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**Midgham Farm, Fordingbridge, Hampshire  
Statement of Physical Characteristics  
Map and Report  
August 1993**

## STATEMENT OF PHYSICAL CHARACTERISTICS

### LAND AT MIDGHAM FARM, FORDINGBRIDGE

#### 1. INTRODUCTION

- 1.1 In July 1993 approximately 108 hectares of land at Midgham Farm, near Fordingbridge, Hampshire, was surveyed in connection with proposals for gravel extraction and restoration under the 1981 Minerals Act. ADAS was commissioned by MAFF's Land Use Planning Unit to determine the land quality and site physical characteristics of the land affected by the proposals.
- 1.2 The survey was conducted by members of the Resource Planning Team, Guildford Statutory Group at an observation density of approximately one boring per hectare. A total of 99 borings and eight soil inspection pits were described in accordance with MAFF's revised guidelines and criteria for grading the quality of agricultural land (MAFF, 1988). These guidelines provide a framework for classifying land according to the extent to which its physical or chemical characteristics impose long term limitations on its use for agriculture.

At the time of survey, the majority of the site was pasture, with an area of wheat to the south west.

- 1.3 The distribution of the grades and subgrades is shown on the attached ALC map and the area and extent are given in the table below. The map has been drawn at a scale of 1:10,000. It is accurate at this scale, but any enlargement may be misleading. This map supersedes any previous information for the site.

Table 1 : Distribution of Grades and Subgrades

	<u>Area (ha)</u>	<u>% of Total Site</u>	<u>% of agricultural area</u>
Grade 3A	58.1	50.4	53.6
3B	<u>50.2</u>	43.6	<u>46.4</u>
Total agricultural area	108.3		100.0
Non-Agricultural	0.7	0.5	
Urban	0.4	0.4	
Farm Buildings	0.1	0.1	
Woodland	<u>5.7</u>	<u>4.9</u>	
Total Area of Site	115.2	100.0	

#### 2. CLIMATE

- 2.1 Climatic criteria are considered first when classifying land since climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions.

- 2.2 Estimates of climatic variables relevant to the assessment of land quality were obtained by interpolation from a 5 km grid point dataset, (Met. Office, 1989) for a representative location in the survey area.

Table 2 : Climatic Interpolation

Grid Reference	SU 139122	SU 130126
Altitude (m, AOD)	50	50
Accumulated Temperature (°days, Jan-June)	1506	1501
Average Annual Rainfall (mm)	878	880
Field Capacity Days	181	182
Moisture deficit, wheat (mm)	105	104
Moisture deficit, potatoes (mm)	98	97

- 2.3 The main parameters used in the assessment of an overall climatic limitation are, average annual rainfall, a measure of overall wetness, and accumulated temperature, as a measure of the relative warmth of a locality. In this instance, climate does not represent an overall limitation to agricultural land quality. In addition, no local climatic factors such as exposure or frost risk are significant to the grading on this site. However, climatic factors, specifically field capacity days and soil moisture deficits, do interact with soil factors to influence soil wetness and droughtiness limitations.

### 3. RELIEF

- 3.1 The site lies at an altitude of 50-55 m AOD. The area rises very gently from south east to north west lying as a plateau to the west and above the main River Avon flood plain. Nowhere on the site do altitude or gradient affect agricultural land quality.

### 4. GEOLOGY AND SOILS

- 4.1 British Geological Survey, Sheet 314, Ringwood (1976) shows the majority of the site to be underlain by Recent and Pleistocene Plateau Gravel deposits, with Eocene Bagshot Beds occurring periodically around the periphery of the surveyed area.
- 4.2 The Soil Survey of England and Wales, Soils of South East England (1983) shows the area to be underlain by 3 soil associations:
- i. 812a - Frome, a shallow calcareous and non calcareous loamy soil over flint gravel affected by groundwater, and alluvial gley soils which are wet only in winter. Soils of this nature covered the majority of the site.
  - ii. 581b - Sonning 1 - Well drained flinty coarse loamy and sandy soils mainly found over gravel. Some coarse loamy over clayey soils with slowly permeable subsoils. Soils of this nature were occasionally found on the site.
  - iii. 571w - Hucklebrook, well drained coarse loamy and some sandy soils, commonly over gravel. Some soils are affected by groundwater. Soils of this type were occasionally found across the site.

## 5. AGRICULTURAL LAND CLASSIFICATION

- 5.1 The ALC grading of the site is primarily determined by the interaction between soil and climatic factors. Most of the site has been graded moderate quality, grade 3B, on the basis of both droughtiness and wetness limitation dependent on location. A significant area has been assigned good quality, grade 3A, on similar though less severe limitations.

Due to the dry and stony soil conditions encountered at this site at the time of survey, the ALC map has been drawn with dotted lines at the grade boundaries where there may be a possibility of slight variation, due to the fact that many of the soil observation points were impenetrable (to soil auger) at limited depths, such that the majority of the grading is based on pit observations.

- 5.2 Table 1 provides details of the area and extent of each grade. The distribution of ALC grades is shown on the attached ALC map.

- 5.3 The location of the soil observation points is shown on the attached auger boring map.

### 5.4 Grade 3A

Land of good quality has been assigned to approximately half the agricultural area of the site. Soils within this area are separately limited by droughtiness and wetness. Profiles limited by droughtiness typically comprise a medium clay loam or sandy clay loam topsoil containing up to 5% total flints by volume. Subsoil textures are variable ranging from occasional medium sandy loam through common medium clay loam and sandy clay loams to less common heavy clay loams and clays. Stone contents also vary from a minimum of approximately 3% flints by volume to approximately 30% close to the sand and gravel aggregate underlying the soil.

Many of the observation points were found to be impenetrable (to soil auger) due to the combination of soil stoniness and dry soil conditions prevalent at the time of survey, such that it was difficult to ascertain in many cases the exact depth to the gravel deposit.

An area to the north west of the site on slightly higher ground was found to contain soils limited by wetness. These profiles typically comprise a medium clay loam or sandy clay loam topsoil containing approximately 3% total flints by volume over a similar upper subsoil showing evidence of gleying and becoming heavier with depth such that by approximately 60-70 cm a slowly permeable clay layer was encountered containing approximately 5% flints by volume. These profiles occasionally become sandier beyond 100 cm. The slowly permeable horizon leads to a wetness class II (see Appendix II) classification, which with the relatively wet climate prevalent in the area leads to Grade 3A being appropriate.

### 5.5 Grade 3B

Moderate quality land has been mapped to the remaining area under agricultural use. Soils within this area are similarly, though more severely limited than those described above in section 5.4. As such topsoils are of similar texture but in a number of cases contain a higher total flint content to a maximum of 13%. Subsoil textures are,

however, less variable than those assigned to the higher grade (section 5.4), being mostly moderately to very stony (up to 50% flints by volume) medium clay loams or sandy clay loams, occasionally medium sandy loam immediately above the gravel, which generally occurs at a shallower depth and thus creates a more severe droughtiness limitation than those assigned to the higher grade.

The land towards the north west of the site assigned to this grade is limited by wetness. Topsoils in this area are similar to those encountered in the area which is wetness limited in section 5.4, as are the subsoils. The difference here is that the slowly permeable clay horizon occurs higher in the profile such that wetness classes III and IV (see Appendix II) are appropriate and consequent grade 3B.

## 6. SOIL RESOURCES

### Soil Units : Consideration for Restoration

- 6.1 The following section and the accompanying soil resource maps describe the pattern of topsoil and subsoil resources on the site. It should be emphasised that the maps are not soil stripping maps, but merely an illustration of the soil resources available for restoration on the site. When considering these details it is important to remember that soils were sampled to a maximum depth of 120 cm during survey work. In some cases soil resources will extend below this depth.

