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WEST SUSSEX MINERALS PLAN
SITE 20: PENDEAN - DUNFORD ROUGHS
AGRICULTURAL LAND CLASSIFICATION
ALC MAP & REPORT
SEPTEMBER 1993

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SITE 20: PENDEAN - DUNFORD ROUGHS
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 21 hectares of land relating to Site 20 at Dunford Rough on the edge of Midhurst was surveyed during September 1993. The survey was undertaken at a detailed level of approximately one boring per hectare. A total of 20 soil auger borings and 3 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 long-term 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.

1.5 At the time of the survey the landuse on the site was a mixture of ploughed land, pasture and maize.

1.6 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 1:5000. It is accurate at this scale, but any enlargement would be misleading. This map supersedes any previous survey information.

Table 1 : Distribution of Grades and Subgrades

Grade	Area (ha)	% of Total Site	% of Agricultural Area
1	15.5	69.5	77.1
2	3.0	13.5	14.9
3a	1.6	7.5	8.0
Non agricultural land	0.6	2.5	100.0 (20.1 ha)
Woodland	1.5	7.0	
Total	22.2	100.0	

1.7 Appendix 1 gives a general description of the grades and 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.

1.8 The site has been classified as Grades 1, 2 and 3a. The key limitations are droughtiness and workability. The majority of the site is Grade 1, excellent land with no limitations, comprising deep, stoneless well-drained sandy loams. The area classified as Grade 2 contains similar soils to those classified as Grade 1, but with slightly heavier topsoil textures (medium clay loams). These soils are downgraded to Grade 2 due to a slight workability limitation related to the topsoil texture. The area of Subgrade 3a land experiences a moderate droughtiness limitation. These soils have a higher sand content throughout the profile, and the combination of soil textures and structures and the local climatic regime means that they contain limited amounts of available water within the profile, for extraction by crops.

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 the 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.

Table 2 : Climatic Interpolations

Grid Reference :	SU 893 195
Altitude (m) :	50
Accumulated Temperature (days):	1485
Average Annual Rainfall (mm) :	908
Field Capacity (days) :	196
Moisture Deficit, Wheat (mm) :	102
Moisture Deficit, Potatoes (mm) :	94
Overall Climatic Grade :	1

3.0 Relief

3.1 The site lies at an altitude of between 40 and 50 metres, with slopes tending to be gentle and undulating. On no part of the site does relief pose a limitation to agricultural use.

4.0 Geology and Soil

4.1 The relevant geological sheet (BGS Sheet 317, Chichester) for the site shows the underlying geology for the majority of the site to be cretaceous Folkestone Beds. There is a small area of Marine Gravel in the south western corner of the site.

4.2 The published soils information for the area (SSEW Sheet 6: Soils of South East England) describes the soils as the Shirrel Heath series; well drained very acid sandy soils with slowly permeable subsoils and slight seasonal waterlogging. Detailed field examination broadly confirms this, whilst soils were found to be sandy, there was little evidence of seasonal waterlogging or slowly permeable subsoils.

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 is shown on the attached sample point map.

5.3 Grade 1 : The majority of the site has been classified as Grade 1, excellent quality agricultural land. Soils within this map unit were deep, stoneless well drained sandy soils. Pit 1 showed that typical profiles tend to be sandy loams throughout, usually becoming sandier at depth. There was no evidence of any drainage limitation, wetness class I, within these profiles. The combination of soil textures and structures alongside the local climatic regime means that there is sufficient available water within the profile to support a large range of crops throughout the year, resulting in consistently high yields.

5.4 Grade 2 : An area of land in the middle of the site, in the base of a small dry valley, has been classified as Grade 2, very good quality land. Pit 2 showed that the soils within this map unit had similar subsoils to the Grade 1 land, but with a medium clay loam topsoil. This topsoil texture in conjunction with the field capacity days for the site means that these soils are downgraded due to a workability limitation. This means that there is a slight restriction on the number of days that the land can be worked effectively with machinery.

