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Basingstoke and Deane Borough Local Plan
Sites 1 - 9,
Land to the north west of Basingstoke
Agricultural Land Classification
Reconnaissance Survey
ALC Map and Report
December 1996

Resource Planning Team
Guildford Statutory Group
ADAS Reading

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AGRICULTURAL LAND CLASSIFICATION REPORT
RECONNAISSANCE SURVEY

BASINGSTOKE AND DEANE BOROUGH LOCAL PLAN.
SITES 1 - 9, LAND TO THE NORTH WEST OF BASINGSTOKE.

INTRODUCTION

1. This report presents the findings of a reconnaissance Agricultural Land Classification (ALC) survey of 642.2 hectares of land to the north west of Basingstoke in Hampshire. The survey was carried out during April and May 1996.

2. The survey was commissioned by the Ministry of Agriculture, Fisheries and Food (MAFF) from its Land Use Planning Unit in Reading in connection with the Basingstoke and Deane Borough Local Plan. The results of this survey supersede any previous ALC information for this land.

3. The work was conducted by members of the Resource Planning Team in the Guildford Statutory Group of ADAS. 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, the agricultural land on this site was either in arable crops or grass. The areas of the site shown as Other Land include domestic dwellings, various tracks and roadways, woodland and permanently fenced game cover as well as the leisure facilities centred around Upper Farm at Wootton St. Lawrence.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:15,000. 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)	% Total Site Area	% Surveyed Area
2	93.5	14.6	15.5
3a	478.1	74.4	79.5
3b	29.7	4.6	5.0
Other Land	40.9	6.4	-
Total Surveyed Area	601.3	-	100.0
Total Site Area	642.2	100.0	-

7. The fieldwork was conducted at an average density of slightly less than 1 boring per 4 hectares. A total of 165 borings and sixteen soil pits were described.

8. The land at this site has been classified as Grade 2 (very good quality), Subgrade 3a (good quality) and Subgrade 3b (moderate quality) on the basis of soil wetness and soil droughtiness limitations.

9. There are three main soil types represented at this site. The areas shown as Grade 2 were principally limited by soil droughtiness. Profiles commonly comprise slightly stony medium silty topsoils and subsoils over solid chalk at depth in the profile. The presence of chalk in the profile causes plant rooting depth to be restricted. This combination of textures, stones in the profile and the root restriction causes these soils to be slightly restricted by soil droughtiness in the local climate. Soil droughtiness may affect plant growth and yield in some years.

10. Over the majority of the site, Subgrades 3a and 3b have been mapped. The most common restriction to land quality in these areas is soil droughtiness, although soil wetness is limiting in some cases (see para. 11). Where soil droughtiness is the principal limitation, slightly stony, medium silty topsoils and upper subsoils overlie solid chalk at shallow to moderate depths in the profile. The presence of chalk in the profile causes plant rooting depth to be restricted to the extent that in the local climate these areas are appropriately placed in Subgrades 3a and 3b. Soil droughtiness may affect plant growth and yield in some years.

11. The remaining areas which are mapped as Subgrade 3a and 3b are limited by soil wetness; these generally occur towards the south of the site. In these areas the soils commonly comprise medium silty, occasionally medium loamy topsoils over similar upper subsoils which overlie slightly gleyed and slowly permeable clays at shallow to moderate depths in the profile. These slowly permeable horizons cause drainage to be impeded so that land utilisation is restricted. The depth at which these horizons occur determines the severity of the soil wetness restrictions and therefore the ALC grade.

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 overleaf and were obtained from the published 5km grid datasets using standard interpolation procedures (Met. Office, 1989).

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.

Table 2: Climatic and altitude data

Factor	Units	Values		
Grid reference	N/A	SU 605 558	SU 593 536	SU 590 550
Altitude	m, AOD	100	130	150
Accumulated Temperature	day°C	1419	1386	1362
Average Annual Rainfall	mm	769	805	816
Field Capacity Days	days	165	172	173
Moisture Deficit, Wheat	mm	100	95	92
Moisture Deficit, Potatoes	mm	90	83	79

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 (ATO, 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. In regional terms, this area has a relatively moist climate, such that the risk of soil droughtiness is slightly reduced by the relatively high number of field capacity days and low moisture deficits. Conversely, the risk of soil wetness is increased. Local climatic factors, such as exposure and frost risk, are not believed to significantly affect the site. The site is climatically Grade 1.

Site

17. The site lies at altitudes in the range 95-150m AOD. The topography of the area is undulating overall, with the highest land occurring to the north west of the site. Towards the north east of the site, two dry valley features are present; one of which contains the lowest lying land on the site. In these areas the maximum gradients present on the site were measured at 6° using a hand held clinometer. Slopes of this gradient are insufficient to affect land quality.

Geology and soils

18. The published geological information for the site (BGS, 1981), shows the majority of the site to be underlain by Cretaceous Upper Chalk. On the higher parts of the site clay-with-flints is mapped as a drift deposit overlying the chalk.

19. The most detailed published soils information for the site (SSEW, 1983 and 1984) shows the site to comprise soils of the Andover 1 and Carstens associations. Andover 1 soils are mapped to the north of the site and are described as, 'Shallow, well drained, calcareous silty soils over chalk on slopes and crests. Deep calcareous and non-calcareous fine silty soils in valley bottoms. Striped soil patterns locally.' (SSEW, 1983). Carstens soils are mapped to the south of the site and are described as, ' Well drained fine silty over clayey, clayey and fine silty soils, often very flinty.' (SSEW, 1983). Soils of these broad types were found across the site, although in some areas the Carstens type soils were imperfectly to poorly drained.

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 details of the soils data are presented in Appendix III.

Grade 2

22. Land of very good quality has been mapped across the site in a total of five units. The principal limitation is soil droughtiness. The soils in these areas commonly fall into three groups, which are not spatially distributed into particular areas, but are described below in order of extent, the largest first.

23. The most common soil type encountered in the Grade 2 mapping units on the site is characterised by the soil pits 15P and 16P (see Appendix III). Soils commonly comprise non-calcareous medium silty clay loam topsoils, containing up to 15% v/v total flints (including up to 3% flints >2cm). Upper subsoil horizons comprise a slightly stony (up to 10% v/v total flints) medium or heavy silty clay loam. These pass to a lower subsoil horizon of similar texture containing up to 25% v/v total flints and occasionally 10% v/v chalk fragments. Chalk then commonly occurs between 75 and 115cm in the profile. Where chalk occurs between 75 and 90cm roots were observed to extend approximately 5cm into the substrate, below this depth no roots were observed. The presence of solid chalk and flints in the profile causes plant rooting depth to be restricted, to the extent that, in the local climate there is a restriction in water availability for plants, such that Grade 2 is appropriate, on the basis of soil droughtiness. Occasionally chalk was not encountered in the profile (eg 15P); when this occurs the silty clay loam lower subsoil extends to depth and the observation is of slightly better quality. As observations of this nature are scattered they are not mapped separately.

24. The second most common soil type encountered in the Grade 2 mapping units on this site is characterised by the soil pits 8P and 11P (see Appendix III). In these observations the topsoil and upper subsoil horizons are similar to those described above (para. 23). The lower subsoil comprises calcareous chalky drift containing up to 70% chalk and 15% v/v total flints; this was often impenetrable to the soil auger. In the pit observation 8P the chalky drift passes to pure chalk at 74cm and roots were visible to 80cm. In the pit observation 11P pure chalk was not encountered but roots were visible to 81cm. As above (para 23) plant rooting is restricted by the presence of flints, chalk or chalk derived soil material to the extent that, given in the local climate, water availability to plants is restricted. In these profiles this is sufficient to place this land in Grade 2 on the basis of a slight soil droughtiness limitation.

25. The least common soil type across the site which has been mapped as Grade 2 is distinct from the other two, although the principal limitation remains soil droughtiness. Soil profiles are characterised by the soil pit 3P. They comprise a slightly stony (up to 10% v/v total flints with 2% >2cm diameter), non-calcareous medium silty clay loam topsoil, passing to a similar upper subsoil. The lower subsoil horizons comprise non-calcareous slightly to moderately stony (10-20% v/v total flints) medium or heavy silty clay loams passing to similarly stony non-calcareous clays. The clay horizon was often impenetrable to the soil auger as the flints were often large. Due to the flint content of these soils, water availability to

plants is restricted given the local climate such that Grade 2 has been applied on the basis of a slight soil droughtiness limitation.

Subgrade 3a

26. Land of good quality has been mapped across the majority of the site. Principal limitations include soil droughtiness and soil wetness.

27. The majority of the areas mapped as Subgrade 3a are restricted by soil droughtiness. The soil profiles described were of three types. The most common is characterised by the soil pits 6P and 9P (see Appendix III). They comprise a slightly stony (up to 10% v/v total flints, including up to 8% >2cm), calcareous medium silty clay loam with a minimum depth of 30cm passing directly to weathered, blocky, pure chalk in which rooting was observed for up to 41cm, prior to the substrate becoming harder and less weathered. This restriction of rooting in combination with the local climate is sufficient for these soils to be placed in Subgrade 3a on the basis of soil droughtiness as water availability to plants will be restricted especially in drier years.

28. The second soil type mapped in this Subgrade limited by soil droughtiness are characterised by the soil pits 8P, 12P and 14P (see Appendix III). Profiles commonly comprise a slightly stony (up to 10% v/v total flints, including up to 8% >2cm), occasionally slightly chalky (up to 10% chalk fragments) calcareous medium silty clay loam topsoil, passing to an upper subsoil horizon of chalky drift material, comprising up to 70% weathered chalk and up to 15% v/v total flints, the remainder being soil material of a medium silty clay loam texture. The chalky drift material overlies solid chalk between 45 and 65cm and was occasionally impenetrable to the soil auger during the survey. The chalky drift material overlies solid chalk, in which rooting was observed to extend between 9 and 34cm. The rooting restriction caused by the chalky drift and solid chalk in combination with the local climate causes Subgrade 3a to be appropriate due to a soil droughtiness limitation as water availability to plants is reduced to a moderate degree.

29. The third soil type in this Subgrade and limited by soil droughtiness commonly comprises a non-calcareous, slightly stony (up to 8% v/v total flints, including up to 4% >2cm) medium silty clay loam or medium clay loam topsoil passing to either a similar upper subsoil occasionally containing up to 20% v/v total chalk fragments, in which case they were calcareous, or the topsoil passes to clay. These upper subsoils overlie chalk at moderate depths, in which rooting was assumed to extend 35cm. Given the local climate, these soil characteristics lead to Subgrade 3a being appropriate on the basis of a soil droughtiness limitation due to the plant rooting restriction caused by the presence of solid chalk and the flint content of the upper horizons.

30. Some areas mapped as Subgrade 3a have been included in this subgrade on the basis of a soil wetness limitation. Soils in this category are characterised by the soil pits 5P, 7P and 10P. Profiles in this area commonly comprise a slightly stony (up to 12% v/v total flints, including up to 8% >2cm), non-calcareous medium clay loam or medium silty clay loam topsoil. The underlying subsoils commonly comprise a slightly gleyed or gleyed slightly to moderately stony (up to 25% v/v total flints) heavy silty clay loam, passing to a slightly gleyed or gleyed and slowly permeable clay commonly containing approximately 10% v/v flints; occasionally within the clay there are moderately stony bands (up to 25% v/v flints). The

depth to gleying and to the slowly permeable clay horizons in combination with the local climate is sufficient for these to be placed in Wetness Class III which, when the workability status of the topsoil is taken into account means that Subgrade 3a is appropriate on the basis of soil wetness. Soil wetness limits land use by restricting the number of days when cultivation or grazing can occur without damaging the soil. Excessive soil wetness can also affect plant growth and development.

Subgrade 3b

31. Land of moderate quality has been mapped across the site in a total of five mapping units. The principal limitation to land quality is soil droughtiness, occasionally soil wetness.

32. The majority of the profiles in this unit are limited by soil droughtiness and are characterised by the soil pits 1P, 2P and 13P (see Appendix III). They commonly comprise a calcareous, slightly or moderately chalky (up to 25% v/v total chalk fragments) and occasionally slightly stony (up to 15% v/v total flints, including up to 11% >2cm), medium silty clay loam topsoil to a maximum depth of 30cm. This commonly passes directly to solid chalk. Occasionally a thin subsoil horizon of chalky drift is present to a maximum depth of 40cm. In the pit observations roots were observed to extend up to 30cm into the chalk. In combination with the stoniness of the topsoil and upper subsoil this rooting restriction causes available water to be limited to plants, to the extent that, given the local climate, Subgrade 3b is appropriate on the basis of soil droughtiness. In these areas soil droughtiness will affect plant growth and yield more severely than elsewhere on the site.