### 6.2 Topsoils

Two topsoil units were identified:-

Unit 1: This comprises an average 28.2 cm of dark greyish brown, brown, dark brown or dark yellowish brown (10YR 4/2, 10YR 4/3, 10YR 5/3, 7.5YR 4/4, or 10YR 4/4) medium clay loam or less commonly sandy clay loam. These topsoils were found to be non-calcareous and slightly stony typically containing up to 9% total flints by volume.

Where it was possible to ascertain structure, it was found to be of moderate form, having weakly developed coarse subangular peds of very friable consistence. They are very porous and well rooted.

Unit 2: This comprises an average of 29.0 cm of similar colour and similar texture soil to that described in Unit 1. The principal difference being the stone content which is higher, containing between 10 and 13% total flints by volume.

Where it was possible to ascertain structure, it was found to be of moderate form, having weakly developed coarse subangular peds of very friable consistence. They are porous and very well rooted.

### 6.3 Subsoils

Three subsoil units are identified:-

Unit 1: This unit covers the majority of the site and has a variable nature. It comprises an average of 42.8 cm of soil material over sand and gravel aggregate. The soil themselves are in two horizons, the upper consists of 20.0 cm of strong brown, dark yellowish brown or yellowish brown (10YR 4/4, 10YR 4/6, 10YR 5/4 or 7.5YR 4/4) medium clay loam, heavy clay loam or sandy clay loam containing between 5 and 15% flints by volume. The lower subsoil consists of 22.8 cm of dark yellowish brown to stony brown (10YR 4/4, 10YR 4/6 or 7.5YR 5/6) medium clay loam, sandy clay loam, heavy clay loam or clay lying directly over the gravel horizon. The horizon commonly contains between 26 and 40% flints by volume. Occasionally up to 65% close to the gravel boundary.

Structures within this unit were on occasion difficult to assess due to high stone content within the soil, but were commonly found to be moderately good, comprising moderately well developed coarse subangular peds of friable consistence in the upper horizon and either similar or moderately well developed angular peds of friable consistence in the lower horizon. Pits 2, 4, 5, and 8 described at Appendix III are typical of this subsoil unit.

Unit 2: This subsoil unit occurs in 2 areas of the site, to the north and south. Soils in these areas were found to be noticeably more stony than elsewhere on the site. The unit comprises an average of 13.9 cm of dark brown to dark yellowish brown (10YR 4/3 or 10YR 4/4) medium clay loam or sandy clay loam soil material containing between 30 and 50% total flints by volume overlying sand and gravel aggregate.

Due to the stony nature of this unit it was not possible to assess structural condition. Pits 1, 6, and 7 appertaining to this unit are described in Appendix III.

Unit 3: This subsoil unit occurs towards the north west of the site on slightly higher ground. It consists of three horizons comprising an average 100.9 cm of soil material. Soils in this area are heavier than elsewhere on the site and commonly contain fewer stones. The unit comprises medium clay loam or sandy clay loam passing to heavy clay loam around 32 cm over a slowly permeable layer at an average depth of 55.2 cm. There is a drainage impedance with surface water gleying evident in the upper subsoil from an average 20 cm depth. This is likely to result from the slow permeability of the clay horizon in the lower subsoil. These pale brown (10YR 6/4 - 7/4) to brown (10YR 5/2 - 5/3) subsoils contain between 3 and 8% total flints by volume. The upper subsoils in this unit are moderately structured, comprising moderately well developed coarse subangular blocky peds of friable consistence. The lower subsoil clays however are of poor structure, these comprise a weakly developed coarse subangular blocky structure of firm consistence. This horizon also contains fewer than 0.5% biopores. Pit 3 described at Appendix III is typical of this subsoil unit.

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ADAS Reading

## SOURCES OF REFERENCE

- British Geological Survey (1976) Sheet 314, Ringwood, 1:50,000 Drift edition.
- British Geological Survey (1980) Mineral Assessment Report 50, Fordingbridge, Hampshire.
- MAFF (1988) Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land.
- Meteorological Office (1989) Climatic datasets for Agricultural Land Classification.
- Soil Survey of England and Wales (1983) Sheet 6, Soils of South-East England, 1:250,000 and accompanying legend.

## APPENDIX 1 DESCRIPTION OF THE GRADES AND SUBGRADES

The ALC grades and subgrades are described below in terms of the types of limitation which can occur, typical cropping range and the expected level and consistency of yield. In practice,, the grades are defined by reference to physical characteristics and the grading guidance and cut-offs for limitation factors in Section 3 enable land to be ranked in accordance with these general descriptions. The most productive and flexible land falls into Grades 1 and 2 and Subgrade 3a and collectively comprises about one-third of the agricultural land in England and Wales. About half the land is of moderate quality in Subgrade 3b or poor quality in Grade 4. Although less significant on a national scale such land can be locally valuable to agriculture and the rural economy where poorer farmland predominates. The remainder is very poor quality land in Grade 5, which mostly occurs in the uplands.

Descriptions are also given of other land categories which may be used on ALC maps.

### **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 and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

### **Grade 3 - good to moderate quality agricultural land**

Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where 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 level of yields. It is mainly suited to grass with occasional arable crops (eg cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

#### **Grade 5 - very poor quality agricultural land**

Land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

#### **Descriptions of other land categories used on ALC maps**

##### **Urban**

Built-up or 'hard' uses with relatively little potential for a return to agriculture including: housing, industry, commerce, education, transport, religious buildings, cemeteries. Also, hard-surfaced sports facilities, permanent caravan sites and vacant land; all types of derelict land, including mineral workings which are only likely to be reclaimed using derelict land grants.

##### **Non-agricultural**

'Soft' uses where most of the land could be returned relatively easily to agriculture, including: private parkland, public open spaces, sports fields, allotments and soft-surfaced areas on airports/airfields. Also active mineral working and refuse tips where restoration conditions to 'soft' after-uses may apply.

##### **Woodland**

Includes commercial and non-commercial woodland. A distinction may be made as necessary between farm and non-farm woodland.

##### **Agricultural buildings**

Includes the normal range of agricultural buildings as well as other relatively permanent structures such as glasshouses. Temporary structures (eg polythene tunnels erected for lambing) may be ignored.

##### **Open water**

Includes lakes, ponds and rivers as map scale permits.

##### **Land not surveyed**

Agricultural land which has not been surveyed.

Where the land use includes more than one of the above land cover types, eg buildings in large grounds, and where map scale permits, the cover types may be shown separately. Otherwise, the most extensive cover type will usually be shown.

## APPENDIX II

### FIELD ASSESSMENT OF SOIL WETNESS CLASS

#### Definition of Soil Wetness Classes

Wetness Class	Duration of Waterlogging <sup>1</sup>
I	The soil profile is not wet within 70 cm depth for more than 30 days in most years <sup>2</sup> .
II	The soil profile is wet within 70 cm depth for 31-90 days in most years <u>or</u> , if there is no slowly permeable layer within 80 cm depth, it is wet within 70 cm for more than 90 days, but not wet within 40 cm depth for more than 30 days in most years.
III	The soil profile is wet within 70 cm depth for 91-180 days in most years <u>or</u> , if there is no slowly permeable layer 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 and 90 days in most years.
IV	The soil profile is wet within 70 cm depth for more than 180 days but not within 40 cm depth for more than 210 days in most years <u>or</u> , if there is no slowly permeable layer 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.

<sup>1</sup> The number of days specified is not necessarily a continuous period.

<sup>2</sup> 'In most years' is defined as more than 10 out of 20 years.

