

**A1**  
**Chichester District Local Plan**  
**PR2: Land south of Fishbourne**  
**Roundabout.**  
**Agricultural Land Classification**  
**ALC Map and Report**  
**November 1994**

# AGRICULTURAL LAND CLASSIFICATION REPORT

## CHICHESTER DISTRICT LOCAL PLAN.

### PR2: LAND TO SOUTH OF FISHBOURNE ROUNDABOUT.

#### 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 district of Chichester in West Sussex. The work forms part of MAFF's statutory input to the preparation of the Chichester District Local Plan.
- 1.2 Site PR2 comprises approximately 6 hectares of land to the south of Fishbourne Roundabout near Chichester. An Agricultural Land Classification (ALC) survey was carried out in November 1994. The survey was undertaken at a detailed level of approximately one boring per hectare of agricultural land. A total of 10 borings and two 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 a long term limitation on its use for agriculture.
- 1.3 At the time of the survey the agricultural land on the site comprised permanent grassland. Areas marked as non-agricultural include scrub and ditches. The area marked as urban includes a hardcore track.
- 1.4 The distribution of grades and subgrades is shown on the attached ALC map and the areas and extent 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	5.3	85.5	94.6
3b	0.3	4.8	5.4
Non-agricultural	0.5	8.1	<u>100%</u> (5.6 ha.)
Urban	0.1	1.6	
Total area of Site	<u>6.2</u>	<u>100%</u>	

- 1.5 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.
- 1.6 The majority of the agricultural land on the site has been classified as Subgrade 3a, good quality land, with soil wetness and droughtiness as the main limitations. Where droughtiness is overriding, soil profiles typically comprise a medium silty clay loam which becomes heavier and stonier with depth, lower subsoils generally being moderately or very stony (25-50% total flints). The combination of soil textures, structures and the

local climatic regime means that there is a restriction on the amount of profile available water for plant growth, such that a classification of Subgrade 3a is appropriate. Where wetness is the principal limitation soils tend to be less stony, comprising medium silty clay loam topsoils and upper subsoils which rest upon a poorly structured silty clay lower subsoil which is slowly permeable and thereby impedes drainage. These profiles tend to be gleyed from below the topsoil and are assigned to Wetness Class III, with a resultant classification of Subgrade 3a. A small area of land classified as Subgrade 3b shows a more severe wetness limitation, with the existence of a slowly permeable clay directly below the topsoil, and is appropriately assigned to Wetness Class IV. Poorly drained wet soils can inhibit plant and root development and may be more susceptible to structural damage through trafficking by agricultural machinery or poaching by grazing livestock.

## 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 (degree days Jan-June), 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. However, moisture deficits are relatively high, therefore the likelihood of any soil droughtiness limitations may be increased.
- 2.4 No local climatic factors such as exposure or frost risk are believed to affect the site.

**Table 2 : Climatic Interpolation**

Grid Reference	SU 846 043
Altitude (m)	5
Accumulated Temperature (degree days, Jan-June)	1545
Average Annual Rainfall (mm)	764
Field Capacity (days)	156
Moisture Deficit, Wheat (mm)	120
Moisture Deficit, Potatoes (mm)	117
Overall Climatic Grade	1

## 3. Relief

- 3.1 The site is flat, lying at an altitude of approximately 5m AOD.

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

- 4.1 The relevant geological sheet (BGS, 1970) , shows the entire site to be underlain by brickearth.
- 4.2 The published Soil Survey map (SSGB, 1967) shows the soils on the site to comprise three distinct series. The Gade complex is mapped across the centre of the site, these are described as ' calcareous and non-calcareous silty loams overlying gravel at shallow depths' (SSGB, 1967). The Park Gate series is also mapped across the site, these being described as 'gleyed silt loams with few flints and no slowly permeable layer. Gleyed from about 17cm' (SSGB, 1967). On the eastern and western edges of the site the Hook series is mapped, these being described as 'gleyed silt loams with few flints and slowly permeable layer from 55cm over gravel at about 77cm' (SSGB, 1967).
- 4.3 Detailed field examination found the soils on the site to comprise either silty clay loams with slowly permeable silty clay subsoils or silty clay loams with stony subsoils.