33. Towards the south east of the site, the area mapped as Subgrade 3b close to Worting Wood is principally limited by soil wetness. Soils in this area are characterised by the soil pits 5P, 7P and 10P, which although of slightly better quality are typical of this soil type. Profiles in this area commonly comprise a slightly stony (up to 10% v/v total flints, including up to 8% >2cm), non-calcareous medium or heavy clay loam or medium or heavy silty clay loam topsoil. The underlying subsoils commonly comprise a slightly gleyed or gleyed slightly to moderately stony (up to 25% v/v total flints) heavy silty clay loam, passing to a slightly gleyed or gleyed and slowly permeable clay commonly containing approximately 10% v/v flints. Occasionally within the clay there are moderately stony bands (up to 25% v/v flints). The depth to gleying and to the slowly permeable clay horizons in combination with the local climate is sufficient for these to be placed in Wetness Classes III and IV which, when the workability status of the topsoil is taken into account means that Subgrade 3b is appropriate on the basis of soil wetness. Soil wetness limits land use by restricting the number of days when cultivation or grazing can occur without damaging the soil. Excessive soil wetness can also affect plant growth and development.

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SOURCES OF REFERENCE

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Soil Survey of England and Wales (1983) *Soils of South East England. 1:250 000 Scale.*
SSEW: Harpenden.

Soil Survey of England and Wales (1984) *Soils of South East England. Bulletin No. 15.*
SSEW: Harpenden.

APPENDIX I

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.

APPENDIX II

SOIL WETNESS CLASSIFICATION

Definitions of Soil Wetness Classes

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.

Wetness Class	Duration of waterlogging[1]
I	The soil profile is not wet within 70 cm depth for more than 30 days in most years.[2]
II	The soil profile is wet within 70 cm depth for 31-90 days in most years **or**, if there is no slowly permeable layer within 80 cm depth, it is wet within 70 cm for more than 90 days, but only wet within 40 cm depth for 30 days in most years.
III	The soil profile is wet within 70 cm depth for 91-180 days in most years **or**, if there is no slowly permeable layer present within 80 cm depth, it is wet within 70 cm for more than 180 days, but only wet within 40 cm depth for between 31-90 days in most years.
IV	The soil profile is wet within 70 cm depth for more than 180 days but not wet within 40 cm depth for more than 210 days in most years **or**, if there is no slowly permeable layer present within 80 cm depth, it is wet within 40 cm depth for 91-210 days in most years.
V	The soil profile is wet within 40 cm depth for 211-335 days in most years.
VI	The soil profile is wet within 40 cm depth for more than 335 days in most years.

Assessment of Wetness Class

Soils have been allocated to wetness classes by the interpretation of soil profile characteristics and climatic factors using the methodology described in *Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land* (MAFF, 1988).

[1] The number of days is not necessarily a continuous period.

[2] 'In most years' is defined as more than 10 out of 20 years.

APPENDIX III

SOIL DATA

Contents:

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	**DCW**:	Deciduous Wood
HTH:	Heathland	**BOG**:	Bog or Marsh	**FLW**:	Fallow
PLO:	Ploughed	**SAS**:	Set aside	**OTH**:	Other
HRT:	Horticultural Crops				

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

4. **GLEY/SPL**: 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	**EX**:	Exposure
FR:	Frost Risk	**GR**:	Gradient	**MR**:	Microrelief
FL:	Flood Risk	**TX**:	Topsoil Texture	**DP**:	Soil Depth
CH:	Chemical	**WE**:	Wetness	**WK**:	Workability
DR:	Drought	**ER**:	Erosion Risk	**WD**:	Soil Wetness/Droughtiness
ST:	Topsoil Stoniness				

Soil Pits and Auger Borings

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

S:	Sand	**LS**:	Loamy Sand	**SL**:	Sandy Loam
SZL:	Sandy Silt Loam	**CL**:	Clay Loam	**ZCL**:	Silty Clay Loam
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. **GLEY**: 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	**SLST**:	soft oolitic or dolimitic limestone
CH:	chalk	**FSST**:	soft, fine grained sandstone
ZR:	soft, argillaceous, or silty rocks	**GH**:	gravel with non-porous (hard) stones
MSST:	soft, medium grained sandstone	**GS**:	gravel with porous (soft) stones
SI:	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 : B'STOKE LP,PRIORITY A Pit Number : 1P

Grid Reference: SU58805330
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use : Cereals
Slope and Aspect : 2 degrees S

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 25	MZCL	10YR43 00	2	10	HR					Y
25- 42	MZCL	10YR54 00	0	15	CH		MDCSAB	FR	M	Y

Wetness Grade : 1
Wetness Class : I
Gleying : cm
SPL : cm

Drought Grade : 3B
APW : 69 mm MBW : -26 mm
APP : 69 mm MBP : -14 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : B'STOKE LP,PRIORITY A Pit Number : 2P

Grid Reference: SU58805330
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use : Cereals
Slope and Aspect : 2 degrees S

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 25	MZCL	10YR43 00	2	10	HR					Y
25- 42	CH	10YR81 54	0	2	HR				P	Y

Wetness Grade : 1
Wetness Class : I
Gleying : cm
SPL : cm

Drought Grade : 3B
APW : 59 mm MBW : -36 mm
APP : 59 mm MBP : -24 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : B'STOKE LP,PRIORITY A Pit Number : 3P

Grid Reference: SU59215371
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use : Cereals
Slope and Aspect : 1 degrees S

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 28	MZCL	10YR43 00	1	5	HR					
28- 45	MZCL	10YR53 00	0	5	HR	F	MDCSAB	FR	M	
45- 65	HZCL	10YR54 00	0	10	HR		MDCSAB	FR	M	
65-120	C	10YR56 00	0	15	HR	C	MDCSAB	FM	M	

Wetness Grade : 1
Wetness Class : I
Gleying : cm
SPL : cm

Drought Grade : 1
APW : 137mm MBW : 42 mm
APP : 116mm MBP : 33 mm

FINAL ALC GRADE : 1
MAIN LIMITATION :

SOIL PIT DESCRIPTION

Site Name : B'STOKE LP,PRIORITY A Pit Number : 4P

Grid Reference: SU59205210
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use :
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 30	MZCL	10YR53 00	2	8	HR					
30- 41	HZCL	10YR54 00	0	2	HR	C	MDCSAB	FR	M	
41-120	C	10YR64 56	0	10	HR	M	WKCSAB	FM	P	

Wetness Grade : 3A
Wetness Class : III
Gleying : 41 cm
SPL : 41 cm

Drought Grade : 1
APW : 126mm MBW : 31 mm
APP : 105mm MBP : 22 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : B'STOKE LP,PRIORITY A Pit Number : 5P

Grid Reference: SU59805270
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use : Cereals
Slope and Aspect : 1 degrees S

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 24	MZCL	10YR43 00	3	8	HR					
24- 36	HZCL	10YR44 00	0	10	HR	C	MDCSAB	FR	M	
36- 57	C	10YR54 00	0	10	HR	C	MDCAB	FM	M	
57- 70	C	75YR54 00	0	50	CH	C			M	Y

Wetness Grade : 3A
Wetness Class : III
Gleying : cm
SPL : 36 cm

Drought Grade : 3A
APW : 96 mm MBW : 1 mm
APP : 108mm MBP : 25 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Soil Wetness/Droughtiness

SOIL PIT DESCRIPTION

Site Name : B'STOKE LP,PRIORITY A Pit Number : 6P

Grid Reference: SU59205190
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use : Oilseed Rape
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 27	MZCL	10YR43 00	0	5	HR					Y
27- 63	CH	10YR81 00	0	3	HR				M	Y

Wetness Grade : 1
Wetness Class : I
Gleying : cm
SPL : cm

Drought Grade : 3A
APW : 80 mm MBW : -15 mm
APP : 84 mm MBP : 1 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : B'STOKE LP,PRIORITY A Pit Number : 7P

Grid Reference: SU58805230
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use : Permanent Grass
Slope and Aspect : 1 degrees N

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 28	MCL	10YR43 00	2	5	HR					
28- 42	HCL	10YR44 54	0	10	HR	F	MDCSAB	FM	M	
42- 70	C	75YR46 00	0	10	HR	C	WKCOAB	FM	P	
70-120	C	10YR53 00	0	15	HR	C	WKCOAB	FM	P	

Wetness Grade : 3A
Wetness Class : III
Gleying : 70 cm
SPL : 42 cm

Drought Grade : 2
APW : 121mm MBW : 26 mm
APP : 101mm MBP : 18 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : B'STOKE LP,PRIORITY A Pit Number : 8P

Grid Reference: SU59815351
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use : Cereals
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 30	MZCL	10YR44 00	3	10	HR					Y
30- 45	MZCL	10YR44 00	0	15	HR		WKCSAB	FR	M	Y
45- 74	MZCL	10YR74 81	0	50	CH			FR	P	Y
74- 83	CH	10YR81 00	0	3	HR				P	Y

Wetness Grade : 1
Wetness Class : I
Gleying : cm
SPL : cm

Drought Grade : 3A
APW : 98 mm MBW : 3 mm
APP : 97 mm MBP : 14 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : B'STOKE LP,PRIORITY A Pit Number : 9P

Grid Reference: SU60385510
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use : Cereals
Slope and Aspect : 1 degrees W

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 29	MZCL	10YR53 53	3	10	HR					Y
29- 70	CH	10YR81 74	0	3	HR				P	Y

Wetness Grade : 1
Wetness Class : I
Gleying : cm
SPL : cm

Drought Grade : 3A
APW : 79 mm MBW : -16 mm
APP : 85 mm MBP : 2 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : B'STOKE LP,PRIORITY A Pit Number : 10P

Grid Reference: SU60405550
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use : Cereals
Slope and Aspect : 4 degrees E

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 26	MCL	10YR43 00	2	8	HR					
26- 34	C	75YR54 00	0	30	HR	F	MDCAB	FM	M	
34- 80	C	75YR54 00	0	20	HR	C	MDCAB	FM	P	

Wetness Grade : 3A
Wetness Class : III
Gleying : cm
SPL : 34 cm

Drought Grade : 3A
APW : 87 mm MBW : -8 mm
APP : 91 mm MBP : 8 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Soil Wetness/Droughtiness

SOIL PIT DESCRIPTION

Site Name : B'STOKE LP,PRIORITY A Pit Number : 11P

Grid Reference: SU60605490
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use : Peas
Slope and Aspect : 1 degrees N

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 29	MZCL	10YR43 00	1	5	HR					
29- 54	MZCL	10YR44 54	0	10	HR		MDCSAB	FR	M	Y
54- 81	MZCL	10YR44 54	0	18	HR		MDCSAB	FR	M	Y

Wetness Grade : 1
Wetness Class : I
Gleying : cm
SPL : cm

Drought Grade : 2
APW : 111mm MBW : 16 mm
APP : 114mm MBP : 31 mm

FINAL ALC GRADE : 2
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : B'STOKE LP,PRIORITY A Pit Number : 12P

Grid Reference: SU60605470
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use : Peas
Slope and Aspect : 2 degrees W

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 27	MZCL	10YR43 00	1	5	HR					Y
27- 44	MZCL	75YR54 00	0	15	CH		MDCSAB	FR	M	Y
44- 78	CH	10YR81 00	0	3	HR				P	Y

Wetness Grade : 1
Wetness Class : I
Gleying : cm
SPL : cm

Drought Grade : 3A
APW : 98 mm MBW : 2 mm
APP : 99 mm MBP : 14 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : B'STOKE LP,PRIORITY A Pit Number : 13P

Grid Reference: SU60605510
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use : Peas
Slope and Aspect : 4 degrees E

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 29	MZCL	10YR43 53	2	10	HR					Y
29- 58	CH	10YR81 74	0	3	HR				P	Y

Wetness Grade : 1
Wetness Class : I
Gleying : cm
SPL : cm

Drought Grade : 3B
APW : 74 mm MBW : -21 mm
APP : 77 mm MBP : -6 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : B'STOKE LP,PRIORITY A Pit Number : 14P

Grid Reference: SU59005492
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use : Cereals
Slope and Aspect : 1 degrees S

