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**NEW FOREST DISTRICT LOCAL PLAN  
Objector Site 10  
Land South of Downlands Farm,  
Hordle, Hampshire  
Agricultural Land Classification  
ALC Map and Report**

**February 1997**

**Resource Planning Team  
Eastern Region  
FRCA Reading**

**RPT Job Number 1508/019/97  
MAFF Reference EL 15/00315  
LURET Job Number 02768**

**AGRICULTURAL LAND CLASSIFICATION REPORT**  
**NEW FOREST DISTRICT LOCAL PLAN**  
**OBJECTOR SITE 10**  
**LAND SOUTH OF DOWNLANDS FARM, HORDLE, HANTS**

**INTRODUCTION**

1 This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of approximately 24.3 ha of land at Downlands Farm to the north east of Hordle in the New Forest District of Hampshire. The survey was carried out during February 1997.

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 New Forest District Local Plan. This site is one of a number of objector sites. This survey supercedes any previous ALC surveys on this land.

3 Prior to 1 April 1997 the work was conducted by members of the Resource Planning Team in the Guildford Statutory Group in ADAS. After this date the work was completed by the same team as part of the Farming and Rural Conservation Agency (FRCA) Reading. The land has been graded in accordance with the published MAFF ALC guidelines and criteria (MAFF 1988). A description of the ALC grades and subgrades is given in Appendix I.

4 At the time of survey the agricultural land on this site was under permanent grazing. Parts of the site are mapped as Agricultural land not surveyed. Permission to survey these areas was not obtained. Land to the east of the poultry farm is thought to be mostly in agricultural use. However without entering onto the land it cannot be mapped separately from Other Land. The areas shown as Other Land comprise a public house, residential dwellings and agricultural buildings.

**SUMMARY**

5 The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10,000. It is accurate at this scale but any enlargement would be misleading.

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

Table 1 Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
2	2.5	23.6	10.3
3a	4.4	41.5	18.1
3b	3.7	34.9	15.2
Agricultural land not surveyed	6.2	N/A	25.5
Other land	7.5	N/A	30.9
Total surveyed area	10.6	100	
Total site area	24.3		100

7 The fieldwork was conducted at an average density of 1 boring per hectare of agricultural land. A total of 15 borings and 2 soil pits were described.

8 The site has been classified as Grade 2 (very good quality), Subgrade 3a (good quality) and Subgrade 3b (moderate quality). Most of this site has been classified on the basis of a soil wetness limitation. The degree of soil wetness varies with the depth to a clay horizon which acts to impede soil drainage. Where the clay is shallow within the profile the land is Subgrade 3b at moderate depth Subgrade 3a and where it is much deeper it is classified as Grade 2. On the west of the site springs affect drainage.

9 Land in the south of the site classified as Subgrade 3a is limited by soil droughtiness. Here loamy soils overlie gravelly deposits at moderate depths within the profile. At this locality this acts to slightly lower the level and consistency of crop yields. In the west of the site gravelly deposits occur high up within the profile and Subgrade 3b is the appropriate classification.

## FACTORS INFLUENCING ALC GRADE

### Climate

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

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

12 The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions.

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

Table 2 Climatic and altitude data

Factor	Units	Values	
		SZ 270 956	SZ 272 957
Grid reference	N/A		
Altitude	m AOD	35	35
Accumulated Temperature	day C (Jan June)	1527	1527
Average Annual Rainfall	mm	832	833
Field Capacity Days	days	173	173
Moisture Deficit Wheat	mm	108	108
Moisture Deficit Potatoes	mm	102	102
Overall climatic grade	N/A	Grade 1	Grade 1

14 The combination of rainfall and temperature at this site mean that there is no overall climatic limitation (Climatic Grade 1) However climatic factors do interact with soil properties to influence soil wetness and droughtiness At this locality the climate is relatively wet in regional terms Consequently soil wetness problems may be enhanced Local climatic factors such as frost risk and exposure are not thought likely to adversely affect agricultural land use on this site

#### Site

15 Most of the land on the site is relatively flat though some areas are very gently sloping (1.2°) The site lies at an altitude of 35m AOD Neither gradient or microrelief affect agricultural land quality on this site

#### Geology and soils

16 The relevant published geological sheet (BGS 1975) shows the site to be underlain by drift deposits of plateau gravel

17 The most recently published soils information for this area (SSEW 1983) maps the whole site as the Efford 1 association These soils are described as Well drained fine loamy soils often over gravel associated with similar permeable soils variably affected by groundwater (SSEW 1983)

