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WEST SUSSEX MINERALS PLAN  
SITE 24 : DUNCTON COMMON  
AGRICULTURAL LAND CLASSIFICATION  
ALC MAP & REPORT  
NOVEMBER 1993

**WEST SUSSEX MINERALS PLAN  
SITE 24 : DUNCTON COMMON  
AGRICULTURAL LAND CLASSIFICATION REPORT**

**1.0 Summary**

1.1 ADAS was commissioned by MAFF's Land Use Planning Unit to provide information on land quality on a number of sites in West Sussex. The work forms part of MAFF's statutory input to the preparation of the West Sussex Minerals Plan.

1.2 Approximately 17 hectares of land relating to site 24, Duncton Common, near the village of Duncton was surveyed in November 1993. The survey was undertaken at a detailed level of approximately one boring per hectare. A total of 17 soil auger borings and 2 soil inspection pits were assessed 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 longterm limitations on its use for agriculture.

1.3 The work was conducted by members of the Resource Planning Team in the Guildford Statutory Group of ADAS.

1.4 At the time of the survey the landuse on the site was linseed stubble and cereals.

1.5 The distribution of grades and subgrades is shown on the attached ALC map and the areas are given in the table below. The map has been drawn at a scale of 1:5,000. It is accurate at this scale, but any enlargement would be misleading. This map supersedes any previous survey information for the site.

Table 1 : Distribution of Grades and Subgrades

<u>Grade</u>	<u>Area (ha)</u>	<u>% of Site</u>	<u>% of Agricultural Area</u>
2	10.4	60.8	61.5
3a	6.0	35.1	35.5
3b	0.5	2.9	3.0
			100% (16.9ha)
Agricultural buildings	<u>0.2</u>	<u>1.2</u>	
Total area of site	17.1	100%	

1.6 Appendix 1 gives a general description of the grades, subgrades and land use categories identified in the survey. The main classes are described in terms of the type of limitation that can occur, the typical cropping range and the expected level and consistency of yield.

1.7 The site has been classified as Grades 2, 3a and 3b with soil droughtiness, workability and slope gradient being the key limitations. The majority of the site is classified as Grade 2, comprising topsoils of medium clay loam over sandy textured subsoils. Profiles are well drained but suffer from a slight workability limitation related to the interaction of topsoil texture and climatic factors such that a grade of 2 is appropriate. Land classified as Subgrade 3a comprises topsoils of medium sandy loam or loamy medium sand over sandy textured subsoils, often passing to sand at depth. Profiles suffer from a moderate droughtiness limitation; the interaction of soil textures, structures and climatic factors reduces available water for plant growth in the profile. The presence of slopes with gradients of 7.5-8 degrees to the south of the site limits a small area of land to Subgrade 3b.

## 2.0 Climate

2.1 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.

2.2 The main parameters used in the assessment of an overall climatic limitation are annual average rainfall, as a measure of overall wetness, and accumulated temperature, as a measure of the relative warmth of a locality.

2.3 A detailed assessment of the prevailing climate was made by interpolation from a 5km gridpoint dataset (Met. Office 1989). The details are given in the table below and these show that there is no overall climatic limitation affecting the site.

2.4 No local climatic factors such as exposure or frost risk affect the site. It should be noted that the local climate is quite wet in a regional context. Average annual rainfall and field capacity days for the site are high and interact with soil properties to affect soil wetness and droughtiness limitations.

Table 2 : Climatic Interpolation

Grid Reference :	SU 967 183
Altitude (m) :	35
Accumulated Temperature (days) :	1502
Average Annual Rainfall (mm) :	914
Field Capacity (days) :	193
Moisture Deficit, Wheat (mm) :	100
Moisture Deficit, Potatoes (mm) :	92
Overall Climatic Grade :	1

## 3.0 Relief

3.1 The site lies at an altitude of 26-35 meters with land sloping west to the point of lowest altitude. In a small area to the south slope angles of 7.5-8 degrees limit land due to a slope gradient limitation. Elsewhere gradient and relief do not affect agricultural land quality.

