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**WYCOMBE DISTRICT LOCAL PLAN
Site 1, High Wycombe, Buckinghamshire**

**Agricultural Land Classification
ALC Map and Report**

December 1997

**Resource Planning Team
Eastern Region
FRCA Reading**

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AGRICULTURAL LAND CLASSIFICATION REPORT

WYCOMBE DISTRICT LOCAL PLAN SITE 1, HIGH WYCOMBE

INTRODUCTION

1. This summary report presents the findings of a detailed Agricultural Land Classification (ALC) survey on approximately 35 hectares of land to the north-east of Widmer End, High Wycombe, in Buckinghamshire. The survey was carried out during December 1997.
2. The survey was undertaken by the Farming and Rural Conservation Agency (FRCA)¹, on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF), in connection with the Wycombe District Local Plan. This survey supersedes any previous ALC information for this land.
3. The work was conducted by members of the Resource Planning Team in the Eastern Region of FRCA. The land has been graded in accordance with the published MAFF ALC guidelines and criteria (MAFF, 1988). A description of the ALC grades and subgrades is given in Appendix I.
4. At the time of survey most of the agricultural land on this site was under permanent grassland though one field, in the extreme north of the site, was under arable cropping. The areas shown as 'Other Land' comprise mainly woodland, residential and farm buildings and a small caravan park.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10,000. It is accurate at this scale, but any enlargement would be misleading.
6. The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1 below.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
3a	8.1	32.9	23.3
3b	16.5	67.1	47.6
Other land	10.1	-	29.1
Total surveyed area	24.6	100.0	70.9
Total site area	34.7	-	100.0

¹ FRCA is an executive agency of MAFF and the Welsh Office.

7. The fieldwork was conducted at an average density of 1 boring per hectare. In total, 28 borings and two soil inspection pits were described.

8. The majority of the agricultural land on this site has been classified as Subgrade 3b (moderate quality) due to topsoil stoniness and soil wetness. These soils are derived from the clay-with-flints geology and, as such, comprise variably flinty, fine silty and fine loamy over clay soils. The clay subsoils are generally poorly structured, impeding drainage through the profile and causing prolonged waterlogging during wetter months. As a result, the timing and flexibility of cropping, stocking and cultivations will be restricted. In many places, topsoil stoniness is an equal or over-riding limitation. The amount of large stone in the topsoil is sufficient to limit the land to Subgrade 3b, given the wear and tear that will be caused to agricultural equipment and the effect on the establishment and subsequent quality of root crops.

9. Two small areas of Subgrade 3a (good quality land) have also been mapped. The first forms a narrow strip towards the south-east of the site and the second lies, on the slightly higher ground, towards the north of the site. The soils here are also derived from the clay-with-flints and are similar to those described above. However, the impact of soil wetness and topsoil stoniness is less severe than on the Subgrade 3b land, though these are still important limitations in the grading of this land.

FACTORS INFLUENCING ALC GRADE

CLIMATE

10. Climate affects the grading of the land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.

11. The key climatic variables used for grading this site are given in Table 2 overleaf and were obtained from the published 5km grid datasets using the standard interpolation procedures (Met. Office, 1989).

12. 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

13. The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR), as a measure of overall wetness, and accumulated temperature (AT0, January to June), as a measure of the relative warmth of a locality. The figures below suggest that the site is comparatively cool and moist (in regional terms) as a result of being located at a relatively high altitude. This combination of rainfall and temperature mean that there is an overall climatic limitation at this locality. This site cannot, therefore, be classified any higher than Grade 2 due to the climate.

Table 2: Climatic and altitude data

Factors	Units	Values		
		SU 891 973	SU 894 969	SU 892 970
Grid reference	N/A	SU 891 973	SU 894 969	SU 892 970
Altitude	m, AOD	175	170	170
Accumulated Temperature	day°C	1309	1315	13159
Average Annual Rainfall	mm	781	774	776
Field Capacity Days	days	168	166	166
Moisture Deficit, Wheat	mm	89	90	90
Moisture Deficit, Potatoes	mm	76	77	77
Overall Climatic Grade	N/A	Grade 2	Grade 2	Grade 2

14. The altitude and aspect of a site may also influence local climatic factors such as frost risk and exposure. This site has been shown to be rather exposed (Met Office, 1971) reflecting the elevated altitude. However, the surrounding urban development helps to protect this land. Frost risk and exposure are not, therefore, considered to adversely affect land quality at this location.