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 29	MZCL	10YR43 00	2	8	HR					Y
29- 48	MZCL	10YR64 81	0	60	CH			FR	P	Y
48- 62	CH	10YR81 74	0	3	HR				P	Y

Wetness Grade : 1
Wetness Class : I
Gleying : cm
SPL : cm

Drought Grade : 3A
APW : 82 mm MBW : -13 mm
APP : 85 mm MBP : 2 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : B'STOKE LP,PRIORITY A Pit Number : 15P

Grid Reference: SU59405450
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use : Cereals
Slope and Aspect : 1 degrees S

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 27	MZCL	10YR42 43	2	5	HR					
27- 38	MZCL	10YR44 00	0	5	HR		MDCSAB	FM	M	
38- 54	MZCL	10YR44 54	0	8	HR	F	MDCSAB	FR	M	
54-115	MZCL	10YR54 00	0	15	HR	C	MDCSAB	FR	M	

Wetness Grade : 1
Wetness Class : I
Gleying : cm
SPL : cm

Drought Grade : 1
APW : 145mm MBW : 50 mm
APP : 115mm MBP : 32 mm

FINAL ALC GRADE : 1
MAIN LIMITATION :

SOIL PIT DESCRIPTION

Site Name : B'STOKE LP,PRIORITY A Pit Number : 16P

Grid Reference: SU59435430
Average Annual Rainfall : 805 mm
Accumulated Temperature : 1386 degree days
Field Capacity Level : 172 days
Land Use : Cereals
Slope and Aspect : 1 degrees S

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 29	MZCL	10YR43 00	2	8	HR					
29- 41	MZCL	10YR44 54	0	10	HR	F	MDCSAB	FM	M	
41- 59	MZCL	10YR44 54	0	10	HR	C	MDCSAB	FR	M	
59- 75	MZCL	75YR54 00	0	5	HR	C	MDCSAB	VF	M	
75- 80	CH	10YR81 00	0	3	HR				P	Y

Wetness Grade : 1
Wetness Class : I
Gleying : cm
SPL : cm

Drought Grade : 2
APW : 110mm MBW : 15 mm
APP : 115mm MBP : 32 mm

FINAL ALC GRADE : 2
MAIN LIMITATION : Droughtiness

AMPLE NO.	GRID REF	USE	ASPECT	GRDNT	WETNESS GLEY	WETNESS SPL	WETNESS CLASS	WETNESS GRADE	WHEAT AP	WHEAT MB	POTS AP	POTS MB	M.REL DRT	EROSN FLOOD	FROST EXP	CHEM DIST	CHEM LIMIT	ALC	COMMENTS
1	SU60605590	CER	E	3			1	1	83	-12	88	5	3A				DR	3A	IMP FLINT 60
1P	SU58805330	CER	S	2			1	1	69	-26	69	-14	3B				DR	3B	NR 110 IMP 42
2	SU60205570	CER	E	3		25	3	3B	58	-37	58	-25	3B				WE	3B	IMP40 SLGLEY25
2P	SU58805330	CER	S	2			1	1	59	-36	59	-24	3B				DR	3B	NR BORING 110
3	SU60405570	CER	E	3			1	1	64	-31	64	-19	3B		——		WD	3A	IMP 40 SEE 10P
3P	SU59215371	CER	S	1			1	1	137	42	116	33	1					1	NR 90 P90 A120
4	SU60605570	CER	E	4			1	1	98	3	105	22	3A				DR	2	IMP FLINT 75
4P	SU59205210	BRA			41	41	3	3A	126	31	105	22	1				WE	3A	B 156 SLGLEY30
5	SU59205550	CER	N	5			1	1	70	-25	72	-11	3B				DR	3B	IMP CHALK 75
5P	SU59805270	CER	S	1		36	3	3A	96	1	108	25	3A				WD	3A	B 138 SLGLEY24
6	SU59805550	ARA	S	3			1	1	78	-17	83	0	3A				DR	3A	
6P	SU59205190	OSR					1	1	80	-15	84	.1	3A				DR	3A	ROOTS 63 B161
7	SU60005550	PEA	W	3			1	1	78	-17	81	-2	3A				DR	3A	
7P	SU58805230	PGR	N	1	70	42	3	3A	121	26	101	18	2				WE	3A	SLGLEY42 B147
8	SU60205550	CER	E	2		30	3	3A	76	-19	76	-7	3A				WD	3A	SE10P SLGLEY30
8P	SU59815351	CER					1	1	98	3	97	14	3A				DR	3A	ROOTS83 PIT85
9	SU60405550	CER	E	4		30	3	3A	76	-19	76	-7	3A				WE	3A	SL GLEY 30
9P	SU60385510	CER	W	1			1	1	79	-16	85	2	3A				DR	3A	ROOTS70 PIT75
10	SU60605550	CER	W	6			1	1	91	-4	91	8	3A				DR	3A	
10P	SU60405550	CER	E	4		34	3	3A	87	-8	91	8	3A				WD	3A	P60A80SLGLEY34
11	SU59005530	CER	S	1			1	1	93	-2	92	9	3A				DR	3A	
11P	SU60605490	PEA	N	1			1	1	111	16	114	31	2				DR	2	PIT 95 AUG 120
12	SU59205530	CER	E	3			1	1	79	-16	82	-1	3A				DR	3A	IMP CHALK 80
12P	SU60605470	PEA	W	2			1	1	98	2	99	14	3A				DR	3A	ROOTS78 PIT85
13	SU59405530	PLO	N	4			1	1	72	-23	73	-10	3B				DR	3B	IMP CHALK 40
13P	SU60605510	PEA	E	4			1	1	74	-21	77	-6	3B				DR	3B	ROOTS58 PIT62
14	SU59605530	ARA	S	3			1	1	83	-12	88	5	3A				DR	3A	IMP CHALK 70
14P	SU59005492	CER	S	1			1	1	82	-13	85	2	3A				DR	3A	PIT 70 ROOTS62
15	SU59805530	LEY	E	3			1	1	75	-21	77	-4	3B				DR	3B	IMP CHALK 50
15P	SU59405450	CER	S	1			1	1	145	50	115	32	1					1	SL GLEY 54
16	SU60005530	LEY	E	3			1	1	91	-4	95	12	3A				DR	3A	IMP CHALK 75
16P	SU59435430	CER	S	1			1	1	110	15	115	32	2				DR	2	P84A100 SLGL41
17	SU60205530	CER	N	2			1	1	64	-31	64	-19	3B				DR	3B	IMP40 SLGLEY20
18	SU60405530	CER	N	1			1	1	87	-8	93	10	3A				DR	3A	IMP CHALK 70
19	SU60605530	CER					1	1	97	1	99	12	3A				DR	3A	IMP CHALK 60
20	SU60805530	CER	W	1			1	1	78	-20	81	-7	3A				DR	3A	
21	SU61005530	CER	N	1			1	1	121	26	119	36	2				DR	2	IMP CHALK 90
22	SU59005510	CER	S	1		30	3	3A	92	-1	98	20	3A				WE	3A	IMP75 SLGLEY30
23	SU59205510	CER	E	1			1	2	143	48	115	32	1				WK	2	
24	SU59405510	PLO	SE	4			1	1	82	-13	86	3	3A				DR	3A	IMP CHALK 70
25	SU59605510	ARA					1	1	78	-17	80	-3	3A				DR	3A	IMP FLINTS 55
26	SU59805510	PLO	N	2			1	1	82	-13	86	3	3A				DR	3A	IMP CHALK 70

SAMPLE NO.	GRID REF	USE	ASPECT	GRDNT	GLEY	SPL	WETNESS CLASS	WETNESS GRADE	WHEAT AP	WHEAT MB	POTS AP	POTS MB	M.REL DRT	EROSN FLOOD	FROST EXP	CHEM DIST	ALC LIMIT	COMMENTS
27	SU60005510	PLO	N	1			1	1	72	-24	75	-10	3B				DR 3B	IMP CHALK 45
28	SU60205510	LEY	W	3			1	1	82	-13	88	5	3A				DR 3A	IMP CHALK 65
29	SU60405510	CER	W	1			1	1	74	-23	77	-9	3B				DR 3B	SOFT CH TO 80+
30	SU60605510	PEA	E	2			1	1	78	-20	81	-6	3A				DR 3A	
31	SU60805510	CER	N	1			1	1	68	-27	68	-15	3B				DR 3B	IMP 40 POSSG2
32	SU59005490	CER	S	1			1	1	80	-15	83	0	3A				DR 3A	IMP CHALK 80
33	SU59205490	CER	E	1			1	1	71	-24	72	-11	3B				DR 3B	IMP CHALK 40
34	SU59405490	PLO	NE	3			1	1	80	-15	83	0	3A				DR 3A	SEE 14P IMP 70
35	SU59605490	PLO	N	4			1	1	80	-15	83	0	3A				DR 3A	IMP CHALK 70
36	SU59805490	CER	S	1			1	1	72	-23	74	-10	3B				DR 3B	IMP CHALK 70
37	SU60005490	CER	N	2			1	1	79	-16	82	-1	3A				DR 3A	IMP CHALK 75
38	SU60205490	CER	N	1			1	1	81	-14	83	0	3A				DR 3A	IMP CHALK 75
39	SU60405490	PEA	E	4			1	1	72	-25	75	-11	3B				DR 3B	CH NOT IMP 70
40	SU60605490	PEA	W	2			1	1	82	-13	82	-1	3A				DR 3A	IMP 50 SEE 11P
41	SU60805490	PEA	W	2			1	1	79	-16	82	-1	3A				DR 3A	
42	SU59005470	LEY	S	2			1	1	92	-3	98	15	3A				DR 3A	IMP CH 80P
43	SU59205470	LEY	S	2			1	1	86	-9	90	7	3A				DR 3A	CH NOT IMP
44	SU59405470	LEY	S	2			1	1	96	1	91	8	3A				DR 3A	
45	SU59605470	CER	S	2	50		3	3A	113	18	114	31	2				WE 3A	SL GLEY 50
46	SU59805470	CER					1	1	105	10	99	16	2				DR 2	IMP CHALK 90
47	SU60005470	CER					1	1	91	-4	97	14	3A				DR 3A	
48	SU60205470	PEA	E	5			1	1	84	-11	87	4	3A				DR 3A	IMP CHALK 55
49	SU60405470	PEA	W	2			1	1	76	-21	79	-7	3B				DR 3B	CH NOT IMP 70
50	SU60605470	PEA	W	3			1	1	99	4	101	18	3A				DR 3A	IMP CHALK 60
51	SU59005450	PGR	S	2			1	1	95	0	100	17	3A				DR 3A	IMP CHALK 60
52	SU59205450	CER	S	2	26		3	3B	101	6	99	16	2				WE 3B	ICH90 SLGLEY26
53	SU59405450	CER	S	1			1	1	82	-13	84	1	3A				DR 3A	IMP55 SLGLEY38
54	SU59605450	LEY	S	1			1	1	111	16	107	24	2				DR 2	IMP CHDRIFT 90
55	SU59805450	CER					1	1	113	18	108	25	2				DR 2	IMP CHALK 90
56	SU60005450	CER	N	2			1	1	75	-20	78	-6	3A				DR 3A	
57	SU60205450	PEA	N	2			1	1	89	-6	95	12	3A				DR 3A	IMP CHALK 70
58	SU60405450	PEA	N	2			1	1	88	-7	93	10	3A				DR 3A	IMP CHALK 50
59	SU60605450	PEA	E	2			1	1	84	-11	87	4	3A				DR 3A	IMP FLINT 60
60	SU59005430	PGR	S	1			1	1	79	-16	82	-1	3A				DR 3A	IMP CHALK 30
61	SU59205430	CER	S	2			1	1	71	-24	73	-10	3B				DR 3B	3A TS STONES
62	SU59405430	CER	SE	1			1	1	105	10	118	35	2				DR 2	IMP FLINTS 70
63	SU59605430	CER	S	1			1	1	105	10	114	31	2				DR 2	IMP FLINTS 70
64	SU59805430	CER	W	1			1	1	76	-18	76	-7	3A				DR 3A	IMP 50
65	SU60005430	POT	S	1			1	1	71	-25	72	-11	3B				DR 3B	IMP CHALK 70
66	SU60205430	POT	S	1			1	1	100	6	99	16	2				DR 2	IMP CHALK 85
67	SU60405430	POT	E	1			1	1	91	-4	97	14	3A				DR 3A	IMP CHALK 50
68	SU59005410	PGR	SW	1			1	1	98	5	109	28	3A				DR 3A	IMP CHALK 68

