

**A1**  
**Basingstoke & Deane Borough**  
**Local Plan**  
**Site 4: Land East of Popley Fields**  
**Agricultural Land Classification**  
**ALC Map & Report**  
**October 1993**

**BASINGSTOKE & DEANE BOROUGH LOCAL PLAN  
SITE 4: LAND EAST OF POPLEY FIELDS  
AGRICULTURAL LAND CLASSIFICATION, REPORT**

**1. Summary**

- 1.1 In August 1993, a detailed Agricultural Land Classification (ALC) survey was carried out on approximately 22 hectares of land east of Popley fields. ADAS was commissioned by MAFF's Land Use Planning Unit to determine the quality of 22 sites around Basingstoke in Hampshire. The work forms part of MAFF's input into the Basingstoke and Deane Borough Local Plan.
- 1.2 The survey was conducted by members of the Resource Planning Team in the Guildford Statutory Group at an observation density of approximately one boring per hectare. A total of 22 borings and 2 soil inspection pits 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 long term limitations on its use for agriculture.

At the time of survey, the land was under cereal stubble, permanent grass and set-aside.

- 1.3 The distribution of the grades and subgrades is shown on the attached ALC map and the areas and extents are given in the table below. The map has been drawn at a scale of 1:5000. It is accurate at this scale, but any enlargement may be misleading.

Table 1: Distribution of Grades and Subgrades

<u>Grade</u>	<u>Area (ha)</u>	<u>% of Agricultural Area</u>
3a	5.2	23.8
3b	<u>16.6</u>	<u>76.2</u>
Total area of site	21.8	100%

- 1.4 A general description of the grades and subgrades is provided as an appendix. 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.
- 1.5 The majority of the site has been classified as subgrade 3b, the key limitation being wetness. This was evidenced by the presence of slowly permeable layers of clay in the upper subsoil. The interaction of shallow slowly permeable layers with the heavy nature of the topsoil limits land to this subgrade. The area shown as subgrade 3a suffers from a moderate wetness limitation due to moderate to very stony soils overlying slowly permeable clay to depth. In this case the interaction of the slowly permeable clay with a medium, more workable, topsoil limits land to this better grade.

## 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 of soil conditions.
- 2.2 The main parameters used in the assessment of the 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 affect the site.

Table 2: Climatic Interpolations

Grid Reference:	SU 640 554	SU 640 551
Altitude (m):	80	90
Accumulated Temperature (days):	1441	1430
Average Annual Rainfall (mm):	743	753
Field Capacity (days):	159	160
Moisture Deficit, Wheat (mm):	106	104
Moisture Deficit, Potatoes (mm):	98	96
Overall Climatic Grade:	1	1

## 3. Relief

- 3.1 The site lies between approximately 80m and 90m AOD, in the form of a ridge, the summit of which runs south east to north west across the site, gently falling. Either side of this feature slopes fall away to the north east and south west. None of these are of sufficient gradient to affect grading. Altitude and microrelief also do not affect grading.

## 4. Geology and Soil

- 4.1 The British Geological Survey Published Sheet 284, Basingstoke, shows the south of the site to be underlain by Tertiary Reading Beds, extending approximately to the ridge summit (see para 3.1). To the north of this Tertiary London Clay is mapped on the gentle north facing slope (para 3.1).
- 4.2 The Soil Survey of England and Wales published map, Sheet 6, Soils of South East England, shows the site to be underlain by soils of the Wickham 4 Association describing them as, "Seasonally waterlogged fine loamy over clayey and fine silty over clayey soils". Soils of this nature were found at this site.

## 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 ALC map.
- 5.2 The location of the soil observation points is shown on the attached sample point map.
- 5.3 Subgrade 3a

The area of good quality is mapped to the east of the site straddling the summit of the ridge. The soils here were found to consist of a moderately stony (c.26% flints by volume) medium silty clay loam topsoil over a very stony (c.47% flints by volume) heavy clay loam upper subsoil, overlying a gleyed and slowly permeable stoneless clay, this occurs below 40cm and as such Wetness Class III has been assigned, which when combined with soil workability leads to subgrade 3a being appropriate. Land of this quality could be expected to produce high yields of a narrow range of crops including certain cereals and grass, and moderate yields of more demanding crops such as oilseed rape, potatoes and sugar beet.

### 5.4 Subgrade 3b

The majority of the site is mapped as moderate quality, occurring on the slopes north and south of the ridge summit. The soils in this area were commonly found to consist of a stoneless to very slightly stony (up to 3% flints by volume) medium or heavy clay loam or clay topsoil overlying a stoneless to moderately stony (up to c.20% flints by volume) gleyed clay, which when stoneless is slowly permeable. This passes to a stoneless slowly permeable clay above 50cm, such that within the local climatic regime Wetness Class IV has been assigned, which when combined with workability restrictions of the topsoil leads to subgrade 3b being appropriate. Land of this quality could be expected to produce moderate yields of a narrow range of crops, principally cereals and grass.

