4105/163/95

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East Sussex Structure Plan
Land at Plumpton Green,
Agricultural Land Classification
Reconnaissance Survey
ALC Map and Report
December 1995

Resource Planning Team
Guildford Statutory Group
ADAS Reading

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AGRICULTURAL LAND CLASSIFICATION REPORT
RECONNAISSANCE SURVEY

EAST SUSSEX STRUCTURE PLAN
LAND AROUND PLUMPTON GREEN

Introduction

1. This report presents the findings of a reconnaissance Agricultural Land Classification (ALC) survey of 495 ha of land around the village of Plumpton Green in East Sussex. The survey was carried out during October, November and December 1995.

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 East Sussex Structure 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. The survey was completed at a reconnaissance level of detail, on a 'free' survey basis, as it was undertaken primarily to update the 1:63,360 scale provisional ALC maps for this area. Consequently the results are designed for strategic planning purposes only. For site specific proposals, further, more detailed surveys may be required.

4. At the time of survey the ground cover was mainly permanent grass, with some areas primarily to the east and south in arable use. The areas shown as Urban include the village of Plumpton Green, separate dwellings and farm buildings. The woodland shown is mainly mature and deciduous. The Non-agricultural land includes playing fields and a disused clay pit currently being converted to a fishing enterprise.

Summary

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:50,000. It is accurate at this scale, but any enlargement would be misleading.

6. The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1 overleaf.

7. The fieldwork was conducted at an average density of approximately 1 boring per 6 hectares. A total of 86 borings and five soil pits were described.

8. The agricultural land at this site has been classified as Subgrade 3a (good quality), Subgrade 3b (moderate quality) and Grade 4 (poor quality). The principal limitation to land quality is soil wetness. Medium and heavy clay loam, occasionally silty clay loam or clay topsoils overlie slowly permeable clays at shallow and moderate depths in the profile. The

slowly permeable horizons cause drainage to be impeded such 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. In addition, the relatively moist climatic regime at this locality interacts with the heavy topsoil textures found in parts of the area to cause soil workability restrictions.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% agricultural area
3a	19.7	4.0	4.7
3b	262.8	53.1	62.9
4	135.3	27.3	32.4
Non-agricultural	11.4	2.3	
Woodland	11.9	2.4	
Urban	53.9	10.9	
Total Agricultural Area	417.8		100.0
Total Site area	495.0	100.0	

Climate

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

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

Table 2: Climatic and altitude data

Factor	Units	Values	Values	Values
Grid reference	N/A	TQ 362 177	TQ 365 164	TQ 365 162
Altitude	m, AOD	53	38	30
Accumulated Temperature	day°C	1473	1490	1500
Average Annual Rainfall	mm	840	872	872
Field Capacity Days	days	179	185	185
Moisture Deficit, Wheat	mm	105	106	107
Moisture Deficit, Potatoes	mm	98	99	100

11. 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.

12. The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR), as a measure of overall wetness, and accumulated temperature (AT0, January to June), as a measure of the relative warmth of a locality.

13. The combination of rainfall and temperature at this site mean that there is no overall climatic limitation. In regional terms, this area is relatively wet and warm, with a high accumulated temperature, a high average rainfall and subsequently high number of field capacity days. These factors combine to create moderate moisture deficits for the two reference crops used in the classification. In terms of grading, these factors are likely to reduce the likelihood of soil droughtiness being a limitation and conversely increase the likelihood of soil wetness. Other local climatic factors such as exposure and frost risk are believed not to affect the site. This area Grade 1 in terms of climate data alone.

Site

14. The site lies at an altitude in the range 30-60 m AOD. Overall the land is of a gently undulating nature. Nowhere on the site does gradient, microrelief or flooding affect the agricultural land quality.

Geology and soils

15. The published geological information for the site (BGS, 1984), shows the majority of the site to be underlain by Weald Clay, with occasional inclusions of 'Sand in Weald Clay' shown. Towards the south of the site a broad band of head drift deposits is mapped overlying the Weald Clay. In addition alluvial drift deposits are shown along the course of a stream running from east to west through the site just north of the railway line

16. The most detailed published soils information for the site (SSEW, 1983 and 1984) shows the site to comprise soils of the Wickham 1 Association. These are described as 'slowly permeable seasonally waterlogged fine silty over clayey, fine loamy over clayey and clayey soils.' (SSEW, 1983). Soils of this broad type were found across most of the site. In many instances, approximately where the 'Sand in Weald Clay' is shown, the soils were distinctly sandier overall and deeper over slowly permeable horizons.

Agricultural Land Classification

17. 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, page 2.

18. 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.

Subgrade 3a

19. Land of good quality has been mapped in three areas to the north, and south east of the site. The principal limitation is soil wetness.

20. Soils in these mapping units are of two distinct types. The first occurs to the north of the site. These commonly comprise a stoneless to very slightly stony (up to 2% v/v total flints) medium clay loam or sandy clay loam topsoil passing to a gleyed stoneless medium clay loam or sandy clay loam upper subsoil. This overlies a gleyed, stoneless medium silty clay loam horizon which passes to a gleyed and slowly permeable stoneless clay lower subsoil to depth, as seen in the pit observation, 4p, which is representative of this soil type.

21. The second soil type assigned to Subgrade 3a which is affected by soil wetness occurs to the south east of the 'area of search'. Pit 5 is representative of this soil type. Soils in this area commonly comprise a stoneless medium clay loam topsoil, passing to gleyed, stoneless heavy clay loam upper subsoil horizons. These overlie stoneless, gleyed and slowly permeable, moderately structured clay lower subsoils to depth (120cm).