AMPLE NO.	GRID REF	USE	ASPECT	GRDNT	GLEY	SPL	--WETNESS-- CLASS	GRADE	-WHEAT- AP	MB	-POTS- AP	MB	M.REL DRT	FLOOD	EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
69	SU59205410	PGR	SW	1			1	1	88	-7	94	11	3A				DR	3A	IMP CHALK 60
70	SU59405410	CER	SW	1			1	1	105	10	104	21	2				DR	2	IMP CHALK 85
71	SU59605410	CER	S	2			1	1	74	-21	77	-7	3B				DR	3B	IMP CHALK 30
72	SU59805410	CER	S	1			1	1	73	-22	76	-8	3B				DR	3B	IMP CHALK 40
73	SU60005410	POT					1	1	75	-20	78	-6	3A				DR	3A	IMP CHALK 30
74	SU60205410	POT					1	1	68	-27	68	-15	3B				DR	3B	IMP CHALK 40
75	SU60405410	POT					1	1	92	-3	97	13	3A				DR	3A	IMP CHALK 40
76	SU60605410	LEY	NW	2			1	1	75	-20	78	-5	3A				DR	3A	IMP CHALK 60
77	SU58805390	CER					1	1	81	-14	83	0	3A				DR	3A	
78	SU59005390	CER	S	1			1	1	85	-10	89	6	3A				DR	3A	IMP CHALK 80
79	SU59205390	CER	E	2		70	2	2	124	29	117	34	2				WD	2	IMP FLINT 100
80	SU59405390	CER	S	1		65	2	2	137	42	113	30	1				WE	2	SL GLEY 65
81	SU59605390	CER	S	2			1	1	83	-12	85	2	3A				DR	3A	IMP CHALK 50
82	SU59805390	LEY	S	1			1	1	97	2	105	22	3A				DR	3A	IMP CHALK 70
83	SU60005390	POT			50		1	1	104	9	116	33	2				DR	2	IMP CHALK 65
84	SU60205390	POT					1	1	77	-18	80	-3	3A				DR	3A	IMP CHALK 30
85	SU60405390	POT					1	1	92	-3	95	12	3A				DR	3A	IMP CHALK 60
86	SU60605390	LEY	S	1		28	3	3A	87	-8	94	11	3A				WD	3A	IMP65 SLGLEY28
87	SU58905380	CER					1	1	81	-14	83	0	3A				DR	3A	
88	SU58805370	CER	S	1			1	1	81	-14	83	0	3A				DR	3A	
89	SU59005370	CER	S	2			1	1	123	28	117	34	2				DR	2	IMP CHALK 90
90	SU59205370	CER	S	2			1	1	122	27	110	27	2				DR	2	IMP FLINTS 100
91	SU59405370	CER				30	3	3A	102	7	103	20	2				WE	3A	IMP85 SLGLEY30
92	SU59605370	CER	S	1			1	1	88	-7	92	9	3A				DR	3A	IMP CHDRIFT 60
93	SU59805370	LEY	S	1			1	1	82	-13	86	3	3A				DR	3A	IMP CHALK 45
94	SU60005370	LEY	S	1			1	1	96	1	99	16	3A				DR	3A	IMP CHALK 60
95	SU60205370	LEY	S	1			1	1	99	4	103	19	3A				DR	3A	IMP CHALK 75
96	SU60405370	LEY	S	1	30		2	2	112	17	112	29	2				WD	2	IMP 85 QSP55
97	SU60605370	CER	S	2			1	1	84	-11	88	5	3A				DR	3A	IMP CHALK 70
98	SU58605350	CER					1	1	79	-16	82	-1	3A				DR	3A	CH ROOTS 60
99	SU58805350	CER	S	1			1	1	93	-2	99	16	3A				DR	3A	
00	SU59005350	PGR	S	2			1	1	80	-15	80	-3	3A				DR	3A	IMP FLINTS 45
01	SU59205350	CER	S	1		45	3	3A	97	2	100	16	3A				WD	3A	IMP80 SLGLEY45
102	SU59405350	CER	S	1			1	1	79	-16	83	1	3A				DR	3A	IMP CHDRIFT 50
03	SU59605350	CER					1	1	75	-20	78	-6	3A				DR	3A	IMP CHALK 40
104	SU59805350	LEY					1	1	82	-13	88	4	3A				DR	3A	IMP 50 QB RTS
105	SU60005350	LEY					1	1	100	5	106	23	2				DR	2	IMP CHDRIFT 95
06	SU60205350	ARA					1	1	144	49	112	29	1					1	
07	SU60405350	ARA					1	1	74	-21	74	-10	3B				DR	3B	IMP 45 QCHALK
108	SU58905340	CER	S	1			1	1	95	0	101	18	3A				DR	3A	IMP CHALK 50
09	SU58605330	CER	S	2			1	1	108	13	114	31	2				DR	2	CH ROOTS 75
110	SU58805330	CER	S	2			1	1	94	-1	100	17	3A				DR	3A	IMP CHALK 70

SAMPLE NO.	GRID REF	USE	ASPECT	GRDNT	GLEY	SPL	--WETNESS-- CLASS	GRADE	-WHEAT- AP.	MB	-POTS- AP	MB	M.REL DRT	EROSN FLOOD	FROST EXP	CHEM DIST	ALC LIMIT	COMMENTS
111	SU59005333	PGR					1	1	73	-22	73	-10	3B				DR 3B	IMP 50 Q3A
112	SU59405330	CER	N	1			1	1	91	-4	99	16	3A				DR 3A	IMP CHDRIFT 6
113	SU59605330	CER	NW	2			1	1	107	12	113	30	2				DR 2	IMP CHALK 90
114	SU59805330	CER	N	1		35	3	3A	92	-3	97	14	3A				WD 3A	I80 SL GLEY 35
115	SU60005330	ARA	N	1			1	1	76	-19	76	-7	3A				DR 3A	IMP FLINTS 50
116	SU60205330	ARA					1	1	151	56	117	34	1				1	SLGLEY 90
117	SU60405330	ARA					1	1	82	-13	83	0	3A				DR 3A	IMP CHALK 55
118	SU58105310	CER	S	3			1	1	101	6	100	16	2				DR 2	IMP CHALK 80
119	SU58805310	CER	N	2			1	1	120	25	119	36	2				DR 2	POSS 1 IMP 85
120	SU59005310	CER	N	3			1	1	79	-16	79	-4	3A				DR 3A	IMP FLINTS 50
121	SU59405310	CER					1	1	100	6	113	30	2				DR 2	IMP FLINT 70
122	SU59605310	ARA	W	2		50	3	3A	127	32	107	24	1				WE 3A	SEESP SLGLEY28
123	SU59805310	CER	N	1			1	1	138	43	116	33	1				1	IMP110 SLGL25
124	SU60205310	ARA	N	2		25	3	3A	113	18	92	9	2				WE 3A	SL GLEY 25
125	SU58605300	CER					1	1	63	-32	63	-20	3B				DR 3B	VALLEY IMP 40
126	SU58605290	CER	N	2			1	1	153	58	117	34	1				1	
127	SU58805290	CER	N	3		30	3	3A	84	-11	87	4	3A				WD 3A	IMP55 SLGLEY30
128	SU59005290	LEY					1	1	117	22	112	29	2				DR 2	IMP FLINT 95
129	SU59205290	CER	N	1			1	1	96	1	109	26	3A				DR 3A	IMP FLINTS 70
130	SU59405290	CER	N	1			1	1	81	-14	85	2	3A				DR 3A	IMP FLINT 80
131	SU59605290	ARA	N	2		50	3	3A	119	24	108	25	2				WE 3A	I105 SLGLEY50
132	SU58605270	CER	N	2		28	3	3A	97	2	109	26	3A				WD 3A	IMP65 SLGLEY28
133	SU58805270	LEY	N	2		28	3	3A	93	-2	98	15	3A				WD 3A	IMP80 SLGLEY28
134	SU59005270	LEY	N	1		85	1	1	141	46	118	35	1				1	SL GLEY 85
135	SU59205270	CER	E	1	28	45	4	3B	127	32	105	22	1				WE 3B	
136	SU59395263	CER	N	1			1	1	146	51	113	30	1				1	
137	SU59605270	CER	S	1		25	4	3B	119	24	104	21	2				WE 3B	SEESP SLGLEY25
138	SU59805270	CER	S	2		45	3	3A	98	3	106	23	3A				WD 3A	IMP75 SLGLEY45
139	SU58615254	PGR	N	1		45	3	3A	128	33	108	25	1				WE 3A	SL GLEY 45
140	SU59005250	PGR				43	3	3A	128	33	107	24	1				WE 3A	SL GLEY 43
141	SU59105250	BAR	S	1		55	3	3A	117	22	111	28	2				WE 3A	IMP100 SLGL 55
142	SU59305250	BAR	N	1			1	1	94	-1	101	18	3A				DR 3A	IMP CHALK 70
143	SU59605250	CER			30	30	4	3B	95	0	107	24	3A				WE 3B	
144	SU59805250	CER	S	1			1	1	81	-14	84	1	3A				DR 3A	IMP CHALK 50
145	SU58805244	PGR				45	3	3A	131	36	108	25	1				WE 3A	SL GLEY 45
146	SU58495237	PGR	W	1			1	1	74	-20	74	-9	3A				DR 3A	IMP45 SLGLEY 2
147	SU58805230	PGR	N	2		45	3	3A	108	13	110	27	2				WE 3A	IMP85 SLGLEY 4
148	SU59005230	PGR	N	2	30	65	3	3A	139	44	118	35	1				WE 3A	
149	SU59205230	CER	N	1	45	22	3	3A	96	1	98	15	3A				WD 3A	SLGLEY22 IMP85
150	SU59405230	LEY	N	1	50	50	3	3A	133	38	117	34	1				WE 3A	
151	SU59625232	CER	S	1	40	40	3	3A	128	33	112	29	1				WE 3A	BORDER 3B
152	SU59805230	CER	N	1	85	85	1	1	142	47	118	35	1				1	

SAMPLE NO.	GRID REF	USE	ASPECT		--WETNESS--			-WHEAT-		-POTS-		M.REL	EROSN	FROST	CHEM	ALC	
				GRDNT	GLEY	SPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	LIMIT		COMMENTS
153	SU58455210	PGR	N	2	35	35	4	3B	89	-6	97	14	3A				WE	3B	IMP FLINT 65
154	SU58805210	PGR	S	3	25	25	4	3B	64	-31	64	-19	3B				WE	3B	IMP FLINT 45
155	SU59005210	OSR	S	3			1	1	89	-6	95	12	3A				DR	3A	CH HARD @ 90
156	SU59205210	BRA				40	3	3A	93	-2	103	20	3A				WD	3A	SL GLEY 30
157	SU59405210	PGR			30	30	4	3B	100	7	105	24	2				WE	3B	
158	SU58605190	PGR	S	2			1	1	73	-22	74	-9	3B				DR	3B	IMP CHALK 45
159	SU58805190	CER	S	1			1	1	96	2	104	22	3A				DR	3A	IMP CHDRIFT 65
160	SU59005190	OSR	S	1			1	1	87	-8	92	9	3A				DR	3A	IMP CHALK 35
161	SU59205190	OSR	W	2			1	1	93	-2	99	16	3A				DR	3A	IMP CHALK 40
162	SU59405190	CER	S	1			1	1	93	-2	98	15	3A				DR	3A	IMP CHALK 50
163	SU59005180	OSR					1	1	153	58	116	33	1					1	
164	SU59205180	OSR					1	1	74	-20	75	-8	3A				DR	3A	
165	SU58805170	CER	S	1			1	1	83	-12	89	6	3A				DR	3A	IMP CHALK 65