- 5.5 Wetness affected land can depending on the severity of the problem, be subject to restrictions on the number of days when cultivation by machinery and/or grazing by livestock may occur and not cause structural damage to the soil. Soil wetness can also affect seed germination and development by reducing temperature and causing anaerobism due to water presence.

ADAS REFERENCE: 1501/148/93  
MAFF REFERENCE: EL 15/144

Resource Planning Team  
Guildford Statutory Group  
ADAS Reading

## APPENDIX I

### DESCRIPTION OF THE GRADES AND SUB-GRADES

#### **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 on the 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.

#### **Grade 3 : Good To Moderate Quality Agricultural Land**

Land with moderate limitations which affect the choice of crops, 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.

#### **Sub-grade 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 very 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 : 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/airfields. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

## **Woodland**

Includes commercial and non-commercial 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

### SOURCES OF REFERENCE

- \* British Geological Survey (1981) Sheet No. 284 Basingstoke, 1:50,000, Solid and Drift Edition
- \* MAFF (1988), Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land.
- \* Meteorological Office (1989), Climatological Data for Agricultural Land Classification.
- \* Soil Survey of England and Wales (1983), Sheet No. 6, Soils of South East England, 1:250,000.
- \* Soil Survey of England and Wales (1984), Soils and their use in South East England Bulletin No. 15.

## APPENDIX III

### DEFINITION OF SOIL WETNESS CLASSES

#### Wetness Class I

The soil profile is not wet within 70cm depth for more than 30 days in most years.

#### Wetness Class II

The soil profile is wet within 70cm depth for 31-90 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 90 days, but not wet within 40cm depth for more than 30 days in most years.

#### Wetness Class III

The soil profile is wet within 70cm depth for 91-180 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 180 days, but only wet within 40cm depth for 31-90 days in most years.

#### Wetness Class IV

The soil profile is wet within 70cm depth for more than 180 days but not wet within 40cm depth for more than 210 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 40cm depth for 91-210 days in most years.

#### Wetness Class V

The soil profile is wet within 40cm depth for 211-335 days in most years.

#### Wetness Class VI

The soil profile is wet within 40cm depth for more than 335 days in most years.

(The number of days is not necessarily a continuous period. 'In most years' is defined as more than 10 out of 20 years.)

## APPENDIX IV

### 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 database. This has commonly used notations and abbreviations as set out below.

### Boring Header Information

1. **GRID REF** : national 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    **HRT** : Horticultural Crops    **PGR** : Permanent Pasture    **LEY** : Ley Grass    **RGR** : Rough Grazing  
**SCR** : Scrub    **CFW** : Coniferous Woodland    **DCW** : Deciduous Woodland    **HTH** : Heathland    **BOG** : Bog or Marsh  
**FLW** : Fallow    **PLO** : Ploughed    **SAS** : Set aside    **OTH** : Other

3. **GRDNT** : Gradient as measured by a hand-held optical clinometer.

4. **GLEY/SPL** : Depth in cm to gleying or slowly permeable layers.

5. **AP (WHEAT/POTS)** : Crop-adjusted available water capacity.

6. **MB (WHEAT/POTS)** : Moisture Balance.

7. **DRT** : Best grade according to soil droughtiness.

8. If any of the following factors are considered significant, an entry of 'Y' will be entered in the relevant column.

**MREL** : Microrelief limitation    **FLOOD** : Flood risk    **EROSN** : Soil erosion risk    **EXP** : Exposure limitation    **FROST** : Frost  
**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** : Soil Erosion Risk    **WD** : Combined 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  
**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 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

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

6. **STONE LITH** : One of the following is used.

**HR** : all hard rocks and stones    **MSST** : soft, medium or coarse grained sandstone

**SI** : soft weathered igneous or metamorphic    **SLST** : soft oolitic or dolimitic limestone

**FSST** : soft, fine grained sandstone    **ZR** : soft, argillaceous, or silty rocks    **CH** : chalk

**GH** : gravel with non-porous (hard) stones    **GS** : gravel with porous (soft) stones

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

7. **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

8. **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

9. **SUBS STR** : Subsoil structural condition recorded for the purpose of calculating profile droughtiness.

**G** : good    **M** : moderate    **P** : poor

10. **POR** : Soil porosity. If a soil horizon has less than 0.5% biopores >0.5 mm, a 'Y' will appear in this column.

11. **IMP** : If the profile is impenetrable a 'Y' will appear in this column at the appropriate horizon.

12. **SPL** : Slowly permeable layer. If the soil horizon is slowly permeable a 'Y' will appear in this column.