22. In both soil types the slowly permeable clayey horizons have the effect of restricting water flow through the soil profile which causes drainage to be impeded. The depth at which these horizons occur given the local climate leads to Wetness Class III being appropriately applied and subsequently Subgrade 3a given the medium workability status of the topsoils in these areas. Soil wetness affects plant growth and yield as well as restricting land utilisation in terms of the number of days when machinery cultivations and grazing by livestock can occur without causing structural damage to the soil..

Subgrade 3b

23. Land of moderate quality has been mapped over the majority of the site. The principal limitation to land quality is soil wetness and/or workability.

24. Soils in this area comprise stoneless, commonly gleyed medium clay loam, or medium silty clay loam topsoils. These commonly pass to a medium / heavy clay loam or silty clay loam gleyed and stoneless upper subsoil which, overlies gleyed and slowly permeable poorly structured clay, silty clay or moderately structured, but still slowly permeable, heavy silty clay loam. Occasionally the topsoil lies directly over the slowly permeable horizons. Pits 1, 2, and 3 are representative of this soil type. The slowly permeable horizons restrict water flow through the soil profile so causing drainage to be impeded to the extent that Wetness Class IV and Subgrade 3b has been appropriately applied in this area given the local climate and the workability status of the topsoils. Soil wetness affects plant growth and yield as well as restricting land utilisation in terms of the number of days when machinery cultivations and grazing by livestock can occur without causing structural damage to the soil.

Grade 4

25. Land of poor quality has been mapped in four areas of the site, to the north west, north east, and south east. The principal limitation is soil wetness and/or workability.

26. Soils in these areas are essentially similar to those described in paragraph 23, except that the topsoils are either heavy clay loam, heavy silty clay loam or clay as seen in the pit observations 2p and 3p. The heavier topsoils cause the land to be workable for shorter periods throughout the year and consequently it is less versatile in use, being primarily restricted to seasonal grazing or occasional cereals as seen throughout this site. The poorly structured slowly permeable subsoils restrict water flow through the soil profile so causing

drainage to be impeded to the extent that Wetness Class IV and Grade 4 has been appropriately applied in these areas given the relatively wet local climate and the poor workability status of the topsoils. Soil wetness affects plant growth and yield as well as restricting land utilisation in terms of the number of days when machinery cultivations and grazing by livestock can occur without causing structural damage to the soil.

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SOURCES OF REFERENCE

British Geological Survey (1984) *Sheet 318/333, Brighton and Worthing. Solid and Drift Edition. 1:50 000. Scale.* BGS: London.

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

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

Soil Survey of England and Wales (1983) *Soils of 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.

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

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

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

Agricultural Buildings
Includes the normal range of agricultural buildings as well as other relatively permanent structures such as glasshouses. Temporary structures (e.g. 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, e.g. buildings in large grounds, and where map scale permits, the cover types may be shown separately. Otherwise, the most extensive cover type will be shown.

APPENDIX II

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 **ST**: strongly developed	**MD**: moderately developed
ped size	**F**: fine **C**: coarse	**M**: medium **VC**: very coarse
ped shape	**S** : single grain **GR**: granular **SAB**: sub-angular blocky **PL**: platy	**M**: massive **AB**: angular blocky **PR**: prismatic

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 : E SUSSEX SP PLUMPTON GRN Pit Number : 1P

Grid Reference: TQ37241602 Average Annual Rainfall : 872 mm
Accumulated Temperature : 1490 degree days
Field Capacity Level : 185 days
Land Use : Cereals
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 26	MZCL	10YR43 00	0	2	HR					
26- 42	HZCL	25Y 52 00	0	0		C	MDCSAB	FM	M	
42- 70	HZCL	25Y 62 00	0	0		M	MDCAB	FR	M	

Wetness Grade : 3B Wetness Class : IV
Gleying : 26 cm
SPL : 42 cm

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

FINAL ALC GRADE : 3B
MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : E SUSSEX SP PLUMPTON GRN Pit Number : 2P

Grid Reference: TQ37241632 Average Annual Rainfall : 872 mm
Accumulated Temperature : 1490 degree days
Field Capacity Level : 185 days
Land Use :
Slope and Aspect : 2 degrees S

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 28	C	10YR43 00	0	0						
28- 65	C	05Y 71 61	0	0		M	WKCPR	FM	P	

Wetness Grade : 4 Wetness Class : IV
Gleying : 28 cm
SPL : 28 cm

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

FINAL ALC GRADE : 4
MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : E SUSSEX SP PLUMPTON GRN Pit Number : 3P

Grid Reference: TQ35901719 Average Annual Rainfall : 872 mm
Accumulated Temperature : 1490 degree days
Field Capacity Level : 185 days
Land Use : Permanent Grass
Slope and Aspect : 2 degrees NE

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 13	HZCL	10YR41 00	0	0		F				
13- 26	ZC	10YR53 00	0	0		C	MDVCSB	FR	M	
26- 60	C	10YR62 00	0	0		M	MDCAB	FM	P	

Wetness Grade : 4 Wetness Class : IV
Gleying : 13 cm
SPL : 26 cm

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

FINAL ALC GRADE : 4
MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : E SUSSEX SP PLUMPTON GRN Pit Number : 4P

Grid Reference: TQ36051766 Average Annual Rainfall : 872 mm
Accumulated Temperature : 1490 degree days
Field Capacity Level : 185 days
Land Use : Permanent Grass
Slope and Aspect : 2 degrees S

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 29	MCL	10YR43 00	0	2	HR					
29- 48	MCL	10YR44 00	0	2	HR	F	MDCSAB	FR	M	
48- 76	MZCL	25Y 64 61	0	0		C	MDCSAB	FR	M	
76- 87	C	25Y 61 00	0	0		M	WKCAB	FM	P	
87-120	C	25Y 61 71	0	0		M	MDCAB	FM	P	