15. Climatic factors can also interact with soil properties to influence soil wetness and droughtiness. At this locality, moisture deficit figures are slightly lower than the national average, again due to the elevated altitude. The likelihood of restrictions associated with soil droughtiness may therefore be reduced.

Site

16. The majority of this site lies at an altitude of 170–175m AOD, and is relatively flat. In the south-west corner the land slopes away to 155m AOD in a small, dry valley. The gradients here are generally very gentle, though a very small area of slightly steeper land (7.5°) does occur near auger sample point 29. However, this, in isolation, is not considered extensive enough to adversely affect land quality.

Geology and soils

17. The published geological information for the site (BGS, 1948) shows all of the site to be underlain by Upper Chalk with a superficial drift deposit, Clay-with-flints, over the higher land.

18. The most recently published soil information for the site (SSEW, 1983) maps the Batcombe soil association over the entire site. These soils are generally derived from the clay-with-flints and are described as 'Fine silty over clayey and fine loamy over clayey soils with slowly permeable subsoils and slight seasonal waterlogging. Some well drained clayey soils over chalk. Variably flinty' (SSEW, 1983 & 1984).

19. Detailed field examination revealed soils of a similar nature to those described above.

AGRICULTURAL LAND CLASSIFICATION

20. The details of the classification of the site are shown on the attached ALC map and the area statistics of each grade are given in Table 1.

21. The location of the auger borings and pits is shown on the attached sample location map and the details of the soils data are presented in Appendix II.

Subgrade 3a

22. Good quality agricultural land is mapped on the higher parts of the site, in two discrete areas. The first area is situated towards the north of the site, while the second occurs in the south-east corner. In both cases, soil wetness is the principal limitation, however topsoil stoniness is an equal or overriding limitation in the south-east.

23. The Subgrade 3a land comprises medium and heavy silty clay loam or clay loam topsoils, with 5–25% total flint. The upper subsoils are also variably stony (0–20% total flint) and range in texture from medium and heavy clay loam (or silty clay loam) to clay. Soil inspection Pit 2 shows these upper subsoils to be moderately well structured and porous, while the underlying clay subsoils are poorly structured and slowly permeable from 50–75cm depth. As a result, drainage is impeded at moderate depths, causing waterlogging during the wetter months. This is demonstrated by the presence of gleying in most subsoils. In this local climatic regime the land has therefore been assigned to Wetness Class II or III (depending on the depth to gleying and slowly permeable layers) which, given the topsoil textures, gives rise to Subgrade 3a quality land. This is because soil wetness may adversely affect plant growth or impose restrictions on cultivations or grazing by livestock.

24. Towards the south-east corner of the site, the soils tend to be slightly more stony. In places the amount of large flints in the topsoil (> 2cm in diameter) measures 11-12%. Large flints, such as these, can impede cultivation, harvesting and crop growth, and increase the cost of cropping in terms of machinery wear and tear, and yield reduction. This land has therefore been classified as Subgrade 3a due to topsoil stoniness and soil wetness restrictions.

Subgrade 3b

25. The majority of this site has been classified as Subgrade 3b (moderate quality), again due to soil wetness and/or topsoil stoniness restrictions. The soil profiles are very similar to those described as Subgrade 3a above. However, these soil profiles are typified by soil inspection Pit 1. Here, the slowly permeable clay subsoils occur at shallower depths (25-43cm depth) thus causing a more significant drainage impedence and increasing the duration of waterlogging. In this local climatic regime the land has therefore been assigned to Wetness Class IV which, with a medium textured topsoil, gives rise to Subgrade 3b quality land. The amount of large flints in the topsoil is also greater (16-30% > 2cm in diameter), thus further increasing the costs of crop production.