## APPENDIX III

### SOIL PIT AND SOIL BORING DESCRIPTIONS

- Contents :
- \* Soil Abbreviations : Explanatory Note
  - \* Database Printout : Boring Level Information
  - \* Database Printout : Horizon Level Information

## SOIL PROFILE DESCRIPTIONS : EXPLANATORY NOTE

Soil profile and pit information obtained during ALC surveys is held on a database. This has commonly used notations and abbreviations as set out below.

### BORING HEADERS

1. GRID REF : National grid square followed by 8 figure grid reference.

2. USE : Land-use at the time of survey.  
The following abbreviations are used.

ARA - arable	PAS/PGR - permanent pasture
WHT - wheat	RGR - rough grazing
BAR - barley	LEY - ley grassland
CER - cereals	CFW - coniferous woodland
OAT - oats	DCW - deciduous woodland
MZE - maize	SCR - scrub
OSR - oilseed rape	HTH - heathland
BEN - field beans	BOG - bog or marsh
BRA - brassicae	FLW - fallow
POT - potatoes	PLO - ploughed
SBT - sugarbeet	SAS - set-aside
FDC - fodder crops	OTH - other
FRT - soft and top fruit	LIN - linseed

HOR/HRT - horticultural crops

3. GRDNT : Gradient as measured by optical reading clinometer.

4. GLEY/SPL : Depth in centimetres (cm) to gleyed and/or slowly permeable horizons.

5. AP (WHEAT/POTS) : Crop-adjusted available water capacity. The amount of soil water (in millimetres) held in the soil profile that is available to a growing crop (wheat and potatoes are used as reference crops).

6. MB (WHEAT/POTS) : The moisture balance for wheat and potatoes obtained by subtracting the soil moisture deficit from the crop-adjusted available water capacity.

7. DRT: Grade according to soil droughtiness assessed against soil moisture balances.

8. M REL : Micro-relief )  
FLOOD : Flood risk ) If any of these factors are considered  
EROSN : Soil erosion ) significant in terms of the assessment  
EXP : Exposure ) of agricultural land quality a 'y' will  
FROST : Frost prone ) be entered in the relevant column.  
DIST : Disturbed land )  
CHEM : Chemical limitation)

9. **LIMIT** : Principal limitation to agricultural land quality.

The following abbreviations are used:

OC - overall climate	CH - chemical limitations
AE - aspect	WE - wetness
EX - exposure	WK - workability
FR - frost	DR - drought
GR - gradient	ER - erosion
MR - micro-relief	WD - combined soil wetness/soil droughtiness
FL - flooding	ST - topsoil stoniness
TX - soil texture	
DP - soil depth	

**PROFILES & PITS**

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

S	- sand
LS	- loamy sand
SL	- sandy loam
SZL	- sandy silt loam
ZL	- silt loam
MZCL	- medium silty clay loam
MCL	- medium clay loam
SCL	- sandy clay loam
HZCL	- heavy silty clay loam
HCL	- heavy clay loam
SC	- sandy clay
ZC	- silty clay
C	- clay

For the sand, loamy sand, sandy loam and sandy silt loam classes, the predominant size of sand fraction may be indicated by the use of prefixes.

F	- fine (more than $\frac{2}{3}$ of the sand less than 0.2 mm)
C	- coarse (more than $\frac{1}{3}$ of sand greater than 0.6 mm)
M	- medium (less than $\frac{2}{3}$ fine sand and less than $\frac{1}{3}$ coarse sand)

The sub-divisions of clay loam and silty clay loam classes according to clay content are indicated as follows:

M	- medium (less than 27% clay)
H	- heavy (27-35% clay)



- ped size

F - fine  
M - medium  
C - coarse  
VC - very coarse

- ped shape

S - single grain  
M - massive  
GR - granular  
SB/SAB - sub-angular blocky  
AB - angular blocky  
PR - prismatic  
PL - platy

8. **CONSIST** : Soil consistence is described using the following notation:

L - loose  
VF - very friable  
FR - friable  
FM - firm  
VM - very firm  
EM - extremely firm  
EH - extremely hard

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

G - good  
M - moderate  
P - poor

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

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

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

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

14. Other Notations

APW - available water capacity (in mm) adjusted for wheat  
APP - available water capacity (in mm) adjusted for potatoes  
MBW - moisture balance, wheat  
MBP - moisture balance, potatoes

SAMPLE	DEPTH	TEXTURE	COLOUR	-----MOTTLES-----			PED		-----STONES-----			STRUCT/	SUBS	STR	POR	IMP	SPL	CALC
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH							
1	0-30	sc1	10YR43 00						0	0	HR	10						
	30-40	sc1	10YR44 00						0	0	HR	10					M	
	40-70	ms1	10YR66 00						0	0	HR	15					M	
	70-78	ms1	10YR66 00						0	0	HR	30					M	
1P	0-24	sc1	10YR43 00						8	0	HR	30						
	24-55	sc1	10YR44 00						0	0	HR	30	WKCOAB	VF	M			
	55-120	gh	00ZZ00 00						0	0		0					P	
2	0-29	sc1	10YR43 00						0	0	HR	10						
	29-50	sc1	10YR44 00						0	0	HR	10					M	
	50-60	sc1	10YR44 00						0	0	HR	20					M	
2P	0-28	mc1	10YR43 00						2	0	HR	6	WCSAB	VF	M			
	28-35	mc1	10YR53 00						0	0	HR	8	MCSAB	FR	M			
	35-70	c	75YR66 53						0	0	HR	4	MCSAB	FR	M			
	70-75	c	75YR66 53						0	0	HR	30					M	
	75-120	gh	00ZZ00 00						0	0		0					P	
3	0-29	mc1	10YR43 00						0	0	HR	10						
	29-55	sc1	10YR44 00						0	0	HR	10					M	
	55-62	sc1	10YR44 54						0	0	HR	15					M	
3P	0-33	sc1	10YR43 00						0	0	HR	3	WCSAB	VF	M			
	33-53	sc1	10YR74 53 10YR58 61 C				00ZZ00 00 Y		0	0	HR	3	MCSAB	FR	M			
	53-85	sc	10YR64 52 75YR58 61 C				00MN00 00 Y		0	0	HR	8	WCSAB	FM	P	Y		Y
4	0-25	sc1	10YR42 00						0	0	HR	20						
	25-120	gh	00ZZ00 00						0	0		0					P	
4P	0-26	mc1	10YR43 00						2	0	HR	18						
	26-45	mc1	10YR44 00						0	0	HR	8					M	
	45-62	sc1	75YR56 00						0	0	HR	15					M	
	62-70	c	05YR56 58						0	0	HR	26					G	
	70-120	gh	00ZZ00 00						0	0		0					P	
5	0-30	sc1	10YR44 00						0	0	HR	20						
5P	0-28	mc1	10YR43 00						2	0	HR	9	WDCSAB	VF	M			
	28-41	mc1	10YR44 00						0	0	HR	33					M	
	41-58	mc1	10YR46 00						0	0	HR	43					M	
	58-120	gh	75YR46 00						0	0		0					P	
6	0-25	sc1	10YR43 00						8	0	HR	48						
	25-40	sc1	10YR44 00						0	0	HR	50					M	
6P	0-25	sc1	10YR43 00						8	0	HR	48						
	25-40	sc1	10YR44 00						0	0	HR	50					M	
	40-65	ms1	10YR46 00						0	0	HR	50					M	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS						
				COL	ABUN	CONT		GLY	>2	>6		LITH	TOT	STR	POR	IMP	SPL	CALC
7	0-30	mc1	10YR44 00	10YR58	61	C		Y	0	0	0							
	30-60	hc1	10YR56 00					Y	0	0	0				M			
	60-85	sc1	10YR64 00					Y	0	0	0				M			
	85-100	ms1	10YR64 00					Y	0	0	0				M			
7P	0-29	mc1	10YR42 00						3	0	HR	13						
	29-120	gh	10YR43 00						0	0	0				P			
8	0-25	mc1	10YR53 00	10YR58	61	C		Y	0	0	0							
	25-60	hc1	10YR53 00	10YR58	61	C	00MN00	00	Y	0	0	0			M			
	60-100	c	10YR52 00	10YR58	61	C	00MN00	00	Y	0	0	HR	10		P	Y		Y
8P	0-25	mc1	10YR43 00						3	0	HR	6	WKMSAB	VF	G			
	25-52	hc1	10YR44 00						0	0	HR	20	MDCOAB	VF	M			
	52-62	hc1	10YR44 46						0	0	HR	30			M			
	62-76	c	75YR56 00						0	0	HR	65			M			
	76-120	gh	00ZZ00 00						0	0	0				P			
9	0-30	sc1	10YR44 00						0	0	HR	20						
	30-40	sc1	10YR44 46						0	0	HR	20			M			
12	0-40	mc1	10YR43 00						0	0	0							
	40-100	hc1	10YR53 00	00MN00	00	F			0	0	0				M			
13	0-30	mc1	10YR42 00						0	0	0							
	30-40	mc1	10YR64 00						0	0	HR	5			M			
	40-60	sc1	10YR66 00						0	0	HR	10			M			
14	0-25	mc1	10YR43 00						0	0	HR	5						
	25-50	mc1	10YR54 00						0	0	HR	6			M			
16	0-25	mc1	10YR53 00						0	0	0							
	25-40	hc1	10YR53 54	10YR58	61	C		Y	0	0	0				M			
	40-100	sc	25Y 64 68	05YR58	71	C		Y	0	0	0				P	Y		Y
17	0-30	mc1	10YR53 00						0	0	0							
	30-50	sc1	10YR52 00	10YR58	61	C		Y	0	0	HR	10			M			
18	0-25	mc1	10YR43 00						0	0	0							
	25-45	mc1	10YR54 00						0	0	0				M			
	45-70	ms1	10YR66 00						0	0	HR	10			M			
19	0-20	mc1	10YR42 00						0	0	0							
	20-40	mc1	10YR52 00						0	0	HR	5			M			
	40-65	sc1	10YR66 00						0	0	HR	10			M			
20	0-25	mc1	10YR44 00						0	0	0							
	25-40	mc1	10YR64 00						0	0	HR	10			M			