#### **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 are shown on the attached sample point map.

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

- 5.3 Good quality Subgrade 3a land covers the largest proportion of the site, the key limitations being soil wetness and droughtiness.
- 5.4 Soil wetness is the principal limiting factor within this mapping unit. Soil profiles which exhibit a wetness limitation typically comprise a medium silty clay loam topsoil which becomes heavier with depth, ultimately resting upon a clay or silty clay lower subsoil. Profiles show evidence of a drainage restriction in the form of gleying from depths of between 30-55cm. A soil inspection pit (pit no. 1) was dug to assess the nature and possible cause of the restricted profile drainage. At the location of the pit, the profile was found to consist of very slightly stony (2% total flints) medium silty clay loam topsoil with a similar texture prevailing in the upper subsoil to a depth of 62cm. This in turn rests upon a silty clay lower subsoil. The profile shows evidence of a soil drainage imperfection in the form of slight gleying from 28cm, and gleying from 38cm. The silty clay lower subsoil shows a poor substructural condition and low porosity and is therefore classified as slowly permeable, moderately restricting soil drainage. Such drainage characteristics equate these soils to Wetness Class III, with a resultant classification of Subgrade 3a. Poorly drained wet soils can inhibit plant and root development, and may be more susceptible to structural damage through trafficking by agricultural machinery or poaching by grazing livestock.
- 5.4 Soil droughtiness is also a key limitation for the Subgrade 3a land in areas of the site where profiles tend to be well drained with stonier subsoils. Soils of this nature proved impenetrable to the auger at depths of 55-65cm. Therefore a soil inspection pit (Pit no.2)

was dug to investigate the nature of the subsoils, particularly the textures and stone contents. The observed profile comprises a slightly stony (6% total flints) medium silty clay loam topsoil overlying a similarly textured upper subsoil containing 8% total flints, which extends to 47cm. From this depth a moderately stony (25% total flints) heavy silty clay loam lower subsoil extends to 65cm, overlying a very stony (50% total flints) clay lower subsoil. Gleying was observed from below the topsoil and the profile is assigned to Wetness Class II, yet this does not affect the final grade. It is the combination of soil textures, structures, stone contents and the local climatic regime which moderately restricts the amount of profile available water for plant growth. Consequently, this can have an effect upon the level and consistency of crop yields such that a classification of Subgrade 3a is appropriate due to a soil droughtiness limitation.

### **Subgrade 3b**

- 5.5 A small area of land in the north-east of the site has been classified as Subgrade 3b, with soil wetness as the main limitation. The soil profile was found to comprise a medium silty clay loam topsoil overlying a slowly permeable clay upper subsoil which becomes moderately stony (30% total flints) at a depth of 55cm. The presence of gleying from the topsoil and a slowly permeable clay at a shallow depth means that this profile is placed into Wetness Class IV. The significant restriction on drainage which is evident in these soils means that a classification of Subgrade 3b is appropriate. The effect of this limitation upon agricultural use is similar to that of the Subgrade 3a land, albeit of a more severe nature.

ADAS Ref: 4203/259/94  
MAFF Ref: EL 42/739

Resource Planning Team  
Guildford Statutory Group  
ADAS Reading

## **SOURCES OF REFERENCE**

British Geological Survey (1972), Sheet No. 317, Chichester, 1:50,000 Series (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 Great Britain (1967), Sheet SU80, Chichester, 1:25,000 and accompanying bulletin 'Soils of the West Sussex Coastal Plain'.

# 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 <b>or</b> , 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 <b>or</b> , 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 <b>or</b> , 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**

**Database Printout - soil pit information**

**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.

**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.

<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 dolimitic 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 : CHICHESTER LP FISHBOURNE Pit Number : 1P

Grid Reference: SU84800440 Average Annual Rainfall : 764 mm  
 Accumulated Temperature : 1545 degree days  
 Field Capacity Level : 156 days  
 Land Use : Permanent Grass  
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 28	MZCL	10YR42 52	0	2	HR					
28- 38	MZCL	10YR53 00	0	0		F			M	
38- 62	MZCL	10YR53 00	0	2	HR	C	MDCSAB	FR	M	
62- 85	ZC	10YR63 00	0	0		C	WKMPL	FM	P	

Wetness Grade : 3A Wetness Class : III  
 Gleying : 038 cm  
 SPL : 062 cm

Drought Grade : 3A APW : 117mm MBW : -3 mm  
 APP : 119mm MBP : 2 mm

FINAL ALC GRADE : 3A  
 MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : CHICHESTER LP FISHBOURNE Pit Number : 2P

Grid Reference: SU84600430 Average Annual Rainfall : 764 mm  
 Accumulated Temperature : 1545 degree days  
 Field Capacity Level : 156 days  
 Land Use : Permanent Grass  
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 28	MZCL	10YR42 43	4	6	HR					
28- 47	MZCL	10YR52 53	0	8	HR	C	MDCSAB	FR	M	
47- 65	HZCL	10YR52 00	0	25	HR	C			M	
65-120	C	10YR52 00	0	50	HR	C			M	