#### AGRICULTURAL LAND CLASSIFICATION

18 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

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

## Grade 2

20 Grade 2 (very good quality) land is restricted by a minor soil wetness limitation which sometimes acts in conjunction with a soil droughtiness limitation. The profiles comprise very slightly stony (5% total flints <2cm) medium clay loam topsoils. These overlie stoneless to very slightly stony (0-5% total flints) subsoils. The upper subsoils comprise medium or heavy clay loams which overlie fine and medium sandy loams and sandy clay loams. At depths below 80cm these profiles pass into clay. The clay is slowly permeable and limits drainage as indicated by gleying within 40cm. These profiles are moderately well drained. Wetness Class II. The interaction between the soil drainage and the medium textured topsoils with the prevailing climate acts to impart a slight soil wetness limitation. This land will be subject to some minor restrictions on the flexibility of cropping, stocking and cultivations.

21 Some of the Grade 2 land is also equally limited by soil droughtiness. This slight limitation occurs in a few of the profiles as shown by Pit 2. This situation occurs where the lower subsoils are stonier (15-55% total flints). The combination of soil characteristics (textures, moderate structures and stone content) and the prevailing climate limits the amount of soil available water for crop growth. This land may be subject to slightly lowered and less consistent crop yields.

## Subgrade 3a

22 In the north of the site the Subgrade 3a (good quality) land is restricted by a moderate soil wetness limitation. The profiles typically comprise very slightly to slightly stony (5-10% total flints <2cm) medium clay loam topsoils over similar or heavy clay loam upper subsoils. The lower subsoil consists of clay or sandy clay loam. This horizon causes imperfect soil drainage as indicated by gleying at 0-38cm, therefore these profiles are assigned to Wetness Class III and are classified as Subgrade 3a. The soil wetness limitation reduces the flexibility of the land due to the reduction in the number of days when the soil is in a suitable condition for cultivation, trafficking by machinery or grazing by livestock.

23 Land in the south of the site is limited to Subgrade 3a by moderate soil droughtiness. These profiles consist of medium clay loam topsoils and similar or fine and medium sandy loam subsoils. The stone content increases with depth from very slightly stony (5% total flints) topsoils to slightly stony (10-15% total flints) upper subsoils passing to moderately (20% total flints) and very stony (35% total flints) lower subsoils. The combination of high stone contents, soil textures and the local climate acts to restrict the soil available water for crop growth. These profiles are typified by Pit 1 although this profile was the deepest found within this unit. The soil droughtiness reduces the yield and range of arable crops able to be grown on this land.

## Subgrade 3b

24 The main area of Subgrade 3b (moderate quality) has been classified on the basis of a significant soil wetness limitation. These profiles comprise very slightly stony (5% <2cm total flints) medium clay loam topsoils over stoneless clay subsoils. The latter are poorly structured, slowly permeable and limit drainage through the profile. The clay horizons occur at a shallow depth and therefore the soils are limited to Wetness Class IV. In this locally wet region and combined with the topsoil textures, the land is classified as Subgrade 3b. Due to

this soil wetness limitation the land is restricted in the timing of cultivations the germination of crops and the potential of grazing by livestock The soil is also susceptible to structural damage

25 A small area of Subgrade 3b land in the west of the site is equally limited by significant soil droughtiness because of very stony soils at shallow depth and soil wetness due to seepage These profiles comprise medium clay loam topsoils which are very slightly stony (5% total flints <2cm) However it has been assumed that these profiles are a shallower version of Pit 1 and the subsoils are expected to be moderately to very stony (35%-55% total flints) In this local climate the amount of available water within the profile is limited which restricts the water reserve available for crop growth This leads to the likelihood of a significant reduction in the yield and range of arable crops able to be grown on this land This area is also affected by seepage from local springs In addition the extremely stony nature of the subsoils in this area means that it is likely that groundwater levels may prove difficult to control at this locality This area is therefore also limited to Subgrade 3b on the basis of soil wetness

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## SOURCES OF REFERENCE

British Geological Survey (1975) *Sheet No 330 Lymington*  
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) *Sheet 6 Soils of South East England*  
SSEW Harpenden

Soil Survey of England and Wales (1983) *Soils and their Use in South East England*  
SSEW Harpenden

## APPENDIX I

### DESCRIPTIONS OF THE GRADES AND SUBGRADES

#### **Grade 1 Excellent Quality Agricultural Land**

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

#### **Grade 2 Very Good Quality Agricultural Land**

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural or horticultural crops can usually be grown but on some land of this grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1 land.