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED COL.	----STONES-----			STRUCT/ CONSIST	SUBS					
				COL	ABUN	CONT		GLE	>2	>6		LITH	TOT	STR	POR	IMP	SPL
21	0-35	mc1	10YR52 00 10YR58 61 C					Y	0	0	0						
	35-65	ms1	10YR63 00 10YR58 61 C					Y	0	0	0		M				
	65-100	sc1	10YR64 00 05YR58 71 C					Y	0	0	0		P	Y		Y	
22	0-25	mc1	10YR53 00 10YR58 61 C					Y	0	0	HR	2					
	25-40	hc1	25Y 53 00 10YR58 61 C					Y	0	0	HR	5		M			
	40-75	c	25Y 53 00 10YR58 61 C					Y	0	0	HR	10		P	Y		Y
	75-100	sc1	25Y 74 00 10YR58 61 C					Y	0	0	HR	5		P			
23	0-25	mc1	10YR44 00						0	0	HR	3					
	25-40	mc1	10YR46 00						0	0	HR	3		M			
	40-65	sc1	10YR56 00						0	0	HR	8		M			
24	0-30	mc1	10YR42 00						0	0	HR	4					
	30-55	mc1	10YR43 00						0	0	HR	5		M			
	55-80	sc1	10YR56 00						0	0	HR	10		M			
25	0-30	mc1	10YR43 00						0	0	HR	10					
	30-50	mzc1	10YR44 00						0	0	HR	10		M			
	50-70	sc1	10YR46 00						0	0	HR	10		M			
26	0-20	mc1	10YR41 00 10YR46 00 C					Y	0	0	HR	2					
	20-32	mc1	25Y25 00 75YR56 00 C					Y	0	0	HR	2		M			
	32-70	c	25Y 72 00 75YR58 00 M				00M00	Y	0	0		0		P			Y
	70-120	c	05Y 72 00 05YR56 00 M					Y	0	0		0		P			Y
27	0-22	sc1	10YR41 00 10YR56 00 F						0	0	HR	2					
	22-35	sc1	10YR51 00 10YR46 00 C					Y	0	0	HR	2		M			
	35-65	ms1	10YR61 71 10YR58 68 C					Y	0	0	HR	5		M			
	65-80	sc	25Y 62 00 75YR56 00 M					Y	0	0	HR	10		P			Y
	80-100	ms1	25Y 62 00 75YR58 00 M					Y	0	0	HR	15		M			
28	0-35	sc1	10YR43 00						0	0	HR	2					
	35-45	sc1	10YR44 00						0	0	HR	5		M			
	45-55	hc1	10YR63 00 10YR56 00 C					Y	0	0		0		M			
	55-95	c	25Y 62 63 75YR58 00 M					Y	0	0		0		P			Y
	95-120	ms1	25Y 63 00 75YR58 00 M					Y	0	0	HR	5		M			
29	0-33	mc1	75YR44 00						0	0	HR	3					
	33-65	hc1	10YR44 00						0	0	HR	5		M			
	65-82	ms1	10YR64 00 10YR66 00 C					Y	0	0	HR	15		M			
30	0-30	sc1	75YR44 00						0	0	HR	3					
	30-40	mc1	75YR46 00						0	0	HR	10		M			
31	0-26	sc1	10YR44 00						0	0	HR	3					
	26-65	hc1	75YR46 00						0	0	HR	5		M			
	65-80	sc	75YR56 00						0	0	HR	10		M			
	80-95	c	75YR58 00						0	0	HR	15		M			