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	PED GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
1	0-28	mcl	10YR42 43						3	0	HR	12							
	28-50	mcl	10YR54 00						0	0	HR	15		M					
	50-60	mzcl	10YR44 54	10YR56 00	F		00MN00 00		0	0	HR	25		M					IMP FLINTS 60
1P	0-25	mzcl	10YR43 00						2	0	HR	10						Y	+2% CHALK @8.437
	25-42	mzcl	10YR54 00						0	0	CH	15	MDCSAB	FR M				Y	+2%HR IMP 42 HARDCH
2	0-25	hzcl	10YR44 00						3	0	HR	10							SEE 10P
	25-40	c	10YR56 00	75YR56 00	C			S	0	0	HR	25		P		Y			IMP FLINTS 40
2P	0-25	mzcl	10YR43 00						2	0	HR	10						Y	BORING 110
	25-42	ch	10YR81 54						0	0	HR	2		P				Y	42+ NO ROOTS SEEN
3	0-28	mzcl	10YR43 00						3	0	HR	10							SEE 10P
	28-40	mzcl	10YR44 54						0	0	HR	25		M					IMP FLINTS 40
3P	0-28	mzcl	10YR43 00						1	0	HR	5							NR BORING 90
	28-45	mzcl	10YR53 00	00MN00 00	F				0	0	HR	5	MDCSAB	FR M					BDY VARIABLE 42-47
	45-65	hzcl	10YR54 00				75YR54 00		0	0	HR	10	MDCSAB	FR M					TEND AB BORDER C
	65-120	c	10YR56 00	00MN00 00	C		10YR54 00		0	0	HR	15	MDCSAB	FM M					TENDING WKCSAB
4	0-33	mcl	10YR43 00						2	0	HR	10							SEE 11P
	33-50	mzcl	10YR44 54						0	0	HR	15		M					
	50-75	mzcl	10YR44 00						0	0	HR	25		M				Y	IMP FLINTS 75
4P	0-30	mzcl	10YR53 00						2	0	HR	8							BORING 156
	30-41	hzcl	10YR54 00	75YR56 00	C		10YR53 00	S	0	0	HR	2	MDCSAB	FR M					
	41-120	c	10YR64 56	25YR56 00	M		10YR53 00	Y	0	0	HR	10	WKCSAB	FM P		Y			+COM MN TENDING AB
5	0-28	mzcl	10YR53 63						3	0	HR	10						Y	+20% CHALK
	28-58	ch	10YR81 00						0	0	HR	3		P				Y	INC 5% SOIL
5P	0-24	mzcl	10YR43 00						3	0	HR	8							BORING 138
	24-36	hzcl	10YR44 00	10YR56 00	C		10YR54 00	S	0	0	HR	10	MDCSAB	FR M					
	36-57	c	10YR54 00	10YR56 00	C		10YR54 00	S	0	0	HR	10	MDCAB	FM M	Y		Y		
	57-70	c	75YR54 00	75YR56 00	C		00MN00 00	S	0	0	CH	50		M		Y	Y		IMPCH 70 NO ROOTS
6	0-25	mzcl	10YR43 00						2	0	HR	10						Y	
	25-35	mzcl	10YR54 00						0	0	CH	70		P				Y	
	35-65	ch	10YR81 00						0	0	HR	3		P				Y	
6P	0-27	mzcl	10YR43 00						0	0	HR	5						Y	NR BORING 161
	27-63	ch	10YR81 00						0	0	HR	3		M				Y	ROOTS VIS TO 63
7	0-30	mzcl	10YR44 00						4	0	HR	10						Y	
	30-60	ch	10YR81 00						0	0	HR	3		P				Y	
7P	0-28	mcl	10YR43 00						2	0	HR	5							BORING 147
	28-42	hcl	10YR44 54	75YR58 00	F				0	0	HR	10	MDCSAB	FM M					
	42-70	c	75YR46 00	75YR56 00	C		00MN00 00	S	0	0	HR	10	WKCOAB	FM P	Y		Y		
	70-120	c	10YR53 00	05YR46 00	C		00MN00 00	Y	0	0	HR	15	WKCOAB	FM P	Y		Y		

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
8	0-30	mcl	10YR33 00						3	0	HR	10							SEE 10P
	30-50	c	75YR54 56	75YR58 00	C			S	5	0	HR	15		M		Y			IMP FLINTS 50
8P	0-30	mzcl	10YR44 00						3	0	HR	10						Y	NR BORING 104
	30-45	mzcl	10YR44 00						0	0	HR	15	WKCSAB	FR M				Y	
	45-74	mzcl	10YR74 81						0	0	CH	50		FR P				Y	CH DRIFT +15%FLINTS
	74-83	ch	10YR81 00						0	0	HR	3		P				Y	PIT 85 ROOTS TO 83
9	0-30	mcl	10YR33 00						3	0	HR	10							
	30-50	c	75YR43 00	75YR56 00	C			S	5	0	HR	15		M		Y			IMP FLINT 50
9P	0-29	mzcl	10YR53 53						3	0	HR	10						Y	NR 29 +20% CHALK
	29-70	ch	10YR81 74						0	0	HR	3		P				Y	ROOTS VISIBLE TO 70
10	0-25	mzcl	10YR43 00						8	0	HR	10						Y	
	25-60	mzcl	10YR74 00						0	0	CH	50		P				Y	
	60-80	ch	10YR81 00						1	0	HR	3		P				Y	
10P	0-26	mcl	10YR43 00						2	0	HR	8							BORING 9
	26-34	c	75YR54 00	75YR58 00	F	00MN00 00			0	0	HR	30	MDCAB	FM M					
	34-80	c	75YR54 00	75YR58 00	C	00MN00 00	S		0	0	HR	20	MDCAB	FM P	Y		Y		SL GLEYED IMP 80
11	0-30	mzcl	10YR44 00						3	0	HR	11						Y	
	30-50	mzcl	10YR74 00						0	0	CH	60		P				Y	
	50-80	ch	10YR81 00						0	0	HR	3		P				Y	
11P	0-29	mzcl	10YR43 00						1	0	HR	5							BORING 40
	29-54	mzcl	10YR44 54						0	0	HR	10	MDCSAB	FR M				Y	
	54-81	mzcl	10YR44 54						0	0	HR	18	MDCSAB	FR M				Y	ROOTS VISIBLE TO 81
12	0-30	mzcl	10YR43 00						2	0	HR	8						Y	
	30-60	ch	10YR81 74						0	0	HR	3		P				Y	INC. 10% SOIL
12P	0-27	mzcl	10YR43 00						1	0	HR	5						Y	AT 50 +10% CHALK
	27-44	mzcl	75YR54 00						0	0	CH	15	MDCSAB	FR M				Y	
	44-78	ch	10YR81 00						0	0	HR	3		P				Y	ROOTS VISIBLE TO 78
13	0-25	mzcl	10YR53 00						0	0	CH	15						Y	
	25-55	ch	10YR81 00						0	0	HR	3		P				Y	IMP CHALK 40
13P	0-29	mzcl	10YR43 53						2	0	HR	10						Y	AT 30 +5% CHALK
	29-58	ch	10YR81 74						0	0	HR	3		P				Y	ROOTS VISIBLE TO 58
14	0-30	mzcl	10YR43 00						3	0	HR	10						Y	SEE 14P
	30-45	mzcl	10YR64 00						0	0	CH	50		P				Y	
	45-65	ch	10YR81 00						0	0	HR	3		P				Y	IMP 70 CHALK
14P	0-29	mzcl	10YR43 00						2	0	HR	8						Y	NR BORING 32
	29-48	mzcl	10YR64 81						0	0	CH	60		FR P				Y	CHALKY DRIFT
	48-62	ch	10YR81 74						0	0	HR	3		P				Y	ROOTS VISIBLE TO 62

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	PED GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	IMP	SPL	CALC	
15	0-28	mzcl	10YR43 00						3	0	HR	10					Y		
	28-58	ch	10YR81 74						0	0	HR	3		P			Y		5% SOIL
15P	0-27	mzcl	10YR42 43						2	0	HR	5							NR BORING 53
	27-38	mzcl	10YR44 00	10					0	0	HR	5	MDCSAB	FM	M				
	38-54	mzcl	10YR44 54	00MN00	00	F			0	0	HR	8	MDCSAB	FR	M				
	54-115	mzcl	10YR54 00	10YR56 00	C		00MN00	00 S	0	0	HR	15	MDCSAB	FR	M				ROOTS VIS. TO 115
16	0-30	mzcl	10YR43 00						1	0	HR	8					Y		+5% CHALK SEE 14P
	30-65	mzcl	10YR74 81						0	0	CH	60		P			Y		ROOTS PROB TO 65
	65-75	ch	10YR81 74						0	0	HR	3		P			Y		IMP CHALK 75
16P	0-29	mzcl	10YR43 00						2	0	HR	8							NR BORING 62
	29-41	mzcl	10YR44 54	10YR56 00	F		00MN00	00	0	0	HR	10	MDCSAB	FM	M				
	41-59	mzcl	10YR44 54	10YR56 00	C		00MN00	00 S	0	0	HR	10	MDCSAB	FR	M				
	59-75	hzcl	75YR54 00	75YR56 00	C		00MN00	00 S	0	0	HR	5	MDCSAB	VF	M				
	75-80	ch	10YR81 00						0	0	HR	3		P			Y		ROOTS IN CH 5cm MAX
17	0-20	mzcl	10YR43 00						0	0	HR	10							SEE 10P/15P
	20-40	hzcl	75YR43 00	75YR56 00	C			S	0	0	HR	15		M					IMP FLINTS 40
18	0-30	mzcl	10YR44 00						0	0	HR	8							
	30-40	mzcl	10YR74 00						0	0	CH	60		P			Y		CHALKY DRIFT
	40-70	ch	10YR81 00						0	0	HR	3		P			Y		IMP CHALK 70
19	0-30	mzcl	10YR43 53						0	0	HR	10					Y		+10% CHALK SEE 14P
	30-45	mzcl	10YR44 54						0	0	CH	20		M			Y		
	45-75	ch	10YR81 74						0	0	HR	3		P			Y		HARD CHALK
20	0-30	mzcl	10YR44 00						2	0	HR	10					Y		
	30-60	ch	10YR81 00						0	0	HR	3		P			Y		
21	0-35	mzcl	10YR44 00						2	0	HR	8							
	35-60	mzcl	10YR54 00						0	0		0		M					
	60-80	hzcl	10YR54 00						0	0	HR	15		M					
	80-90	ch	10YR81 00						0	0	HR	3		P			Y		IMP CHALK 90
22	0-30	hzcl	10YR44 00						3	0	HR	10							
	30-65	c	75YR54 00	75YR56 00	C			S	7	0	HR	10		P		Y			
	65-75	ch	10YR81 00						0	0	HR	3		P			Y		IMP CHALK 75
23	0-30	hzcl	10YR43 44						1	0	HR	5							+5% CHALK
	30-40	mzcl	10YR44 71	75YR68 00	F				0	0	HR	5		M					+10% CHALK
	40-80	hzcl	10YR54 81	05YR58 00	F		00MN00	00	0	0	CH	30		M					
	80-100	hzcl	10YR54 81	00MN00	00	F			0	0	CH	50		M					
	100-120	ch	10YR81 74						0	0	HR	3		P			Y		PROB NO ROOTS IN CH
24	0-25	mzcl	10YR43 00						8	0	HR	12							
	25-35	c	75YR56 46						0	0	CH	10		M					+5% FLINTS
	35-65	ch	10YR81 00						0	0	HR	3		P			Y		IMP CHALK 70