5.5 Subgrade 3a : A small area of subgrade 3a good quality land occurs in the south west corner of the site. This reflects the change in geology from the widespread Folkestone Beds to the small area of Marine Gravel. A soil inspection pit (Pit 3) in this map unit confirmed a droughtiness limitation. Topsoils are of a medium sandy loam texture with 5% total stones, and a loamy sand subsoil to depth. The soils are well drained, wetness class I, showing no signs of a drainage imperfection. The combination of soil textures and structures alongside the local climatic regime means that there is a limitation on the available water within these soils, which can restrict plant growth and the range of crops that can tolerate such conditions.

5.6 The areas marked as Non-agricultural include a parcel of woodland in the north of the site, with a track running alongside.

ADAS REFERENCE : 4203/173/93
MAFF REFERENCE : EL 42/000228

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 re-claimed 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

* 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.

* British Geological Survey (1957), Sheet No. 317, Chichester, 1:50,000

* Soil Survey of England and Wales (1982), Sheet No. 6, Soils of South East England, 1:250,000, 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.)

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 peds are described using the following notation:

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

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

- ped shape S : single grain M : massive GR : granular AB : angular blocky SAB : sub-angular blocky PR : prismatic
PL : platy

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

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

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

G : good M : moderate P : poor

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

11. IMP : If the profile is impenetrable a 'Y' will appear in this column at the appropiate horizon.

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

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

14. Other notations

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

SAMPLE 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	SU89502010	PGR	N	01	000		1	1	143	41	109	15	1					1	
1P	SU89501938	PLO	NE	03	000		1	1	146	44	111	17	1					1	
2	SU89502000	PGR			050		1	2	150	48	117	23	1				WK	2	
2P	SU89501958	MAZ	E	02	000		1	2	143	41	116	22	1				WK	2	
3P	SU89201940	PLO	SE	02	000		1	1	093	-9	074	-20	3A				DR	3A	
4	SU89501990	PGR			000		1	1	158	56	111	17	1					1	
5	SU89601990	PGR	E	01	000		1	1	143	41	110	16	1					1	
6	SU89501980	PAS	E	03	000		1	1	154	52	113	19	1				WK	2	
7	SU89401970	MAZ	E	02	000		1	1	126	24	101	7	2				DR	2	
8	SU89501970	PGR	E	02	000		1	2	153	51	116	22	1				WK	2	
9	SU89601970	PGR	NW	02	000		1	1	154	52	111	17	1					1	
10	SU89401960	MAZ	N		000		1	1	150	48	112	18	1					1	
11	SU89501960	MAZ	N		055		1	1	156	54	118	24	1				WK	2	
12	SU89601960	PAS	N		000		1	1	103	1	089	-5	3A				DR	3A	
13	SU89301950	MAZ	N		000		1	1	152	50	114	20	1					1	
14	SU89401950	MAZ	N		050		1	1	150	48	112	18	1					1	
15	SU89501950	MAZ	N	02	000		1	1	154	52	111	17	1					1	
16	SU89601950	PLO	N	03	000		1	1	143	41	118	24	1				WK	2	
17	SU89201940	PLO	E	03	000		1	1	092	-10	077	-17	3A				DR	3A	
18	SU89301940	MAZ	E	03	000		1	1	160	58	113	19	1					1	
19	SU89401940	MAZ	N	02	000		1	1	141	39	109	15	1					1	
20	SU89501940	PLO	N	03	070		1	1	133	31	111	17	1					1	
21	SU89601940	PLO	N	03	000		1	1	099	-3	090	-4	3A				DR	3A	