Wetness Grade : 3A Wetness Class : II
Gleying : 48 cm
SPL : 76 cm

Drought Grade : 1 APW : 150mm MBW : 44 mm
APP : 122mm MBP : 23 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : E SUSSEX SP PLUMPTON GRN Pit Number : 5P

Grid Reference: TQ37001562 Average Annual Rainfall : 872 mm
Accumulated Temperature : 1490 degree days
Field Capacity Level : 185 days
Land Use : Cereals
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 28	MCL	10YR43 00	0	0						
28- 52	MCL	10YR54 00	0	0		C	MDCSAB	FR	M	
52- 80	C	25Y 53 52	0	0		M	MDCAB	FR	M	

Wetness Grade : 3A Wetness Class : III
Gleying :S28 cm
SPL : 52 cm

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

FINAL ALC GRADE : 3A
MAIN LIMITATION : Wetness

SAMPLE 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
1	TQ36881657	STB	E	1	25	25	4	3B		0		0					WE	3B	
1P	TQ37241602	CER			26	42	4	3B		0		0					WE	3B	PIT 70 AUG 90
2	TQ37001679	LEY	S	3	28	65	3	3A	128	22	126	27	2				WE	3A	
2P	TQ37241632	STB	S	2	28	28	4	4		0		0					WE	4	PIT 65
3	TQ37081710	CER	S	1	30	30	4	3B		0		0					WE	3B	
3P	TQ35901719	PGR	NE	2	13	26	4	4		0		0					WE	4	PIT 60
4	TQ37081754	CER			28	28	4	4		0		0					WE	4	
4P	TQ36051766	PGR	S	2	48	76	2	3A	150	44	122	23	1				WE	3A	PIT 95 AUG 120
5	TQ37181730	CER			28	48	4	4		0		0					WE	4	
5P	TQ37001562	CER			52	52	3	3A		0		0					WE	3A	PIT80 SLGLEY28
6	TQ37401691	CER	E	2	28	60	3	3A		0		0					WE	3A	POSS 3B
7	TQ37411658	CER	S	2	28	35	4	3B		0		0					WE	3B	
8	TQ37241632	STB	S	2	30	30	4	4		0		0					WE	4	
9	TQ37521612	OSR	S	1	30	40	4	4		0		0					WE	4	
10	TQ37551576	CER			30	30	4	3B		0		0					WE	3B	
11	TQ37241592	CER			27	40	4	3B		0		0					WE	3B	
12	TQ37161616	CER			30	30	4	4		0		0					WE	4	
13	TQ36871602	CER			26	45	4	3B		0		0					WE	3B	
14	TQ36751629	PGR	S	2	30	45	4	3B		0		0					WE	3B	
15	TQ36601648	PGR	N	2		30	3	4		0		0					WE	4	SL GLEYED 30
16	TQ36821785	PGR	S	2	25	35	4	3B		0		0					WE	3B	
17	TQ36811769	PGR	N	2	25	45	4	3B		0		0					WE	3B	
18	TQ35861645	PGR	S	2	0	25	4	4		0		0					WE	4	
19	TQ35921670	PGR			23	23	4	4		0		0					WE	4	
20	TQ35861730	PGR	E	2	0	28	4	4		0		0					WE	4	
21	TQ35901718	PGR	NE	1	0	35	4	4		0		0					WE	4	
22	TQ35951705	PGR	E	2	25	35	4	3B		0		0					WE	3B	
23	TQ36041681	PGR			23	38	4	3B		0		0					WE	3B	
24	TQ35951742	PGR			0	38	4	3B		0		0					WE	3B	
25	TQ36051766	PGR	S	4	50	70	2	3A		0		0					WE	3A	SEE 4P
26	TQ36181770	PGR	NE	2	23	40	4	3B		0		0					WE	3B	
27	TQ36201781	PGR	E	2	25	40	4	3B		0		0					WE	3B	
28	TQ36221800	PGR			25	43	4	3B		0		0					WE	3B	
29	TQ36251748	PGR	S	2	38	90	2	3A		0		0					WE	3A	
30	TQ36521657	PGR			0	28	4	4		0		0					WE	4	
31	TQ36451665	PGR			0	30	4	3B		0		0					WE	3B	
32	TQ36511673	PGR	S	1	0	35	4	3B		0		0					WE	3B	
33	TQ36601755	PGR	N	2	26	45	4	3B		0		0					WE	3B	
34	TQ36821753	PGR	N	3	25	45	4	3B		0		0					WE	3B	
35	TQ36781735	PGR	N	2	25	35	4	3B		0		0					WE	3B	
36	TQ36971736	PGR	N	1	35	35	4	3B		0		0					WE	3B	
37	TQ36981720	PGR	SW	3	30	30	4	4		0		0					WE	4	