Wetness Grade : 2 Wetness Class : II  
 Gleying : 028 cm  
 SPL : No SPL

Drought Grade : 3A APW : 119mm MBW : -1 mm  
 APP : 108mm MBP : -9\*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	GLEY SPL	CLASS	GRADE	AP	MB	AP	MB						DRT
1	SU84500440	PGR	030	060	3	3A	128	8	120	3	2			WE	3A	
1P	SU84800440	PGR	038	062	3	3A	117	-3	119	2	3A			WE	3A	
2	SU84300420	PGR	075	075	2	2	133	13	124	7	2			WE	2	DR ALSO
2P	SU84600430	PGR	028		2	2	119	-1	108	-9	3A			DR	3A	
3	SU84600430	PGR	025		2	2	097	-23	105	-12	3B			DR	3A	IMP 65 SEE2P
4	SU84800430	PGR	022	022	4	3B	095	-25	101	-16	3B			WE	3B	SL. GLEY 0
5	SU84500420	PGR			1	1	084	-36	086	-31	3B			DR	3A	IMP 55 SEE2P
6	SU84600420	PGR	055	055	3	3A	126	6	117	0	2			WE	3A	
7	SU84800420	PGR	035	065	3	3A	000	0	000	0				WE	3A	
8	SU84900420	PGR	048	048	3	3A		0		0				WE	3A	
9	SU84660416	PGR	052	052	3	3A	000	0	000	0				WE	3A	
10	SU84750431	PGR	028	050	3	3A	000	0	000	0				WE	3A	



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	mzc1	10YR42 43					0	0	HR	2						
	30-45	mzc1	10YR43 00	10YR56	00	C		Y	0	0	0			M			
	45-60	hzc1	10YR52 00	10YR56	00	C		Y	0	0	0			M			
	60-100	c	10YR52 00	10YR58	63	C		Y	0	0	0			P		Y	
1P	0-28	mzc1	10YR42 52					0	0	HR	2						
	28-38	mzc1	10YR53 00	10YR58	00	F		0	0		0			M			
	38-62	mzc1	10YR53 00	10YR56	62	C		Y	0	0	HR	2	MDCSAB	FR	M		
	62-85	zc	10YR63 00	10YR78	72	C		Y	0	0	0	WKMP	L	FM	P	Y	
2	0-27	mzc1	10YR42 00					0	0		0						
	27-50	mzc1	10YR44 43					0	0		0			M			
	50-75	hzc1	10YR64 00					0	0		0			M			
	75-100	c	10YR62 00	10YR68	72	C		Y	0	0	0			P		Y	
2P	0-28	mzc1	10YR42 43					4	0	HR	6						
	28-47	mzc1	10YR52 53	10YR58	00	C		Y	0	0	HR	8	MDCSAB	FR	M		
	47-65	hzc1	10YR52 00	10YR58	00	C		Y	0	0	HR	25			M		
	65-120	c	10YR52 00	10YR58	62	C		Y	0	0	HR	50			M		
3	0-25	mzc1	10YR43 00					0	0	HR	2						
	25-50	mzc1	10YR52 00	10YR58	00	C		Y	0	0	HR	10			M		
	50-65	hzc1	10YR52 00	10YR68	00	C		Y	0	0	HR	25			M	IMP GRAVEL	
4	0-22	mzc1	10YR43 00	10YR58	00	C		S	0	0	HR	2					
	22-55	c	10YR52 00	10YR78	72	M		Y	0	0		0			P	Y	
	55-80	c	10YR52 00	10YR78	72	M		Y	0	0	HR	30			M	Y	
5	0-28	mzc1	10YR43 00					0	0	HR	5						
	28-43	mzc1	10YR53 00					0	0	HR	20			M			
	43-55	hzc1	10YR52 43					0	0	HR	30			M		IMP GRAVEL	
6	0-24	mzc1	10YR43 00					0	0		0						
	24-45	mzc1	10YR54 00					0	0	HR	2			M			
	45-55	hzc1	10YR54 00					0	0		0			M			
	55-100	c	10YR52 00	10YR78	72	C		Y	0	0	0			P		Y	
7	0-24	mzc1	10YR43 00	10YR58	00	F		0	0	HR	2						
	24-35	mzc1	10YR53 00	10YR58	00	F		0	0		0			M			
	35-65	hzc1	10YR53 00	10YR58	61	C		Y	0	0	0			M			
	65-100	zc	10YR63 00	10YR78	72	M		Y	0	0	0			P		Y	
8	0-30	mzc1	10YR43 00					0	0	HR	2						
	30-48	hzc1	10YR54 53					0	0		0			M			
	48-75	c	10YR53 63	10YR68	00	C		Y	0	0	HR	10			P	Y	
9	0-26	mzc1	10YR43 00					0	0	HR	2						
	26-52	hzc1	10YR52 53					0	0	HR	2			M			
	52-90	zc	10YR63 00	10YR68	72	M		Y	0	0	HR	5			P	Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED		----STONES----			STRUCT/ CONSIST	SUBS				
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH		TOT	STR	POR	IMP	SPL
10	0-28	mzc1	10YR43 00						0	0		0		M			
	28-50	hzc1	10YR53 00	10YR58	00	C			Y	0	0	0		M			
	50-80	c	10YR53 00	10YR68	72	C	00MN00	00	Y	0	0	0		P			Y