YR58 00	C			Y	0	0	HR	10		M			Y
	50 60	c	10YR53 00	75YR68 00	C			Y	0	0	HR	8		M			Y
	60-100	c	10YR53 00	75YR68 00	M			Y	0	0	HR	2		P		Y	Y
18	0 25	mc1	10YR32 00					0	0	HR	2						Y
	25 48	hc1	25 Y53 00	75YR58 00	C			Y	0	0	HR	12		M			Y
	48 55	c	25 Y53 00	75YR58 00	C			Y	0	0	HR	3		M			Y
19	0 29	mc1	10YR42 00					0	0	HR	8						Y
	29 60	c	10YR56 00	75YR58 00	C			S	0	0	HR	15		M			Y



SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES			PED		STONES			- STRUCT/		SUBS				
				COL	ABUN	CONT	COL	GLEY	2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC
21	0 30	hc1	10YR43 00						0	0	HR	2					Y	
	30 38	hc1	10YR54 00						0	0	HR	20		M			Y	Imp - ragstone
22	0-25	hc1	10YR43 00						0	0	HR	2					Y	
	25 35	hc1	10YR54 00						0	0	HR	5		M			Y	
	35 60	c	10YR56 00	75YR58 00	C				S	0	0	HR	5		M		Y	
	60 90	c	10YR56 00	75YR58 00	C				S	0	0		0		M		Y	Imp - ragstone
23	0-29	hc1	10YR43 00						0	0	HR	5					Y	
	29 45	hc1	10YR54 00						0	0	HR	15		M			Y	
	45 60	c	10YR56 00	75YR56 00	F				0	0	HR	5		M			Y	
	60 87	c	10YR56 00	75YR58 00	C				S	0	0	HR	4		M		Y	Y