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC	
25	0-30	mzcl	10YR43 00						3	0	HR	8						Y	
	30-55	mzcl	10YR54 00						0	0	CH	50		P				Y	IMP FLINTS 55
26	0-33	mzcl	10YR43 00						2	0	HR	10						Y	
	33-63	ch	10YR81 74						0	0	HR	3		P				Y	SOFT CHALK-70+
27	0-28	mzcl	10YR43 00						2	0	HR	10						Y	+10% CHALK
	28-58	ch	10YR81 74						0	0	HR	3		P				Y	HARD CHALK
28	0-28	mzcl	10YR43 53						2	0	HR	10						Y	SEE 14P
	28-60	mzcl	10YR74 81						0	0	CH	50		P				Y	
	60-65	ch	10YR81 00						0	0	HR	3		P				Y	PROB NO ROOTS IMP65
29	0-30	mzcl	10YR53 63						0	0	CH	25						Y	+5% FLINTS
	30-60	ch	10YR81 00						0	0	HR	3		P				Y	5% SOIL
30	0-30	mzcl	10YR44 00						3	0	HR	10						Y	
	30-60	ch	10YR81 00						0	0	HR	3		P				Y	
31	0-30	mzcl	10YR44 00						3	0	HR	8							SEE 15P (?)
	30-40	hzcl	75YR44 00						0	0	HR	10		M					IMP FLINTS 40
32	0-30	mzcl	10YR44 00						3	0	HR	10						Y	SEE 14P
	30-50	mzcl	10YR74 00						0	0	CH	50		P				Y	
	50-86	ch	10YR81 00						0	0	HR	3		P				Y	IMP CH 80 ROOTS 80
33	0-25	mzcl	10YR43 00						0	0	CH	20						Y	+5% FLINTS
	25-55	ch	10YR81 74						0	0	HR	3		P				Y	
34	0-28	mzcl	10YR43 00						0	0	CH	15						Y	SEE 14P
	28-45	mzcl	10YR81 00						0	0	CH	70		P				Y	
	45-58	ch	10YR81 00						0	0	HR	3		P				Y	IMP 70 ROOTS TO 58
35	0-30	mzcl	10YR43 00						3	0	HR	8						Y	SEE 14P
	30-40	mzcl	10YR54 00						0	0	CH	70		P				Y	
	40-60	ch	10YR81 00						0	0	HR	3		P				Y	IMP 70 ROOTS TO 60
36	0-25	mzcl	10YR44 00						4	0	HR	10						Y	SEE 14P
	25-40	mzcl	10YR74 00						0	0	CH	60		P				Y	
	40-55	ch	10YR81 00						0	0	HR	3		P				Y	IMP 70 ROOTS TO 55
37	0-30	mzcl	10YR44 00						8	0	HR	12						Y	
	30-45	mzcl	10YR74 00						0	0	CH	50		P				Y	
	45-60	ch	10YR81 00						0	0	HR	3		P				Y	IMP 75 ROOTS TO 60
38	0-30	mzcl	10YR44 00						6	0	HR	8						Y	SEE 14P
	30-45	mzcl	10YR74 00						0	0	CH	60		P				Y	
	45-60	ch	10YR81 00						0	0	HR	3		P				Y	IMP 75 ROOTS TO 60

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	PED GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
39	0-28	mzcl	10YR53 63						0	0	CH	15					Y		+8% FLINTS
	28-58	ch	10YR81 00						0	0	HR	3		P			Y		
40	0-30	mzcl	10YR44 00						3	0	HR	8							
	30-50	mzcl	75YR44 00						0	0	HR	15		M					IMP FLINTS 50
41	0-30	mzcl	10YR44 00						2	0	HR	8					Y		
	30-60	ch	10YR81 00						0	0	HR	3		P			Y		
42	0-30	mzcl	10YR43 00						2	0	HR	10							
	30-40	hzcl	10YR44 54						0	0	HR	5		M			Y		
	40-50	mzcl	10YR81 74						0	0	CH	50		P			Y		
	50-70	ch	10YR81 00						0	0	HR	3		P			Y		IMP 80 ROOTS TO 70
43	0-35	mzcl	10YR44 00						0	0	HR	10					Y		
	35-40	mzcl	10YR74 81						0	0	CH	50		P			Y		CHALKY DRIFT
	40-65	ch	10YR81 00						0	0	HR	3		P			Y		
44	0-25	mzcl	75YR44 00						6	0	HR	10					Y		SEE 16P
	25-80	mzcl	10YR74 81						0	0	CH	70		P			Y		CHALKY DRIFT
	80-90	ch	10YR81 00						0	0	HR	3		P			Y		PROB NO ROOTS
45	0-30	mzcl	10YR44 00						3	0	HR	10							SEE 5P
	30-50	hzcl	10YR43 00	10YR56 00	F				4	0	HR	10		M					
	50-80	c	75YR43 00	75YR56 00	C		00MN00 00	S	0	0		0		M		Y			
	80-90	ch	10YR81 00						0	0	HR	3		P			Y		IMP90 PROB ROOTS 80
46	0-30	mzcl	10YR44 00						2	0	HR	10							SEE 8P
	30-40	hzcl	10YR43 00						0	0	HR	10		M					
	40-80	mzcl	10YR74 81						0	0	CH	70		P			Y		CHALKY DRIFT
	80-90	ch	10YR81 00						0	0	HR	3		P			Y		IMP90 PROB ROOTS 80
47	0-30	mzcl	10YR44 00						6	0	HR	8					Y		
	30-40	hzcl	10YR43 00						8	0	HR	10		M			Y		
	40-70	ch	10YR81 00						0	0	HR	3		P			Y		
48	0-33	mzcl	10YR53 63						0	0	CH	15					Y		+5% FLINTS
	33-63	ch	10YR81 00						0	0	HR	3		P			Y		
49	0-28	mzcl	10YR43 00						1	0	HR	5					Y		+5% CHALK
	28-58	ch	10YR81 00						0	0	HR	3		P			Y		
50	0-28	mzcl	10YR43 00						0	0	HR	5					Y		+3% CHALK SEE 12P
	28-45	mzcl	75YR54 00						0	0	CH	15		M			Y		
	45-75	ch	10YR81 00						0	0	HR	3		P			Y		
51	0-26	mzcl	10YR43 00						0	0	HR	5							
	26-35	hzcl	10YR44 54						0	0	HR	5		M					
	35-42	hzcl	10YR64 81						0	0	CH	20		M			Y		+5% FLINTS
	42-72	ch	10YR81 00						0	0	HR	3		P			Y		IMP CHALK 60

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	PED GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
52	0-26	hzcl	10YR43 00						1	0	HR	5							SEE 5P
	26-75	c	75YR54 00	75YR56	58	C	00MN00	00 S	0	0	HR	10		P		Y			
	75-90	ch	10YR81 74						0	0	HR	3		P			Y		IMP90 PROB ROOTS 75
53	0-26	mzcl	10YR43 00						5	0	HR	10							
	26-38	mzcl	10YR44 54						0	0	HR	10		M					
	38-55	mcl	10YR44 54	75YR58	00	C		S	0	0	HR	25		M					IMP FLINTS 55
54	0-26	mzcl	10YR43 00						0	0	HR	5							SEE 8P
	26-40	hzcl	10YR44 54						0	0	HR	10		M					
	40-55	mzcl	10YR44 81						0	0	CH	20		M			Y		+5% FLINTS
	55-90	mzcl	10YR74 81						0	0	CH	50		P			Y		IMP 90 CHALKY DRIFT
55	0-26	mzcl	10YR43 00						5	0	HR	12							SEE 8P
	26-38	hzcl	10YR44 54						0	0	HR	10		M			Y		
	38-80	hzcl	10YR54 81						0	0	CH	40		M			Y		+10% FLINTS
	80-90	ch	10YR81 00						0	0	HR	3		P			Y		IMP90 PROB ROOTS 80
56	0-30	mzcl	10YR42 43						2	0	HR	10					Y		+10% CHALK
	30-60	ch	10YR81 00						0	0	HR	3		P			Y		
57	0-28	mzcl	10YR43 00						2	0	HR	8					Y		+5% CHALK
	28-38	mzcl	10YR44 54						0	0	CH	10		M			Y		
	38-68	ch	10YR81 74						0	0	HR	3		P			Y		5% SOIL
58	0-35	mzcl	10YR43 53						1	0	HR	5					Y		
	35-65	ch	10YR81 00						0	0	HR	3		P			Y		HARD DRY CHALK
59	0-33	mzcl	10YR53 00						0	0	CH	15					Y		+5% FLINTS
	33-63	ch	10YR81 00						0	0	HR	3		P			Y		IMP FLINT 60
60	0-30	mzcl	10YR43 00						3	0	HR	8					Y		
	30-60	ch	10YR81 00						0	0	HR	3		P			Y		IMPCH 35 ROOTS 60
61	0-28	mzcl	10YR43 00						12	0	HR	18					Y		
	28-58	ch	10YR81 00						0	0	HR	3		P			Y		IMPCH 30 ROOTS 58
62	0-25	mzcl	10YR43 00						2	0	HR	5					Y		
	25-70	hzcl	75YR56 00	00MN00	00	F			0	0	HR	5		M					IMP FLINTS 70
63	0-30	mzcl	10YR43 00						3	0	HR	8							
	30-65	mzcl	10YR54 00	00MN00	00	F			0	0	HR	10		M					
	65-75	c	75YR56 00	00MN00	00	C			0	0	HR	5		M					IMP FLINTS 75
64	0-30	mzcl	10YR43 00						8	0	HR	15							
	30-50	mzcl	10YR54 00						0	0	CH	35		M			Y		+5% FLINTS IMP 50
65	0-25	mzcl	10YR43 00						0	0	HR	5					Y		+10% CHALK SEE 14P
	25-40	mzcl	10YR74 81						0	0	CH	50		P			Y		+10% FLINTS CHDRIFT
	40-55	ch	10YR81 74						0	0	HR	3		P			Y		IMP 70 ROOTS TO 55

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
66	0-35	mzcl	10YR44 00						0	0	HR	10					Y		
	35-75	mzcl	10YR74 81						0	0	CH	50		P			Y		CHALKY DRIFT
	75-85	ch	10YR81 00						0	0	HR	3		P			Y		IMP85 PROB ROOTS 75
67	0-28	mzcl	10YR42 00						2	0	HR	8					Y		+10% CHALK
	28-40	mzcl	10YR44 54						0	0	HR	10		M			Y		+10% CHALK
	40-70	ch	10YR81 74						0	0	HR	3		P			Y		10% SOIL
68	0-25	mzcl	10YR43 00						3	0	HR	8							
	25-40	mzcl	10YR44 00						0	0	HR	8		M			Y		+2% CHALK
	40-68	mzcl	10YR54 64						0	0	CH	20		M			Y		+5% FLINTS IMP CH
69	0-25	mzcl	10YR43 00						8	0	HR	15					Y		+2% CHALK
	25-40	mzcl	10YR44 00						0	0	HR	10		M			Y		+5% CHALK
	40-50	mzcl	10YR54 00						0	0	CH	20		M			Y		+10% FLINTS
	50-60	mzcl	10YR64 00						0	0	CH	35		M			Y		+5% FLINTS IMP 60
70	0-30	mzcl	10YR44 00						8	0	HR	15							
	30-85	mzcl	10YR54 00						0	0	HR	20		M					CHALK @ 85
71	0-30	mzcl	10YR44 00						11	0	HR	15					Y		+5% CHALK
	30-60	ch	10YR81 00						0	0	HR	3		P			Y		IMPCH 35 ROOTS 60
72	0-30	mzcl	10YR44 54						8	0	HR	15					Y		+5% CHALK
	30-60	ch	10YR81 54						0	0	HR	5		P			Y		IMP CH ROOTS 60
73	0-30	mzcl	10YR43 00						4	1	HR	15					Y		
	30-60	ch	10YR54 81						0	0	HR	3		P			Y		10% SOIL IMP CH 40
74	0-30	mzcl	10YR43 00						4	1	HR	10					Y		
	30-40	mzcl	10YR54 00						0	0	HR	2		M			Y		IMP CHALK 40
75	0-30	mzcl	10YR43 00						4	1	HR	10					Y		
	30-40	mzcl	10YR54 00						0	0	HR	2		M			Y		
	40-70	ch	10YR81 54						0	0	HR	3		P			Y		IMP 45 10% SOIL
76	0-30	mzcl	10YR43 00						2	0	HR	10					Y		+10% CHALK
	30-60	ch	10YR81 74						0	0	HR	3		P			Y		IMPCH 50 ROOTS 60
77	0-30	mzcl	10YR43 00						3	0	HR	5					Y		
	30-60	ch	10YR81 00						0	0	HR	3		P			Y		
78	0-33	mzcl	10YR42 00						0	0	CH	10					Y		
	33-63	ch	10YR81 00						0	0	HR	3		P			Y		
79	0-28	mzcl	10YR43 00						1	0	HR	5							
	28-50	hzcl	10YR44 54						0	0	HR	5		M					
	50-70	hzcl	10YR44 54	10YR56 00	F				0	0	HR	10		M					
	70-95	zc	10YR44 00	10YR56 00	C			S	0	0	HR	10		P		Y			
	95-100	mzcl	10YR64 81						0	0	CH	50		P			Y		+10% FLINTS IMP 100