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SOURCES OF REFERENCE

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Met. Office: Bracknell.

Met. Office (1970) *Sheet 159, Unpublished Climatological Data*.
Met. Office: Bracknell.

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SSEW: Harpenden.

Soil Survey of England and Wales (1984) *Soils and their Use in South East England*
SSEW: Harpenden.

DESCRIPTIONS 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 (e.g. 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.

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	OTH: Other
DCW: Deciduous woodland	BOG: Bog or marsh	SAS: Set-Aside
HTH: Heathland	HRT: Horticultural crops	PLO: Ploughed
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	ST: Topsoil Stoniness
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
EX: Exposure		

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. **GLE Y:** 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	FSST:	soft, fine grained sandstone
ZR:	soft, argillaceous, or silty rocks	CH:	chalk
MSST:	soft, medium grained sandstone	GS:	gravel with porous (soft) stones
SI:	soft weathered igneous/metamorphic rock	GH:	gravel with non-porous (hard) stones

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	
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

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					
1	SU88909750	ARA		30	30	3	3A		0	0				TS 3B	S1. Gleyed
2	SU88909740	PGR		25	30	4	3B		0	0				TS 3B	B WE Also
3	SU89009740	ARA		30	30	4	3B	82	-8	88	-22	3A		WE 3B	See 2P
4	SU89109740	ARA		25	40	4	3B	82	-8	88	-22	3A		WE 3B	See 2P
5	SU88909730	PGR		60	60	2	2	110	20	116	39	2		WD 2	See 2P
6	SU89109730	PGR		25	50	3	3A	135	45	110	33	1		WE 3A	
7	SU89209970	PGR		25	75	2	2	119	29	110	33	2		WE 2	
8	SU89009720	PGR		44	65	2	2	99	9	98	21	2		WD 2	See 2P
9	SU89209720	PGR		25	25	4	3B	87	-3	99	22	3A		WE 3B	
10	SU89309720	PGR		30	30	4	3B	95	5	100	23	1		WE 3B	
11	SU89309710	PGR SE	1	S25	25	3	3A	83	-7	91	14	3A		TS 3B	S1. Gleyed
12	SU89409710	PGR NE	2	30		2	2	85	-5	88	-22	3A		TS 3A	Imp Flints 55
13	SU89509710	PGR SW	3	27	27	4	3B		0	0				TS 3B	B WE Also
14	SU89209700	PGR		28	38	4	3B	118	28	96	19	2		TS 3B	B WE Also
15	SU89309700	PGR SE	4	S55		3	3A	78	-12	83	6	3A		TS 3B	
16	SU89409700	PGR W	3	30	45	3	3A	68	-22	68	-9	3B		DR 3B	150 Q DR 3A
17	SU89509700	PGR W	2	25	25	4	3B		0	0				TS 3B	B WE Also
18	SU89609700	PGR SW	1	25	25	4	3B	87	-3	97	20	3A		WE 3B	
19	SU89229690	PGR S	5			1	1	68	-22	68	-9	3B		TS 3B	Imp Flints 50
20	SU89309690	PGR WX	5	30		2	2	87	-3	97	20	3A		TS 3B	Imp Flints 70
21	SU89409690	PGR NW	2	30	42	4	3B	112	22	94	17	2		WE 3B	
22	SU89509690	PGR N	2	30	65	3	3A	86	-4	96	19	3A		TS 3A	3A DR Also
23	SU89129685	PGR SE	3			1	1	35	-55	35	-42	4		TS 3B	Prob 3B TS
24	SU89209680	PGR W	4	25		2	2	46	-44	46	-31	3B		TS 3B	Imp Flints 35
25	SU89309680	PGR N	2			1	1	36	-54	36	-41	4		DR 4	Prob 3B TS
26	SU89409680	PGR S	1	30	43	4	3B	77	-13	82	5	3A		WE 3B	Imp Flints 60
27	SU89509680	PGR		S28	48	3	3A	71	-19	71	-6	3A		WE 3A	Imp Flints 50
28	SU89129680	PGR S	2	26		2	2	56	-34	56	-21	3B		DB 3B	140 Q Disturbe
1P	SU89409690	PGR SW	2	26	42	4	3B	98	8	96	19	2		WE 3B	At AB 21
2P	SU89079735	ARA		30	50	3	3A	98	8	110	33	2		WE 3A	Near AB 6

