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**WYCOMBE DISTRICT LOCAL PLAN
Land West of Princes Risborough**

**Agricultural Land Classification
ALC Map and Report**

**Revised May 1999
(Supersedes May 1997, August 1997, &
January 1998)**

**Resource Planning Team
Eastern Region
FRCA Reading**

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AGRICULTURAL LAND CLASSIFICATION REPORT

WYCOMBE DISTRICT LOCAL PLAN LAND WEST OF PRINCES RISBOROUGH, BUCKINGHAMSHIRE

(REVISED MAY 1999)

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of approximately 227 hectares of land to the west of Princes Risborough, between the railway line bordering the town and the villages of Horsenden and Longwick. The majority of the survey work was carried out during May and July 1997 and January 1998 in connection with the above Local Plan at a detailed level of survey. Further detailed work on 'infill' areas of land adjacent to the railway line, in the east of the site, was surveyed during April 1999. This report (together with the accompanying ALC map) has been updated and amended to include the 1999 survey information.
2. The survey was undertaken by the Farming and Rural Conservation Agency (FRCA) 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 the 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 the surveys the land-use was permanent grass and arable cultivation (comprising cereals, peas and oilseed rape). The areas of the site shown as 'Other Land' consist of woodland and scrub, residential dwellings and farmsteads, allotment gardens, roads, railway lines, industrial areas and sports fields. Some areas of the site are mapped as 'Not Surveyed' since permission to enter these areas for the purpose of survey work was not granted by the occupier of the land.

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 overleaf.
7. The fieldwork was conducted at an average density of 1 boring per hectare of agricultural land. A total of 176 borings and 11 soil pits were described.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
2	42.2	26.9	18.5
3a	50.3	32.0	22.1
3b	63.5	40.4	27.9
4	1.0	0.7	0.4
Other land	60.7	-	26.7
Land Not Surveyed	9.9	-	4.4
Total surveyed area	157.0	100	68.9
Total site area	227.6	-	100

8. The land in agricultural use has been classified as Grade 2 (very good quality), Subgrades 3a and 3b (good and moderate quality, respectively), and very small areas of poor quality, Grade 4. The land is predominantly limited by soil wetness and/or soil droughtiness restrictions.
9. The distribution of grades on the site reflects the complex pattern of geology underlying this area. Much of the site is underlain by deposits of Upper Greensand, which comprise calcareous sandstones and siltstones. The soils associated with these deposits comprise variably drained clay loams, silty clay loams, and occasionally silty clays, which may or may not contain horizons of brashy, weathered fine grained sandstone, and which frequently rest over harder sandstone at variable depths. Most of the land comprising such soils has been classified as Grade 2 or Subgrade 3a on the basis of soil droughtiness and/or soil wetness or workability limitations. The ALC grade is determined depending on the degree of sandstone weathering, the depth and stoniness of the profiles and/or the severity of impeded drainage often caused by the presence of poorly structured clayey horizons. Occasionally, where soils are very shallow over brashy sandstone, land is assigned to Subgrade 3b due to significant soil droughtiness.
10. Towards the south and north-east of the site many of the soils are derived from deposits of Lower Chalk. Such soils are generally well drained and moderately deep over chalk marl, but are restricted by very minor droughtiness limitations. Grade 2 land has been mapped.
11. Much of the poorer quality land in the west of the survey area (towards the village of Longwick), together with a central section of land (which runs in an east-west direction, north of Alscot), is derived from deposits of Gault Clay and alluvium. This gives rise to poorly drained clayey soils which are affected by severe soil wetness. The land is classified mainly as Subgrade 3b, with Grade 4 where it is more permanently waterlogged.

FACTORS INFLUENCING ALC GRADE

Climate

12. Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.
13. The key climatic variables used for grading this site are given in Table 2 and were obtained from the published 5km grid datasets using the standard interpolation procedures (Met. Office, 1989).

Table 2: Climatic and altitude data

Factor	Units	Values			
		SP 794 034	SP 802 038	SP 803 043	SP 799 047
Grid reference	N/A	SP 794 034	SP 802 038	SP 803 043	SP 799 047
Altitude	m, AOD	94	99	102	110
Accumulated Temperature	day°C (Jan-June)	1401	1395	1391	1382
Average Annual Rainfall	mm	678	675	669	670
Field Capacity Days	days	148	149	147	147
Moisture Deficit, Wheat	mm	105	106	106	105
Moisture Deficit, Potatoes	mm	96	96	97	95
Overall climatic grade	N/A	Grade 1	Grade 1	Grade 1	Grade 1

14. 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.
15. 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.
16. The combination of rainfall and temperature at this site mean that there is no overall climatic limitation. Other local climatic factors such as exposure and frost risk are not believed to have a significant effect on the site. The site is climatically Grade 1.

Site

17. The site lies at an altitude of 90-110 metres AOD, with the land falling gently from the north and east towards the west. Across all of the site gradient, microrelief and flood risk do not affect agricultural land quality.

Geology and soils

18. The most detailed published geological information (BGS, 1994) maps a complex pattern of geological deposits across the survey area. Much of the northern and central parts of the site are underlain by Upper Greensand, with Glauconitic Marl and Chalk Marl (both part of the Lower Chalk sequence) outcropping along the eastern edge.

adjoining the railway line. The western-most part of the site is underlain by Gault Clay and alluvial deposits, the latter also occupying the two lower lying valleys which pass through the centre of the site, north of Summerleys. In general terms, the areas of better quality land broadly coincide with the Lower Chalk and Upper Greensand deposits.

19. The most detailed published soils information for this area (SSEW, 1983) shows three soil types to occur across the site. Towards the east where the Lower Chalk outcrops, 'well drained fine silty soils over chalk' (SSEW, 1984) of the Coombe 2 association have been mapped. Through the central part of the site, soils of the Block association are shown. These are described as, 'moderately permeable calcareous loamy soils over chalky gravel, variably affected by groundwater.' (SSEW, 1984). The remainder of the site, to the north, is mapped as Bignor association, 'fine loamy soils over sandstone with slowly permeable subsoils and slight seasonal waterlogging' (SSEW, 1984).
20. Upon detailed field examination, soils were found to be similar to the above descriptions although their distribution and extent differs slightly. The exception to this was towards the west and through the lower lying parts of the site where poorly drained clayey soils were encountered.

AGRICULTURAL LAND CLASSIFICATION

21. The details of the classification of the site are shown on the attached ALC map and the are statistics for each grade are given in Table 1.
22. 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.

Grade 2

23. Very good quality land occurs broadly in conjunction with deposits of Lower Chalk (Glauconitic Marl and Chalk Marl) and fine-grained soft sandstone across the south, south-east, and north-east of the site. The land is limited by very minor soil droughtiness and/or wetness or workability restrictions.
24. The soils within the Grade 2 mapping units were found to comprise moderately deep clay loam and silty clay loam textures, which often rest on either soft, rootable weathered chalk marl or rootable, brashy fine soft sandstone at depth in the profile. Profiles showed a tendency to become heavier with depth, often with clay and silty clay horizons being encountered in the lower subsoils, where these were not impenetrable to the soil auger as a result of subsoil stoniness and/or dry soil conditions. Soils are generally well drained, meeting the criteria for wetness class I, or II (the latter where mottling was apparent above 40cm depth). Subsoils are porous and permeable. Soil pit 1 (1999 survey) and soil pits 3, 4, 8 and 9 (pre-1999 survey) are representative of Grade 2 profiles (see Appendix II).
25. These soil characteristics combine with the local climatic conditions to give rise to land which has minor soil droughtiness and/or wetness or workability restrictions. Where soils rest over chalk marl or sandstone in the lower subsoils, the volume of soil moisture

potentially available to growing crops is not quite sufficient to meet demand such that plants may suffer slight drought stress. The level and consistency of yields may be adversely affected. Where clayey lower subsoils exist, drainage is slightly impeded thereby causing a minor soil wetness problem which will affect crop growth and development, as well as restricting the timing of cultivations or grazing.

Subgrade 3a

26. Good quality land occurs towards the centre and north of the site mainly in association with soils derived from deposits of Upper Greensand. The land is limited by soil wetness and/or soil droughtiness.
27. Soils are similar to those described above for Grade 2, except that in the majority of cases they overlie sandstone rather than chalk marl. Textures were found to comprise clay loams and silty clay loams which become heavier with depth, typically passing to clay or silty clay. Stone contents range from 5-55% fine soft sandstone fragments throughout, and many profiles are impenetrable to the soil auger over less weathered sandstone, in the lower subsoil. Soil pits 5, 6 and 7 are characteristic of land assigned to Subgrade 3a (see Appendix II). The clayey lower subsoil horizons were found to be slowly permeable, thereby impeding drainage, as evidenced by mottling at variable depths below the topsoil. Such soil drainage status equates to wetness class II or III, the latter being consistent with land of Subgrade 3a quality, given the prevailing climate. Where soil wetness is not the overriding limitation, soil droughtiness may be equally or more limiting. This arises through the interaction of soil factors, especially high stone contents and restricted rooting into sandstone deposits, with the local climate. Moisture balance calculations indicate that soil moisture reserves are unlikely to be adequate in meeting demand in most years. The agronomic effects of these limitations are described in paragraph 25 above.

Subgrade 3b

28. Moderate quality land is concentrated towards the west of the site and in the lower lying valleys, where poorly drained clayey soils are derived from Gault Clay or alluvium. The land is limited by significant soil wetness problems. On the odd occasion, Subgrade 3b land is mapped where soils are very shallow over sandstone or calcareous gravel deposits and as such are affected by soil droughtiness.
29. Soil pits 1, 2 and 10 describe the soils within the Subgrade 3b mapping units. Profiles comprise heavy (sometimes silty) clay loam topsoils which directly overlie poorly structured, slowly permeable (sometimes silty) clay in the subsoil. Mottling and gleying is apparent from the immediate upper subsoil which in combination with the slowly permeable subsoils is indicative of severely impeded drainage. Wetness class IV (occasionally III) is appropriate. The combination of poorly drained soils and heavy topsoil textures gives rise to land which will be difficult to farm due to limited opportunities for cultivations and/or grazing and the adverse impact on crop growth and root development caused by seasonally waterlogged soils.

Grade 4

30. Two very small areas of poor quality land have been mapped where the land shows evidence of being permanently waterlogged. Soils are similar to those described in paragraph 29 above, but the low lying topography means that drainage is further impeded and the land is saturated for much of the year. The presence of rushes and sedges across these areas confirms that this is probably the case. The land is restricted to seasonal grazing only by severe soil wetness.

SOURCES OF REFERENCE

British Geological Survey (1994) *Sheet No. 237, Thame, Solid & Drift Edition, 1:50,000 scale*. BGS: London.

Ministry of Agriculture, Fisheries and Food (1988) *Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land*. MAFF: London.

Met. Office (1989) *Climatological Data for Agricultural Land Classification*. Met. Office: Bracknell.

Soil Survey of England and Wales (1983) *Soils of England and Wales, Sheet 6, Soils of South East England. 1:250,000 scale, and accompanying legend*. SSEW: Harpenden.