#### **Grade 3 Good to Moderate Quality Land**

Land with moderate limitations which affect the choice of crops, the timing and type of cultivation, harvesting or the level of yield. When more demanding crops are grown, yields are generally lower or more variable than on land in Grades 1 and 2.

#### **Subgrade 3a Good Quality Agricultural Land**

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

#### **Subgrade 3b Moderate Quality Agricultural Land**

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass, or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

#### **Grade 4 Poor Quality Agricultural Land**

Land with severe limitations which significantly restrict the range of crops and/or the level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

#### **Grade 5 Very Poor Quality Agricultural Land**

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

**APPENDIX II**

**SOIL DATA**

**Contents**

**Sample location map**

**Soil abbreviations - explanatory note**

**Soil pit descriptions**

**Soil boring descriptions (boring and horizon levels)**

## SOIL PROFILE DESCRIPTIONS EXPLANATORY NOTE

Soil pit and auger boring information collected during ALC fieldwork is held on a computer database. This uses notations and abbreviations as set out below.

### Boring Header Information

- 1 **GRID REF** national 100 km grid square and 8 figure grid reference
- 2 **USE** Land use at the time of survey. The following abbreviations are used:
 

<b>ARA</b>	Arable	<b>WHT</b>	Wheat	<b>BAR</b>	Barley
<b>CER</b>	Cereals	<b>OAT</b>	Oats	<b>MZE</b>	Maize
<b>OSR</b>	Oilseed rape	<b>BEN</b>	Field beans	<b>BRA</b>	Brassicae
<b>POT</b>	Potatoes	<b>SBT</b>	Sugar beet	<b>FCD</b>	Fodder crops
<b>LIN</b>	Linseed	<b>FRT</b>	Soft and top fruit	<b>FLW</b>	Fallow
<b>PGR</b>	Permanent pasture	<b>LEY</b>	Ley grass	<b>RGR</b>	Rough grazing
<b>SCR</b>	Scrub	<b>CFW</b>	Coniferous woodland	<b>OTH</b>	Other
<b>DCW</b>	Deciduous woodland	<b>BOG</b>	Bog or marsh	<b>SAS</b>	Set Aside
<b>HTH</b>	Heathland	<b>HRT</b>	Horticultural crops	<b>PLO</b>	Ploughed
- 3 **GRDNT** Gradient as estimated or measured by a hand held optical clinometer
- 4 **GLEYSPL** Depth in centimetres (cm) to gleying and/or slowly permeable layers
- 5 **AP (WHEAT/POTS)** Crop adjusted available water capacity
- 6 **MB (WHEAT/POTS)** Moisture Balance (Crop adjusted AP - crop adjusted MD)
- 7 **DRT** Best grade according to soil droughtiness
- 8 If any of the following factors are considered significant 'Y' will be entered in the relevant column:
 

<b>MREL</b>	Microrelief limitation	<b>FLOOD</b>	Flood risk	<b>EROSN</b>	Soil erosion risk
<b>EXP</b>	Exposure limitation	<b>FROST</b>	Frost prone	<b>DIST</b>	Disturbed land
<b>CHEM</b>	Chemical limitation				
- 9 **LIMIT** The main limitation to land quality. The following abbreviations are used:
 

<b>OC</b>	Overall Climate	<b>AE</b>	Aspect	<b>ST</b>	Topsoil Stoniness
<b>FR</b>	Frost Risk	<b>GR</b>	Gradient	<b>MR</b>	Microrelief
<b>FL</b>	Flood Risk	<b>TX</b>	Topsoil Texture	<b>DP</b>	Soil Depth
<b>CH</b>	Chemical	<b>WE</b>	Wetness	<b>WK</b>	Workability
<b>DR</b>	Drought	<b>ER</b>	Erosion Risk	<b>WD</b>	Soil Wetness/Droughtiness
<b>EX</b>	Exposure				