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS			CALC	
				COL	ABUN	CONT		GLEY	>2	>6 LITH		TOT	STR	POR		IMP
1	0-30	MZCL	10YR43						16	6	HR	20				
	30-65	C	10YR56	10YR58	M	D		S	0	0		0	P		Y	
2	0-25	MZCL	10YR43						16	4	HR	20				
	25-30	MCL	10YR53	10YR56	C	D		Y	0	0	HR	10	M			
	30-55	C	10YR63	75YR58	M	D		Y	0	0	HR	2	P		Y	Imp Flints
3	0-25	MCL	10YR43						3	0	HR	6				
	25-30	MCL	10YR54	10YR58	C	D		S	0	0	HR	5	M			
	30-60	C	10YR53	75YR58	M	D		Y	0	0	HR	2	P		Y	
4	0-25	MCL	10YR42						12	0	HR	14				
	25-40	HCL	10YR63	10YR58	C	D		Y	0	0	HR	5	M			
	40-60	C	10YR64	75YR56	M	D		Y	0	0		0	P		Y	
5	0-30	MZCL	10YR42						0	0	HR	5				
	30-60	HZCL	10YR44	000C00	F				0	0	HR	5	M			
	60-80	C	10YR64	000C00	M	D		Y	0	0	HR	2	P		Y	
6	0-25	MZCL	10YR52						7	1	HR	10				
	25-50	MZCL	10YR74	75YR68	M	D		Y	0	0		0	M			
	50-120	ZC	10YR72	75YR58	M	D		Y	0	0		0	P		Y	
7	0-25	MZCL	10YR52						9	1	HR	15				
	25-75	MZCL	10YR73	75YR68	C	D		Y	0	0	HR	10	M			
	75-100	ZC	10YR73	75YR58	M	D		Y	0	0		0	P		Y	
8	0-32	MZCL	10YR43						4	2	HR	10				
	32-44	HZCL	10YR53						0	0	HR	20	M			
	44-65	HCL	10YR64	10YR56	C	D		Y	0	0	HR	20	M			
	65-85	C	10YR63	75YR56	M	D		Y	0	0	HR	5	P		Y	
9	0-25	MZCL	10YR43						11	0	HR	15				
	25-70	C	10YR63	75YR56	M	D		Y	0	0		0	P		Y	
10	0-30	MZCL	10YR42						11	4	HR	15				
	30-55	C	10YR74	75YR58	M	D		Y	0	0	HR	2	P		Y	
	55-80	C	10YR72B1	05YR58	M	D		Y	0	0		0	P		Y	
11	0-25	MZCL	10YR42						17	2	HR	25				
	25-60	C	10YR66	75YR56	M	D		S	0	0	HR	5	P		Y	
	60-75	C	10YR66	75YR56	M	D		S	0	0	HR	10	P		Y	
12	0-30	MZCL	10YR43						12	3	HR	14				
	30-35	MZCL	10YR53	10YR56	C	D		Y	0	0	HR	5	M			
	35-55	HZCL	25Y54	75YR56	M	D		Y	0	0	HR	10	M			Imp Flints
13	0-27	MZCL	10YR43						16	6	HR	18				
	27-60	ZC	25Y54	75YR58	M	D		Y	0	0	HR	10	P		Y	Imp Flints