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

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.

APPENDIX II

SOIL DATA

Contents:

Sample location map

Soil abbreviations - Explanatory Note

Soil boring descriptions (boring and horizon levels)

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 grass	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

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)
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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:

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 pedes 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	FM: firm	EH: extremely hard
VF: very friable	YM: very firm	
FR: friable	EM: extremely firm	

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	GLEYS	SPL	CLASS	GRADE	AP	MB	AP	MB	DRT					
1	SP79400450	PGR S	01			1	1	71	-36	71	-28	3B			DR 3A	SEE 5P	
1P	SP79300400	PGR		020	030	4	3B	82	-25	87	-12	3B			WE 3B		
2	SP79600450	BAR SW	02	045		1	1	161	54	125	26	1				1	
2P	SP79500425	PGR SW	03	025	025	4	3B	90	-17	97	-2	3A			WE 3B		
3	SP79300443	PGR SW	01	028	028	4	3B	93	-14	105	6	3A			WE 3B		
3P	SP79550297	PGR		043		1	1	141	34	115	16	1				1	
4	SP79400440	PGR SW	01	025	025	4	3B	92	-15	104	5	3A			WE 3B		
4P	SP79500330	BAR				1	1	131	24	103	4	2			DR 2	TO 120	
5	SP79500440	BAR		065	065	2	2	120	13	119	20	2			WD 2		
5P	SP80100425	PGR SE	01	040	040	3	3A	89	-18	97	-2	3A			WD 3A	ROOT75	
6	SP79600440	BAR SW	02	030		2	2	80	-27	80	-19	3B			DR 3A	I45 SEE 5P	
6P	SP80150410	PGR		025	050	3	3A	118	11	95	-4	2			WE 3A		
7	SP79700440	BAR SW	02			1	1	117	10	119	20	2			DR 2		
7P	SP79770406	PGR		053	063	2	2	87	-20	84	-15	3A			DR 3A	3AROOT	
8	SP79800440	PGR		070	070	2	2	129	22	115	16	2			WD 2	SEE 6P	
8P	SP80200345	WHT				1	2	119	13	107	11	2			DR 2	WKASLO	
9	SP79900440	PGR SE	02	070	070	2	2	136	29	121	22	2			WD 2	SEE 6P	
9P	SP80300490	PGR SE	02	039		2	2	144	39	120	24	1			WE 2		
10	SP79980440	PGR SE	02			1	1	72	-35	72	-27	3B			DR 3A	SEE 5P	
10P	SP80200470	PGR SE	02	035	035	4	3B	093	-12	105	9	3A			WE 3B		
11	SP79300430	PGR		027	027	4	3B	92	-15	103	4	3A			WE 3B		
12	SP79400430	RGR		040	040	3	2	182	75	101	2	2			WD 2	PEATY	
13	SP79500430	PGR SW	02	028	028	4	3B	100	-7	105	6	3A			WE 3B	SEE 2P	
14	SP79600430	BAR SW	01			1	1	130	23	124	25	2			DR 2		
15	SP79700430	PGR SW	02			1	1	87	-20	87	-12	3A			DR 3A	IMP 50 SEESP	
16	SP79800430	PGR SE				1	1	105	-2	118	19	3A			DR 3A	IMP 70 SEESP	
17	SP79900430	PGR S	02	045	045	3	3A	103	-4	109	10	3A			WE 3A	SEE 6P	
18	SP80000430	PGR S	03			1	1	92	-15	95	-4	3A			DR 3A	SEE 5P	
19	SP80100430	PGR W	02	045	045	3	3A	91	-16	101	2	3A			WE 3A	SEE 5P	
20	SP79300417	PGR		025		4	3B	117	10	119	20	2			WE 3B	WCIV GW	
21	SP79440420	PGR		030	030	5	4	000	0	000	0				WE 4	RUSHES	
22	SP79500420	PGR		030	030	4	3B	101	-6	106	7	3A			WE 3B		
23	SP79600420	PGR		025	025	4	3B	92	-15	100	1	3A			WE 3B	RUSHES	
24	SP79700420	PGR		0	025	4	3B	92	-15	104	5	3A			WE 3B		
25	SP79800420	PGR		0	025	4	3B	97	-10	101	2	3A			WE 3B		
26	SP79900420	PGR		020	040	4	3B	128	21	105	6	2			WE 3B		
27	SP80000420	PGR NW	02	055		1	1	120	13	112	13	2			DR 2	IMP 90	
28	SP80100420	PGR W	01	045	045	3	3A	128	21	110	11	2			WE 3A	SEE 6P	
29	SP80200420	PGR W	01	055	055	3	3A	117	10	99	0	2			WE 3A	SEE 6P	
30	SP79200410	PGR		027	027	4	3B	103	-4	116	17	3A			WE 3B		
31	SP79300410	PGR		027	027	4	3B	93	-14	105	6	3A			WE 3B	RUSHES	
32	SP79380410	PGR		030	030	4	3B	94	-13	106	7	3A			WE 3B		

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				
33	SP79480409	PEA		0 048	3	3A	103	-4	106	7	3A		WD	3A
34	SP79600410	PGR W	01	065 065	2	2	111	4	114	15	3A		DR	3A
35	SP79700410	PGR NW			1	1	66	-41	66	-33	3B		DR	3B
36	SP79800410	PGR			1	1	67	-40	67	-32	3B		DR	3B SEE 7P
37	SP79900410	PGR		070 070	2	2	119	12	106	7	2		WD	2 SEE 7P
38	SP80000410	PGR		050	1	1	105	-2	115	16	3A		DR	3A IMP 75 SEE5P
39	SP80100410	PGR W	01	055 055	2	2	138	31	117	18	1		WE	2
40	SP80200410	PGR		025 050	3	3A	125	18	113	14	2		WE	3A SEE 6P
41	SP79200400	PGR		020 020	4	3B	86	-21	92	-7	3B		WD	3B
42	SP79300400	PGR		022 022	4	3B	89	-18	99	0	3A		WE	3B
43	SP79400400	PEA NW	01	029 029	4	3B	90	-17	102	3	3A		WE	3B
44	SP79500400	PEA NE	01	0 030	4	3B	90	-17	102	3	3A		WE	3B
45	SP79600400	PEA NW	02	0	2	2	106	-1	115	16	3A		DR	3A SEE 7P
46	SP79700400	PGR W	01	045 045	3	3A	107	0	107	8	3A		WD	3A SEE 6P
47	SP79800400	PGR			1	1	108	1	120	21	3A		DR	3A SEE 5P
48	SP79900400	PGR		095	1	1	168	61	119	20	1			1
49	SP80100400	PGR S	02	065 065	2	2	118	11	102	3	2		WD	2 SEE 5P
50	SP79300390	PGR		015 015	4	3B	84	-23	94	-5	3B		WD	3B
51	SP79400390	PGR		0 025	4	3B	84	-23	89	-10	3B		WD	3B QFLOODING
52	SP79500390	PEA W	01		1	2	94	-13	101	2	3A		DR	3A SEE 7P
53	SP79600390	PEA SE	01		1	2	82	-25	85	-14	3B		DR	3B SEE 7P
54	SP79700390	PEA SE	01	028 028	4	3B	91	-16	103	4	3A		WE	3B
55	SP79500380	PGR		025 042	3	3A	103	-4	109	10	3A		WD	3A
56	SP79600383	PEA SE	01	028 028	4	3B	94	-13	106	7	3A		WE	3B
57	SP79700382	PEA SE	01	028 028	4	3B	91	-16	103	4	3A		WE	3B
58	SP79700354	PGR			1	1	63	-44	63	-36	3B		DR	3B
59	SP79800360	PGR			1	1	39	-68	39	-60	4	Y	DR	4 POSS DIST
60	SP79600350	PGR N	01	028	2	2	114	7	130	31	2		WD	2 IMP 70
61	SP79700347	PGR NE	01		1	1	71	-36	71	-28	3B		DR	3B IMP 45
62	SP79800350	PGR NW	02		1	1	136	29	112	13	2		DR	2
63	SP79880348	PGR			1	1	60	-47	60	-39	3B	Y	DR	3B POSS DIST
64	SP79400340	BAR SE	01	028	2	2	81	-26	85	-14	3B		DR	3B SEE 7P
65	SP79500340	BAR SE	01		1	1	108	1	112	13	3A		DR	3A
66	SP79800340	PGR NE	02		1	1	87	-20	93	-6	3A		DR	3A CHALK 32
67	SP79400330	BAR		075	1	1	107	0	109	10	3A		DR	3A SEE 4P
68	SP79500330	BAR			1	1	116	9	109	10	2		DR	2 SEE 4P
69	SP79600330	BAR SW	01	045	1	1	150	43	114	15	1			1
70	SP79700330	BAR		035	2	2	102	-5	111	12	3A		DR	3A SEE 4P
71	SP79400320	WHT NW	01		1	1	78	-29	78	-21	3B		DR	3B ISOFLINT
72	SP79500320	CER		028	2	2	101	-6	114	15	3A		DR	3A SEE 4P
73	SP79600320	CER			1	1	60	-47	60	-39	3B		DR	3B SEE 4P
74	SP79400310	WHT		062	1	1	146	39	111	12	1			1