SAMPLE 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
38	TQ36871709	PGR	SW	3	35	35	4	3B		0		0					WE	3B	
39	TQ36701702	PGR			0	35	4	4		0		0					WE	4	
40	TQ35451792	CER	NE	2	30	45	4	4		0		0					WE	4	
41	TQ35571781	CER	N	3	25	25	4	4		0		0					WE	4	
42	TQ35561800	CER			30	30	4	3B		0		0					WE	3B	
43	TQ35811808	PGR	SW	2	25	45	4	3B		0		0					WE	3B	
44	TQ35811788	CER	N	1	30	30	4	4		0		0					WE	4	
45	TQ35791770	CER	W	2	45	45	3	3B		0		0					WE	3B	SL GLEYED 30
46	TQ35251775	CER	E	2	30	30	4	4		0		0					WE	4	
47	TQ35411767	CER			28		2	2	167	61	129	30	1				WE	2	
48	TQ35551757	CER	S	3	33	33	4	4		0		0					WE	4	
49	TQ35751752	CER	S	1	32	32	4	3B		0		0					WE	3B	
50	TQ35731738	CER	S	2	30	40	4	4		0		0					WE	4	
51	TQ35601740	CER	N	1	25	25	4	3B		0		0					WE	3B	
52	TQ35611772	CER	N	1	27	38	4	3B		0		0					WE	3B	
53	TQ36261735	PGR			0	30	4	3B		0		0					WE	3B	
54	TQ36161712	PGR			20	30	4	3B		0		0					WE	3B	
55	TQ36201677	PGR			0	25	4	4		0		0					WE	4	
56	TQ36401765	PGR	E	2	20	45	4	3B		0		0					WE	3B	
57	TQ36401815	PGR	E	2	0	60	3	3A		0		0					WE	3A	
58	TQ35351746	PGR			30	30	4	4		0		0					WE	4	
59	TQ35551745	CER	E	2	30	30	4	4		0		0					WE	4	
60	TQ35511725	PGR	E	2	27	37	4	4		0		0					WE	4	
61	TQ35531718	PGR	S	1	0	30	4	3B		0		0					WE	3B	
62	TQ35181730	PGR			0	28	4	4		0		0					WE	4	
63	TQ35221751	PGR			30	30	4	4		0		0					WE	4	
64	TQ36611585	PGR			30	48	4	3B		0		0					WE	3B	
65	TQ36811588	CER			27	50	4	3B		0		0					WE	3B	BORDER 3A
66	TQ36721562	CER			45	45	3	3A		0		0					WE	3A	SL GLEY 25
67	TQ36671536	CER			30	30	4	3B		0		0					WE	3B	
68	TQ35451618	CER	N	1	25	38	4	3B		0		0					WE	3B	
69	TQ35681632	CER	N	1	28	45	4	3B		0		0					WE	3B	
70	TQ35911618	CER			28	52	3	3A		0		0					WE	3A	
71	TQ36121610	PLO			33	33	4	3B		0		0					WE	3B	
72	TQ36071588	PLO			30	50	4	3B		0		0					WE	3B	BORDER 3A
73	TQ35661605	CER			25	37	4	3B		0		0					WE	3B	
74	TQ35751662	PGR			0	22	4	4		0		0					WE	4	
75	TQ35731700	PGR			0	25	4	4		0		0					WE	4	
76	TQ35661732	CER	SE	2	0	25	4	4		0		0					WE	4	
77	TQ36901550	CER	E	2	28	52	3	3A		0		0					WE	3A	SEE 5P
78	TQ37071580	CER	E	2	28	45	4	3B		0		0					WE	3B	SEE 5P
79	TQ37001562	CER	E	2	55	55	3	3A		0		0					WE	3A	5P SL GLEY 28

SAMPLE NO.	GRID REF	USE	ASPECT	GRDNT	--WETNESS-- GLEY	SPL	CLASS	GRADE	-WHEAT- AP	MB	-POTS- AP	MB	M.REL DRT	FLOOD	EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
80	TQ37041556	PGR			0	25	4	4		0		0					WE	4	ALLUVIAL
81	TQ37441557	CER			28	28	4	3B		0		0					WE	3B	SEE 5P
82	TQ35601577	PLO			0	25	4	3B		0		0					WE	3B	
83	TQ35721552	PLO	N	2	0	28	4	3B		0		0					WE	3B	
84	TQ36051565	PGR	N	1	0	20	4	4		0		0					WE	4	
85	TQ35851585	CER			0	25	4	3B		0		0					WE	3B	
86	TQ35441600	SAS			25	25	4	3B		0		0					WE	3B	