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS				
				COL	ABUN	CONT		GLE	>2	>6		LITH	TOT	STR	POR	IMP
32	0-30	mc1	10YR43 00					0	0	HR	5					
	30-45	mc1	10YR44 54					0	0	HR	10		M			
33	0-30	sc1	10YR43 00					0	0	HR	10					
34	0-28	sc1	10YR44 00					0	0	HR	3					
	28-60	sc1	25Y 64 73 10YR56 00 C					Y	0	0	HR	5		M		
	60-75	sc1	25Y 63 73 75YR56 00 M					Y	0	0	HR	10		M		
	75-120	sc	75YR58 00 10YR63 00 C					Y	0	0	HR	10		P		Y
35	0-30	sc1	10YR44 00					0	0	HR	3					
	30-65	mc1	25Y 63 73 10YR66 00 C					Y	0	0	HR	5		M		
	65-100	c	25Y 63 00 75YR56 00 M					Y	0	0	0		P		Y	
	100-120	c	25Y 63 00 75YR58 00 M					Y	0	0	HR	15		P		Y
36	0-28	sc1	10YR43 00					0	0	HR	3					
	28-55	sc1	75YR44 00					0	0	HR	5		M			
	55-75	sc	75YR56 00 25Y 62 00 C					Y	0	0	HR	3		M		
	75-120	sc	25Y 63 00 75YR58 00 M					Y	0	0	0		P		Y	
37	0-22	sc1	75YR44 00					0	0	HR	5					
	22-40	mc1	75YR44 00					0	0	HR	5		M			
	40-45	mc1	75YR44 00					0	0	HR	15		M			
38	0-20	sc1	75YR44 00					0	0	HR	5					
	20-32	sc1	10YR44 00					0	0	HR	5		M			
	32-50	sc1	75YR44 00					0	0	HR	15		M			
39	0-26	sc1	10YR43 00					0	0	HR	5					
	26-50	mc1	75YR46 00					0	0	HR	15		M			
40	0-30	sc1	10YR43 00					0	0	HR	10					
	30-45	sc1	10YR46 00					0	0	HR	10		M			
41	0-30	sc1	10YR43 00					0	0	HR	10					
42	0-32	mc1	10YR43 00					0	0	HR	10					
43	0-28	mc1	10YR42 00					0	0	HR	3					
	28-35	mc1	10YR44 00					0	0	HR	10		M			
44	0-25	mc1	10YR43 00					0	0	HR	5					
	25-35	mc1	10YR44 54					0	0	HR	10		M			
	35-47	mc1	10YR54 00					0	0	HR	10		M			
45	0-30	mc1	10YR44 00					0	0	HR	3					
	30-45	hc1	10YR54 00					0	0	HR	3		M			
	45-80	c	25Y 62 00 75YR58 00 M					Y	0	0	HR	5		P		Y
	80-120	sc	75YR58 00 25Y 52 00 M					Y	0	0	HR	10		P		Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS					
				COL	ABUN	CONT		GLE	>2	>6		LITH	TOT	STR	POR	IMP	SPL
46	0-33	mc1	10YR43 00					0	0	HR	3						
	33-45	hc1	10YR54 00					0	0	HR	2		M				
	45-60	hc1	10YR53 00	10YR56 00 C				Y	0	0	HR	2		M			
	60-95	c	25Y 63 00	75YR58 00 M				Y	0	0	HR	5		P			Y
	95-120	sc	25Y 62 00	75YR56 00 M				Y	0	0	HR	15		P			Y
47	0-30	mc1	10YR44 00					0	0	HR	3						
	30-65	ms1	75YR44 00					0	0	HR	5		M				
48	0-30	mc1	10YR43 00					0	0	HR	5						
	30-43	sc1	10YR44 00					0	0	HR	10		M				
	43-45	sc1	10YR44 00					0	0	HR	20		M				
49	0-26	mc1	10YR43 00					0	0	HR	5						
	26-40	mc1	75YR44 00					0	0	HR	15		M				
50	0-27	mc1	10YR43 00					0	0	HR	5						
	27-50	mc1	10YR44 54					0	0	HR	5		M				
	50-70	sc1	10YR54 00					0	0	HR	10		M				
51	0-25	mc1	10YR43 00					0	0	HR	5						
	25-40	mc1	10YR44 00					0	0	HR	10		M				
	40-55	mc1	10YR44 54					0	0	HR	10		M				
52	0-22	mc1	10YR43 00					0	0	HR	7						
	22-30	mc1	10YR44 00					0	0	HR	12		M				
53	0-24	mc1	10YR43 00	10YR46 00 F				0	0	HR	5						
	24-33	mc1	10YR44 54	10YR46 56 F				0	0	HR	10		M				
54	0-30	mc1	10YR43 00					0	0	HR	5						
	30-35	mc1	10YR53 00	10YR56 00 F				0	0	HR	10		M				
55	0-33	mc1	10YR43 00					2	0	HR	7						
	33-50	mc1	10YR44 54					0	0	HR	10		M				
56	0-30	mc1	10YR43 00					0	0		0						
	30-60	mc1	10YR56 00					0	0	HR	8		M				
57	0-25	mc1	10YR43 00					0	0	HR	3						
	25-40	mc1	10YR44 00					0	0	HR	10		M				
	40-65	mc1	10YR58 00					0	0	HR	10		M				
58	0-30	mc1	10YR42 00					0	0	HR	5						
	30-40	mc1	10YR66 00					0	0	HR	10		M				
59	0-30	mc1	10YR43 00					0	0	HR	5						

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED		----STONES-----			STRUCT/ CONSIST	SUBS					
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH		TOT	STR	POR	IMP	SPL	CALC
60	0-25	mc1	10YR43 00						0	0	HR	3						
	25-50	mc1	10YR44 00						0	0	HR	5					M	
	50-70	hc1	10YR54 00						0	0	HR	5					M	
	70-100	hc1	10YR54 00						0	0	HR	10					M	
61	0-33	mc1	10YR43 00						0	0	HR	5						
	33-55	mc1	10YR44 00						0	0	HR	10					M	
	55-75	sc1	10YR54 00						0	0	HR	10					M	
	75-80	sc1	10YR54 00						0	0	HR	20					M	
62	0-30	mc1	10YR43 00						0	0	HR	5						
	30-40	mc1	10YR44 00						0	0	HR	10					M	
	40-65	mc1	75YR44 00						0	0	HR	2					M	
63	0-32	mc1	10YR43 00						0	0	HR	3						
	32-45	mc1	10YR44 00						0	0	HR	10					M	
	45-85	mc1	10YR44 54						0	0	HR	5					M	
	85-90	sc1	10YR54 00						0	0	HR	20					M	
64	0-30	mc1	10YR43 00						0	0	HR	10						
	30-35	mc1	10YR54 44						0	0	HR	15					M	
65	0-30	mc1	10YR43 00						0	0	HR	7						
	30-55	mc1	10YR46 00						0	0	HR	10					M	
	55-85	sc1	10YR46 00						0	0	HR	15					M	
	85-110	sc1	10YR54 00						0	0	HR	15					M	
	110-120	gh	00ZZ00 00						0	0		0					P	
66	0-27	mc1	10YR43 00						0	0	HR	5						
	27-57	mc1	10YR44 54						0	0	HR	10					M	
67	0-30	sc1	10YR43 00						0	0	HR	10						
	30-40	mc1	10YR44 00						0	0	HR	15					M	
68	0-23	mc1	10YR43 00						0	0	HR	5						
	23-29	mc1	10YR54 00						0	0	HR	15					M	
69	0-25	sc1	10YR43 00						0	0	HR	5						
	25-26	sc1	00ZZ00 00						0	0	HR	5					M	
70	0-40	mc1	10YR42 00						0	0		0						
71	0-25	mc1	10YR42 00						0	0		0						
	25-50	mc1	10YR54 00						0	0	HR	5					M	
72	0-30	mc1	10YR43 00						0	0	HR	5						
73	0-33	mc1	10YR43 00						0	0	HR	5						
	33-53	mc1	10YR44 54						0	0	HR	5					M	
	53-57	mc1	10YR44 54						0	0	HR	15					M	

SAMPLE	DEPTH	TEXTURE	COLOUR	-----MOTTLES-----			PED		-----STONES-----			STRUCT/ CONSIST	SUBS					
				COL	ABUN	CONT	COL.	GLEYS	>2	>6	LITH		TOT	STR	POR	IMP	SPL	CALC
74	0-29	mc1	10YR43 00						0	0	HR	7						
	29-50	mc1	10YR44 00						0	0	HR	5			M			
	50-65	sc1	10YR44 46						0	0	HR	7			M			
	65-75	ms1	10YR46 00						0	0	HR	5			M			
	75-90	ms1	10YR46 00						0	0	HR	15			M			
90-120	gh		00ZZ00 00						0	0		0			P			
75	0-28	mc1	10YR43 00						0	0	HR	5						
	28-33	mc1	10YR44 00						0	0	HR	15			M			
76	0-30	mc1	10YR43 00						0	0	HR	5						
77	0-25	mc1	10YR43 00						0	0	HR	10						
78	0-32	mc1	10YR44 00						0	0	HR	5						
	32-55	mc1	75YR44 00						0	0	HR	5			M			
	55-60	mc1	10YR46 00						0	0	HR	20			M			
79	0-30	mc1	10YR43 00						0	0	HR	10						
	30-45	mc1	10YR44 00						0	0	HR	10			M			
	45-70	mc1	10YR54 00						0	0	HR	10			M			
80	0-30	mc1	10YR42 00						4	0	HR	8						
	30-55	hc1	10YR43 00						0	0	HR	8			M			
	55-60	hc1	10YR46 00						0	0	HR	30			M			
	60-120	gh		00ZZ00 00					0	0		0			P			
81	0-32	mc1	10YR42 00						4	0	HR	10						
	32-60	mc1	10YR43 00						0	0	HR	10			M			
	60-70	hc1	10YR46 00						0	0	HR	30			M			
	70-120	gh		00ZZ00 00					0	0		0			P			
82	0-32	mc1	10YR43 00						0	0	HR	8						
	32-60	mc1	10YR44 00						0	0	HR	5			M			
83	0-33	mc1	10YR42 00						0	0	HR	5						
	33-65	hc1	10YR44 00						0	0	HR	5			M			
	65-70	hc1	10YR44 46						0	0	HR	30			M			
	70-120	gh		00ZZ00 00					0	0		0			P			
84	0-33	mc1	10YR43 00						0	0	HR	10						
	33-40	mc1	10YR43 44						0	0	HR	10			M			
	40-65	mc1	10YR44 00						0	0	HR	5			M			
85	0-30	mc1	10YR43 00						0	0	HR	10						
86	0-30	sc1	10YR43 00						3	0	HR	12						
	30-40	mc1	10YR44 00						0	0	HR	15			M			