SAMPLE NO.	GRID REF	ASPECT		--WETNESS--				-WHEAT-		-POTS-		M.REL		EROSN	FROST	CHEM	ALC	COMMENTS
		USE	GRDNT	GLEY	SPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	LIMIT		
75	SP79500310	WHT	S	01			1	1	87	-20	93	-6	3A			DR	3A	SEE 4P
76	SP79500302	CER	S	01	027		2	2	145	38	108	9	2			WD	2	
77	SP79600300	PGR	W	01	040		1	1	144	37	115	16	1				1	SEE 3P
78	SP79600290	PGR					1	1	45	-62	45	-54	4			DR	4	IMP 25
79	SP79700290	PGR	W	01	038		2	2	87	-20	91	-8	3A			DR	3A	IMP 55
80	SP79700280	PGR	N	01	048		1	1	126	19	114	15	2			DR	2	
81	SP80000400	WHT	S	01	040	040	3	3A	000	0	000	0				WE	3A	IMP FSST
82	SP79800390	WHT					1	1	052	-54	052	-44	4			DR	3A	SEE PIT 7
83	SP79900390	WHT					1	1	069	-37	069	-27	3B			DR	3A	SEE PIT 7
84	SP80000390	SAS	NW	01	032	032	4	3B	000	0	000	0				WE	3B	IMP FSST
85	SP80100390	WHT	NW	01	025	025	4	3B	000	0	000	0				WE	3B	CHMARL55
86	SP80200390	WHT					1	1	062	-44	062	-34	3B			DR	3B	POSS 2/3A
87	SP80100380	WHT	NW	01			1	1	072	-34	072	-24	3B			DR	3B	POSS 2/3A
88	SP80200380	WHT					1	2	118	12	111	15	2			DR	2	SEE PIT 8
89	SP80300380	WHT					1	2	146	40	115	19	1			WK	2	CHMARL55
90	SP80400380	WHT					1	2	144	38	111	15	1			WK	2	CHMARL45
91	SP80000370	WHT			045		1	1	163	57	116	20	1				1	
92	SP80100370	WHT					1	1	081	-25	081	-15	3B			DR	3A	SEE PIT 7
93	SP80200370	WHT					1	1	092	-14	097	1	3A			DR	2	SEE PIT 8
94	SP80300370	WHT					1	2	123	17	108	12	2			WD	2	SEE PIT 8
95	SP80000360	WHT					1	2	071	-35	071	-25	3B			WD	2	SEE PIT 8
96	SP80100360	WHT					1	1	060	-46	060	-36	3B			DR	3B	I35FLNTY
97	SP80200360	WHT			030		2	2	142	36	109	13	1			WE	2	
98	SP80300360	WHT					1	2	140	34	107	11	1			WK	2	LWR CK45
99	SP80000350	WHT					1	1	089	-17	094	-2	3A			DR	2	SEE PIT 8
100	SP80100350	WHT					1	1	141	35	109	13	1				1	
101	SP80200350	WHT					1	1	140	34	107	11	1			DR	2	SEE PIT 8
102	SP80000340	WHT					1	1	068	-38	068	-28	3B			DR	2	SEE PIT 8
103	SP80100340	WHT			027		2	2	141	35	108	12	1			WE	2	
104	SP80000330	WHT	S	01			1	1	083	-23	083	-13	3B			DR	2	SEE PIT 8
105	SP80100330	WHT					1	2	084	-22	084	-12	3B			DR	3B	POSSDIST
106	SP80000490	PGR			045	045	3	3A	126	21	105	9	2			WE	3A	
107	SP80100490	PGR			045	045	3	3A	130	25	107	11	2			WE	3A	
108	SP80200490	PGR			055	055	2	2	155	50	117	21	1			WE	2	
109	SP80300490	PGR	SE	02			1	2	102	-3	098	2	3A			WK	2	SEE PIT 9
110	SP80400490	PGR	SE	02	025	025	4	3B	124	19	097	1	2			WE	3B	
112	SP79700480	CER	SW	02	025	025	4	3B	127	22	104	8	2			WE	3B	
113	SP79800480	PGR			050	050	3	3B	136	31	111	15	1			WE	3B	
114	SP79900480	PGR			045	045	3	3A	072	-33	072	-24	3B			WE	3A	ALSO DR
115	SP80000480	PGR			045	045	3	3A	129	24	104	8	2			WE	3A	
116	SP80100480	PGR					1	2	083	-22	087	-9	3B			DR	3B	POSS 3A
117	SP80200480	PGR	E	01			1	2	122	17	093	-3	2			WD	2	

SAMPLE NO.	GRID REF	ASPECT USE	--WETNESS--		-WHEAT-		-POTS-		M.REL		EROSN EXP	FROST DIST	CHEM LIMIT	ALC COMMENTS
			GRONT	GLEY SPL	CLASS	GRADE	AP	MB	AP	MB				
118	SP80300480	PGR SE	02	035 035	4	3B	100	-5 102	6	3A			WE	3B
122	SP80700480	PGR E	01	028 028	4	3B	000	0 000	0				WE	3B
125	SP79600470	CER		025 025	4	3B	122	17 098	2	2			WE	3B
126	SP79700470	PGR		032 032	4	3B	098	-7 103	7	3A			WE	3B
127	SP79800470	PGR		048	1	2	080	-25 082	-14	3B			DR	3B PROB 3A
128	SP79900470	PGR		035 035	4	3B	129	24 106	10	2			WE	3B
129	SP80000470	PGR		035 035	4	3B	131	26 108	12	2			WE	3B
130	SP80100470	PCR		030 030	4	3B	126	21 103	7	2			WE	3B
131	SP80200470	PGR SE	02	035 035	4	3B	113	8 105	9	2			WE	3B
132	SP80300470	PGR E	01	020 020	4	3B	000	0 000	0				WE	3B
133	SP80400470	PGR SE	01	038	4	3B	000	0 000	0				WE	3B
135	SP80700470	PGR E	01	030 045	3	3B	000	0 000	0				WE	3B
137	SP80790470	CER E	01	045	1	1	080	-25 080	-16	3B			DR	3B POSS 3A
138	SP79500460	CER		038 038	4	3B	000	0 000	0				WE	3B
139	SP79600460	PGR		028 045	3	3A	144	39 107	11	1			WE	3A
140	SP79700460	PGR S	01	0 032	4	3B	139	34 102	6	2			WE	3B
141	SP79800460	PGR SE	02	025 025	4	3B	100	-5 102	6	3A			WE	3B
143	SP80000460	PGR E	01		1	1	094	-11 102	6	3A			DR	3A IMP 65CM
144	SP80100460	PGR NE	01	028 028	4	3B	000	0 000	0				WE	3B
145	SP80200460	PGR NE	01	0 045	3	3A	000	0 000	0				WE	3A
146	SP80300460	PGR E	02	020 020	4	3B	118	13 104	8	2			WE	3B
147	SP80400460	PGR NW	01	0	1	2	094	-11 101	5	3A			DR	3A
149	SP80600460	CER		033 033	4	3B	000	0 000	0				WE	3B
150	SP80700460	CER		030	2	2	156	51 120	24	1			WE	2
151	SP80800460	CER		060 060	2	2	133	28 111	15	2			WD	2
156	SP79780454	PGR		025 055	3	3A	121	16 112	16	2			WE	3A
157	SP79900450	PGR E	01	0 052	2	3	106	1 111	15	3A			WE	3A
158	SP80000450	PGR E	01				083	-22 086	-10	3B			DR	3A IMP 55CM
159	SP80100450	PGR E	01	030 030	4	3B	121	17 103	6	2			WE	3B
162	SP80430452	PGR NW	01	050 050	3	3A	000	0 000	0				WE	3A
163	SP80500450	PGR		030 030	4	3B	000	0 000	0				WE	3B
165	SP80700450	CER		030 030	4	3B	000	0 000	0				WE	3B
177	SP80400440	PGR NE	01		1	2	148	43 111	15	1			WK	2
178	SP80500450	PGR			1	2	141	36 114	18	1			WK	2
179	SP80600450	PGR E		048	1	2	153	48 117	21	1			WK	2
194	SP80500430	PGR			1	2	151	46 111	15	1			WK	2
195	SP80600430	PGR E	02	050 050	3	3A	096	-9 108	12	3A			WE	3A
199	SP80600420	PGR E	02	032 032	4	3B	000	0 000	0				WE	3B
200	SP80000500	PGR		045 045	3	3A	126	21 103	7	2			WE	3A
201	SP80100500	PGR		045 045	3	3A	131	26 108	12	2			WE	3A
202	SP80200500	PGR		030 030	4	3B	153	48 115	19	1			WE	3B
203	SP80300500	PGR			1	1	154	49 117	21	1				1 PROB 2, SEE9P

SAMPLE NO.	GRID REF	ASPECT USE	GRDNT	GLEYSPL	--WETNESS-- CLASS	GRADE	-WHEAT- AP	MB	-POTS- AP	MB	M.REL DRT	EROSN FLOOD	FROST EXP	DIST	CHEM LIMIT	ALC	COMMENTS	
204	SP79800490	PGR		050 050	3	3A	133	28	110	14	2					WE	3A	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- PED			----STONES-----			STRUCT/ SUBS		SPL	CALC					
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH			TOT	CONSIST	STR	POR	IMP
1	0-30	mzc1	10YR32 00						1	0	HR	5						
	30-40	mzc1	10YR33 00						0	0	FSST	5		M				IMP DRY&STONY
1P	0-20	hc1	10YR32 00						0	0		0						Y AT BORING 42
	20-30	zc	25Y 52 00	25Y	56	00	C		Y	0	0	0	MCOSAB	FM	M	Y		Y
	30-60	zc	25Y 52 00	25Y	56	00	C		Y	0	0	0	MDCOAB	FM	P	Y		Y Y
2	0-35	mzc1	10YR32 00						0	0	CH	2						Y
	35-45	mzc1	10YR42 00	10YR56	00	F			0	0	HR	2		M				
	45-80	mzc1	25Y 62 00	10YR56	00	C			Y	0	0	0		M				
	80-120	mc1	25Y 62 71	10YR56	00	C			Y	0	0	0		M				+MS
2P	0-25	hzc1	10YR31 00						0	0	HR	1						AT BORING 13
	25-45	c	25Y 52 00	10YR56	00	C			Y	0	0	0	STCOPR	FM	P	Y		Y
	45-65	zc	05Y 52 00	10YR56	00	C			Y	0	0	0	MDCOAB	FM	P	Y		Y
3	0-28	hc1	10YR32 00						0	0		0						
	28-70	c	25 Y62 00	10YR58	00	C			Y	0	0	0		P				Y
3P	0-22	mc1	10YR32 00						3	0	HR	5						AT BORING 77 HARDSS
	22-43	c	25Y 53 00	05YR46	00	F	00FE00 00		0	0		0	MCOSAB	FR	M			WEATHERING MOTTS
	43-72	hc1	25Y 43 00	10YR56	00	C			Y	0	0	0	MCOSAB	FR	M			
	72-92	mc1	25Y 63 00	10YR56	00	C			Y	0	0	0	MCOSAB	FR	M			FS POROUS
	92-120	mzc1	25Y 71 72	10YR66	00	C			Y	0	0	0	WVCOPL	FR	P			Y Q LWR CHALK
4	0-25	hc1	10YR32 00						0	0		0						
	25-70	c	25 Y52 62	10YR58	00	C	00MN00		Y	0	0	0		P				Y
4P	0-22	mc1	10YR42 00						2	0	HR	4						AT BORING 68 HARDSS
	22-48	hc1	25Y 52 00						9	0	FSST	15	MCOSAB	FR	M			
	48-68	hc1	25Y 53 00						15	0	FSST	32		M				
	68-120	hc1	25Y 53 00						0	0	FSST	35		M				
5	0-27	mzc1	10YR32 00						2	0	HR	5						
	27-45	mzc1	25Y 32 63						0	0	FSST	2		M				+3%FLINTS
	45-65	mzc1	25Y 53 00						0	0		0		M				
	65-90	zc	05Y 62 00	75YR68	00	M			Y	0	0	0		P				Y IMP DRY&STONY
5P	0-25	mzc1	10YR33 00	000C00	00	F			2	0	HR	4						AT ASP19 FLINTS&FSS
	25-40	hc1	25 Y53 00	10YR56	00	M	25 Y66 00		0	0	FSST	45	WKFMAB	FM	M			WEATHERED SST MOTTS
	40-68	zc	05 Y62 00	25 Y66	00	C			Y	0	0	0	MDCOAB	FM	P	Y		Y
	68-75	fsst	05 Y62 00						0	0		0		P				ROOTS TO 75
6	0-30	mzc1	10YR32 00						3	0	FSST	5						+1%FLINTS>2CM
	30-45	mzc1	25Y 53 00	10YR58	00	C			Y	0	0	FSST	5		M			IMP DRY&STONY
6P	0-25	mzc1	25 Y42 00	000C00	00	F			0	0	FSST	4						AT ASP 40 +1% FLINT
	25-50	zc	05 Y53 63	25 Y66	00	C	10YR66 00	Y	0	0	FSST	20	STCOPR	FM	P			POROUS
	50-120	hzc1	05 Y62 00	10YR66	00	C	25 Y66 00	Y	0	0	FSST	10	STCOPR	FM	P	Y		Y TENDING TO COPL