## Soil Pits and Auger Borings

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

<b>S</b>	Sand	<b>LS</b>	Loamy Sand	<b>SL</b>	Sandy Loam
<b>SZL</b>	Sandy Silt Loam	<b>CL</b>	Clay Loam	<b>ZCL</b>	Silty Clay Loam
<b>ZL</b>	Silt Loam	<b>SCL</b>	Sandy Clay Loam	<b>C</b>	Clay
<b>SC</b>	Sandy Clay	<b>ZC</b>	Silty Clay	<b>OL</b>	Organic Loam
<b>P</b>	Peat	<b>SP</b>	Sandy Peat	<b>LP</b>	Loamy Peat
<b>PL</b>	Peaty Loam	<b>PS</b>	Peaty Sand	<b>MZ</b>	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

<b>F</b>	Fine (more than 66% of the sand less than 0.2mm)
<b>M</b>	Medium (less than 66% fine sand and less than 33% coarse sand)
<b>C</b>	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

<b>HR</b>	all hard rocks and stones	<b>FSST</b>	soft fine grained sandstone
<b>ZR</b>	soft argillaceous or silty rocks	<b>CH</b>	chalk
<b>MSST</b>	soft medium grained sandstone	<b>GS</b>	gravel with porous (soft) stones
<b>SI</b>	soft weathered igneous/metamorphic rock	<b>GH</b>	gravel with non porous (hard) stones

Stone contents (>2cm >6cm and total) are given in percentages (by volume)

8 **STRUCT** the degree of development size and shape of soil peds are described using the following notation

Degree of development	<b>WK</b>	weakly developed	<b>MD</b>	moderately developed
	<b>ST</b>	strongly developed		
Ped size	<b>F</b>	fine	<b>M</b>	medium
	<b>C</b>	coarse		
Ped shape	<b>S</b>	single grain	<b>M</b>	massive
	<b>GR</b>	granular	<b>AB</b>	angular blocky
	<b>SAB</b>	sub angular blocky	<b>PR</b>	prismatic
	<b>PL</b>	platy		

9 **CONSIST** Soil consistence is described using the following notation

<b>L</b> loose	<b>VF</b> very friable	<b>FR</b> friable	<b>FM</b> firm	<b>VM</b> very firm
<b>EM</b> extremely firm		<b>EH</b> 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

<b>APW</b>	available water capacity (in mm) adjusted for wheat
<b>APP</b>	available water capacity (in mm) adjusted for potatoes
<b>MBW</b>	moisture balance wheat
<b>MBP</b>	moisture balance potatoes

SOIL PIT DESCRIPTION

Site Name NFDLP SITE 10 Pit Number 1P

Grid Reference SZ27079560 Average Annual Rainfall 832 mm  
 Accumulated Temperature 1527 degree days  
 Field Capacity Level 173 days  
 Land Use Permanent Grass  
 Slope and Aspect 01 degrees SW

HORIZON	TEXTURE	COLOUR	STONES >2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 30	MCL	10YR32 00	0	5	HR					
30- 38	MCL	10YR42 00	0	15	HR		MDCSAB	FR	M	
38- 60	SCL	25Y 62 00	0	35	HR	M	WKCSAB	FR	M	
60- 75	SCL	25Y 62 00	0	55	HR	M			M	
75-120	SCL	25Y 62 00	0	10	HR	M	MDCSAB	FR	M	

Wetness Grade 2 Wetness Class II  
 Gleying 038 cm  
 SPL cm

Drought Grade 2 APW 120mm MBW 21 mm  
 APP 092mm MBP -10 mm

FINAL ALC GRADE 2

MAIN LIMITATION Soil Wetness/Droughtiness

SOIL PIT DESCRIPTION

Site Name NFDLP SITE 10 Pit Number 2P

Grid Reference SZ26909570 Average Annual Rainfall 832 mm  
 Accumulated Temperature 1527 degree days  
 Field Capacity Level 173 days  
 Land Use Permanent Grass  
 Slope and Aspect degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 28	MCL	10YR43 00	0	5	HR					
28- 50	MCL	10YR42 00	0	5	HR	C	MDCSAB	FR	M	
50- 75	HCL	25 Y53 00	0	5	HR	M	MDCSAB	FR	M	
75- 90	SCL	25 Y53 00	0	5	HR	M	MDCAB	FR	M	
90-120	C	25 Y62 00	0	15	HR	M	MDCAB	FR	M	