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	0-25	mcl	10YR43 00						0	0	HR	3							
	25-120	hcl	25Y 62 63	10YR68 00	M		00MN00 00	Y	0	0		0		M			Y		SPL AS 1P
1P	0-26	mzcl	10YR43 00						0	0	HR	2							PSD-MZCL/ZL 1%
	26-42	hzcl	25Y 52 00	10YR56 00	C		00MN00 00	Y	0	0		0	MDCSAB	FM M	Y				PSD-HZCL/MZCL 1%
	42-70	hzcl	25Y 62 00	10YR58 00	M		25Y 52 00	Y	0	0		0	MDCAB	FR M	Y		Y		PSD-HZCL/ZC 1%
2	0-28	fszl	10YR43 00						0	0	HR	3							
	28-65	mcl	25Y 63 00	10YR68 00	M		00MN00 00	Y	0	0		0		M					
	65-90	c	05Y 61 00	10YR68 00	M		00MN00 00	Y	0	0		0		P			Y		
2P	0-28	c	10YR43 00						0	0		0							PSD-C/ZC 2%
	28-65	c	05Y 71 61	75YR68 00	M		25Y 53 00	Y	0	0		0	WKCPR	FM P	Y		Y		
3	0-30	mcl	10YR43 00						0	0	HR	3							
	30-70	c	05Y 61 00	10YR68 00	M			Y	0	0		0		P			Y		
3P	0-13	hzcl	10YR41 00	10YR56 00	F				0	0		0							PSD-HZCL/MZC BORDER
	13-26	zc	10YR53 00	10YR58 00	C		10YR52 00	Y	0	0		0	MDVCSB	FR M	Y				PSD-MZC
	26-60	c	10YR62 00	10YR58 00	M		25Y 71 00	Y	0	0		0	MDCAB	FM P	Y		Y		
4	0-28	hcl	10YR43 00						0	0	HR	2							
	28-70	c	05Y 62 00	10YR68 00	M		00MN00 00	Y	0	0		0		P			Y		
4P	0-29	mcl	10YR43 00						0	0	HR	2							PSD
	29-48	mcl	10YR44 00	00MN00 00	F		10YR42 00		0	0	HR	2	MDCSAB	FR M					PSD-MCL/SCL 2%
	48-76	mzcl	25Y 64 61	10YR68 00	C		10YR53 00	Y	0	0		0	MDCSAB	FR M					PSD-MZCL/ZL 1%
	76-87	c	25Y 61 00	75YR58 00	M		00MN00 00	Y	0	0		0	WKCAB	FM P	Y		Y		
	87-120	c	25Y 61 71	10YR68 00	M		25Y 62 00	Y	0	0		0	MDCAB	FM P	Y		Y		
5	0-28	hcl	10YR43 00						0	0		0							
	28-48	hcl	25Y 53 00	10YR58 00	M		00MN00 00	Y	0	0		0		M					
	48-80	c	05Y 61 71	75YR58 00	M		00MN00 00	Y	0	0		0		P			Y		
5P	0-28	mcl	10YR43 00						0	0		0							
	28-52	mcl	10YR54 00	10YR56 00	C		00MN00 00	S	0	0		0	MDCSAB	FR M					SLIGHTLY GLEYED
	52-80	c	25Y 53 52	10YR58 00	M		00MN00 00	Y	0	0		0	MDCAB	FR M	Y		Y		
6	0-28	mcl	10YR43 00						0	0	HR	2							
	28-60	hcl	25Y 53 00	10YR58 00	M		00MN00 00	Y	0	0		0		M					
	60-80	c	25Y 62 61	10YR68 00	M		00MN00 00	Y	0	0		0		P			Y		
7	0-28	mcl	10YR43 00						0	0		0							
	28-35	hcl	25Y 53 00	10YR58 00	M		00MN00 00	Y	0	0		0		M					
	35-70	c	05Y 61 00	75YR58 00	M		00MN00 00	Y	0	0		0		P			Y		
8	0-30	c	10YR43 00						0	0		0							
	30-70	c	05Y 61 00	75YR58 00	M			Y	0	0		0		P			Y		