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED		----STONES----			STRUCT/ CONSIST	SUBS		SPL	CALC	
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH		TOT	STR			POR
7	0-30	mzc1	10YR42 00						0	0	0						
	30-45	mzc1	10YR43 00						0	0	0			M			
	45-55	zc	10YR42 00	00FE00	00	C			0	0	FSST	5		M		WEATHERING MOTTS	
	55-85	zc	25Y 62 72	25Y 64	00	C			0	0	FSST	2		M		IMP STONES	
7P	0-23	mzc1	10YR42 00	75YR46	00	C			2	0	FSST	10				AT ASP 36 ROOT MOTT	
	23-53	hzc1	25 Y42 00	25 Y66	00	C			0	0	FSST	55		P		WEATHERING MOTTS	
	53-63	c	05 Y62 00	75YR78	00	M		Y	0	0	FSST	35		FM P	Y	FE ENRICHED	
	63-86	zc	05 Y62 00	25 Y66	00	C	10YR56	00	Y	0	0	0	MDVCAB	VM P	Y	Y	IMP SST
	86-90	fsst							0	0	0	0		P			
8	0-28	mzc1	10YR32 00						0	0	HR	3					
	28-32	mzc1	25Y 61 00						0	0	HR	2		M			
	32-70	zc	05Y 53 54	25Y 56	00	F	25 Y36	00		0	0	FSST	2		M	WEATHERING MOTTS	
	70-120	hzc1	05Y 52 53	25Y 56	00	C	00MN00	00	Y	0	0	FSST	10		P	Y	SEE 6P
8P	0-26	hc1	10YR32 00						3	0	HR	4				Y	
	26-38	mzc1	25 Y62 72	10YR68	00	F			0	0	CH	15	MDCSAB	FM M		Y	
	38-95	mzc1	10YR61 71	10YR68	58	F			0	0	CH	50	MDMPR	FM M		Y	ROOTS TO 95
9	0-25	mzc1	10YR32 00						0	0	0	0					
	25-49	hzc1	05Y 53 00	25Y 56	00	F	00MN00	00		0	0	FSST	6		M	WEATHERING MOTTS	
	49-70	hzc1	05Y 52 62	25Y 56	00	F	00MN00	00		0	0	FSST	5		M	WEATHERING MOTTS	
	70-120	hzc1	05Y 52 62	25Y 56	00	C		Y	0	0	FSST	10		P		Y	
9P	0-21	hzc1	25Y 42 00						0	0	HR	5				Y	AT ASP 109
	21-39	hzc1	25Y 53 00	00MN00	00	F			0	0	HR	5	MDCAB	FR M		Y	
	39-80	hzc1	25Y 63 00	10YR56	00	C		Y	0	0	0	0	MDCSAB	FR M		Y	WEATHERED CHALK
	80-120	ch	25Y 72 00	10YR56	00	C		Y	0	0	0	0	MDCOPL	FM P		Y	LOWER CHALK
10	0-30	mzc1	10YR32 00				00FE00		0	0	FSST	2					
	30-40	mzc1	25Y 62 00						0	0	FSST	10		M		IMP SST	
10P	0-25	hc1	25Y 42 00						0	0	HR	2				Y	AT ASP 131
	25-35	hc1	05Y 42 00						0	0	HR	2	WK CAB	FR M	Y		NOT GLEYED
	35-70	c	05Y 52 53	10YR56	00	C		Y	0	0	0	0	WK CAB	FM P	Y	Y	TENDS TO MASSIVE
11	0-27	hc1	10YR32 00						0	0	0	0				Y	
	27-70	c	25 Y52 00	10YR58	00	C		Y	0	0	HR	2		P		Y	Y
12	0-20	mc1	25 Y42 00						0	0	FSST	10				Y	
	20-40	hc1	25 Y62 00						0	0	FSST	15		M		Y	WEATHERED SST
	40-75	c	25 Y51 00	10YR58	00	C		Y	0	0	0	0		P		Y	Y
	75-85	lp	10YR33 00	10YR56	00	C		Y	0	0	0	0		M			
	85-120	pl	10YR42 00	75YR46	00	C		Y	0	0	0	0		M			
13	0-28	hc1	10YR32 00						0	0	0	0					
	28-80	c	25 Y52 62	10YR58	00	C		Y	0	0	0	0		P		Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED	----STONES----			STRUCT/	SUBS	SPL	CALC		
				COL	ABUN	CONT	COL.	GLE	>2	>6					LITH	TOT
14	0-35	mzc1	10YR42 00					0	0	0						
	35-90	mzc1	25Y 62 00	10YR66	00	F		0	0	FSST	5	M		IMP STONES		
15	0-28	mzc1	10YR32 00	10YR56	00	F	00M00 00	0	0	FSST	5			Y		
	28-50	hzc1	05Y 42 53				00FE00 00	0	0	FSST	5	M		Y	IMP SST	
16	0-30	mzc1	10YR32 00				00FE00 00	0	0	HR	5			Y		
	30-70	hzc1	05Y 42 53	25Y 64	66	C		0	0	FSST	10	M		Y	IMP SST	
17	0-28	mzc1	10YR43 00					0	0	FSST	1				FEW ROOT MOTTS	
	28-45	hc1	25 Y53 52					0	0	FSST	8	M		Y	WEATHERING MOTTS	
	45-80	hzc1	05 Y72 00	25 Y66	00	C		Y	0	0	0	P		Y	Y	IMP SST
18	0-22	mzc1	10YR33 00					0	0	FSST	1					
	22-40	hzc1	25 Y53 00					0	0	FSST	4	M		Y		
	40-55	hc1	25 Y62 00	10YR76	00	C		0	0		0	M		Y	IMP SST	
19	0-25	mzc1	10YR33 00					0	0	FSST	3					
	25-45	hc1	25 Y53 00	25 Y66	68	C		0	0	FSST	35	M			WEATHERING MOTTS	
	45-70	zc	05 Y62 00	10YR66	00	C		Y	0	0	0	P		Y	IMP SST	
20	0-25	mzc1	10YR42 00					0	0	CH	1			Y		
	25-35	hzc1	25Y 53 00	10YR56	00	C		Y	0	0	CH	1	M		Y	
	35-62	mc1	25Y 62 00	75YR58	00	M		Y	0	0	CH	2	M		Y	
	62-80	mc1	05Y 52 00					Y	0	0	CH	20	M		Y	IMP STONY&DRY
21	0-30	oc1	10YR22 00					0	0		0			Y	Q PEATYLOAM	
	30-60	c	10YR41 00	75YR46	00	C		Y	0	0	0	P		Y	Y	SATURATED
22	0-30	mc1	10YR32 00					0	0		0					
	30-80	c	25 Y52 00	10YR58	00	C		Y	0	0	0	P		Y		
23	0-25	mzc1	10YR32 00					0	0		0			Y		
	25-40	c	25 Y61 62	10YR58	00	C		Y	0	0	0	P		Y	Y	+FS
	40-65	sc1	25 Y62 00	10YR58	00	C		Y	0	0	0	P		Y	Y	IMP CALCGRAVEL
24	0-25	hc1	10YR41 00	75YR46	00	C		Y	0	0	0					
	25-70	c	25 Y52 00	10YR58	00	C		Y	0	0	0	P		Y		
25	0-25	zc	10YR23 00	75YR46	00	C		Y	0	0	0					ROOT MOTTS
	25-45	c	25 Y52 00	10YR56	00	C		Y	0	0	0	P		Y		
	45-70	c	05 Y52 00	75YR56	00	M		Y	0	0	0	P		Y		
	70-110	zc1	75 Y81 00					0	0	CH	30	M		Y	CHALKY MARL	
26	0-20	zc	10YR23 00	75YR46	00	C		0	0		0					SLIGHTLY ORGANIC
	20-40	c	25 Y52 00	10YR56	00	C		Y	0	0	0	M				
	40-80	c	05 Y62 00	10YR66	00	C		Y	0	0	0	P		Y	Y	
	80-110	mc1	05 Y71 81					0	0	CH	25	M		Y	CHALKY MARL	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED		----STONES----			STRUCT/ CONSIST	SUBS			CALC		
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH		TOT	STR	POR		IMP	SPL
27	0-25	mc1	10YR33 00						0	0	HR	2						WITH FS
	25-55	hc1	10YR43 53						0	0	FSST	10	M				WEATHERED SST	
	55-90	hc1	25 Y53 63 10YR66 00 M				25	Y72	00	Y	0	0	FSST	5	M		Y	IMP SST
28	0-25	mzc1	10YR43 00						0	0	HR	2						
	25-45	hzc1	25 Y52 53						0	0	HR	2	M					
	45-110	zc	05 Y72 00 10YR66 00 C						Y	0	0	0	P			Y		
29	0-22	mzc1	10YR33 00						0	0	FSST	3						
	22-55	hc1	05 Y62 00						0	0	FSST	35	M					
	55-110	zc	05 Y62 72 10YR66 00 C						Y	0	0	0	P			Y		SEE 6P
30	0-27	mzc1	10YR32 00						0	0	CH	1					Y	
	27-50	zc	25 Y52 00 75YR58 00 C						Y	0	0	CH	2	P			Y	Y
	50-60	hzc1	25 Y52 00						Y	0	0	CH	2	M				Y
	60-70	fsz1	25 Y52 00						Y	0	0	CH	5	M				Y
31	0-27	hc1	10YR32 00						0	0		0						Y
	27-45	c	10YR61 00 10YR58 00 C						Y	0	0	0	P				Y	Y
	45-70	c	25 Y71 00 10YR58 00 C						Y	0	0	0	P				Y	Y
32	0-30	hc1	10YR32 00						0	0		0						
	30-70	c	25 Y52 00 75YR46 00 C						Y	0	0	0	P				Y	
33	0-28	mzc1	10YR42 00 10YR46 00 C						Y	2	0	HR	6					
	28-48	zc	25 Y52 53 10YR56 00 C						Y	0	0	FSST	1	M				
	48-80	zc	25 Y62 63 10YR56 00 C						Y	0	0	FSST	1	P			Y	
34	0-28	mzc1	25 Y42 00						0	0	FSST	3						
	28-65	zc	05 Y52 00 25 Y66 00 F						0	0		0	M					WEATHERING MOTTS
	65-75	hzc1	05 Y62 00 25 Y68 00 C						Y	0	0	0	P				Y	
	75-90	hzc1	05 Y62 00 25 Y68 00 C						Y	0	0	FSST	20	P			Y	WEATHERING SST
35	0-25	mzc1	10YR42 00						0	0	HR	2						ROOT MOTTS
	25-40	hc1	25 Y62 00 25 Y66 00 C						0	0	FSST	30	M					IMP HARD SST
36	0-25	mzc1	10YR42 52 10YR56 00 C						0	0		0						ROOT MOTTS
	25-40	mc1	25 Y62 00 25 Y56 00 C						0	0	FSST	30	M					IMP HARD SST
37	0-30	mzc1	25 Y42 00 75YR46 00 C						0	0	HR	3						
	30-70	hc1	25 Y52 00 10YR56 00 C						0	0	FSST	30	M					WEATHERING MOTTS
	70-95	hzc1	10YR66 00 25 Y66 00 C						Y	0	0	FSST	5	P			Y	
	95-110	hzc1	25 Y66 00 25 Y66 00 C						Y	0	0	FSST	30	P			Y	
38	0-30	mzc1	10YR43 00 75YR46 00 C						0	0	HR	3						
	30-50	zc	05 Y52 53						0	0		0	M					
	50-75	zc	05 Y62 00 25 Y66 00 C						Y	0	0	0	M					IMP SST

