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LAND WEST OF LANGLEY'S LANE
STANDLAKE, OXFORDSHIRE
AGRICULTURAL LAND CLASSIFICATION
ALC MAP & REPORT
OCTOBER 1993

LAND WEST OF LANGLEY'S LANE, STANDLAKE
PROPOSED MINERAL EXTRACTION
AGRICULTURAL LAND CLASSIFICATION

1.0 Summary

1.1 ADAS was commissioned by MAFF's Land Use Planning Unit to provide information on land quality on an area of land west of Langley's Lane at Standlake, Oxfordshire. The work forms part of MAFF's statutory input to a proposal for mineral extraction and restoration under the 1981 Minerals Act.

1.2 Approximately 26 hectares of land relating to the proposed site was surveyed in October 1993. The survey was undertaken at a detailed level of approximately one boring per hectare. A total of 26 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 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.

1.4 At the time of the survey the landuse on the site was linseed which had been partially harvested.

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.

Table 1 : Distribution of Grades and Subgrades

Grade	Area (ha)	% of Site	% of Agricultural Area
3b	25.1	98.8	100.0
Urban	0.3	1.2	
Total	25.4	100.0	

1.6 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.

1.7 The agricultural land on the site has been classified as 3b, moderate quality land, with soil wetness as the key limitation. This is related to the presence of a poorly structured clay subsoil usually at a shallow depth, which causes seasonal waterlogging.

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 :	TQ 388 017
Altitude (m) :	65
Accumulated Temperature (days) :	1465
Average Annual Rainfall (mm) :	762
Field Capacity (days) :	161
Moisture Deficit, Wheat (mm) :	113
Moisture Deficit, Potatoes (mm) :	108
Overall Climatic Grade :	1

3.0 Relief

3.1 The site is flat and lies at an altitude of 65m. (A.O.D). On no part of the site do altitude or relief pose any limitation to agricultural use.

4.0 Geology and Soil

4.1 The relevant geological sheet for the site shows the underlying geology to be alluvium.

4.2 The published soils information for the area shows the soils on the site to be within two series. In the north, the soils are mapped as the Kelmscot series which are described as calcareous fine loamy soils over gravel, variably affected by groundwater, associated with non-calcareous clayey soils over gravel. In the south of the site the soils are mapped as the Thames series which are described as stoneless mainly calcareous clayey soils affected by groundwater. Detailed field examination broadly confirms this, particularly the clayey nature of the soils and the evidence of their being affected by groundwater. In the north of the site the textures are best described as clayey as opposed to loamy.

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 Subgrade 3b : All of the agricultural land on the site has been classified as Subgrade 3b, moderate quality land. Soil profiles are typically clay textures to depth which show evidence of impeded drainage due to the presence of a slowly permeable poorly structured clay layer in the subsoil. Where this layer occurs at a shallow depth in the profile and extends to depth, as identified in Pit 1, these soils are assigned to Wetness Class IV which, in conjunction with the topsoil texture and field capacity days for the site, gives a resultant classification of Subgrade 3b. A poorly structured clay layer which commences above 35cm and does not extend below 50cm, as demonstrated by Pit 2, can be removed by cultivation. Soils with these characteristics are assigned to Wetness Class II, which also results in a classification of Subgrade 3b due to the significant workability limitation caused by a clay topsoil. Soils do not tend to be pure clay to depth; in some areas of the site the subsoil becomes more stony and sandy at depth, typically clays with 18% small flints and sandy loams with 30% small flints.
Anecdotal evidence suggests that at least part of the site is prone to some degree of winter flooding in most years. As a result, the site can be classified as no better than Subgrade 3b on a flooding limitation alone. Long-term flooding information may in fact further downgrade the quality of the land.