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	PED GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
80	0-25	mzcl	10YR43 00						2	0	HR	5							
	25-45	mzcl	10YR44 54						0	0	HR	15		M					
	45-65	mzcl	10YR44 54						0	0	HR	5		M					
	65-100	c	10YR44 00	10YR56 00	C		00MN00 00	S	0	0	HR	10		P		Y			
	100-120	hzcl	10YR54 00	10YR56 00	C			S	0	0	HR	10		M					
81	0-27	mzcl	10YR43 00						3	0	HR	8					Y		SEE 14P
	27-45	mzcl	10YR74 81						0	0	CH	40		M			Y		CHALKY DRIFT
	45-57	ch	10YR81 00						0	0	HR	3		P			Y		IMP CHALK 60
82	0-25	mzcl	10YR43 44						2	0	HR	10					Y		SEE 8P
	25-38	c	75YR54 56						0	0	HR	5		M			Y		
	38-60	mzcl	10YR74 81						0	0	CH	30		M			Y		CHALKY DRIFT
	60-70	ch	10YR81 74						0	0	HR	3		P			Y		10% SOIL
83	0-25	mzcl	10YR43 00						4	1	HR	10							SEE 16P
	25-50	mzcl	10YR54 00						0	0		0		M					
	50-65	hzcl	10YR53 00	75YR56 00	C			Y	0	0		0		M					
	65-70	ch	10YR81 74						0	0	HR	3		P			Y		IMPCH 65 ROOTS 70
84	0-25	mzcl	10YR43 00						4	1	HR	10					Y		
	25-30	mzcl	10YR53 00						0	0	HR	5		M			Y		
	30-60	ch	10YR52 81						0	0	HR	3		P			Y		INC 10% SOIL
85	0-30	mzcl	10YR43 00						4	1	HR	10					Y		
	30-50	hzcl	10YR54 00						0	0	HR	2		M			Y		
	50-60	ch	10YR81 00						0	0	HR	3		P			Y		IMP CHALK 60
86	0-28	mzcl	10YR43 00						2	0	HR	8							SEE 5P
	28-60	c	10YR44 54	10YR56 00	C		00MN00 00	S	0	0	HR	5		P		Y			
	60-65	ch	10YR81 00						0	0	HR	3		P			Y		IMPCH 65 ROOTS 60
87	0-30	mzcl	10YR43 00						3	0	HR	5					Y		
	30-60	ch	10YR81 00						0	0	HR	3		P			Y		
88	0-30	mzcl	10YR43 00						2	0	HR	5					Y		
	30-60	ch	10YR81 00						0	0	HR	3		P			Y		
89	0-30	mzcl	10YR43 00						3	0	HR	5							RIDDLED
	30-50	mzcl	10YR44 00						0	0	HR	8		M					
	50-80	hzcl	10YR46 00						0	0	HR	8		M					
	80-90	mzcl	10YR54 00						0	0	CH	25		M			Y		+5% HR IMP 90
90	0-25	mzcl	10YR43 00						2	0	HR	10							SEE 3P
	25-40	mzcl	10YR44 54						0	0	HR	10		M					
	40-80	hzcl	10YR54 56						0	0	HR	15		M					
	80-100	c	10YR54 56	00MN00 00	C				0	0	HR	5		M					IMP FLINTS 100

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	PED GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
91	0-30	mzcl	10YR43 00						3	0	HR	10							
	30-55	c	10YR44 54	10YR56 00	C			S	0	0	HR	15		P			Y		
	55-75	mzcl	10YR64 81						0	0	CH	20		M				Y	
	75-85	mzcl	10YR74 81						0	0	CH	50		P				Y	IMP CHALKY DRIFT 85
92	0-30	mzcl	10YR43 00						3	0	HR	10						Y	
	30-50	mzcl	10YR54 81						0	0	CH	30		M				Y	+5% FLINTS
	50-60	mzcl	10YR74 81						0	0	CH	60		P				Y	+5% FLINTS IMP 60
93	0-33	mzcl	10YR43 44						3	0	HR	10						Y	
	33-63	ch	10YR81 74						0	0	HR	3		P				Y	IMP CH 50 10% SOIL
94	0-28	mzcl	10YR43 00						3	0	HR	10						Y	SEE 12P
	28-45	mzcl	75YR44 54						0	0	HR	10		M				Y	
	45-75	ch	10YR81 74						0	0	HR	3		P				Y	IMP CHALK 60
95	0-30	mzcl	10YR43 00						3	0	HR	10							
	30-45	mzcl	10YR44 54						0	0	HR	10		M					
	45-55	mzcl	10YR54 81						0	0	CH	30		M				Y	+10% HR CHALKY DRFT
	55-75	ch	10YR81 64						0	0	HR	3		P				Y	10% SOIL IMPCH 75
96	0-30	mzcl	10YR43 00						3	0	HR	10							SEE 14P
	30-55	mzcl	10YR53 54	10YR58 00	C		00MN00 00	Y	0	0	HR	10		M					
	55-80	hzcl	10YR53 63	10YR58 00	M		00MN00 00	Y	0	0	HR	15		M					
	80-85	hzcl	10YR53 63	10YR58 00	M		00MN00 00	Y	0	0	HR	25		M					IMP FLINTS 85
97	0-30	mzcl	10YR43 00						2	0	HR	10						Y	
	30-35	mzcl	10YR64 81						0	0	CH	40		M				Y	
	35-55	ch	10YR81 74						0	0	HR	3		P				Y	10% SOIL
	55-65	ch	10YR81 00						0	0	HR	3		P				Y	IMP CHALK 70
98	0-30	mzcl	10YR43 00						3	0	HR	5						Y	+5% CHALK
	30-60	ch	10YR81 00						0	0	HR	3		P				Y	
99	0-30	mzcl	10YR43 00						3	0	HR	5						Y	
	30-40	mzcl	10YR54 64						0	0	CH	25		M				Y	+2% FLINTS
	40-70	ch	10YR81 00						0	0	HR	3		P				Y	
100	0-30	mzcl	10YR43 00						0	0	HR	1							
	30-45	mzcl	10YR44 00						0	0	HR	10		M					IMP FLINTS 45
101	0-26	mzcl	10YR43 00						2	0	HR	10							SEE 5P
	26-45	mzcl	10YR44 54						0	0	HR	10		M					
	45-75	c	10YR44 54	10YR56 00	C		00MN00 00	S	0	0	HR	20		P			Y		
	75-80	ch	10YR81 00						0	0	HR	3		P				Y	IMPCH 80 ROOTS 75
102	0-30	mzcl	10YR43 00						3	0	HR	12						Y	
	30-60	mzcl	10YR74 81						0	0	CH	60		P				Y	IMP CH DRIFT 50

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC	
103	0-32	mzcl	10YR43 00						5	0	HR	15						Y	+10% CHALK
	32-62	ch	10YR81 74						0	0	HR	3		P				Y	IMP 60 5% SOIL
104	0-28	mzcl	10YR43 00						5	0	HR	15							
	28-35	hzcl	75YR44 54						0	0	HR	15		M				Y	
	35-65	mzcl	10YR74 81						0	0	CH	65		P				Y	IMP CHALKY DRIFT 50
105	0-28	mzcl	10YR43 00						5	0	HR	15							
	28-50	mzcl	75YR44 54						0	0	HR	20		M					
	50-65	hzcl	75YR44 54						0	0	HR	5		M					
	65-95	mzcl	10YR74 81						0	0	CH	50		P				Y	IMP CH DRIFT 95
106	0-25	mzcl	10YR43 00						3	0	HR	10							
	25-40	mzcl	10YR54 00						0	0	HR	10		M					
	40-50	mzcl	10YR54 00						0	0	HR	15		M					
	50-65	mzcl	10YR54 00						0	0	HR	10		M					
	65-120	hzcl	10YR56 54	00MN00	00	F			0	0	HR	10		M					
107	0-30	mzcl	10YR43 00						6	0	HR	10						Y	
	30-45	mzcl	10YR63 00						0	0	CH	30		M				Y	+5% HR IMP 45 CH/HR
108	0-28	mzcl	10YR43 00						1	0	HR	3						Y	
	28-40	mzcl	10YR54 00						0	0	CH	12		M				Y	
	40-70	ch	10YR81 00						0	0	HR	2		P				Y	IMPCH 50 ROOTS 70
109	0-30	mzcl	10YR43 00						1	0	HR	3						Y	
	30-60	mzcl	10YR44 00						0	0	HR	5		M				Y	+3% CHALK
	60-75	ch	10YR81 00						0	0	HR	3		P				Y	MAX ROOTS 75 IMP 90
110	0-28	mzcl	10YR43 00						1	0	HR	3						Y	
	28-40	mzcl	10YR54 00						0	0	CH	12		M				Y	
	40-70	ch	10YR81 00						0	0	HR	3		P				Y	IMP CHALK 70
111	0-25	mzcl	10YR43 00						8	3	HR	20							
	25-50	mzcl	10YR44 00						0	0	HR	20		M					IMP FLINTS 50
112	0-28	mzcl	10YR43 00						5	0	HR	15						Y	
	28-40	mzcl	10YR44 00						0	0	CH	25		M				Y	+5% FLINTS
	40-65	mzcl	10YR64 81						0	0	CH	40		M				Y	+5% HR IMPCHDRIFT65
113	0-28	mzcl	10YR43 00						3	0	HR	10							SEE 16P
	28-70	mzcl	10YR44 00	00MN00	00	F			0	0	HR	10		M					
	70-75	hzcl	10YR44 54						0	0	HR	25		M					
	75-80	ch	10YR81 64						0	0	HR	3		P				Y	IMPCH 100 10% SOIL
114	0-27	mzcl	10YR43 00						3	0	HR	10							SEE 5P
	27-35	hzcl	75YR44 54	00MN00	00	F			0	0	HR	15		M					
	35-65	c	75YR44 54	75YR56 00	C		00MN00 00 S		0	0	HR	15		P		Y			
	65-80	hzcl	10YR54 81	00MN00	00	F			0	0	HR	15		P				Y	+20%CH IMPFLINT 80

AMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC	
115	0-25	mzcl	10YR43 00						6	0	HR	10							
	25-50	c	75YR46 00	00MN00 00	C				0	0	HR	20		M					IMP FLINTS 50
116	0-25	mzcl	10YR43 00						3	0	HR	8							
	25-55	mzcl	10YR54 00						0	0	HR	5		M					
	55-90	mzcl	10YR56 00						0	0	HR	5		M					
	90-120	mzcl	10YR56 00	10YR68 00	C		00MN00 00	S	0	0	HR	5		M					
117	0-25	mzcl	10YR43 00						3	0	HR	8						Y	
	25-35	zc	75YR46 00						0	0	HR	8		M				Y	
	35-45	hzcl	10YR64 00						0	0	CH	15		M				Y	
	45-55	ch	10YR81 00						0	0	HR	3		P				Y	IMP CHALK 55
118	0-30	mzcl	10YR43 00						7	4	HR	15						Y	
	30-50	mzcl	10YR44 00						0	0	CH	20		M				Y	
	50-80	ch	10YR81 00						0	0	HR	3		P				Y	IMP CHALK 80
119	0-25	mzcl	10YR43 00						1	0	HR	5							
	25-60	mzcl	10YR44 00						0	0	HR	5		M					
	60-85	mzcl	10YR54 00						0	0	HR	2		M					IMP FLINTS 85
120	0-25	mzcl	10YR43 00						3	0	HR	5							
	25-35	mzcl	10YR44 00				00MN00 00		0	0	HR	10		M					
	35-50	hzcl	10YR46 00				00MN00 00		0	0	HR	30		M					IMP FLINTS 50
121	0-28	mzcl	10YR42 00						3	0	HR	10							
	28-70	mzcl	10YR44 54	00MN00 00	F				0	0	HR	10		M					IMP FLINT 70
122	0-28	mzcl	10YR43 00						2	0	HR	8							
	28-50	hzcl	10YR44 54	10YR58 00	C			S	0	0	HR	10		M					
	50-120	c	75YR54 00	75YR56 00	C		00MN00 00	S	0	0	HR	10		P		Y			
123	0-25	mzcl	10YR43 00						3	0	HR	10							SEE 15P
	25-55	hzcl	10YR44 54	10YR56 00	C		00MN00 00	S	0	0	HR	5		M					
	55-100	hzcl	75YR44 54	75YR58 00	C		00MN00 00	S	0	0	HR	5		M					
	100-110	ch	10YR81 74						0	0	HR	3		P				Y	IMP 110 ROOTS 100
124	0-25	mzcl	10YR43 00						4	0	HR	10							
	25-80	zc	05YR58 00	10YR68 53	C		00MN00 00	S	0	0	HR	10		P		Y			
	80-120	zc	05YR58 00	10YR53 68	C		00MN00 00	S	0	0	HR	15		P		Y			
125	0-30	mzcl	10YR43 00						8	2	HR	15							
	30-40	mzcl	10YR44 00						0	0	HR	20		M					IMP FLINTS 40
126	0-30	mzcl	10YR43 00						2	0	HR	10							
	30-50	hzcl	10YR44 00						0	0	HR	5		M					
	50-80	hzcl	10YR54 00				00MN00 00		0	0	HR	2		M					
	80-120	mzcl	10YR64 00				00MN00 00		0	0	HR	2		M					