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED COL.	----STONES-----			STRUCT/ CONSIST	SUBS			CALC
				COL	ABUN	CONT		GLE	>2	>6		LITH	TOT	STR	
39	0-32	mzc1	10YR43 00					0	0	HR	2				
	32-55	hzc1	25 Y53 00					0	0		0	M			
	55-90	zc	05 Y53 00	10YR66 00	C		Y	0	0		0	P		Y	
	90-110	hzc1	05 Y62 00	10YR66 00	F		Y	0	0	FSST	10	M		Y	WEATHERED FSST
40	0-25	mzc1	10YR43 00					1	0	HR	3				
	25-50	hzc1	25 Y53 00	25 Y66 00	C		Y	0	0		0	M			
	50-110	hzc1	05 Y62 00	25 Y66 00	C		Y	0	0		0	P		Y	
41	0-20	mzc1	10YR31 00	10YR58 00	F			0	0		0				
	20-50	c	25Y 42 00	10YR56 00	C		Y	0	0	CH	5	P		Y	Y
	50-60	hc1	25Y 72 00	10YR68 00	C		Y	0	0	CH	10	M		Y	IMPCALCGRAVEL
42	0-22	hzc1	10YR42 00					0	0	CH	1				Y
	22-35	zc	25 Y52 00	10YR56 00	C		Y	0	0	CH	1	P		Y	Y
	35-70	zc	25 Y52 51	10YR56 00	C	00MN00 00	Y	0	0	CH	1	P		Y	Y
43	0-29	hc1	25 Y42 00					1	0	HR	3				Y
	29-65	c	25 Y62 00	10YR58 00	C		Y	0	0	FSST	10	P		Y	
	65-70	zc	25 Y71 72	10YR66 00	C			0	0	FSST	10	M		Y	WEATHERED FSST
44	0-20	mc1	10YR42 00	10YR46 00	C		Y	3	0	HR	4				
	20-30	hc1	10YR42 00	10YR46 00	C		Y	0	0	FSST	1	M			
	30-70	c	10YR41 31	10YR46 00	F		Y	0	0	FSST	2	P		Y	
45	0-28	mzc1	10YR42 00	10YR56 00	C		Y	2	0	HR	5				
	28-62	zc	25 Y52 63	10YR56 00	C		Y	0	0	FSST	1	M			
	62-75	hzc1	25 Y63 00	25 Y66 00	C		Y	0	0		0	M		Y	IMP SST
46	0-25	mzc1	10YR43 00					0	0	HR	2				
	25-45	zc	05 Y52 00	25 Y66 00	C			0	0		0	M			WEATHERING MOTTS
	45-80	zc	05 Y65 62	25 Y66 00	C		Y	0	0		0	P		Y	IMP FSST
	80-90	fsst	05 Y65 62	25 Y66 00	C			0	0		0	P			
47	0-35	mzc1	10YR42 00	10YR56 00	F	00FE00		0	0	HR	2				
	35-65	mc1	25Y 52 00	75YR58 00	C			0	0	FSST	3	M			WEATHERING MOTTS
	65-70	mc1	25Y 52 62	10YR58 00	C			0	0	FSST	10	M			IMP WEATHERING SST
48	0-10	mzc1	10YR32 00					0	0		0				
	10-25	mzc1	05Y 53 00	10YR56 00	F			0	0		0	M			
	25-45	mzc1	25Y 52 00	10YR56 00	F	00MN00 00		0	0	FSST	5	M			FE CONCRETIONS
	45-95	hzc1	25Y 52 00	10YR56 00	F	00MN00 00		0	0	FSST	2	M			FE CONCRETIONS
	95-120	fsz1	25Y 61 62	25Y 46 66	C	00MN00 00	Y	0	0		0	M			WEATHERED SST?
49	0-26	mzc1	25 Y42 00					0	0	HR	3				
	26-65	hzc1	05 Y52 00	25 Y66 00	C			0	0	FSST	40	M			WEATHERING MOTTS
	65-100	zc	05 Y52 00	25 Y66 00	C		Y	0	0		0	P		Y	
	100-110	hzc1	05 Y62 00	25 Y66 00	C		Y	0	0	FSST	5	P		Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED		----STONES-----				STRUCT/ CONSIST	SUBS			CALC	
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH	TOT		STR	POR	IMP		SPL
50	0-15	hzc1	10YR42 00						0	0	CH	1						
	15-28	zc	25 Y52 00	10YR56 00	C		00MNO0 00	Y	0	0		0		P			Y	
	28-70	zc	05 Y62 61	75YR56 00	M		00MNO0 00	Y	0	0		0		P			Y	
51	0-25	hzc1	10YR41 00	75YR58 00	C			Y	0	0	CH	1						Y
	25-35	zc	25 Y52 00	10YR58 00	M		00MNO0 00	Y	0	0	CH	1		P			Y	Y
	35-60	zc	25 Y61 62	10YR56 00	M		00MNO0 00	Y	0	0	CH	1		P			Y	Y
52	0-30	hc1	25 Y32 00						2	0	HR	5						Y
	30-35	c	25 Y52 00						0	0	FSST	10		M				Y
	35-60	hzc1	25 Y71 72	25 Y66 00	C				0	0		0		M			Y	IMP HARD GSAND
53	0-30	hc1	25 Y32 00						5	0	HR	10						
	30-45	c	25 Y42 00	25 Y66 00	C				0	0	FSST	10		M			Y	WEATHERED MOTTS
	45-55	mc1	25 Y72 00	25 Y66 00	C				0	0	FSST	25		M			Y	IMP HARD SST
54	0-28	hc1	25 Y32 00						3	0	HR	5						
	28-70	c	25 Y62 00	10YR68 00	C			Y	0	0		0		P			Y	
55	0-25	mzc1	10YR42 00						0	0	CH	3						Y
	25-42	hzc1	10YR63 53	10YR56 00	C			Y	0	0	CH	1		M				Y
	42-75	zc	25 Y52 62	75YR58 00	M			Y	0	0	CH	1		P			Y	Y
																		IMP FLINTS
56	0-28	mzc1	25 Y32 00						0	0	HR	2						
	28-70	c	25 Y52 51	10YR58 00	C			Y	0	0	HR	2		P			Y	
57	0-28	hc1	25 Y32 00						0	0	HR	2						
	28-70	c	25 Y61 00	25 Y64 00	C			Y	0	0	HR	2		P			Y	
58	0-30	mc1	10YR32 00						0	0	HR	2						Y
	30-45	lms	25 Y81 00						0	0	HR	10		M			Y	+2%CHALK IMPCALGRAVEL
59	0-25	mc1	10YR43 00						8	0	HR	15						IMP DRY&STONY
60	0-28	z1	10YR32 00						0	0	HR	2						
	28-70	c	25 Y52 62	10YR56 00	C			Y	0	0		0		M				IMP SILTSTONE
61	0-25	hc1	10YR42 00						0	0	HR	2						
	25-35	hc1	25 Y43 72						0	0	FSST	50		M				
	35-45	hc1	25 Y52 72						0	0		0		M				IMP HARD SST
62	0-25	mc1	10YR32 00						3	0	HR	8						Y
	25-32	mc1	10YR43 00						0	0	HR	15		M				Y
	32-120	c	25 Y62 00						0	0		0		M			Y	+15% FSST Q WEATHERED SST
63	0-30	mc1	10YR32 00						6	0	HR	12						Y
	30-40	mc1	10YR42 73						0	0	HR	25		M			Y	IMP DISTURBED?

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED COL.	----STONES-----			STRUCT/ CONSIST	SUBS STR POR	IMP	SPL	CALC
				COL	ABUN	CONT		>2	>6	LITH					
64	0-28	mc1	10YR42 00					2	0	HR	5				+SAND
	28-45	c	10YR42 00	10YR56 00 C				Y	0	0	HR	15	M		+SAND
	45-55	c	10YR43 00	10YR68 72 F			00FE00 00 Y	0	0	FSST	25	M		Y	IMP SAND SST
65	0-28	mzc1	10YR42 43					2	0	HR	15				Y
	28-40	mzc1	10YR53 61					0	0	FSST	25	M			Y
	40-80	mzc1	25Y 62 00	10YR68 00 F			00FE00 00	0	0	FSST	5	M		Y	IMP DRY&STONE
66	0-25	mc1	10YR32 00					0	0	HR	2				Y
	25-32	hc1	25 Y53 00					0	0	CH	5	M		Y	+2% FLINTS
	32-70	ch	25 Y81 00					0	0		0	P		Y	IMP HARD CHALK
67	0-25	mc1	10YR42 00					3	0	HR	7				
	25-35	mc1	10YR43 00					0	0	HR	10	M			
	35-75	zc	25 Y53 62	10YR56 00 F				0	0		0	M			
	75-85	zc	25 Y53 62	10YR68 00 C				Y	0	0		0	M		IMP STONE
68	0-25	mc1	10YR42 00					4	0	HR	10				Y
	25-40	mc1	10YR43 00	10YR56				0	0	HR	5	M			COMMON FE CONCS
	40-60	zc	25Y 63 53	10YR56 00 F				0	0	HR	5	M			
	60-90	hzc1	25Y 62 72	10YR58 00 F				0	0		0	M			IMP HARD DRY
69	0-28	mc1	10YR42 00					1	0	HR	5				+2% CHALK
	28-45	mzc1	25Y 52 00					0	0	FSST	5	M			
	45-65	zc	25Y 63 72	10YR46 00 C				Y	0	0		0	M		
	65-120	mzc1	25Y 63 72	10YR46 00 F				Y	0	0		0	M		WEATHERED SST?
70	0-30	mc1	10YR42 00					3	0	HR	7				WEATHERING MOTTS
	30-35	hc1	10YR42 53	10YR56 00 C				0	0	HR	10	M			
	35-45	zc	10YR53 61	10YR56 00 C				Y	0	0		0	M		
	45-65	zc	10YR53 00	10YR56 00 C			00FE00 00 Y	0	0		0	M			
	65-75	mzc1	25Y 63 82	10YR56 00 F			00FE00 00 Y	0	0	FSST	5	M			IMP DRY&HARD
71	0-25	mc1	10YR42 00					3	0	HR	7				
	25-50	mc1	10YR43 00					0	0	HR	10	M			IMP FLINTS
72	0-28	mc1	10YR42 00					3	0	HR	5				Y
	28-58	c	10YR53 00	10YR58 00 C			25 Y61 00 Y	0	0	HR	2	M		Y	SLIGHTLY SANDY
	58-70	mc1	10YR72 00					0	0		0	M		Y	IMP WEATHERED SST
73	0-30	mc1	10YR32 00					8	0	HR	15				
	30-40	hc1	10YR54 00					0	0	HR	15	M			IMP FLINTS +DRYSOIL
74	0-30	mc1	10YR42 00					3	0	HR	5				
	30-40	mc1	10YR44 00					0	0	HR	5	M			+5% SST
	40-55	mc1	10YR54 00					0	0	HR	15	M			
	55-62	zc	25Y 53 56	25Y 72 00 C				0	0	FSST	5	M			
	62-120	mzc1	25Y 72 53	25Y 56 00 C				Y	0	0	FSST	5	M		