## 4.0 Geology and Soil

4.1 The relevant geological sheet for the site, Sheet 317 (BGS, 1972) shows the underlying geology to be Cretaceous Folkestone Beds.

4.2 The published soils information for the area, Sheet 6 (SSEW, 1983) shows the site to comprise soils of the Frilford association - "Deep well drained sandy and coarse loamy soils. Some ferruginous sandy and some coarse loamy soils affected by groundwater". (SSEW, 1983). A detailed examination of soils on the site revealed the presence of soils similar to those described above, but they were unaffected by groundwater.

## 5.0 Agricultural Land Classification

5.1 Table 1 provides the details of the area measurements for each grade and the distribution of each grade is shown on the attached ALC map.

5.2 The location of the soil observation points are shown on the attached sample point map.

### Grade 2

5.3 Land of this quality is mapped over the majority of the site. Soil profiles comprise topsoils of medium sandy loam or medium clay loam containing 0-2% total flints by volume. Upper subsoils consist of loamy medium sand, medium sandy loam and occasionally medium clay loam with 0-1% total flints. Underlying this is stoneless loamy medium sand passing to medium sand at depth. Pit 2 is typical of these soils and found all subsoils to have a moderate structural condition except loamy medium sand which was good. Profiles are well drained showing no signs of wetness imperfections and are assigned to a wetness class of I. However, soils do experience a slight droughtiness limitation in the case of profiles with medium sandy loam topsoils over sandy subsoils. The interaction of sandy, free draining textures, structures, small amounts of profile stone and climatic factors results in a slight reduction of water in the profile available to crops, and land is classified as grade 2. Other profiles within this map unit with a medium clay loam topsoil texture suffer a slight workability limitation. The interaction of high rainfall on clay loam topsoils means that water is retained for longer than those of medium sandy loam and the soils take longer to reach a workable condition after wetting. Consequently land is classified as grade 2.

### Subgrade 3a

5.4 Good quality agricultural land is mapped to the north and south of the site. Profiles typically comprise topsoils of loamy medium sand, occasionally medium sandy loam containing 0-3% total flints. Upper subsoils consist of loamy medium sand, occasionally medium sand with 1-3% total flints over lower subsoils of medium sand. Soil pit 1, dug in these soils, again found all subsoil textures to be of moderate structural condition except loamy medium sand which was found to be good. Profiles are well drained with no signs of wetness problems and are placed in a wetness class of I. Due to sandy, free draining textures and the presence of medium sand at shallower depths in the profile than that of grade 2, soils suffer a moderate droughtiness limitation. Profile available water is more severely reduced than that of better quality grade 2 soils and land is classified as subgrade 3a accordingly.

### Subgrade 3b

5.5 Land classified as subgrade 3b is mapped to the south of the site. As explained in paragraph 3.1 land drops steeply to the west and slope angles of 7.5-8 degrees were recorded using an optical reading clinometer. This limits land to subgrade 3b due to a slope gradient limitation. Slope gradients of this nature impede the safe and efficient use of farm machinery and increase the likelihood of soil erosion, especially when associated with sandy soils of low bearing strength.

ADAS REFERENCE : 4203/246/93  
MAFF REFERENCE : EL 42/00228

Resource Planning Team  
Guildford Statutory Group  
ADAS Reading

## APPENDIX I

### DESCRIPTION OF THE GRADES AND SUB-GRADES

#### **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 on 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. When more demanding crops are grown yields are generally lower or more variable than on land in grades 1 and 2.

#### **Sub-grade 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.

#### **Sub-grade 3B : Moderate Quality Agricultural Land**

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

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

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

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

Land with very 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 : 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 workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

## **Woodland**

Includes commercial and non-commercial 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, eg. 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

### REFERENCES

- \* BRITISH GEOLOGICAL SURVEY (1972), Sheet No.317, Chichester, 1:63,360 scale.
- \* MAFF (1988), Agricultural Land Classification of England And Wales : Revised guidelines and criteria for grading the quality of agricultural land.
- \* METEOROLOGICAL OFFICE (1989), Climatological Data for Agricultural Land Classification.
- \* SOIL SURVEY OF ENGLAND AND WALES (1983), Sheet No.6, "Soils of South East England", 1:250,000 scale and accompanying legend.