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	CALC
9	0-30	hcl	10YR43 00						0	0		0						
	30-40	hcl	25Y 53 00	10YR56 00	C		00MN00 00	Y	0	0		0		M				
	40-70	c	05Y 61 00	75YR58 00	M			Y	0	0		0		P			Y	
10	0-30	mzcl	10YR41 00						3	0	HR	8						
	30-70	c	05Y 51 61	75YR56 00	M		00MN00 00	Y	0	0		0		P			Y	
11	0-27	mcl	10YR43 00						0	0	HR	3						
	27-40	mcl	10YR53 00	10YR56 00	C		00MN00 00	Y	0	0		0		M				
	40-100	c	25Y 62 63	10YR68 00	M		00MN00 00	Y	0	0		0		M			Y	
12	0-30	hcl	10YR42 00						0	0		0						
	30-70	c	05Y 61 00	75YR58 00	M			Y	0	0		0		P			Y	
13	0-26	mzcl	10YR43 00						0	0	HR	3						
	26-45	hcl	05Y 62 00	10YR58 00	M			Y	0	0		0		M				
	45-55	c	05Y 62 00	75YR58 00	M		00MN00 00	Y	0	0		0		M			Y	
	55-60	c	05Y 62 00	75YR58 00	M		00MN00 00	Y	0	0	HR	20		M			Y	
14	0-30	mcl	10YR43 00						0	0		0						
	30-45	hcl	25Y 53 00	10YR58 00	M			Y	0	0		0		M				
	45-90	c	05Y 61 62	75YR68 00	M		00MN00 00	Y	0	0		0		P			Y	
15	0-30	c	10YR43 00						0	0		0						
	30-70	c	10YR54 00	10YR58 00	C		00MN00 00	S	0	0		0		P			Y	SLIGHTLY GLEYED
16	0-25	mcl	10YR43 00						0	0		0						
	25-35	hcl	25Y 53 00	10YR58 00	M			Y	0	0		0		M				
	35-70	c	05Y 61 71	75YR58 00	M			Y	0	0		0		P			Y	
17	0-25	mzcl	10YR43 00						0	0		0						
	25-45	mzcl	25Y 62 63	10YR58 00	C			Y	0	0		0		M				
	45-65	hzcl	25Y 63 00	10YR58 00	M			Y	0	0		0		M			Y	SPL AS 1P
	65-90	hcl	25Y 62 00	75YR68 00	M		00MN00 00	Y	0	0		0		M			Y	SPL AS 1P
	90-110	c	05Y 61 71	10YR68 00	M			Y	0	0		0		P			Y	
18	0-25	hzcl	10YR41 00	10YR46 00	C			Y	0	0		0						
	25-55	c	05Y 63 00	25Y 66 00	M			Y	0	0		0		P			Y	
	55-70	c	05Y 43 00	25Y 66 00	C			Y	0	0		0		P			Y	
19	0-23	hcl	10YR42 00						0	0	HR	2						
	23-70	c	10YR63 00	10YR68 71	M		00MN00 00	Y	0	0		0		P			Y	
20	0-28	hcl	10YR51 52	10YR58 00	C			Y	0	0		0						
	28-70	c	25Y 61 71	10YR68 00	M			Y	0	0		0		P			Y	
21	0-23	hcl	10YR52 00	10YR56 00	C			Y	0	0		0						
	23-35	hcl	25Y 62 00	10YR66 00	M			Y	0	0		0		M				
	35-70	c	25Y 61 71	10YR68 00	M			Y	0	0		0		P			Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	PED CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC
22	0-25	mcl	10YR42 00	10YR56 00	F				0	0		0						
	25-35	hcl	25Y 52 00	10YR56 00	C			Y	0	0		0		M				
	35-70	c	05Y 52 00	10YR68 00	M			Y	0	0		0		P			Y	
23	0-23	mzcl	10YR42 00						0	0		0						
	23-38	hcl	10YR53 00	10YR56 00	C			Y	0	0		0		M				
	38-70	c	25Y 61 51	10YR68 00	M			Y	0	0		0		P			Y	
24	0-25	mcl	25Y 41 00	10YR56 00	C			Y	0	0		0						
	25-38	hcl	25Y 62 71	10YR68 00	M			Y	0	0		0		M				
	38-70	c	25Y 71 00	10YR68 00	M			Y	0	0		0		P			Y	
25	0-30	mzcl	10YR43 00						0	0		0						
	30-50	mcl	10YR44 00	00MN00 00	F				0	0		0		M				
	50-70	scl	25Y 53 00	10YR56 00	C			Y	0	0		0		M				
	70-90	c	25Y 62 61	10YR58 00	C			Y	0	0		0		P			Y	
	90-120	c	25Y 61 71	10YR58 00	M			Y	0	0		0		P			Y	
26	0-23	mcl	10YR43 00						0	0		0						
	23-40	hcl	10YR53 00	10YR66 00	C	00MN00	00	Y	0	0		0		M				
	40-70	c	25Y 53 61	10YR68 00	M			Y	0	0		0		P			Y	
27	0-25	scl	10YR43 00						0	0		0						
	25-40	mcl	25Y 51 52	10YR58 00	M			Y	0	0		0		M				
	40-70	c	25Y 61 71	10YR68 00	M			Y	0	0		0		P			Y	
28	0-25	mcl	10YR42 00	10YR56 00	F				0	0		0						
	25-43	hcl	25Y 52 00	10YR58 00	M			Y	0	0		0		M				
	43-70	c	25Y 53 61	10YR58 00	M			Y	0	0		0		P			Y	
29	0-25	mzcl	10YR43 00						0	0		0						
	25-38	mcl	10YR44 00	00MN00 00	F				0	0		0		M				
	38-50	mzcl	10YR53 63	10YR66 00	C			Y	0	0		0		M				
	50-65	hcl	25Y 61 00	10YR68 00	M			Y	0	0		0		M				
	65-90	scl	25Y 61 00	10YR68 00	M			Y	0	0		0		M				
	90-120	c	05Y 61 00	10YR68 00	M			Y	0	0		0		P			Y	
30	0-28	hcl	10YR52 00	10YR58 00	C			Y	0	0		0						
	28-45	c	25Y 62 61	10YR68 00	M	00MN00	00	Y	0	0		0		P			Y	
	45-70	c	05Y 71 00	10YR68 00	M			Y	0	0		0		P			Y	
31	0-30	mcl	10YR31 00	10YR46 00	C			Y	0	0	HR	3						
	30-70	c	25Y 73 71	10YR68 00	M	00MN00	00	Y	0	0		0		P			Y	
32	0-25	mzcl	10YR53 00	10YR56 00	C			Y	0	0		0						
	25-35	hcl	25Y 53 52	10YR66 00	M	00MN00	00	Y	0	0		0		M				
	35-70	c	05Y 71 00	10YR68 00	M	00MN00	00	Y	0	0		0		P			Y	

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	CALC
33	0-26	mcl	10YR42 00						0	0		0						
	26-45	hcl	10YR53 51	10YR56 00	C		00MN00 00	Y	0	0		0		M				
	45-70	c	05Y 53 00	10YR68 00	M		00MN00 00	Y	0	0		0		P			Y	
34	0-25	mzcl	10YR42 00						0	0		0						
	25-45	hcl	10YR53 62	10YR58 00	C		00MN00 00	Y	0	0		0		M				
	45-70	c	25Y 61 63	10YR68 00	M		00MN00 00	Y	0	0		0		P			Y	
35	0-25	mcl	10YR42 00	00MN00 00	F				0	0		0						
	25-35	hcl	10YR53 52	10YR66 00	C		00MN00 00	Y	0	0		0		M				
	35-70	c	05Y 61 71	10YR68 00	M			Y	0	0		0		P			Y	
36	0-35	mcl	10YR42 00	00MN00 00	F				0	0		0						
	35-70	c	05Y 61 71	10YR68 00	M			Y	0	0		0		P			Y	
37	0-30	hcl	10YR42 00	00MN00 00	F				0	0		0						
	30-70	c	25Y 63 61	10YR68 00	M			Y	0	0		0		P			Y	
38	0-25	mcl	10YR42 00						0	0		0						
	25-35	hcl	10YR53 00	00MN00 00	F				0	0		0		M				
	35-70	c	05Y 71 00	10YR68 00	M			Y	0	0		0		P			Y	
39	0-25	hcl	10YR42 00	10YR56 00	C			Y	0	0		0						
	25-35	hcl	25Y 53 51	10YR66 00	C		00MN00 00	Y	0	0		0		M				
	35-45	c	25Y 53 00	75YR68 00	M			Y	0	0		0		P			Y	
	45-70	c	75YR53 00	75YR58 00	M			Y	0	0		0		P			Y	
40	0-30	hcl	10YR42 00	10YR56 00	F		00MN00 00		0	0		0						
	30-45	hcl	10YR52 00	10YR66 00	C		00MN00 00	Y	0	0		0		M				
	45-70	c	05Y 71 00	10YR68 00	M			Y	0	0		0		P			Y	
41	0-25	hcl	10YR42 00						0	0		0						
	25-70	c	05Y 71 00	10YR68 00	M			Y	0	0		0		P			Y	
42	0-30	mcl	10YR42 00						0	0	HR	2						
	30-45	c	05Y 71 00	10YR58 00	M		00MN00 00	Y	0	0		0		P			Y	
	45-70	c	05Y 71 00	10YR68 00	M			Y	0	0		0		P			Y	
43	0-25	mcl	10YR41 00						0	0		0						
	25-45	hcl	25Y 62 00	10YR58 00	C		00MN00 00	Y	0	0		0		M				
	45-70	c	05Y 61 00	10YR68 00	M			Y	0	0		0		P			Y	
44	0-30	hcl	10YR42 52						0	0		0						
	30-70	c	05Y 71 00	10YR58 68	M			Y	0	0		0		P			Y	
45	0-30	hcl	10YR43 00						0	0		0						
	30-45	hcl	10YR44 00	10YR58 00	C			S	0	0		0		M				SLIGHTLY GLEYED
	45-60	c	10YR53 00	75YR68 00	M		00MN00 00	Y	0	0		0		M			Y	
	60-80	c	05Y 71 00	10YR68 00	M			Y	0	0		0		P			Y	