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC
1	0-25	msl	75YR43 00						0	0		0						
	25-45	msl	75YR44 00						0	0		0		M				
	45-90	scl	75YR46 00						0	0	HR	3		M				
	90-120	c	75YR46 00						0	0		0		M				
1P	0-30	msl	10YR42 00						0	0		0	MCSAB	FR		Y		
	30-65	scl	10YR44 00						0	0		0	MCSAB	FR	M	Y		
	65-95	scl	75YR66 00	10YR63 00	C				0	0		0	MCAB	FR	M	Y		
	95-120	c	75YR54 00	10YR64 00	F				0	0		0	MCSAB	FR	M	Y		
2	0-25	mcl	10YR52 00						0	0		0						
	25-50	mcl	10YR54 00						0	0		0		M				
	50-95	hcl	75YR53 00	10YR58 61	C			Y	0	0		0		M				
	95-120	c	10YR52 00	10YR58 61	C		00MN00 00	Y	0	0		0		M				
2P	0-23	mcl	10YR42 00	75YR46 00	C			Y	0	0	HR	1	WCSAB	FR		Y		
	23-45	mcl	10YR43 00						0	0		0	MDCAB	FR	M	Y		
	45-65	hcl	75YR46 00	10YR52 00	F				0	0		0	MDCSAB	FR	M	Y		
	65-120	c	75YR46 00	10YR53 00	C				0	0		0	MDCSAB	FR	M	Y		
3P	0-27	msl	10YR32 00						3	0	HR	5	MDCSAB	VF		Y		
	27-65	lms	10YR43 64	10YR52 21	C				0	0	HR	2	WDCSAB	VF	M	Y		
	65-90	lms	10YR44 21	75YR46 00	F				0	0		0	WDCSAB	VF	M	Y		
	90-120	lms	10YR63 00	10YR68 58	M				0	0		0	MDVCPL	FR	M	Y		
4	0-30	msl	75YR43 00						0	0	HR	1						
	30-50	msl	75YR44 00						0	0		0		M				
	50-80	msl	10YR54 00						0	0		0		M				
	80-120	msl	75YR46 00						0	0		0		M				
5	0-25	msl	10YR32 00						0	0		0						
	25-70	msl	75YR32 00						0	0		0		M				
	70-98	msl	75YR34 00						0	0		0		M				
	98-120	lms	75YR44 00						0	0		0		M				
6	0-25	mcl	10YR32 00						0	0		0						
	25-65	msl	10YR76 00						0	0		0		M				
	65-120	hcl	10YR56 00						0	0		0		M				
7	0-25	msl	75YR42 00						0	0		0						
	25-58	msl	75YR46 00						0	0		0		M				
	58-70	lms	10YR76 00						0	0		0		M				
	70-85	scl	10YR76 64						0	0		0		M				
	85-120	lms	10YR76 00						0	0		0		M				
8	0-25	mcl	75YR43 00						0	0		0						
	25-35	hcl	75YR44 00						0	0		0		M				
	35-50	hcl	75YR46 00						0	0		0		M				
	50-80	hcl	75YR46 00						0	0	HR	5		M				
	80-120	msl	75YR44 00						0	0	HR	10		M				

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
9	0-30	msl	10YR32 00						0	0		0						
	30-40	msl	10YR33 00						0	0		0		M				
	40-70	msl	75YR44 00						0	0		0		M				
	70-85	hcl	75YR46 00						0	0	HR	3		M				
	85-120	msl	75YR56 00	75YR52 00	F				0	0	HR	5		M				
10	0-35	msl	10YR32 00						0	0	HR	4						
	35-50	msl	10YR44 00						0	0		0		M				
	50-75	mcl	10YR56 00						0	0		0		M				
	75-120	hcl	10YR58 00						0	0		0		M				
11	0-35	mcl	10YR42 00						0	0	HR	2						
	35-55	mcl	10YR44 00						0	0		0		M				
	55-120	hcl	10YR54 00	10YR58 00	C			Y	0	0		0		M				
12	0-40	msl	10YR32 00						0	0		0						
	40-70	lms	10YR54 00						0	0	HR	5		M				
	70-120	ms	10YR56 00						0	0	HR	6		M				
13	0-25	msl	10YR42 00						0	0	HR	2						
	25-65	mcl	10YR54 00						0	0		0		M				
	65-120	hcl	10YR56 00	00MN00 00	F				0	0		0		M				
14	0-30	msl	10YR42 00						0	0	HR	2						
	30-50	msl	10YR44 00						0	0		0		M				
	50-120	hcl	10YR53 00	10YR58 62	C			Y	0	0		0		M				
15	0-28	msl	75YR42 00						0	0		0						
	28-85	msl	75YR44 00						0	0		0		M				
	85-120	scl	75YR54 00						0	0		0		M				
16	0-35	mszl	10YR32 00						0	0	HR	2						
	35-65	msl	10YR44 00						0	0		0		M				
	65-100	msl	10YR54 00						0	0		0		M				
17	0-30	msl	10YR32 00						0	0	HR	5						
	30-65	lms	10YR41 44						0	0		0		M				
	65-120	ms	10YR74 00						0	0		0		M				
	120-121	ms	00ZZ00 00						0	0		0		M				
18	0-25	mcl	10YR42 00						0	0		0						
	25-75	msl	10YR56 00						0	0		0		M				
	75-120	msl	10YR74 00						0	0		0		M				
19	0-30	msl	10YR32 00						0	0	HR	1						
	30-55	msl	10YR44 00						0	0		0		M				
	55-70	msl	10YR56 00						0	0	HR	5		M				
	70-95	msl	10YR56 58						0	0		0		M				
	95-120	lms	10YR66 00						0	0		0		M				