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----		PED COL.	----STONES----			STRUCT/ CONSIST	SUBS						
				COL	ABUN		CONT	GLEY	>2		>6	LITH	TOT	STR	POR	IMP	SPL
14	0-28	MZCL	10YR42						17	2	HR	25					
	28-38	HZCL	25Y 6473	10YR56		C D		Y	0	0	HR	5		M			
	38-120	C	10YR66	75YR56		M D		S	0	0	HR	5		P		Y	
15	0-30	MZCL	10YR42						17	2	HR	25					
	30-55	MZCL	10YR43						0	0	HR	20		M			
	55-60	C	10YR66	75YR56		C		S	0	0	HR	30		P		Y	Imp Flints
16	0-30	MCL	10YR42						9	3	HR	18					
	30-45	HCL	10YR64	10YR66		C F		Y	0	0	HR	25		M			
	45-50	C	10YR58	75YR58		C F		Y	0	0	HR	20		P		Y	Imp Flints
17	0-25	MZCL	10YR43						17	5	HR	20					
	25-70	ZC	25Y53	75YR58		M D		Y	0	0	HR	5		P		Y	
18	0-25	MZCL	10YR43						5	0	HR	7					
	25-42	ZC	25Y54	10YR58		M D		Y	0	0	HR	3		P		Y	
	42-70	ZC	25Y64	75YR58		M D		Y	0	0	HR	3		P		Y	
19	0-30	MZCL	10YR43						17	5	HR	25					
	30-50	MZCL	10YR64	10YR66		F F			0	0	HR	30		M			Imp Flints
20	0-30	MZCL	10YR42						16	7	HR	20					
	30-60	HZCL	25Y 63	10YR66		C F		Y	0	0	HR	22		M			
	60-70	C	10YR64	75YR5868		M D		Y	0	0	HR	22		P			Imp Flints
21	0-30	MZCL	10YR43						13	3	HR	18					
	30-42	HZCL	10YR53	10YR58		C D		Y	0	0	HR	20		M			
	42-120	C	75YR58	25Y 53		C F		S	0	0	HR	20		P		Y	
22	0-30	MCL	10YR42						11	5	HR	18					
	30-65	HCL	10YR5363	10YR5666		C D		Y	0	0	HR	20		M			
	65-70	C	10YR5363	05YR58		M D		Y	0	0	HR	20		P		Y	Imp FLints
23	0-30	MZCL	10YR42						30	10	HR	40					Imp Flints
24	0-25	MZCL	10YR42						18	5	HR	25					
	25-35	C	10YR63	75YR58		M D		Y	0	0	HR	25		P			Imp Flints
25	0-30	MCL	10YR42						25	10	HR	35					Imp FLints
26	0-30	MZCL	10YR43						12	5	HR	20					
	30-43	HZCL	10YR63	75YR56		M D		Y	0	0	HR	20		M			
	43-60	C	75YR63	75YR58		M D		S	0	0	HR	20		P		Y	Imp Flints
27	0-28	HCL	10YR43	00M00		F			9	6	HR	15					
	28-48	C	75YR5456	00M00		C		S	0	0	HR	20		M			
	48-50	C	25Y 63	75YR58		M D		Y	0	0	HR	25		P		Y	Imp Flints

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS			CALC	
				COL	ABUN	CONT		GLEY	>2	>6		LITH	TOT	STR		POR
2B	0-26	MZCL	10YR31						6	1	HR	15				
	26-40	C	75YR63	75YR68	M	D		G	0	0	HR	25		P		Imp Flints
1P	0-26	MZCL	10YR42						13	0	HR	18				
	26-42	HCL	10YR53	75YR66	M	D		Y	0	0	HR	15	MDCSAB	FR	M	
	42-60	C	10YR5456	75YR5658	M	D		S	0	0	HR	15	MDCAB	FM	P	Y
	60-90	C	25Y64	75YR58	M	D		Y	0	0	HR	5	WKVCAB	FM	P	Y
2P	0-30	MZCL	10YR42						0	4	HR	8				
	30-50	HZCL	10YR5364	75YR58	M	D		Y	0	0	HR	8	MDCSAB	FM	M	
	50-70	C	10YR6463	75YR58	M	D		Y	0	0	HR	2	WKVCAB	FM	P	Y