13. **CALC** : If the soil horizon is calcareous, a 'Y' will appear in this column.

14. 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 : BSTOKE LP (2) SITE 4 Pit Number : 1P

Grid Reference: SU63905520 Average Annual Rainfall : 743 mm  
 Accumulated Temperature : 1441 degree days  
 Field Capacity Level : 159 days  
 Land Use : Cereals  
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 23	MZCL	10YR42 00	0	26		
23- 43	HCL	10YR53 00	0	47		
43-120	C	25Y 63 00	0	0	M	MDVCP

Wetness Grade : 3A Wetness Class : III  
 Gleying : 043 cm  
 SPL : 043 cm

Drought Grade : APW : mm MBW : 0 mm  
 APP : mm MBP : 0 mm

FINAL ALC GRADE : 3A  
 MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : BSTOKE LP (2) SITE 4 Pit Number : 2P

Grid Reference: SU63925500 Average Annual Rainfall : 743 mm  
 Accumulated Temperature : 1441 degree days  
 Field Capacity Level : 159 days  
 Land Use : Cereals  
 Slope and Aspect : 03 degrees S

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 32	MCL	10YR42 00	0	3		
32- 42	C	10YR73 00	0	20	M	MDCSAB
42- 90	C	10YR53 63	0	0	M	WDCAB

Wetness Grade : 3B Wetness Class : IV  
 Gleying : 032 cm  
 SPL : 042 cm

Drought Grade : APW : mm MBW : 0 mm  
 APP : mm MBP : 0 mm

FINAL ALC GRADE : 3B  
 MAIN LIMITATION : Wetness

SAMPLE NO.	GRID REF	ASPECT USE	--WETNESS--		-WHEAT-		-POTS-		M.REL		EROSN	FROST		CHEM	ALC	COMMENTS
			GRDNT	GLEYSPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	LIMIT	
1	SU63405540	PGR SE	05	026 026	4	3B			0	0					WE 3B	SPL 26 2P
1P	SU63905520	CER		043 043	3	3A			0	0					WE 3A	PIT 68 AUG 120
2	SU64005540	SAS		025 025	4	3B			0	0					WE 3B	IMPST 65 2P
2P	SU63925500	CER S	03	032 042	4	3B			0	0					WE 3B	PIT 68 AUG 90
3	SU63405530	PGR SE		030 050	3	3B			0	0					WE 3B	SPL 50 2P
4	SU63505530	PGR SE	06	0 026	4	3B			0	0					WE 3B	SPL 26 2P
5	SU63605530	CER N	01	027 040	4	3B			0	0					WE 3B	SPL 40 2P
6	SU63905530	SAS		025 025	4	3B			0	0					WE 3B	SPL 25 2P
7	SU64005530	SAS		025 025	4	3B			0	0					WE 3B	IMPST 60 1P
8	SU63505520	CER N		030 060	3	3B			0	0					WE 3B	SPL 60 2P
9	SU63605520	CER SE	04	027 055	3	3B			0	0					WE 3B	SPL 55 2P
10	SU63705520	CER SE	05	027 027	4	3B			0	0					WE 3B	SPL 27 2P
11	SU63805520	CER			1	2			0	0					WE 3A	IMPST 40 1P
12	SU63905520	CER			1	2			0	0					WE 3A	IMPST 35 1P
13	SU64005520	SAS			1	2			0	0					WE 3A	IMPST 30 1P
14	SU63705510	CER S	03	028 040	4	3B			0	0					WE 3B	SPL 40 2P
15	SU63805510	CER		030 030	4	3B			0	0					WE 3B	SPL 30 2P
16	SU63905510	CER			1	2			0	0					WE 3A	IMPST 35 1P
17	SU64005510	CER			1	2			0	0					WE 3A	IMPST 40 1P
18	SU63705500	CER		030 030	4	3B			0	0					WE 3B	SPL 30 2P
19	SU63805500	CER		030 030	4	3B			0	0					WE 3B	SPL 30 2P
20	SU63905500	CER SE	03	030 030	4	3B			0	0					WE 3B	SPL 30 2P
21	SU64005500	CER SE	03	032 032	4	3B			0	0					WE 3B	SPL 32 2P
22	SU63905490	CER		028 028	4	3B			0	0					WE 3B	SPL 28 2P