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	PED GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
127	0-30	mzcl	10YR43 00						1	0	HR	5							
	30-55	c	75YR56 46				00MN00 00	S	0	0	HR	20		P		Y			IMP FLINTS 55
128	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 3P
	25-45	mzcl	10YR44 54						0	0	HR	5		M					
	45-60	hzcl	10YR44 54	75YR58 00	F		00MN00 00		0	0	HR	20		M					
	60-95	c	75YR54 56	00MN00 00	C				0	0	HR	15		M					IMP FLINT 95
129	0-28	mzcl	10YR42 43						2	0	HR	8							
	28-45	hzcl	10YR44 54						0	0	HR	10		M					
	45-65	c	75YR44 54	00MN00 00	C				0	0	HR	15		M					
	65-70	c	75YR44 54	00MN00 00	C				0	0	HR	25		M					IMP FLINTS 70
130	0-33	mzcl	10YR43 00						3	0	HR	12					Y		
	33-63	ch	10YR81 64						0	0	HR	3		P			Y		IMP 80 15% SOIL
131	0-28	mzcl	10YR43 44						2	0	HR	8							SEE 5P
	28-50	c	75YR54 56	00MN00 00	F				0	0	HR	5		M					
	50-80	c	05YR56 58	75YR66 00	C		00MN00 00	S	0	0	HR	5		P		Y			
	80-100	c	05YR56 00	75YR66 00	C		00MN00 00	S	0	0	HR	10		P		Y			
	100-105	ch	10YR81 74						0	0	HR	3		P			Y		ROOTS 100 IMP 105
132	0-28	mzcl	10YR43 00						2	0	HR	4							
	28-65	c	75YR46 56				00MN00 00	S	0	0	HR	2		P		Y			IMP FLINTS 65
133	0-28	mzcl	10YR43 00						0	0	HR	5							SEE 4P/10P
	28-70	c	05YR58 00	75YR56 00	C		00MN00 00	S	0	0	HR	15		P		Y			
	70-80	c	75YR58 00	05YR58 00	C		00MN00 00	S	0	0	HR	20		P		Y			IMP FLINTS 80
134	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 4P
	25-70	mzcl	10YR44 54	10YR56 00	F		00MN00 00		0	0	HR	5		M					
	70-85	hzcl	10YR44 54	10YR56 00	F		00MN00 00		0	0	HR	5		M					
	85-120	c	75YR44 54	75YR58 00	C		00MN00 00	S	0	0	HR	10		P		Y			
135	0-28	mcl	10YR42 00						2	0	HR	8							
	28-45	hzcl	10YR53 54	10YR56 00	C			Y	0	0	HR	5		M					
	45-120	c	10YR53 54	10YR56 58	C			Y	0	0	HR	5		P		Y			
136	0-28	mzcl	10YR43 00						2	0	HR	10							
	28-55	mzcl	10YR44 54						0	0	HR	10		M					
	55-110	hzcl	10YR44 54	00MN00 00	F				0	0	HR	10		M					
	110-120	hzcl	10YR46 56	00MN00 00	F				0	0	CH	10		M					
137	0-25	mzcl	10YR43 00						3	1	HR	5							SEE 5P
	25-80	c	75YR53 00	75YR46 00	M			S	0	0		0		P		Y			
	80-110	ch	10YR81 00						0	0	HR	3		P					ROOTS PROB TO 80
138	0-23	mzcl	10YR43 00						1	0	HR	5							SEE 5P
	23-45	c	10YR44 54	00MN00 00	C				0	0	HR	5		M					
	45-70	c	10YR54 00	10YR58 00	M		00MN00 00	S	0	0	HR	5		P		Y			
	70-75	ch	10YR81 74						0	0	HR	3		P			Y		IMP 75 ROOTS 70

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	PED GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
139	0-30	mzcl	10YR43 00						0	0	HR	5							SEE 4P/10P
	30-45	hzcl	10YR44 00	00MN00	00	F			0	0	HR	5		M					
	45-90	c	05YR56 58	75YR58	00	C	00MN00	00 S	0	0	HR	10		P			Y		
	90-120	c	05YR58 56	75YR58	00	C	00MN00	00 S	0	0	HR	15		P			Y		
140	0-30	mzcl	10YR43 00						0	0	HR	5							
	30-43	hzcl	10YR44 54	10YR58	00	F			0	0	HR	5		M					
	43-55	c	75YR44 54	10YR58	00	C	00MN00	00 S	0	0	HR	10		P			Y		
	55-120	c	05YR56 54	05YR58	00	C	00MN00	00 S	0	0	HR	10		P			Y		
141	0-30	mzcl	10YR43 00						3	0	HR	10							
	30-55	mzcl	10YR44 00						0	0	HR	5		M					
	55-70	c	75YR44 54	10YR56	00	C	00MN00	00 S	0	0	HR	5		P			Y		
	70-100	c	75YR44 54	10YR56	58	C	00MN00	00 S	0	0	HR	15		P			Y		IMP FLINT 100
142	0-26	mzcl	10YR43 44						3	0	HR	8							
	26-40	hzcl	10YR54 00						0	0	HR	5		M					
	40-55	c	75YR54 56	00MN00	00	C			0	0	CH	15		M				Y	
	55-65	ch	10YR81 74						0	0	HR	3		P				Y	IMP 85 10% SOIL
143	0-30	mzcl	10YR43 00						3	0	HR	3							SEE 4P
	30-70	c	10YR64 00	75YR68	00	M		Y	0	0		0		P			Y		
144	0-32	mzcl	10YR43 53						3	0	HR	10						Y	
	32-62	ch	10YR81 74						0	0	HR	3		P				Y	10% SOIL IMPCH 50
145	0-30	mzcl	10YR43 00						0	0	HR	5							SEE 5P
	30-45	hzcl	10YR44 54						0	0	HR	5		M					
	45-85	c	75YR44 54	75YR56	00	C	00MN00	00 S	0	0	HR	10		P			Y		
	85-120	ch	10YR81 74						0	0	HR	3		P				Y	20% SOIL ROOTS 85
146	0-25	mzcl	10YR43 00						0	0	HR	5							SEE 15P
	25-45	hzcl	10YR44 54	10YR56	00	C	00MN00	00 S	0	0	HR	15		M					IMP FLINTS 45
147	0-30	mzcl	10YR43 00						0	0	HR	5							SEE 4P/10P
	30-45	hzcl	10YR44 54	00MN00	00	C			0	0	HR	5		M					
	45-80	c	75YR54 56	75YR58	00	C	05YR58	00 S	0	0	HR	5		P			Y		SLIGHTLY GLEYED
	80-85	c	75YR54 56	75YR58	00	C	00MN00	00 S	0	0	HR	25		P			Y		IMP FLINTS 85
148	0-30	mzcl	10YR43 00						0	0	HR	5							
	30-50	mzcl	10YR53 52	10YR56	00	C	00MN00	00 Y	0	0	HR	3		M					
	50-65	hzcl	10YR53 00	10YR58	00	C	00MN00	00 Y	0	0	HR	3		M					
	65-120	c	10YR53 00	75YR58	00	M	00MN00	00 Y	0	0	HR	3		P			Y		
149	0-22	mzcl	10YR54 53						2	0	HR	5							
	22-45	c	10YR54 00	75YR58	00	C	00MN00	00 S	0	0	HR	5		P			Y		
	45-85	c	10YR63 62	75YR58	00	M	00MN00	00 Y	0	0	HR	10		P			Y		IMP FLINTS 85

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	PED GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
150	0-30	mzcl	10YR53 00						0	0		0							SEE 4P
	30-50	hzcl	10YR54 00	10YR56 00	F				0	0	HR	1		M					
	50-110	c	10YR64 00	75YR68 00	M			Y	0	0		0		P		Y			
151	0-30	mzcl	10YR53 00						1	0	HR	1							SEE 4P
	30-40	mzcl	10YR53 00	10YR56 00	F				0	0	HR	1		M					
	40-110	c	75YR63 00	75YR68 00	M			Y	0	0	HR	1		P		Y			
152	0-32	mzcl	10YR43 00						2	0	HR	8							SEE 4P
	32-85	mzcl	10YR44 54	00MN00 00	F				0	0	HR	5		M					
	85-120	c	10YR53 00	10YR56 00	C		00MN00 00	Y	0	0	HR	5		P		Y			
153	0-25	mzcl	10YR42 43						0	0	HR	5							
	25-35	hzcl	10YR54 00						0	0	HR	5		M					
	35-60	c	10YR53 54	10YR58 00	M		00MN00 00	Y	0	0	HR	5		P		Y			
	60-65	c	10YR53 54	10YR58 00	M		00MN00 00	Y	0	0	HR	25		P		Y			IMP FLINTS 65
154	0-25	hcl	10YR43 44	00MN00 00	C				0	0	HR	10							SEE 7P
	25-40	c	10YR53 00	10YR58 00	C		00MN00 00	Y	0	0	HR	5		P		Y			
	40-45	c	10YR53 00	10YR58 00	M		00MN00 00	Y	0	0	HR	25		P		Y			IMP FLINTS 45
155	0-30	hzcl	10YR43 44						2	0	HR	8							SEE 16P
	30-55	c	10YR54 56						0	0	HR	5		M					
	55-60	ch	10YR81 74						0	0	HR	3		P				Y	IMP CHALK 90
156	0-30	mzcl	10YR53 43						1	0	HR	5							
	30-40	hzcl	10YR54 00	75YR58 00	C			S	0	0	HR	10		M					
	40-70	c	10YR54 00	05YR58 00	M		00MN00 00	S	0	0	HR	15		P		Y			
157	0-30	mzcl	10YR43 00				00MN00 00		1	0	HR	5							
	30-80	c	10YR53 62	25YR58 00	M		00MN00 00	Y	0	0	HR	2		P		Y			
158	0-25	mzcl	10YR42 43						0	0	HR	5						Y	+2% CHALK SEE 14P
	25-40	ch	10YR81 74						0	0	HR	3		P				Y	CHALKY DRIFT
	40-55	ch	10YR81 00						0	0	HR	3		P				Y	IMP CHALK 45
159	0-28	mzcl	10YR43 42						2	0	HR	8							
	28-50	hzcl	10YR44 00						0	0	HR	5		M					
	50-55	hzcl	10YR44 54						0	0	HR	5		M					
	55-65	mzcl	10YR74 81						0	0	CH	50		P				Y	+3% HR IMPCHDRIFT65
160	0-25	mzcl	10YR43 00						1	0	HR	3						Y	SEE 6P
	25-35	mzcl	10YR43 00						0	0	HR	5		M				Y	
	35-65	ch	10YR81 00						0	0	HR	3		P				Y	IMP CHALK 50
161	0-30	mzcl	10YR43 00						1	0	HR	3						Y	SEE 6P
	30-40	mzcl	10YR54 00						0	0	HR	15		M				Y	+5% CHALK
	40-70	ch	10YR81 00						0	0	HR	3		P				Y	IMPCH 45 ROOTS 70

				----MOTTLES-----			PED		----STONES----			STRUCT/	SUBS				
SAMPLE	DEPTH	TEXTURE	COLOUR	COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC
162	0-30	mzcl	10YR43 00						1	0	HR	3					Y	SEE 6P
	30-40	mzcl	10YR54 00						0	0	HR	20		M			Y	
	40-70	ch	10YR81 00						0	0	HR	3		P			Y	IMP CHALK 50
163	0-25	mzcl	10YR43 00						3	0	HR	3					Y	
	25-80	hcl	10YR54 00						0	0	HR	3		M			Y	
	80-120	hcl	10YR64 00						0	0	CH	10		M			Y	
164	0-25	mzcl	10YR43 00						0	0	HR	3					Y	SEE 6P
	25-55	ch	10YR54 00						0	0	HR	3		P				10% SOIL TO 35cm
165	0-28	mzcl	10YR43 00						2	0	HR	8						
	28-60	mzcl	10YR64 81						0	0	CH	50		P			Y	+2% HR CHALKY DRIFT
	60-65	ch	10YR81 74						0	0	HR	3		P		Y	Y	IMP 65 ROOTS TO 60