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS					
				COL	ABUN	CONT		GLE	>2	>6		LITH	TOT	STR	POR	IMP	SPL
87	0-28	sc1	10YR43 00					0	0	HR	10						
	28-52	sc1	10YR44 00					0	0	HR	15		M				
88	0-32	mc1	10YR42 00					3	0	HR	8						
	32-50	hc1	10YR43 00					0	0	HR	20		M				
	50-65	c	10YR53 00	75YR68 00 C			10YR62 00 Y	0	0	HR	20		M				
	65-120	gh	00ZZ00 00					Y	0	0	0		P				
91	0-33	mc1	10YR43 00					2	0	HR	8						
	33-40	mc1	10YR44 00					0	0	HR	5		M				
	40-50	mc1	10YR44 00					0	0	HR	25		M				
	50-120	gh	00ZZ00 00					0	0		0		P				
92	0-26	mc1	10YR43 00					0	0	HR	10						
	26-50	mc1	10YR44 00					0	0	HR	20		M				
93	0-27	mc1	10YR43 00					0	0	HR	10						
	27-32	mc1	10YR44 00					0	0	HR	25		M				
94	0-28	mc1	10YR43 00					3	0	HR	13						
	28-30	sc1	10YR44 00					0	0	HR	40		M				
95	0-33	hc1	10YR42 00					4	0	HR	8						
	33-50	hc1	10YR43 00					0	0	HR	5		M				
	50-60	sc1	10YR64 66	75YR58 00 C				Y	0	0	HR	5	M				
	60-120	c	10YR63 64	75YR58 68 M			10YR71 61 Y	0	0	HR	2		P			Y	
99	0-30	mc1	10YR43 00					2	0	HR	7						
	30-60	hc1	10YR44 00					0	0	HR	5		M				
	60-70	c	75YR56 58					0	0	HR	10		M				
	70-120	gh	00ZZ00 00					0	0		0		P				
100	0-27	mc1	10YR43 00					2	0	HR	10						
	27-40	mc1	10YR44 00					0	0	HR	10		M				
101	0-26	mc1	10YR43 00					0	0	HR	10						
	26-35	mc1	10YR44 00					0	0	HR	20		M				
	35-40	mc1	10YR44 00					0	0	HR	40		M				
102	0-35	mc1	10YR43 00					6	0	HR	12						
103	0-33	mc1	10YR43 00					3	0	HR	8						
	33-55	hc1	10YR43 00					0	0	HR	5		M				
	55-80	hc1	10YR44 46					0	0	HR	5		M				
104	0-32	mc1	10YR43 00					3	0	HR	12						
	32-42	mc1	10YR44 00					0	0	HR	15		M				

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----		PED COL.	----STONES----			STRUCT/ CONSIST	SUBS						
				COL	ABUN		CONT	GLE	>2		>6	LITH	TOT	STR	POR	IMP	SPL
105	0-28	sc1	10YR42 43				8	0	HR	15							
	28-32	mc1	10YR44 00				0	0	HR	25				M			
106	0-32	sc1	10YR42 43				12	0	HR	20							
	32-40	mc1	10YR44 00				0	0	HR	30				M			
	40-120	gh	00ZZ00 00				0	0		0				P			
107	0-32	mc1	10YR43 00				6	0	HR	11							
	32-45	mc1	10YR44 00				0	0	HR	15				M			
	45-50	mc1	10YR44 00				0	0	HR	20				M			

SAMPLE NO.	GRID REF	ASPECT USE	--WETNESS--				-WHEAT-		-POTS-		M.REL		EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
			GRDNT	GLEY	SPL	CLASS	GRADE	AP	MB	AP	MB	DRT					
1	SU13401330	PGR				1	2	98	-9	99	0	3A			DR	3A	IMP GH 78 1P
1P	SU13361285	PGR	E	01		1	2	64	-43	66	-33	3B			DR	3B	PIT FACE GH 55
2	SU13401320	PGR				1	2	81	-26	85	-14	3B			DR	3B	IMP ST 60 6P
2P	SU13351245	PGR				1	2	100	-7	112	13	3A			DR	3A	PIT 75 GH 75
3	SU13401310	PGR				1	2	86	-21	92	-7	3B			DR	3B	IMP ST 62 6P
3P	SU12881241	PGR			033 053	4	3B	106	-1	104	5	3A			WE	3B	PIT 85 SPL 53
4	SU13501310	PGR	E	02		1	2		0	0					DR	3B	IMP GH 25 6P
4P	SU13651205	PGR				1	2	99	-8	102	3	3A			DR	3A	PIT 62 GH 70
5	SU13401300	PGR	E	01		1	2		0	0					DR	3B	IMP ST 30 6P
5P	SU13751232	PGR				1	2	79	-28	78	-21	3B			DR	3B	PIT 65 GH 58
6	SU13501230	PGR	E	01		1	2		0	0					DR	3B	IMP ST 40 6P
6P	SU13491299	PGR	E	01		1	2		0	0					DR	3B	PIT 65 IMP ST
7	SU12901290	PGR				2	3A	138	31	117	24	1			WE	3A	IMP ST 100
7P	SU13251170	CER				1	2	57	-50	54	-45	4			DR	4	PIT 57 GH 29
8	SU13001290	PGR			0 060	3	3A	120	13	113	20	2			WE	3A	SPL 60 3P
8P	SU13171201	CER				1	2	92	-14	94	-5	3A			DR	3A	PIT 80 GH 76
9	SU13401290	PGR	E	01		1	2		0	0					DR	3B	IMP ST 40 6P
12	SU13101280	PGR				1	2	138	31	120	27	1			WK	2	WORKABILITY
13	SU13201280	PGR				1	2	92	-15	96	3	3A			DR	3A	IMP ST 60 2P
14	SU13301280	PGR				1	2	81	-26	81	-12	3B			DR	3B	IMP ST 50 1P
16	SU12901270	PGR			025 040	4	3B	122	15	108	9	2			WE	3B	SPL 40 3P
17	SU13001270	PGR			030	2	3A		0	0					WE	3A	IMP ST 50 2P
18	SU13101270	PGR				1	2	104	-3	111	18	3A			DR	3A	IMP ST 70 2P
19	SU13201270	PGR				1	2	94	-13	101	8	3A			DR	3A	IMP ST 65 2P
20	SU13301270	PGR				1	2	67	-40	67	-26	3B			DR	3B	IMP ST 40 1P
21	SU12901260	PGR			0 065	3	3A	130	23	115	16	2			WE	3A	SPL 65 3P
22	SU13001260	PGR			0 040	4	3B	114	7	102	3	2			WE	3B	SPL 40 3P
23	SU13101260	PGR				1	2	95	-12	102	3	3A			DR	3A	IMP ST 65 2P
24	SU13201260	PGR				1	2	110	3	110	11	3A			DR	3A	IMP ST 80 2P
25	SU13301260	PGR				1	2	98	-9	107	8	3A			DR	3A	IMP ST 70 2P
26	SU12801250	PGR			0 032	4	3B	127	20	104	5	2			WE	3B	SPL 32 3P
27	SU12901250	PGR			022 065	4	3B	123	16	105	6	2			WE	3B	WCIV. V.WET
28	SU13001250	PGR			045 055	3	3A	140	33	108	9	2			WE	3A	SPL 55 3P
29	SU13101250	PGR			065	1	2	114	7	113	14	2			WD	2	IMP ST 82 2P
30	SU13201250	PGR				1	2	64	-43	64	-35	3B			DR	3B	IMP ST 40 2P
31	SU13301250	PGR				1	2	118	11	109	10	2			WD	2	IMP ST 95 2P
32	SU13401250	PGR	E	01		1	2		0	0					DR	3A	IMP ST 45 5P
33	SU13501250	PGR	E	01		1	2		0	0					DR	3B	IMP ST 30 2P
34	SU12801240	PGR			028 075	2	3A	133	26	106	7	2			WE	3A	SPL 75 3P
35	SU12901240	PGR			030 065	3	3A	131	24	109	10	2			WE	3A	SPL 65 3P
36	SU13001240	PGR			055 075	2	3A	138	31	107	8	2			WE	3A	SPL 75 3P
37	SU13101240	PGR				1	2	70	-37	70	-29	3B			DR	3B	IMP ST 45 5P