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED		----STONES----			STRUCT/ CONSIST	SUBS			CALC		
				COL	ABUN	CONT	COL.	GLEYS	>2	>6	LITH		TOT	STR	POR		IMP	SPL
75	0-25	mc1	10YR42 00						1	0	HR	3						
	25-35	mc1	10YR44 00						0	0	HR	5		M			Y	
	35-45	mc1	25Y 53 72						0	0	FSST	25		M			Y	
	45-65	mc1	25Y 73 82						0	0	FSST	50		M			Y IMP HARD&DRY	
76	0-27	mc1	10YR32 00						0	0	HR	3						
	27-38	c	10YR43 00	10YR58 00	C			S	0	0	HR	5		M				
	38-50	c	10YR52 00	75YR58 00	C			Y	0	0	HR	5		P				
	50-60	sc1	10YR52 00	75YR58 00	C			Y	0	0	HR	5		M				
	60-75	sc1	10YR52 00	75YR58 00	C			Y	0	0		0		M				
	75-85	c	25 Y53 00	10YR58 00	C			25 Y62 00	Y	0	0		0		P			
	85-120	hzc1	05 Y71 00	10YR58 00	C				Y	0	0	HR	2		M			Y WEATHERED CH?
77	0-30	mc1	10YR43 00						0	0	HR	5						
	30-40	hc1	25 Y53 00						0	0	HR	5		M			Y +2%CHALK	
	40-95	c	25 Y62 00	10YR68 00	C			Y	0	0		0		M			SLIGHTLY SANDY	
	95-120	hzc1	25 Y72 00	10YR58 00	C			Y	0	0		0		M			Y WEATHERED CHALK?	
78	0-25	mc1	10YR32 00						0	0	CH	2					Y IMP FLINTS	
79	0-27	mc1	10YR32 00						0	0	HR	2					Y	
	27-38	hc1	25 Y62 63						0	0	CH	5		M			Y +2% FLINTS	
	38-55	c	25 Y62 00	10YR58 00	C			Y	0	0	HR	5		M			Y IMP FLINTS	
80	0-30	mc1	10YR32 00						0	0	HR	2					Y	
	30-48	hc1	25 Y53 00						0	0	HR	5		M			Y +2% CHALK	
	48-60	c	25 Y53 00	10YR58 00	C			Y	0	0	HR	5		M			Y +2% CHALK	
	60-80	c	10YR53 00	10YR68 00	C			10YR71 00	Y	0	0	CH	5		M			Y
	80-100	hzc1	25 Y72 00	10YR58 00	C				Y	0	0	HR	5		M			Y Q WEATHERED CHALK
81	0-30	mc1	10YR42 00						0	0	HR	2						
	30-40	hc1	25 Y52 00						0	0	FSST	30		M				
	40-90	c	25 Y52 00	10YR58 00	C			Y	0	0	FSST	10		P		Y	IMP FSST	
82	0-28	mc1	10YR42 00						0	0	HR	2						
	28-30	mc1	10YR43 00						0	0	FSST	25		M			Y IMP FSST	
83	0-30	mc1	10YR42 00						0	0	HR	2						
	30-45	mc1	25 Y61 71						0	0	FSST	50		M			Y IMP FSST	
84	0-32	hc1	10YR42 00						0	0	HR	2						
	32-55	c	25 Y52 00	10YR58 00	C			Y	0	0	HR	2		P		Y		
	55-60	c	25 Y52 00	10YR58 00	C			Y	0	0	FSST	30		P		Y	IMP FSST	
85	0-25	mzc1	10YR42 00						0	0	HR	3						
	25-55	c	25Y 52 00	10YR58 00	C			00M00 00	Y	0	0		0		P		Y	
	55-60	ch	10YR72 00						0	0		0		M			Y IMP CHALK	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----		PED		----STONES----			STRUCT/ CONSIST	SUBS			CALC		
				COL	ABUN	CONT	COL.	GLE	>2	>6		LITH	TOT	STR		POR	IMP
86	0-35	mc1	10YR32 00						0	0	HR	2				Y	IMP CHALK
87	0-30	mzc1	10YR42 00						1	0	HR	3					
	30-40	mzc1	10YR42 43						0	0		0		M			IMP DRY SOIL
88	0-28	hc1	10YR32 00						0	0	HR	2					Y
	28-45	hzc1	10YR43 00						0	0	CH	10		M			Y
	45-90	mzc1	10YR72 00	10YR56 00	F				0	0	CH	50		M			Y
89	0-30	hc1	10YR42 00						2	0	HR	4					Y
	30-55	hzc1	10YR53 00	10YR56 00	F	00MN00	00		0	0		0		M			Y
	55-120	mzc1	10YR72 00	00FE00 00	F				0	0	CH	50		M			Y
90	0-28	hc1	10YR41 00						2	0	HR	4					Y
	28-45	hzc1	25Y 52 62	10YR58 00	F	00MN00	00		0	0		0		M			Y
	45-120	mzc1	10YR72 00	00FE00 00	C				0	0	CH	50		M			Y
91	0-30	mc1	10YR42 00						0	0	HR	2					Y
	30-45	hc1	10YR43 00						0	0	HR	2		M			Y
	45-60	hc1	10YR42 00	10YR46 00	C			Y	0	0	HR	2		M			Y
	60-85	hc1	05 Y42 00					Y	0	0	HR	2		M			Y
	85-120	fs1	05 Y42 00					Y	0	0	HR	2		M			Y
92	0-30	mc1	10YR32 00						2	0	HR	5					
	30-40	hc1	10YR42 00						0	0	HR	10		M			Y
	40-50	hc1	25Y 53 63						0	0	FSST	10		M			Y
93	0-25	mc1	10YR32 00						0	0	HR	2					Y
	25-50	hc1	10YR42 00	10YR56 00	F				0	0	CH	5		M			Y
	50-60	hc1	25 Y33 00						0	0	CH	35		M			Y
94	0-35	hc1	10YR32 00						2	0	HR	4					Y
	35-100	mzc1	10YR72 00	00FE00 00	F				0	0	CH	50		M			Y
95	0-29	hc1	10YR42 00						2	0	HR	3					Y
	29-38	hc1	10YR43 00						0	0	CH	30		M			Y
	38-45	hc1	10YR74 00						0	0	CH	85		P			Y
96	0-30	mc1	10YR32 00						2	0	HR	4					Y
	30-35	mc1	10YR32 43	10YR58 00	F				0	0	HR	5		M			Y
97	0-30	mc1	10YR31 00						2	0	HR	4					Y
	30-45	hc1	10YR53 00	10YR58 00	C			Y	0	0	HR	2		M			Y
	45-120	mzc1	25Y 62 72	10YR66 00	C			Y	0	0	CH	50		M			Y
98	0-30	hc1	10YR41 00						2	0	HR	4					Y
	30-45	hc1	10YR42 00						0	0	CH	25		M			Y
	45-120	mzc1	25Y 62 71	00FE00 00	F				0	0	CH	50		M			Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED		----STONES----			STRUCT/ CONSIST	SUBS			CALC	
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH		TOT	STR	POR		IMP
99	0-27	mc1	10YR31 00						3	0	HR	4					Y
	27-45	hc1	10YR42 43						0	0	CH	20	M				Y
	45-50	hc1	10YR53 00						0	0	CH	35	M				Y
	50-60	hc1	25Y 53 63						0	0	CH	35	M				Y IMP CHALK
100	0-28	mc1	10YR31 00						0	0	HR	2					Y
	28-40	hc1	10YR42 00 10YR58 00 F						0	0	HR	3	M				Y
	40-120	hzc1	25Y 62 71 00FE00 00 C						0	0	CH	50	M				Y
101	0-30	mc1	10YR31 00						3	0	HR	4					Y
	30-35	hzc1	25Y 53 62 00FE00 00 F						0	0	CH	10	M				Y
	35-120	hzc1	25Y 62 71 00FE00 00 F						0	0	CH	50	M				Y
102	0-28	mc1	10YR32 00						2	0	HR	4					Y
	28-40	hzc1	10YR33 43						0	0	CH	10	M				Y IMP CHALK
103	0-27	mc1	10YR31 00						2	0	HR	3					Y
	27-38	hzc1	25 Y53 52 10YR58 00 C				00MN00 00 Y		0	0	CH	10	M				Y
	38-120	hzc1	25 Y81 71 25 Y68 00 C					Y	0	0	CH	50	M				Y
104	0-30	mc1	10YR32 00						0	0	HR	2					Y
	30-50	hc1	10YR43 00 10YR56 00 F						0	0	HR	5	M				Y
105	0-35	hc1	10YR33 00						0	0	HR	2					Y
	35-50	c	10YR43 00 10YR46 00 F						0	0	HR	10	M				Y
106	0-35	mc1	10YR43 00						0	0	HR	5					Y
	35-45	hzc1	10YR53 00						0	0	HR	10	M				Y
	45-120	c	25Y 62 00 10YR56 00 C					Y	0	0	HR	10	P	Y			Y
107	0-30	mc1	10YR43 00						0	0	HR	5					Y
	30-45	hzc1	10YR53 00						0	0	HR	10	M				Y
	45-120	c	05Y 53 00 10YR56 00 C					Y	0	0		0	P	Y			Y
108	0-30	mc1	10YR43 00						0	0	HR	2					Y
	30-55	hzc1	10YR53 00						0	0	HR	5	M				Y
	55-120	hc1	25Y 52 00 10YR56 00 M					Y	0	0		0	P	Y			Y
109	0-25	hzc1	25Y 52 00						0	0	HR	5					Y
	25-50	c	25Y 53 00 10YR56 00 F						0	0		0	P				Y
	50-85	ch	25Y 72 00 10YR56 00 F						0	0		0	P				Y IMP CHALK
110	0-25	hzc1	25Y 42 00						0	0	HR	5					Y +2% CHALK
	25-59	zc	25Y 53 00 10YR58 00 C					Y	0	0	CH	2	P			Y	Y
	59-120	ch	25Y 72 00 10YR58 00 C					Y	0	0		0	P				Y LOWER CHALK
112	0-25	mzc1	10YR43 00						0	0	HR	5					Y
	25-120	c	05Y 53 00 10YR56 00 C					Y	0	0		0	P				Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS				CALC
				COL	ABUN	CONT		GLE	>2	>6		LITH	TOT	STR	POR	
113	0-30	hzc1	10YR43 00					0	0	HR	5					
	30-50	hzc1	10YR53 00					0	0	HR	5	M				
	50-120	zc	25Y 52 00	10YR56 00 C				Y	0	0		0	P			Y
114	0-25	mc1	10YR43 00					0	0	HR	10					
	25-45	hzc1	10YR53 00					0	0	HR	10	M				
	45-60	c	25Y 52 00	10YR56 00 C				Y	0	0		0	P	Y		Y
																IMP FSST
115	0-25	mc1	10YR43 00					0	0	HR	5					
	25-45	hzc1	10YR53 00					0	0	HR	10	M				
	45-80	c	25Y 52 00	10YR56 00 C				Y	0	0		0	P			Y
	80-120	hc1	10YR71 00	10YR56 00 C				Y	0	0		0	P			Y
116	0-25	hc1	10YR32 00					0	0	HR	5					
	25-35	hc1	25Y 42 00					0	0	HR	5	M				
	35-60	hc1	25Y 53 00					0	0	HR	30	M			Y	IMP FLINTS
117	0-28	hzc1	25Y 42 00					0	0	HR	5					Y
	28-120	hzc1	25Y 72 00	10YR68 00 C				0	0		0	M			Y	WEATHERING MOTTS
118	0-25	c	25Y 42 00					0	0	HR	5					
	25-35	c	05Y 42 00					0	0		0	M				
	35-68	c	05Y 52 53	10YR56 00 C				Y	0	0		0	P			Y
	68-80	hc1	05Y 62 00				Y	0	0	FSST	10	M			Y	IMP FSST
122	0-28	hc1	10YR32 00					0	0	HR	2					Y
	28-75	c	25 Y53 00	25Y 56 00 C				Y	0	0	FSST	2	P		Y	Y
125	0-25	mzc1	10YR43 00					0	0	HR	5					
	25-80	c	05Y 63 00	10YR56 00 C				Y	0	0	HR	10	P			Y
	80-120	hc1	05Y 42 00	10YR56 00 C				Y	0	0	HR	0	P			Y
126	0-32	hc1	10YR32 00					0	0	HR	2					
	32-80	c	05Y 53 63	10YR58 00 C				Y	0	0	FSST	10	P			Y
127	0-30	hzc1	10YR42 00					0	0	HR	5					Y
	30-48	hzc1	25Y 62 72					0	0	HR	30	M				Y
	48-55	c	25Y 62 00	75YR68 00 C				Y	0	0	HR	35	P			Y
																IMP FLINTS
128	0-25	hzc1	10YR43 00					0	0	HR	5					
	25-35	hzc1	10YR53 00					0	0	HR	10	M				
	35-70	c	05Y 53 00	10YR56 00 C				Y	0	0		0	P			Y
	70-120	hc1	10YR71 00	10YR56 00 C				Y	0	0		0	P			Y
																WEATHERED CHALK
129	0-30	mzc1	10YR43 00					0	0	HR	5					
	30-35	hzc1	10YR53 00					0	0	HR	10	M				
	35-120	c	05Y 53 00	10YR56 00 C				Y	0	0		0	P			Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED		----STONES-----				STRUCT/ CONSIST	SUBS			SPL	CALC
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH	TOT		STR	POR	IMP		
130	0-20	mc1	10YR43 00						0	0	HR	5						
	20-30	hzc1	10YR53 00						0	0	HR	5		M				
	30-120	c	05Y 53 00	10YR56 00	C			Y	0	0		0		P		Y		
131	0-25	hc1	25Y 42 00	10YR56 00	F				0	0	FSST	2						
	25-35	hc1	05Y 42 00			00MN00	00		0	0	FSST	2		M				
	35-88	c	05Y 52 53	10YR56 00	C			Y	0	0		0		P		Y		
	88-95	hc1	05Y 52 62						0	0	FSST	10		M			IMP FSST	
132	0-20	hc1	10YR42 00	10YR46 00	F				0	0	HR	2						
	20-60	c	05Y 52 42	25Y 56 00	C			Y	0	0	FSST	2		P		Y		
133	0-28	mc1	10YR42 00	75YR56 00	C				Y	0	0	0						
	28-38	hc1	25 Y52 00	75YR56 00	C				Y	0	0	0		M				
	38-70	c	05 Y62 00	10YR58 00	C	00MN00	00	Y	0	0		0		P		Y		
135	0-30	hc1	10YR32 00						0	0	HR	2						
	30-45	c	25Y 53 00	25Y 56 00	C			Y	0	0	FSST	15		M				
	45-80	c	25Y 61 53	25Y 56 00	C			Y	0	0	FSST	2		P		Y		
137	0-28	mzc1	10YR52 00						6	0	HR	10					Y	
	28-45	mzc1	25Y 71 00						0	0	CH	35		M			Y	
	45-50	mzc1	25Y 71 00	25Y 56 00	C			Y	0	0	CH	35		M		Y	IMP FLINTS	
138	0-32	mc1	10YR42 00						0	0	HR	5						
	32-38	hc1	25Y 42 00						0	0	FSST	5		M			SST + FLINTS	
	38-80	c	25Y 53 00	25Y 66 00	C	00MN00	00	Y	0	0	FSST	2		P		Y		
139	0-28	mc1	10YR41 00						0	0	HR	2						
	28-45	mc1	25Y 63 00	10YR58 00	C			Y	0	0		0		M				
	45-80	zc	25Y 62 72	10YR56 00	C			Y	0	0		0		P		Y	Y	
	80-120	hzc1	25Y 72 00	10YR56 00	C			Y	0	0		0		M		Y	WEATHERED CHALK	
140	0-32	mc1	25Y 52 00	10YR58 00	C				Y	0	0	HR	5					
	32-50	c	05Y 53 00	10YR56 00	C			Y	0	0		0		P		Y		
	50-82	hc1	05Y 53 00	10YR56 00	C			Y	0	0		0		P		Y		
	82-120	mc1	05Y 52 00	10YR56 00	C			Y	0	0		0		M				
141	0-25	hc1	25Y 32 00						0	0	HR	2						
	25-60	c	05Y 42 00	10YR66 00	C			Y	0	0	HR	2		P		Y		
	60-85	c	05Y 42 00	10YR56 00	C			Y	0	0		0		P		Y		
143	0-20	mc1	10YR42 00						0	0	HR	2						
	20-57	hc1	25Y 43 00						0	0	FSST	5		M				
	57-65	hc1	05Y 62 00						0	0	FSST	35		M			IMP FSST	
144	0-28	mc1	10YR42 00	75YR58 00	F				0	0		0						
	28-80	c	25 Y52 00	75YR46 00	C			Y	0	0		0		P		Y		