## APPENDIX III

### DEFINITION OF SOIL WETNESS CLASSES

#### **Wetness Class I**

The soil profile is not wet within 70cm depth for more than 30 days in most years.

#### **Wetness Class II**

The soil profile is wet within 70cm depth for 31-90 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 90 days, but not wet within 40cm depth for more than 30 days in most years.

#### **Wetness Class III**

The soil profile is wet within 70cm depth for 91-180 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 180 days, but only wet within 40cm depth for 31-90 days in most years.

#### **Wetness Class IV**

The soil profile is wet within 70cm depth for more than 180 days but not wet within 40cm depth for more than 210 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 40cm depth for 91-210 days in most years.

#### **Wetness Class V**

The soil profile is wet within 40cm depth for 211-335 days in most years.

#### **Wetness Class VI**

The soil profile is wet within 40cm depth for more than 335 days in most years.

(The number of days is not necessarily a continuous period. 'In most years' is defined as more than 10 out of 20 years.)



## APPENDIX IV

### SOIL PIT AND SOIL BORING DESCRIPTIONS

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

## SOIL PROFILE DESCRIPTIONS : EXPLANATORY NOTE

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

### Boring Header Information

1. GRID REF : national 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    HRT : Horticultural Crops    PGR : Permanent Pasture    LEY : Ley Grass    RGR : Rough Grazing  
SCR : Scrub    CFW : Coniferous Woodland    DCW : Deciduous Woodland    HTH : Heathland    BOG : Bog or Marsh  
FLW : Fallow    PLO : Ploughed    SAS : Set aside    OTH : Other

3. GRDNT : Gradient as measured by a hand-held optical clinometer.
4. GLEY/SPL : Depth in cm to gleying or slowly permeable layers.
5. AP (WHEAT/POTS) : Crop-adjusted available water capacity.
6. MB (WHEAT/POTS) : Moisture Balance.
7. DRT : Best grade according to soil droughtiness.
8. If any of the following factors are considered significant, an entry of 'Y' will be entered in the relevant column.

MREL : Microrelief limitation    FLOOD : Flood risk    EROSN : Soil erosion risk    EXP : Exposure limitation    FROST : Frost  
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 : Soil Erosion Risk    WD : Combined 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  
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 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

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

6. STONE LITH : One of the following is used.

HR : all hard rocks and stones MSST : soft, medium or coarse grained sandstone

SI : soft weathered igneous or metamorphic SLST : soft oolitic or dolimitic limestone

FSST : soft, fine grained sandstone ZR : soft, argillaceous, or silty rocks CH : chalk

GH : gravel with non-porous (hard) stones GS : gravel with porous (soft) stones

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

7. STRUCT : the degree of development, size and shape of soil pedes are described using the following notation:

- degree of development WK : weakly developed MD : moderately developed ST : strongly developed

- ped size F : fine M : medium C : coarse VC : very coarse

- ped shape S : single grain M : massive GR : granular AB : angular blocky SAB : sub-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 EII : 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

SOIL PIT DESCRIPTION

Site Name : WSUSSEX MINS SITE 24 Pit Number : 1P

Grid Reference: SU96701856 Average Annual Rainfall : 914 mm  
 Accumulated Temperature : 1502 degree days  
 Field Capacity Level : 193 days  
 Land Use : Linseed  
 Slope and Aspect : 02 degrees W

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 35	LMS	10YR21 00	0	1		WKCSAB
35- 45	LMS	10YR31 00	0	1		MDCSAB
45- 65	MS	10YR62 00	0	0		WKCSAB
65-120	MS	10YR72 00	0	0		WKCSAB

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

Drought Grade : 3A APW : 85 mm MBW : -15 mm  
 APP : 69 mm MBP : -23 mm

FINAL ALC GRADE : 3A  
 MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : WSUSSEX MINS SITE 24 Pit Number : 2P

Grid Reference: SU96501820 Average Annual Rainfall : 914 mm  
 Accumulated Temperature : 1502 degree days  
 Field Capacity Level : 193 days  
 Land Use : Cereals  
 Slope and Aspect : 01 degrees W