SAMPLE NO.	GRID REF	ASPECT USE	--WETNESS--		-WHEAT-		-POTS-		M.REL		EROSN EXP	FROST DIST	CHEM LIMIT	ALC COMMENTS	
			GRDNT	GLEY SPL	CLASS	GRADE	AP	MB	AP	MB					DRT
38	SU13201240	PGR			1	2	73	-34	73	-26	3B		DR	3B	IMP ST 50 2P
39	SU13301240	PGR			1	2	75	-32	75	-24	3B		DR	3B	IMP ST 50 2P
40	SU13401240	PGR	E	01	1	2	91	-16	95	-4	3A		DR	3A	IMP ST 45 2P
41	SU13501240	PGR	E	01	1	2		0		0			DR	3B	IMP ST 30 2P
42	SU13601240	PGR	N	01	1	2		0		0			DR	3B	IMP ST 32 5P
43	SU13701240	PGR			1	2	59	-48	59	-40	3B		DR	3B	IMP ST 35 5P
44	SU13801240	PGR			1	2	75	-32	75	-24	3B		DR	3B	IMP ST 47 5P
45	SU12901230	PGR		045 045	3	3A	131	24	107	8	2		WE	3A	SPL 45 3P
46	SU13001230	PGR		045 060	3	3A	135	28	113	14	2		WE	3A	SPL 60 3P
47	SU13101230	PGR			1	2	97	-10	103	4	3A		DR	3A	IMP ST 65 2P
48	SU13201230	PGR			1	2	72	-35	72	-27	3B		DR	3B	IMP ST 45 2P
49	SU13301230	PGR			1	2	64	-43	64	-35	3B		DR	3B	IMP ST 40 2P
50	SU13401230	PGR			1	2	99	-8	109	10	3A		DR	3A	IMP GH 70 2P
51	SU13501230	PGR			1	2	84	-23	86	-13	3B		DR	3B	IMP ST 55 5P
52	SU13601230	PGR			1	2		0		0			DR	3B	IMP ST 30 5P
53	SU13701230	PGR			1	2		0		0			DR	3B	IMP ST 33 5P
54	SU13801230	PGR			1	2	59	-48	59	-40	3B		DR	3B	IMP ST 35 5P
55	SU13901230	PGR			1	2	80	-27	80	-19	3B		DR	3B	IMP ST 50 5P
56	SU12901220	PGR			1	2	93	-14	98	5	3A		DR	3A	IMP ST 60 8P
57	SU13001220	PGR			1	2	94	-13	102	9	3A		DR	3A	IMP ST 65 8P
58	SU13101220	PGR			1	2	66	-41	66	-27	3B		DR	3B	IMP ST 40 5P
59	SU13201220	PGR			1	2		0		0			DR	3B	IMP ST 30 5P
60	SU13301220	PGR			1	2	128	21	112	19	2		WD	2	IMP ST 100 8P
61	SU13401220	PGR			1	2	108	1	109	10	3A		DR	3A	IMP GH 80 8P
62	SU13501220	PGR			1	2	96	-11	105	6	3A		DR	3A	IMP ST 65 4P
63	SU13601220	PGR			1	2	120	13	113	14	2		DR	2	IMP GH 90 4P
64	SU13701220	PGR			1	2		0		0			DR	3B	IMP ST 35 5P
65	SU13801220	PGR			1	2	132	25	106	7	2		WD	2	IMP GH 110 4P
66	SU13901220	PGR			1	2	86	-21	90	-9	3B		DR	3B	IMP ST 57 5P
67	SU14001220	PGR			1	2	60	-47	60	-39	3B		DR	3B	IMP ST 40 5P
68	SU12901210	PGR			1	2		0		0			DR	3B	IMP ST 29 5P
69	SU13001210	PGR			1	2		0		0			DR	3B	IMP ST 25 5P
70	SU13101210	PGR			1	2	72	-35	72	-21	3B		DR	3B	IMP ST 40 5P
71	SU13201210	PGR			1	2	83	-24	83	-10	3B		DR	3B	IMP ST 50 5P
72	SU13301210	PGR			1	2		0		0			DR	3B	IMP ST 30 5P
73	SU13401210	PGR			1	2	89	-18	93	-6	3A		DR	3A	IMP ST 57 4P
74	SU13501210	PGR			1	2	122	15	109	10	2		WD	2	IMP GH 90 4P
75	SU13601210	PGR			1	2		0		0			DR	3A	IMP ST 33 4P
76	SU13701210	PGR			1	2		0		0			DR	3A	IMP ST 30 4P
77	SU13801210	PGR			1	2		0		0			DR	3A	IMP ST 25 4P
78	SU13901210	PGR			1	2	91	-16	96	-3	3A		DR	3A	IMP ST 60 4P
79	SU14001210	PGR			1	2	96	-11	107	8	3A		DR	3A	IMP GH 70 4P