SAMPLE	DEPTH	TEXTURE	COLOUR	-----MOTTLES-----			PED COL.	-----STONES-----			STRUCT/ CONSIST	SUBS			CALC		
				COL	ABUN	CONT		GLY	>2	>6		LITH	TOT	STR		POR	IMP
145	0-28	mc1	10YR42 00	75YR56	00	C		Y	0	0	0						
	28-35	hc1	25 Y61 00	10YR58	00	C		Y	0	0	FSST 20		M				WEATHERING MOTTS
	35-45	hc1	25 Y61 00	10YR58	00	C		Y	0	0	FSST 35		M				WEATHERING MOTTS
	45-80	c	25 Y61 00	10YR68	00	M		Y	0	0	0		P		Y		DRIER THAN ABOVE
146	0-20	hc1	10YR42 00						0	0	HR 2						
	20-52	c	05Y 52 42	25Y 56 00	C		Y	0	0	FSST 2		P		Y			
	52-100	hzc1	05Y 71 61	25Y 56 00	C		Y	0	0	FSST 15		M					WEATHERED CHALK?
147	0-35	hc1	10YR32 00	10YR46	00	F			0	0	0						
	35-50	c	10YR42 00						0	0	0		M				
	50-60	c	10YR42 00	10YR46	00	F			0	0	FSST 15		M				IMP FSST
149	0-33	hc1	10YR42 00						0	0	HR 2						
	33-70	c	25 Y52 00	10YR56	00	C		Y	0	0	0		P		Y		
150	0-30	hc1	10YR42 00						0	0	HR 2						Y
	30-40	c	25 Y52 00	10YR56	00	C		Y	0	0	0		M				Y
	40-120	hzc1	25 Y71 00	10YR58	00	F		Y	0	0	0		M			Y	CHALK MARL
151	0-28	hc1	10YR42 00						0	0	HR 5						Y
	28-60	c	25Y 53 00						0	0	FSST 2		M				Y
	60-78	c	25Y 53 00	25Y 56 00	C		Y	0	0	FSST 2		P		Y			
	78-110	c	25Y 62 00	25Y 56 00	C		Y	0	0	CH 25		P		Y	Y		
	110-120	ch	25Y 71 00				Y	0	0	0		P			Y		CHALK MARL
156	0-25	mc1	10YR42 00						0	0	0						
	25-55	hc1	25Y 52 00	10YR58	00	C		Y	0	0	0		M				
	55-100	c	05Y 62 00	10YR56	00	C		Y	0	0	FSST 2		P		Y		
157	0-30	mc1	10YR42 00	75YR46	00	C		Y	0	0	0						
	30-52	hc1	25 Y52 00	10YR58	00	C		Y	0	0	HR 2		M				
	52-80	c	05 Y62 00	10YR58	00	C		Y	0	0	FSST 5		P		Y		IMP FSST
158	0-25	mc1	10YR42 00						0	0	HR 2						
	25-38	hc1	25Y 52 00						0	0	FSST 5		M				
	38-55	hc1	25Y 52 00						0	0	FSST 30		M				IMP FSST
159	0-30	mc1	10YR42-00						0	0	HR 2						
	30-70	c	25Y 53-00	25Y 56 00	C		Y	0	0	FSST 5		P		Y			
	70-100	hc1	05Y 63-00						0	0	FSST 5		M				
162	0-27	mc1	10YR32 00						0	0	0		M				
	27-50	c	25 Y42 43						0	0	0		M				
	50-80	c	05 Y52 00	25 Y56 00	C		Y	0	0	FSST 10		P		Y			
163	0-30	hc1	10YR32 00						0	0	0						Y
	30-55	c	10YR42 52	10YR58	00	C		Y	0	0	0		P		Y	Y	
	55-80	c	05 Y52 00	10YR58	00	C		Y	0	0	0		P		Y		