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 31	MCL	10YR21 00	0	2		WKCSAB
31- 53	MSL	75YR46 00	0	1		MDCSAB
53- 64	HCL	75YR46 00	0	1		MDCSAB
64-105	MSL	10YR56 00	0	0		MDCSAB
105-120	MS	10YR86 00	0	0		WKCSAB

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

Drought Grade : 1 APW : 148mm MBW : 48 mm  
 APP : 114mm MBP : 22 mm

FINAL ALC GRADE : 2  
 MAIN LIMITATION : Workability

SAMPLE NO.	GRID REF	ASPECT USE	GRDNT	--WETNESS--		-WHEAT-		-POTS-		M.REL		EROSN	FROST	CHEM	ALC	COMMENTS
				SPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	LIMIT	
1	SU96601860	LIN W	02		1	1	117	17	105	13	2				DR	2
1P	SU96701856	LIN W	02		1	2	85	-15	69	-23	3A				DR	3A
2	SU96701860	LIN S	02		1	2	88	-12	70	-22	3A				DR	3A
2P	SU96501820	CER W	01		1	2	148	48	114	22	1				WK	2 PIT 120
3	SU96601850	LIN S	01		1	1	105	5	88	-4	2				DR	2 BDR 3A
4	SU96701850	LIN S	02		1	2	91	-9	68	-24	3A				DR	3A
5	SU96601840	LIN			1	2	147	47	116	24	1				WK	2
6	SU96701840	LIN W	02		1	2	143	43	115	23	1				WK	2
7	SU96501830	LIN			1	2	136	36	116	24	1				WK	2
8	SU96601830	CER W			1	2	133	33	116	24	1				WK	2
9	SU96701830	CER W	03		1	2	86	-14	69	-23	3A				DR	3A
10	SU96501820	LIN W	01		1	2	138	38	115	23	1				WK	2
11	SU96601820	CER W	02		1	1	111	11	96	4	2				DR	2
12	SU96501810	LIN W	01		1	1	155	55	116	24	1					1
13	SU96601810	CER W	03		1	2	158	58	116	24	1				WK	2
14	SU96401800	LIN W	03		1	1	129	29	111	19	2				DR	2
15	SU96501800	CER W	03		1	1	112	12	82	-10	2				DR	2 BDR 3A
16	SU96401790	LIN W	03		1	1	100	0	84	-8	3A				DR	3A
17	SU96501790	CER W			1	1	118	18	87	-5	2				DR	2

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED		----STONES----			STRUCT/ CONSIST	SUBS					
				COL	ABUN	CONT	COL.	GLEYS	>2	>6	LITH		TOT	STR	POR	IMP	SPL	CALC
1	0-39	ms1	10YR21 00						0	0	0							
	39-50	1ms	10YR31 00						0	0	HR	1						G
	50-68	ms1	10YR21 00						0	0	0						M	
	68-120	ms	10YR62 00						0	0	0						M	
1P	0-35	1ms	10YR21 00						0	0	HR	1	WKCSAB	VF				
	35-45	1ms	10YR31 00						0	0	HR	1	MDCSAB	VF	G			
	45-65	ms	10YR62 00						0	0	0		WKCSAB	VF	M			
	65-120	ms	10YR72 00						0	0	0		WKCSAB	VF	M			
2	0-35	1ms	75YR21 00						0	0	0							
	35-80	1ms	10YR61 21						0	0	0							G
	80-120	ms	10YR62 00						0	0	0							M
2P	0-31	mc1	10YR21 00						0	0	HR	2	WKCSAB	FR				
	31-53	ms1	75YR46 00						0	0	HR	1	MDCSAB	FR	M			
	53-64	hc1	75YR46 00						0	0	HR	1	MDCSAB	FR	M			
	64-105	ms1	10YR56 00						0	0	0		MDCSAB	FR	M			
	105-120	ms	10YR86 00						0	0	0		WKCSAB	VF	M			
3	0-39	ms1	10YR21 00						0	0	0							
	39-50	1ms	25Y 41 00						0	0	HR	1						G
	50-120	ms	10YR62 00						0	0	0							M
4	0-38	1ms	75YR21 00						0	0	HR	2						
	38-65	ms	10YR62 00						0	0	0							M
	65-90	1ms	75YR44 00						0	0	0							G
	90-120	ms	10YR53 00						0	0	0							M
5	0-38	mc1	10YR31 00						0	0	0							
	38-50	ms1	10YR42 56						0	0	HR	1						M
	50-75	ms1	10YR56 00						0	0	HR	2						M
	75-90	sc1	75YR56 00						0	0	HR	8						M
	90-120	1ms	10YR56 00						0	0	HR	8						G
6	0-35	mc1	10YR21 00						0	0	HR	2						
	35-45	mc1	10YR44 00						0	0	HR	1						M
	45-70	ms1	10YR56 00						0	0	0							M
	70-90	1ms	10YR56 00						0	0	0							G
	90-120	1ms	10YR86 00						0	0	0							G
7	0-45	mc1	10YR31 00						0	0	HR	2						
	45-70	ms1	75YR56 00						0	0	HR	2						M
	70-95	1ms	10YR56 00						0	0	0							G
	95-120	ms	10YR84 00						0	0	0							M
8	0-39	mc1	10YR21 00						0	0	HR	1						
	39-68	ms1	10YR21 44						0	0	HR	1						M
	68-78	ms1	75YR56 00						0	0	0							M
	78-120	ms	10YR86 00						0	0	0							M