				----MOTTLES-----			PED		----STONES----			STRUCT/	SUBS				
SAMPLE	DEPTH	TEXTURE	COLOUR	COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC
20	0-45	msl	10YR42 00						0	0	HR	4						
	45-70	msl	10YR44 00	10YR58 00	F				0	0		0			M			
	70-100	hcl	10YR53 00	10YR58 62	C			Y	0	0		0			M			
21	0-40	msl	10YR32 00						0	0		0						
	40-100	lms	10YR54 00						0	0		0			M			

SOIL PIT DESCRIPTION

Site Name : W. SUSSEX - SITE 20 Pit Number : 1P

Grid Reference: SU89501938 Average Annual Rainfall : 908 mm
Accumulated Temperature : 1485 degree days
Field Capacity Level : 195 days
Land Use : Bare Soil
Slope and Aspect : 03 degrees NE

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 30	MSL	10YR42 00	0	0		MCSAB
30- 65	SCL	10YR44 00	0	0		MCSAB
65- 95	SCL	75YR66 00	0	0	C	MCAB
95-120	C	75YR54 00	0	0	F	MCSAB

Wetness Grade : 1 Wetness Class : I
Gleying :000 cm
SPL : No SPL

Drought Grade : 1 APW : 146mm MBW : 44 mm
APP : 111mm MBP : 17 mm

FINAL ALC GRADE : 1
MAIN LIMITATION :

SOIL PIT DESCRIPTION

Site Name : W. SUSSEX - SITE 20 Pit Number : 2P

Grid Reference: SU89501958 Average Annual Rainfall : 908 mm
Accumulated Temperature : 1485 degree days
Field Capacity Level : 195 days
Land Use :
Slope and Aspect : 02 degrees E

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 23	MCL	10YR42 00	0	1	C	WCSAB
23- 45	MCL	10YR43 00	0	0		MDCAB
45- 65	HCL	75YR46 00	0	0	F	MDCSAB
65-120	C	75YR46 00	0	0	C	MDCSAB

Wetness Grade : 2 Wetness Class : I
Gleying :000 cm
SPL : No SPL

Drought Grade : 1 APW : 143mm MBW : 41 mm
APP : 116mm MBP : 22 mm

FINAL ALC GRADE : 2
MAIN LIMITATION : Workability

SOIL PIT DESCRIPTION

Site Name : W. SUSSEX - SITE 20 Pit Number : 3P

Grid Reference: SU89201940 Average Annual Rainfall : 908 mm
Accumulated Temperature : 1485 degree days
Field Capacity Level : 195 days
Land Use : Bare Soil
Slope and Aspect : 02 degrees SE

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 27	MSL	10YR32 00	3	5		MDCSAB
27- 65	LMS	10YR43 64	0	2	C	WDCSAB
65- 90	LMS	10YR44 21	0	0	F	WDCSAB
90-120	LMS	10YR63 00	0	0	M	MDVCPL

Wetness Grade : 1 Wetness Class : I
Gleying :000 cm
SPL : No SPL

Drought Grade : 3A APW : 093mm MBW : -9 mm
APP : 074mm MBP : -20 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Droughtiness