SAMPLE NO.	GRID REF	ASPECT USE	--WETNESS--		-WHEAT-		-POTS-		M. REL		EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS	
			GRDNT	GLEY	SPL	CLASS	GRADE	AP	MB	AP						MB
80	SU13001200	CER				1	2	94	-13	95	-4	3A		DR	3A	IMP GH 60 8P
81	SU13101200	CER				1	2	99	-8	104	5	3A		DR	3A	IMP GH 70 8P
82	SU13201200	CER				1	2	96	-11	98	-1	3A		DR	3A	IMP ST 60 8P
83	SU13301200	CER				1	2	105	-2	111	12	3A		DR	3A	IMP ST 70 8P
84	SU13401200	PGR				1	2	93	-14	102	3	3A		DR	3A	IMP ST 65 8P
85	SU13501200	PGR				1	2		0		0			DR	3A	IMP ST 30 4P
86	SU13601200	PGR				1	2		0		0			DR	3A	IMP ST 40 4P
87	SU13701200	PGR				1	2	73	-34	74	-25	3B		DR	3B	IMP ST 52 4P
88	SU13001190	CER		050		1	2	92	-15	97	-2	3A		DR	3A	IMP GH 65 8P
91	SU13341190	CER				1	2	85	-22	82	-17	3B		DR	3B	IMP GH 50 8P
92	SU13501190	PGR				1	2	74	-33	74	-25	3B		DR	3B	IMP ST 50 4P
93	SU13601190	PGR				1	2		0		0			DR	3B	IMP ST 32 7P
94	SU13701190	PGR				1	2		0		0			DR	3B	IMP ST 30 7P
95	SU13001180	CER		050	060	3	3B	132	25	108	9	2		WE	3B	SPL 60 3P
99	SU13401180	CER				1	2	103	-4	111	12	3A		DR	3A	IMP GH 70 8P
100	SU13501180	PGR				1	2	63	-44	63	-36	3B		DR	3B	IMP GH 40 7P
101	SU13601180	PGR				1	2	59	-48	59	-40	3B		DR	3B	IMP GH 40 7P
102	SU13001170	CER				1	2		0		0			DR	3A	IMP ST 35 8P
103	SU13101170	CER				1	2	109	2	111	12	3A		DR	3A	IMP ST 80 8P
104	SU13201170	CER				1	2	65	-42	65	-34	3B		DR	3B	IMP GH 42 7P
105	SU13301170	CER				1	2		0		0			DR	3B	IMP GH 32 7P
106	SU13401170	CER				1	2	62	-45	59	-40	3B		DR	3B	IMP GH 40 7P
107	SU13101160	CER				1	2	83	-24	80	-19	3B		DR	3B	IMP GH 50 7P

SOIL PIT DESCRIPTION

Site Name : FORDINGBRIDGE, HANTS Pit Number : 1P

Grid Reference: SU13361285 Average Annual Rainfall : 0 mm  
 Accumulated Temperature : 0 degree days  
 Field Capacity Level : 0 days  
 Land Use : Permanent Grass  
 Slope and Aspect : 01 degrees E

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 24	SCL	10YR43 00	8	30		
24- 55	SCL	10YR44 00	0	30		HKCOAB
55-120	GH	00ZZ00 00	0	0		

Wetness Grade : 2 Wetness Class : I  
 Gleying : cm  
 SPL : No SPL

Drought Grade : 3B APW : 64 mm MBW : -43 mm  
 APP : 66 mm MBP : -33 mm

FINAL ALC GRADE : 3B  
 MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : FORDINGBRIDGE, HANTS Pit Number : 2P

Grid Reference: SU13351245 Average Annual Rainfall : 0 mm  
 Accumulated Temperature : 0 degree days  
 Field Capacity Level : 0 days  
 Land Use : Permanent Grass  
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 28	MCL	10YR43 00	2	6		WCSAB
28- 35	MCL	10YR53 00	0	8		MCSAB
35- 70	C	75YR66 53	0	4		MCSAB
70- 75	C	75YR66 53	0	30		
75-120	GH	00ZZ00 00	0	0		

Wetness Grade : 2 Wetness Class : I  
 Gleying : cm  
 SPL : No SPL

Drought Grade : 3A APW : 100mm MBW : -7 mm  
 APP : 112mm MBP : 13 mm

FINAL ALC GRADE : 3A  
 MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : FORDINGBRIDGE, HANTS Pit Number : 3P

Grid Reference: SU12881241 Average Annual Rainfall : 0 mm  
 Accumulated Temperature : 0 degree days  
 Field Capacity Level : 0 days  
 Land Use : Permanent Grass  
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 33	SCL	10YR43 00	0	3		WCSAB
33- 53	SCL	10YR74 53	0	3	C	MCSAB
53- 85	SC	10YR64 52	0	8	C	WCSAB

Wetness Grade : 3B Wetness Class : IV  
 Gleying : 033 cm  
 SPL : 053 cm

Drought Grade : 3A APW : 106mm MBW : -1 mm  
 APP : 104mm MBP : 5 mm

FINAL ALC GRADE : 3B  
 MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : FORDINGBRIDGE, HANTS Pit Number : 4P

Grid Reference: SU13651205 Average Annual Rainfall : 0 mm  
 Accumulated Temperature : 0 degree days  
 Field Capacity Level : 0 days  
 Land Use : Permanent Grass  
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 26	MCL	10YR43 00	2	18		
26- 45	MCL	10YR44 00	0	8		
45- 62	SCL	75YR56 00	0	15		
62- 70	C	05YR56 58	0	26		
70-120	GH	00Z200 00	0	0		

Wetness Grade : 2 Wetness Class : I  
 Gleying : cm  
 SPL : No SPL

Drought Grade : 3A APW : 99 mm MBW : -8 mm  
 APP : 102mm MBP : 3 mm

FINAL ALC GRADE : 3A  
 MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : FORDINGBRIDGE, HANTS Pit Number : 5P

Grid Reference: SU13751232 Average Annual Rainfall : 0 mm  
 Accumulated Temperature : 0 degree days  
 Field Capacity Level : 0 days  
 Land Use : Permanent Grass  
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 28	MCL	10YR43 00	2	9		WDCSAB
28- 41	MCL	10YR44 00	0	33		
41- 58	MCL	10YR46 00	0	43		
58-120	GH	75YR46 00	0	0		

Wetness Grade : 2 Wetness Class : I  
 Gleying : cm  
 SPL : No SPL

Drought Grade : 3B APW : 79 mm MBW : -28 mm  
 APP : 78 mm MBP : -21 mm

FINAL ALC GRADE : 3B  
 MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : FORDINGBRIDGE, HANTS Pit Number : 6P

Grid Reference: SU13491299 Average Annual Rainfall : 0 mm  
 Accumulated Temperature : 0 degree days  
 Field Capacity Level : 0 days  
 Land Use : Permanent Grass  
 Slope and Aspect : 01 degrees E

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 25	SCL	10YR43 00	8	48		
25- 40	SCL	10YR44 00	0	50		
40- 65	MSL	10YR46 00	0	50		

Wetness Grade : 2 Wetness Class : I  
 Gleying : cm  
 SPL : No SPL

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

FINAL ALC GRADE : 3B  
 MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : FORDINGBRIDGE, HANTS Pit Number : 7P

Grid Reference: SU13251170 Average Annual Rainfall : 0 mm  
 Accumulated Temperature : 0 degree days  
 Field Capacity Level : 0 days  
 Land Use : Cereals  
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 29	MCL	10YR42 00	3	13		
29-120	GH	10YR43 00	0	0		

Wetness Grade : 2 Wetness Class : I  
 Gleying : cm  
 SPL : No SPL

Drought Grade : 4 APW : 57 mm MBW : -50 mm  
 APP : 54 mm MBP : -45 mm

FINAL ALC GRADE : 4  
 MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : FORDINGBRIDGE, HANTS Pit Number : 8P

Grid Reference: SU13171201 Average Annual Rainfall : 0 mm  
 Accumulated Temperature : 0 degree days  
 Field Capacity Level : 0 days  
 Land Use : Cereals  
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 25	MCL	10YR43 00	3	6		WKMSAB
25- 52	HCL	10YR44 00	0	20		MDCOAB
52- 62	HCL	10YR44 46	0	30		
62- 76	C	75YR56 00	0	65		
76-120	GH	00ZZ00 00	0	0		

Wetness Grade : 2 Wetness Class : I  
 Gleying : cm  
 SPL : No SPL

Drought Grade : 3A APW : 92 mm MBW : -14 mm  
 APP : 94 mm MBP : -5 mm

FINAL ALC GRADE : 3A  
 MAIN LIMITATION : Droughtiness