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
46	0-30	hcl	10YR42 52						0	0		0						
	30-70	c	05Y 71 00 10YR68 00 M				00MN00 00	Y	0	0		0		P			Y	
47	0-28	fszl	10YR42 00						0	0		0						
	28-40	mcl	10YR53 00 10YR56 00 C					Y	0	0		0		M				
	40-70	hcl	05Y 71 00 10YR58 68 M					Y	0	0		0		M				
	70-120	scl	25Y 71 72 10YR68 00 M					Y	0	0		0		M				
48	0-33	hcl	10YR42 00						0	0		0						
	33-70	c	05Y 63 71 10YR68 00 M				00MN00 00	Y	0	0		0		P			Y	
49	0-32	mcl	25Y 42 00						0	0	HR	2						
	32-70	c	05Y 72 62 10YR68 00 M					Y	0	0		0		P			Y	
50	0-30	hcl	25Y 42 00						0	0		0						
	30-40	hcl	25Y 63 00 10YR66 00 C					Y	0	0		0		M				
	40-70	c	05Y 71 00 10YR68 00 M					Y	0	0		0		P			Y	
51	0-25	mcl	10YR42 00						0	0		0						
	25-70	c	05Y 71 00 10YR68 00 M					Y	0	0		0		P			Y	
52	0-27	mcl	10YR42 00						0	0		0						
	27-38	mcl	25Y 53 62 10YR58 00 C				00MN00 00	Y	0	0		0		M				
	38-70	c	05Y 72 71 10YR68 00 M					Y	0	0		0		P			Y	
53	0-25	mzcl	10YR52 00 10YR58 00 C					Y	0	0		0						
	25-30	hcl	10YR53 00 10YR58 00 C					Y	0	0		0						
	30-70	c	10YR63 00 10YR68 71 M					Y	0	0		0					Y	
54	0-20	mcl	10YR52 00 10YR58 00 F						0	0		0						
	20-30	hcl	10YR63 00 10YR58 00 C					Y	0	0		0		M				
	30-70	c	10YR63 00 10YR68 00 C					Y	0	0		0		P			Y	
55	0-25	hcl	10YR52 00 10YR58 00 C					Y	0	0		0						
	25-70	c	10YR63 00 10YR58 00 C					Y	0	0		0		P			Y	
56	0-20	mzcl	10YR52 00						0	0		0						
	20-45	hzcl	10YR64 00 10YR58 00 C					Y	0	0		0		M				
	45-70	c	10YR63 00 25 Y72 00 C					Y	0	0		0		P			Y	
57	0-20	mzcl	10YR52 00 10YR58 00 C					Y	0	0		0						
	20-40	mcl	10YR64 00 10YR68 00 C					Y	0	0		0		M				
	40-60	scl	25Y 74 00 10YR68 00 C					Y	0	0		0		M				
	60-100	c	10YR63 00 10YR71 68 C					Y	0	0		0		P			Y	
58	0-30	hcl	10YR43 00						0	0		0						
	30-70	c	25Y 62 61 10YR58 68 M					Y	0	0		0		P			Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC	
59	0-30	hcl	10YR43 00						0	0		0							
	30-70	c	25Y 61 62	10YR58 68	M			Y	0	0		0		P			Y		
60	0-27	hcl	10YR43 00						0	0		0							
	27-37	hcl	10YR53 00	10YR56 00	C			Y	0	0		0		M					
	37-70	c	25Y 62 61	10YR58 68	M	00MN00	00	Y	0	0		0		P			Y		
61	0-30	mcl	10YR42 52	10YR46 56	C			Y	0	0		0							
	30-70	c	25Y 61 62	10YR58 68	M	00MN00	00	Y	0	0		0		P			Y		
62	0-28	hcl	25Y 42 00	10YR56 00	C			Y	0	0		0							
	28-70	c	25Y 61 62	10YR58 00	M			Y	0	0		0		P			Y		
63	0-30	hcl	25Y 42 00						0	0		0							
	30-70	c	25Y 61 62	10YR58 68	M			Y	0	0		0		P			Y		
64	0-30	mcl	10YR43 44						0	0		0							
	30-48	mcl	10YR52 51	10YR56 00	C	00MN00	00	Y	0	0		0		M					
	48-80	c	25Y 52 51	10YR58 00	M	00MN00	00	Y	0	0		0		M			Y		
65	0-27	mcl	10YR43 00						0	0		0							
	27-50	mcl	25Y 62 00	10YR58 00	C			Y	0	0		0		M					
	50-80	c	25Y 52 00	10YR58 00	M	00MN00	00	Y	0	0		0		M			Y		
66	0-25	mcl	10YR43 00						0	0		0							
	25-45	mcl	10YR54 00	10YR56 00	C	00MN00	00	S	0	0		0		M					SLIGHTLY GLEYED
	45-90	c	25Y 52 62	10YR58 68	M			Y	0	0		0		M			Y		
67	0-30	mcl	10YR43 00						0	0		0							
	30-70	c	25Y 53 62	10YR58 68	M			Y	0	0		0		P			Y		
68	0-25	mcl	10YR43 44						0	0		0							
	25-38	hcl	10YR53 00	10YR56 00	C			Y	0	0		0		M					
	38-70	c	25Y 62 61	10YR58 00	M	00MN00	00	Y	0	0		0		P			Y		
69	0-28	mcl	10YR43 44						0	0		0							
	28-45	hcl	10YR53 00	10YR56 00	C			Y	0	0		0		M					
	45-80	c	25Y 62 61	10YR58 00	M	00MN00	00	Y	0	0		0		P			Y		
70	0-28	mcl	10YR43 44						0	0		0							
	28-52	hcl	10YR63 62	10YR56 00	C	00MN00	00	Y	0	0		0		M					
	52-80	c	25Y 53 62	10YR58 00	M	00MN00	00	Y	0	0		0		M			Y		
71	0-33	mcl	10YR42 43						0	0		0							
	33-70	c	25Y 53 00	10YR58 00	M	00MN00	00	Y	0	0	HR	2		P			Y		
72	0-30	mcl	10YR42 43						0	0		0							
	30-48	hcl	10YR53 00	10YR56 00	C	00MN00	00	Y	0	0		0		M					
	48-80	c	25Y 53 62	10YR58 00	M	00MN00	00	Y	0	0		0		M			Y		