SAMPLE	DEPTH	TEXTURE	COLOUR	---MOTTLES---			PED		---STONES---			STRUCT/		SUBS	
				COL	ABUN	CONT	COL.	GLE	>2	>6	LITH	TOT	CONSIST	STR	POR
9	0-35	lms	10YR21 00						0	0	HR	2			
	35-75	lms	10YR44 00						0	0	HR	2		G	
	75-120	ms	10YR53 86						0	0		0		M	
10	0-29	mc1	10YR31 00						0	0	HR	2			
	29-55	mc1	10YR56 42						0	0		0		M	
	55-80	ms1	10YR56 00						0	0		0		M	
	80-95	lms	10YR66 00						0	0		0		G	
	95-120	ms	10YR76 00						0	0		0		M	
11	0-34	ms1	10YR21 00						0	0	HR	2			
	34-45	ms1	10YR44 00						0	0	HR	1		M	
	45-67	lms	10YR44 00						0	0		0		G	
	67-120	ms	10YR86 00						0	0		0		M	
12	0-48	ms1	10YR31 00						0	0		0			
	48-60	mc1	10YR42 56						0	0	HR	2		M	
	60-120	mc1	10YR56 00						0	0		0		M	
13	0-35	mc1	10YR21 00						0	0	HR	1			
	35-44	mc1	10YR31 00						0	0	HR	1		M	
	44-70	ms1	10YR44 00						0	0		0		M	
	70-100	mc1	10YR56 00						0	0		0		M	
	100-120	hc1	10YR56 00						0	0		0		M	
14	0-35	ms1	10YR31 00						0	0	HR	1			
	35-58	ms1	75YR33 00						0	0		0		M	
	58-78	ms1	10YR56 00						0	0	HR	2		M	
	78-120	ms	10YR74 00						0	0		0		M	
15	0-35	ms1	10YR21 00						0	0	HR	1			
	35-45	lms	10YR31 00						0	0	HR	3		G	
	45-100	ms	10YR61 00						0	0		0		M	
	100-120	ms1	10YR44 00						0	0	HR	3		M	
16	0-30	ms1	10YR31 00						0	0	HR	1			
	30-55	lms	25Y 31 00						0	0	HR	3		G	
	55-60	lms	25Y 42 00						0	0	HR	3		G	
	60-100	ms	10YR62 00						0	0		0		M	
	100-120	ms	10YR72 00						0	0		0		M	
17	0-30	ms1	10YR21 00						0	0	HR	3			
	30-90	lms	10YR21 44						0	0	HR	1		G	
	90-120	lms	10YR86 44						0	0		0		G	