SAMPLE	DEPTH	TEXTURE	COLOUR	-----MOTTLES-----			PED		-----STONES-----			STRUCT/ CONSIST	SUBS			SPL	CALC
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH		TOT	STR	POR		
165	0-30	hc1	10YR42 00						0	0	HR	1					
	30-70	c	05 Y52 00	25	Y56	00 C		Y	0	0		0		P		Y	
177	0-30	hc1	10YR32 00						0	0		0					Y
	30-50	hzc1	10YR63 00						0	0	CH	30		M			Y
	50-80	hzc1	25 Y72 00	10YR58	00 F				0	0	CH	50		M			Y WEATHERING MOTTS
	80-120	hzc1	25 Y72 00	10YR58	00 F				0	0	CH	10		M			Y CHALK MARL
178	0-30	hc1	10YR32 00						0	0		0					Y
	30-35	c	25 Y53 00						0	0	CH	5		M			Y
	35-55	hzc1	10YR64 00						0	0	CH	30		M			Y
	55-120	zc	25 Y71 72						0	0		0		M			Y WEATHERED CHALK
179	0-20	hc1	10YR42 00						0	0	HR	2					Y
	20-48	c	25Y 53 00						0	0	CH	5		M			Y
	48-120	hzc1	25Y 72 00	10YR56	00 C			Y	0	0		0		M			Y WEATHERED CHALK
194	0-30	hc1	10YR32 00						0	0		0					Y
	30-43	c	25 Y52 00						0	0	CH	5		M			Y
	43-70	hzc1	25 Y72 00						0	0	CH	50		M			Y
	70-120	hzc1	25 Y71 00						0	0		0		M			Y WEATHERED CHALK
195	0-20	hc1	10YR42 00						0	0	HR	2					Y
	20-50	c	25Y 53 00						0	0	HR	2		M			Y
	50-70	c	25Y 53 63	25Y 66	00 C		00MN00	00 Y	0	0	CH	5		P		Y	Y
199	0-22	hc1	10YR42 00						0	0	HR	2					Y
	22-32	c	25Y 42 00						0	0	HR	2		M			Y
	32-48	c	25Y 53 00	10YR56	00 C			Y	0	0	CH	2		P		Y	Y
	48-85	hzc1	25Y 63 00	25Y 66	00 C			Y	0	0		0		M		Y	Y WEATHERED CHALK
	85-120	ch	25Y 71 72	25Y 66	00 C			Y	0	0	CH	70		P		Y	Y
200	0-30	mc1	10YR43 00						0	0	HR	5					
	30-45	hzc1	10YR53 00						0	0	HR	5		M			
	45-120	zc	25Y 52 00	10YR54	00 C			Y	0	0	HR	10		P		Y	
201	0-30	mc1	10YR45-00						0	0	HR	5					
	30-45	hzc1	10YR55-00						0	0	HR	5		M			
	45-120	c	10YR56-00	05Y 53	00 C			Y	0	0		0		P		Y	
202	0-30	hzc1	10YR53 00						0	0	HR	5					
	30-60	zc	10YR52 00	10YR58	00 C			Y	0	0	HR	5		P		Y	
	60-120	hc1	10YR61 00						0	0		0		M		Y	WEATHERED CHALK
203	0-35	mc1	10YR43 00						0	0	HR	5					
	35-60	hzc1	25Y 53 00						0	0	HR	5		M			
	60-120	hc1	10YR71 00						0	0		0		M		Y	WEATHERED CHALK

-----MOTTLES----- PED -----STONES----- STRUCT/ SUBS

SAMPLE	DEPTH	TEXTURE	COLOUR	COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC
204	0-30	mc1	10YR43 00						0	0	HR	5						
	30-50	hzc1	10YR53 00						0	0	HR	5		M				
	50-120	c	25Y 53 00	10YR56	00	C		Y	0	0		0		P			Y	

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						DRT
1	SP80900490	OSR		30 30	4	3B	123	17	100	3	2			WE	3B	see 1P 032/99
2	SP80400480	PGR SE	2	20 20	3	3B	0	-106	0	-97				WE	3B	see 10P 45/97
3	SP80500480	PGR S	2	25 35	4	3B	97	-9	105	8	3A			WE	3B	SEE 10P 45/97
4	SP80600480	PGR E	1	20 20	4	3B	89	-17	100	3	3A			WE	3B	I70 SEE 10P
5	SP80800480	OSR			1	2	86	-20	89	-8	3B			DR	3A	I55 GRAVELLY
5A	SP80840476	OSR			1	2	87	-19	95	-2	3A			DR	3A	I63 GRAVELLY
6	SP80900480	OSR			1	2	66	-40	66	-31	3B			DR	3B	I40 FLOODPLAIN
7	SP80500470	PGR SE	2	25 45	3	3B	97	-9	109	12	3A			WE	3B	I35 FLOODPLAIN
8	SP80620470	PGR			1	2	67	-39	67	-30	3B			DR	3B	I40 ALSO WE G/
9	SP80700470	PGR			1	2	54	-52	54	-43	4			DR	3B	I35 FLOODPLAIN
10	SP80500462	RGR		39 39	4	3B	89	-17	94	-3	3A			WE	3B	SEE 10P 45/97
11	SP80600450	PGR NW	1	25 50	3	3B	104	-2	109	12	3A			WE	3B	ALSO WK
12	SP80700440	PGR			1	2	129	23	107	10	2			DR	2	ALSO WK SEE 1P
13	SP80300430	PGR SW	1	43 43	3	3A	131	25	108	11	2			WE	3A	SEE 1P 032/99
14	SP80400430	PGR SW	1		1	2	121	15	99	2	2			DR	2	ALSO WK SEE 1P
15	SP80400420	PGR SW	2		1	2	102	-4	81	-16	3A		Y	DS	3A	DISTURBED
16	SP80500420	PGR SW	1		1	2	133	27	111	14	2			DR	2	ALSO WK SEE 1P
17	SP80500410	PGR SW	1		1	2	107	1	105	8	3A			DR	3A	I90 ZR SEE 1P
1P	SP80400430	PGR SW	1		1	2	125	19	104	7	2			DR	2	ALSO WK

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED COL.	----STONES-----			STRUCT/ CONSIST	SUBS			CALC		
				COL	ABUN	CONT		GLEYS	>2	>6		LITH	TOT	STR		POR	IMP
1	0-30	C	25Y 42						0	0	HR	5			Y	045/97	
	30-120	C	05Y 52	10YR4656	C	D		Y	0	0		0	P		Y	Y	SEE 10P
2	0-20	HCL	10YR31	10YR58	F	D			0	0		0					
	20-40	C	25Y 5253	10YR56	C	D		Y	0	0		0	P		Y		
	40-80	C	05Y 52	10YR5658	C	D		Y	0	0		0	P		Y		PLASTIC
3	0-25	HCL	10YR31	10YR46	F	D			0	0	HR	2					
	25-35	C	25Y 52	10YR4656	C	D		Y	0	0	HR	2		M			
	35-75	C	05Y 5253	10YR5658	C	D		Y	0	0		0	P		Y		
4	0-20	HCL	10YR31						0	0	HR	3					
	20-55	C	25Y 5253	10YR5658	C	D		Y	0	0		0	P		Y		PLASTIC
	55-70	HZCL	25Y 7161	10YR5658	C	D		Y	0	0	FSST	30	M		Y		DENSE
5	0-30	HZCL	25Y 42						0	0	HR	3			Y		
	30-55	ZC	25Y 5262	10YR46	F	D			0	0	CH	15	M		Y		IMP FLINTS
5A	0-30	ZC	25Y 42						0	0	HR	5			Y		
	30-50	ZC	25Y 5262						0	0	HR	3	M		Y		
	50-63	HZCL	25Y 62						0	0	CH	15	M		Y		IMP FLINTS
6	0-30	HCL	25Y 42						0	0	HR	3			Y		
	30-35	HZCL	25Y 5262	10YR46	F	D			0	0	CH	10	M		Y		
	35-40	ZC	25Y 5262	10YR46	F	D			0	0	CH	15	M		Y		IMP FLINTS
7	0-25	HCL	10YR4131	10YR58	M	D			0	0		0					
	25-45	C	25Y 52	10YR4656	C	D		Y	0	0	HR	2	M				
	45-70	C	05Y 52	10YR56	M	D		Y	0	0		0	P		Y		PLASTIC
8	0-30	HZCL	10YR4232						0	0	CH	5			Y		
	30-40	C	25Y 5262	10YR46	F	C			0	0	CH	15	M		Y		IMP GRAVELLY
9	0-20	HCL	10YR32						0	0	CH	5			Y		
	20-35	C	25Y 4252	10YR46	F	D			0	0	HR	10	M		Y		IMP GRAVELLY
10	0-25	HZCL	25Y 31						0	0	CH	2			Y		
	25-39	C	05Y 4142						0	0	CH	2	M		Y		
	39-60	ZC	05Y 5161	10YR4656		C		Y	0	0	CH	5	P		Y	Y	PLASTIC
11	0-25	HCL	05Y 41	10YR46	M	D		Y	0	0	HR	5					
	25-50	C	10YR53	10YR58	M	F		Y	0	0		0	M				
	50-80	C	05Y 5253	10YR58	M	F		Y	0	0		0	P		Y		V. DENSE
12	0-20	C	25Y 4142						0	0	CH	2			Y		
	20-35	C	05Y 5253						0	0	CH	5	M		Y		
	35-90	ZC	05Y 6272						0	0		0	M		Y		FRIABLE
	90-120	ZC	05Y 6272						0	0	ZR	30	M		Y		DRY

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS			CALC						
				COL	ABUN	CONT		GLE	>2	>6		LITH	TOT	STR		POR	IMP	SPL			
13	0-30	HCL	10YR31					0	0	CH	2				Y						
	30-43	C	05Y 52					0	0		0		M		Y						
	43-120	C	05Y 52	10YR5658	M	D		Y	0	0	0		P		Y	PLASTIC					
14	0-15	HZCL	10YR31					0	0	HR	5				Y						
	15-50	ZC	25Y 6272					0	0	ZR	10		M		Y	DRY, FRIABLE					
	50-120	ZC	25Y 6172					0	0	ZR	30		M		Y	WEATHERED					
15	0-35	C	25Y 42					0	0	HR	5				Y						
	35-120	MS	10YR5658					0	0		0		M			DISTURBED					
16	0-30	HZCL	05Y 31					0	0	HR	5				Y						
	30-40	ZC	25Y 6272					0	0	CH	5		M		Y						
	40-70	ZC	25Y 6171					0	0	CH	5		M		Y	DRY					
	70-120	ZC	25Y 7172					0	0	ZR	20		M		Y	FRIABLE					
17	0-26	HZCL	10YR31					0	0	HR	5				Y						
	26-35	ZC	25Y 5253					0	0		0		M		Y	DRY					
	35-55	HZCL	25Y 5372					0	0	ZR	30		M		Y	FRIABLE					
	55-90	ZC	25Y 6171					0	0	ZR	30		M		Y	IMP ZR					
1P	0-26	HCL	10YR32					0	0	HR	2				Y						
	26-56	ZC	25Y 6272					0	0	FSST	10	WD	C	S	A	B	F	R	M	Y	WEATHERED
	56-120	ZC	25Y 72					0	0	FSST	30	WD	C	S	A	B	F	R	M	Y	MALMSTONE