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
73	0-25	mcl	10YR43 00						0	0		0						
	25-37	mcl	25Y 62 72 10YR68 00	C			00MN00 00	Y	0	0		0		M				
	37-80	c	25Y 63 62 10YR58 00	M			00MN00 00	Y	0	0		0		M		Y		
74	0-22	c	10YR52 00 10YR56 00	M				Y	0	0		0						
	22-60	c	05Y 61 00 75YR68 00	M				Y	0	0		0		P		Y		
75	0-25	hcl	10YR53 00 10YR56 00	C				Y	0	0		0						
	25-60	c	25Y 52 00 10YR58 00	M			00MN00 00	Y	0	0		0		P		Y		
76	0-25	hcl	10YR53 00 10YR56 00	C				Y	0	0		0						
	25-45	c	10YR53 00 10YR56 00	M			00MN00 00	Y	0	0		0		P		Y		
	45-65	c	05Y 61 00 75YR68 00	M			00MN00 00	Y	0	0		0		P		Y		
77	0-28	mcl	10YR43 00						0	0	HR	3						
	28-52	hcl	10YR53 00 10YR58 51	M			00MN00 00	Y	0	0		0		M				
	52-70	c	10YR53 00 10YR58 52	M			00MN00 00	Y	0	0	HR	3		M		Y		
78	0-28	mcl	10YR43 00						0	0	HR	2						
	28-45	hcl	10YR53 00 10YR56 00	C				Y	0	0		0		M				
	45-80	c	10YR53 00 10YR58 52	M			00MN00 00	Y	0	0		0		M		Y		
79	0-28	mcl	10YR43 00						0	0		0						
	28-55	mcl	10YR54 00 10YR56 00	C				S	0	0		0		M				SLIGHTLY GLEYED
	55-80	c	10YR53 00 10YR58 52	M			00MN00 00	Y	0	0		0		M		Y		
80	0-25	hcl	10YR51 00 75YR46 00	M				Y	0	0		0						
	25-45	c	25Y 51 53 75YR56 00	M				Y	0	0		0		P		Y		
	45-70	c	05Y 61 00 75YR68 00	M			00MN00 00	Y	0	0		0		P		Y		
81	0-28	mcl	10YR43 00						0	0	HR	2						
	28-60	c	10YR53 52 10YR56 00	C			00MN00 00	Y	0	0		0		M		Y		
82	0-25	mcl	10YR42 00 10YR56 00	C				Y	0	0		0						
	25-45	hcl	10YR63 00 75YR58 00	C			00MN00 00	Y	0	0		0		M		Y		
	45-70	c	25Y 52 00 75YR58 00	M			00MN00 00	Y	0	0		0		P		Y		
83	0-28	mcl	10YR42 00 10YR56 00	C				Y	0	0	HR	2						
	28-60	zc	05Y 61 00 75YR56 00	M			00MN00 00	Y	0	0		0		P		Y		
84	0-20	hzcl	10YR51 42 75YR46 00	C				Y	0	0		0						
	20-60	zc	05Y 61 00 75YR58 00	M			00MN00 00	Y	0	0		0		P		Y		
85	0-25	mcl	10YR42 00 10YR56 00	C				Y	0	0	HR	2						
	25-40	c	25Y 61 00 75YR56 58	M			00MN00 00	Y	0	0	HR	2		P		Y		
	40-60	c	25Y 61 00 75YR56 58	M			00MN00 00	Y	0	0	HR	5		P		Y		
86	0-25	mcl	10YR43 00						0	0	HR	2						
	25-35	c	10YR53 00 10YR58 00	M			00MN00 00	Y	0	0		0		M		Y		
	35-60	zc	05Y 61 00 75YR58 53	M				Y	0	0		0		P		Y		