Wetness Grade 2 Wetness Class II  
 Gleying 028 cm  
 SPL 090 cm

Drought Grade 1 APW 140mm MBW 32 mm  
 APP 112mm MBP 10 mm

FINAL ALC GRADE 2  
 MAIN LIMITATION Wetness

SAMPLE NO	GRID REF	ASPECT USE	--WETNESS--				-WHEAT-		-POTS-		M REL		EROSN	FROST	CHEM	ALC	COMMENTS
			GRDNT	GLEYS	SPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	LIMIT	
1	SZ27309590	PGR		035		2	2	158	50	117	15	1			WE	2	See Pit 2
1P	SZ27079560	PGR SW	01	038		2	2	120	21	092	-10	2			WD	2	Border3a Dr
2	SZ26909580	PGR		030	080	2	2	151	43	117	15	1			WE	2	See Pit 2
2P	SZ26909570	PGR		028	090	2	2	140	32	112	10	1			WE	2	Water Table 75
3	SZ27009580	PGR		0	055	3	3A	103	-5	108	6	3A	-	-	WE	3A	Augered 80
4	SZ27209580	PGR		0	028	4	3B		0		0				WE	3B	Standing Water
5	SZ27309580	PGR		028		2	2	127	19	115	13	2			WD	2	See Pit 2
6	SZ26909570	PGR		025	105	2	2	143	35	112	10	1			WE	2	Pit 2
7	SZ27009570	PGR		0	050	3	3A	101	-7	109	7	3A			WE	3A	F S 50 Imp 80
8	SZ27209570	PGR		0	028	4	3B		0		0				WE	3B	Standing Water
9	SZ27309570	PGR		0		2	2	143	43	115	13	1			WE	2	See Pit 2
10	SZ27009560	PGR SE	02	0		2	2	000	-60	000	-54				DR	3B	Imp28 Gravelly
11	SZ27109560	PGR SE	01	0		2	2	091	-17	098	-4	3A			DR	3A	Imp 65 Pit 1
12	SZ27209560	PGR		005	005	4	3B		0		0				WE	3B	Prob Disturbed
13	SZ27109550	PGR SW	01	035		2	2	075	33	078	-24	3A			DR	3A	Imp60 SeePit1
14	SZ27209550	PGR		0		2	3A	100	-8	111	9	3A			WE	3A	Imp70 2DR
15	SZ27209540	PGR SW	01	028		2	2	082	26	084	-18	3B			DR	3A	Imp55 SeePit1