SAMPLE	DEPTH	TEXTURE	COLOUR	---MOTTLES---			PED	---STONES---			STRUCT/	SUBS	SPL	CALC		
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH	TOT			CONSIST	STR
1	0-26	hc1	10YR43 42	10YR56	00	C		0	0	0						
	26-60	c	10YR52 51	10YR58	00	M		Y	0	0	0		P	Y		
1P	0-23	mzc1	10YR42	00				0	0	HR	26					
	23-43	hc1	10YR53	00				0	0	HR	47		M			
	43-120	c	25Y 63	00	75YR58	00	M	Y	0	0	0	MDVCP	EM	P	Y	Y
2	0-25	hzc1	10YR53	00				0	0	HR	8					
	25-55	c	10YR64	00	10YR58	00	M	Y	0	0	HR	2		P	Y	
	55-65	c	10YR63	00	10YR58	62	M	Y	0	0	HR	12		P	Y	
2P	0-32	mc1	10YR42	00				0	0	HR	3					
	32-42	c	10YR73	00	10YR56	00	M	Y	0	0	HR	20	MDCSAB	FR	M	
	42-90	c	10YR53	63	75YR56	00	M	Y	0	0	0	WDCAB	EM	P	Y	Y
3	0-30	c	10YR42	00	10YR46	00	F		0	0	0					
	30-50	c	10YR42	41	10YR56	00	C	Y	0	0	0			M		
	50-90	c	10YR53	51	10YR58	00	M	Y	0	0	0			P	Y	
4	0-26	c	10YR42	00	10YR56	00	C	Y	0	0	0					
	26-60	c	10YR53	51	10YR58	00	M	Y	0	0	0			P	Y	
5	0-27	hc1	10YR42	00				0	0	HR	3					
	27-40	c	25Y 63	00	10YR66	00	M	00M00	00	Y	0	0	HR	10	M	
	40-80	c	25Y 62	00	75YR58	00	M	00M00	00	Y	0	0	0		P	Y
6	0-25	hzc1	10YR53	00				0	0	HR	6					
	25-45	c	10YR63	00	10YR58	61	C	Y	0	0	HR	8		P	Y	
	45-90	c	75YR53	00	10YR58	62	M	00M00	00	Y	0	0	0		P	Y
7	0-25	hzc1	10YR53	00				0	0	HR	6					
	25-60	c	10YR64	00	10YR58	61	C	Y	0	0	HR	8		P	Y	
8	0-30	hc1	10YR42	00				0	0	HR	2					
	30-60	c	25Y 53	52	10YR66	00	C	Y	0	0	HR	2		M		
	60-90	c	25Y 52	00	75YR56	00	M	00M00	00	Y	0	0	0		P	Y
9	0-27	hc1	25Y 42	00				0	0	HR	2					
	27-55	c	25Y 63	62	10YR56	00	M	Y	0	0	HR	5		M	Y	
	55-90	c	25Y 62	00	75YR56	00	M	Y	0	0	0			P	Y	
10	0-27	hc1	10YR42	00				0	0	HR	2					
	27-60	c	25Y 62	00	75YR56	00	M	Y	0	0	0			P	Y	
11	0-30	mzc1	10YR53	00				0	0	HR	9					
	30-40	hc1	10YR54	00				0	0	HR	12			M		
12	0-25	mzc1	10YR43	00				0	0	HR	6					
	25-35	hc1	10YR54	00				0	0	HR	10			M		

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED	----STONES-----			STRUCT/	SUBS	SPL	CALC
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH	TOT		
13	0-30	mzc1	10YR53 00					0	0	HR	6			
14	0-28	hc1	10YR42 00					0	0	HR	2			
	28-40	c	25Y 63 53 10YR56 00 M					Y	0	0	HR	5	M	
	40-80	c	25Y 53 51 75YR56 00 M					Y	0	0		0	P	Y
15	0-30	hc1	10YR42 00					0	0	HR	9			
	30-60	c	10YR63 00 10YR58 61 M					Y	0	0	HR	5	P	Y
16	0-30	mc1	10YR42 00					0	0	HR	5			
	30-35	c	10YR63 00					0	0	HR	12	M		
17	0-30	mc1	10YR42 00					0	0	HR	9			
	30-40	hc1	10YR54 00					0	0	HR	12	M		
18	0-30	hc1	10YR42 00 10YR46 00 F					0	0		0			
	30-90	c	25Y 52 53 10YR58 00 M					Y	0	0		0	P	Y
19	0-30	hc1	10YR42 00					0	0		0			
	30-70	c	10YR52 51 10YR58 00 M					Y	0	0		0	P	Y
20	0-30	hc1	10YR42 00 10YR46 00 F					0	0	HR	2			
	30-45	c	25Y 52 00 10YR58 00 M					Y	0	0	HR	5	P	Y
	45-90	c	10YR52 51 10YR58 00 M					Y	0	0		0	P	Y
21	0-32	hc1	10YR42 00					0	0	HR	3			
	32-70	c	10YR53 52 10YR58 00 M					Y	0	0		0	P	Y
22	0-28	hc1	10YR42 00					0	0		0			
	28-80	c	25Y 62 63 75YR58 00 M				00M00 00	Y	0	0		0	P	Y