SAMPLE	DEPTH	TEXTURE	COLOUR	-----MOTTLES-----			PED COL	-----STONES-----			STRUCT/ CONSIST	SUBS			CALC	
				COL	ABUN	CONT		GLE	>2	>6		LITH	TOT	STR		POR
1	0-35	mc1	10YR43 00					0	0	HR	5					
	35-65	hc1	10YR53 00	10YR56	00	M	Y	0	0		0			M		
	65-110	fs1	10YR62 00	10YR56	00	M	Y	0	0		0			M		
1P	0-30	mc1	10YR32 00					0	0	HR	5					
	30-38	mc1	10YR42 00					0	0	HR	15	MDCSAB	FR	M		
	38-60	sc1	25Y 62 00	75YR58	00	M	Y	0	0	HR	35	WKCSAB	FR	M		
	60-75	sc1	25Y 62 00	05YR58	00	M	Y	0	0	HR	55			M		
	75-120	sc1	25Y 62 00	05YR58	00	M	Y	0	0	HR	10	MDCSAB	FR	M		
2	0-30	mc1	10YR42 00					0	0	HR	5					
	30-55	mc1	10YR63 53	10YR58	00	M	Y	0	0	HR	5			M		
	55-80	fs1	10YR63 53	10YR58	00	M	Y	0	0		0			M		
	80-120	c	10YR63 64	10YR58	00	M	Y	0	0		0			M	Y FS + FSCL lenses	
2P	0-28	mc1	10YR43 00					0	0	HR	5					
	28-50	mc1	10YR42 00	10YR46	00	C	Y	0	0	HR	5	MDCSAB	FR	M		
	50-75	hc1	25 Y53 00	10YR56	00	M	Y	0	0	HR	5	MDCSAB	FR	M		
	75-90	sc1	25 Y53 00	10YR56	00	M	Y	0	0	HR	5	MDCAB	FR	M		
	90-120	c	25 Y62 00	75YR58	00	M	05 Y46	00	Y	0	0	HR	15	MDCAB	FR	M
3	0-30	mc1	10YR52 00	75YR56	00	C		Y	0	0	HR	5				
	30-55	mc1	10YR53 63	10YR58	00	M		Y	0	0	HR	5		M		
	55-80	c	25Y 52 00	75YR58	00	M		Y	0	0	HR	5		P	Y Plastic	
4	0-28	mc1	25Y 52 00	10YR58	00	C		Y	0	0	HR	5				
	28-60	c	25Y 51 53	10YR58	00	M		Y	0	0		0		P	Y Plastic	
5	0-28	mc1	10YR33 00					0	0	HR	5					
	28-40	mc1	10YR53 00	75YR58	00	M		Y	0	0	HR	2		M		
	40-70	mc1	25Y 52 00	75YR58	51	M		Y	0	0		0		M		
	70-90	ms1	25Y 52 00	75YR58	51	M	00MN00	00	Y	0	0	HR	5		M	
	90-95	c	25Y 52 00	75YR58	00	M	00MN00	00	Y	0	0	HR	10		P	Imp 95 Plastic
6	0-25	mc1	10YR42 43					0	0	HR	5					
	25-45	mc1	10YR42 00	10YR58	00	C		Y	0	0	HR	5		M		
	45-80	mc1	10YR64 63	10YR58	00	M		Y	0	0	HR	5		M		
	80-105	sc1	10YR63 62	10YR58	00	M		Y	0	0	HR	5		M		
	105-120	c	25Y 52 00	75YR56	00	M		Y	0	0	HR	5		M	Y Sandy See 2P	
7	0-28	mc1	10YR52 00	75YR56	00	C		Y	0	0	HR	5				
	28-50	mc1	10YR52 00	10YR58	00	M		Y	0	0	HR	10		M		
	50-70	c	25Y 62 63	10YR58	00	M		Y	0	0	HR	10		M	Y Sandy lenses	
	70-80	c	25Y 62 63	10YR58	00	M		Y	0	0	HR	25		M	Y Imp 80 sandy	
8	0-28	mc1	25Y 52 00	10YR58	00	C		Y	0	0		0				
	28-60	c	10YR52 53	10YR58	00	M		Y	0	0		0		P	Y Plastic	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL	----STONES----			STRUCT/ CONSIST	SUBS							
				COL	ABUN	CONT		GLE	>2	>6		LITH	TOT	STR	POR	IMP	SPL	CALC	
9	0-30	mc1	10YR32 00	10YR46	00	C		Y	0	0	HR	5							
	30-50	mc1	10YR31 00						0	0		0		M					Q gleying
	50-90	hc1	10YR52 00	10YR56	00	M		Y	0	0		0		M					
	90-120	hc1	10YR72 00	75YR58	00	M		Y	0	0		0		M					
10	0-28	mc1	10YR42 00	75YR56	00	C		Y	0	0	HR	5							Imp gravelly
11	0-30	mc1	10YR42 00	10YR56	00	C		Y	0	0	HR	5							
	30-48	mc1	10YR42 00	75YR58	00	C		Y	0	0	HR	15		M					
	48-65	mc1	10YR64 00	10YR56	00	C		Y	0	0	HR	20		M					Imp gravelly
12	0-5	mc1	10YR32 00						0	0	HR	5							
	5-55	c	10GY07 00	75YR68	00	M		Y	0	0		0		P		Y			Probably disturbed
13	0-20	mc1	10YR33 00						0	0	HR	5							
	20-35	mc1	10YR33 00						0	0	HR	15		M					
	35-55	mc1	10YR53 00	10YR56	00	C		Y	0	0	HR	45		M					
	55-60	ms1	10YR53 00	10YR56	00	C		Y	0	0	HR	45		M					Imp gravelly
14	0-27	hc1	10YR32 00	10YR46	00	C		Y	0	0	HR	10							
	27-55	hc1	10YR53 00	10YR56	00	C		Y	0	0		0		M					
	55-65	fs1	10YR52 53	10YR56	00	M		Y	0	0	HR	15		M					
	65-70	c	10YR52 53	10YR56	00	M		Y	0	0	HR	20		M					Imp gravelly
15	0-28	mc1	10YR42 00						0	0	HR	5							
	28-40	mc1	10YR42 00	75YR56	00	C		Y	0	0	HR	10		M					
	40-48	mc1	10YR42 53	75YR56	00	C		Y	0	0	HR	15		M					
	48-55	mc1	10YR42 53	75YR56	00	C		Y	0	0	HR	35		M					Imp gravelly