5.5 The area marked as Urban is a hardcore track in the north of the site.

ADAS REFERENCE : 3305/195/93
MAFF REFERENCE : EL33/00525

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 (1982), Sheet No.236, Witney, 1:50,000

* 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. 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	TQ38500200	LIN		026	026	4	3B	103	-6	101	-13	3A					WE	3B	
1P	TQ38950162	LIN		026	026	4	3B	117	8	102	-12	3A					WE	3B	
2	TQ38500190	LIN		026	026	4	3B	123	14	101	-13	3A					WE	3B	
2P	TQ38610180	LIN		019		2	3B	108	-1	91	-23	3A					WE	3B	
3	TQ38600190	LIN		026	026	4	3B	96	-13	101	-13	3A					WE	3B	
4	TQ38700190	LIN		025	025	4	3B	112	3	99	-15	3A					WE	3B	
5	TQ38800190	LIN		025	025	4	3B	125	16	98	-16	3A					WE	3B	
6	TQ38900190	LIN		027	027	4	3B	108	-1	102	-12	3A					WE	3B	
7	TQ39000190	LIN		023		3	3B	81	-28	85	-29	3B					WD	3B	
8	TQ38500180	LIN		028	028	4	3B	104	-5	102	-12	3A					WE	3B	
9	TQ38600180	LIN		026	026	2	3B	86	-23	90	-24	3B					WE	3B	
10	TQ38700180	LIN		026	026	4	3B	105	-4	100	-14	3A					WE	3B	
11	TQ38800180	LIN		000	030	4	3B	125	16	103	-11	3A					WE	3B	
12	TQ38900180	LIN		030	030	4	3B	115	6	103	-11	3A					WE	3B	
13	TQ39000180	LIN		030	030	4	3B	112	3	106	-8	3A					WE	3B	
14	TQ39100180	LIN		025	025	4	3B	110	1	101	-13	3A					WE	3B	
15	TQ38600180	LIN		025	025	4	3B	102	-7	103	-11	3A					WE	3B	
16	TQ38700170	LIN		025	025	4	3B	115	6	104	-10	2					WE	3B	
17	TQ38800170	LIN		025	025	4	3B	114	5	103	-11	3A					WE	3B	
18	TQ38900170	LIN		025	025	4	3B	127	18	98	-16	3A					WE	3B	
19	TQ39000170	LIN		030	030	4	3B	107	-2	103	-11	3A					WE	3B	
20	TQ38800160	LIN		030	030	4	3B	114	5	105	-9	2					WE	3B	
21	TQ38900160	LIN		030	030	4	3B	123	14	103	-11	3A					WE	3B	
22	TQ39000160	LIN		025	025	4	3B	125	16	104	-10	2					WE	3B	
23	TQ38900150	LIN		055	025	4	3B	107	-2	101	-13	3A					WE	3B	
24	TQ39000150	LIN		020	020	4	3B	135	26	102	-12	3A					WE	3B	

SAMPLE	DEPTH	TEXTURE	COLOUR	-----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
1	0-26	hcl	10YR43 00						0	0		0						
	26-65	c	25Y 52 00	10YR58 00	M			Y	0	0	HR	5		P			Y	
	65-85	scl	25Y 52 62	10YR56 00	M			Y	0	0	HR	20		M			Y	
	85-90	lms	25Y 72 00	10YR66 00	M			Y	0	0	HR	40		P				
1P	0-26	c	10YR42 00						0	0		0	WKCSAB	FR				
	26-63	c	10YR56 00	25Y 52 00	M		10YR53 00	Y	0	0		0	MDCAB	FM P	Y		Y	
	63-95	c	10YR66 00	10YR71 00	C			Y	0	0	HR	18	WKCSAB	FR M			Y	
	95-110	scl	10YR66 00	10YR71 00	M			Y	0	0	HR	30		M				
2	0-26	hcl	10YR42 43						0	0		0						
	26-70	c	25Y 53 00	10YR56 00	M			Y	0	0	HR	5		P			Y	
	70-85	c	25Y 53 00	75YR56 00	M			Y	0	0	HR	10		P			Y	
	85-120	msl	25Y 62 72	10YR56 66	M			Y	0	0	HR	40		M				
2P	0-19	c	25Y 42 00						0	0	HR	3	WKCSAB	FR				
	19-46	c	25Y 51 00	10YR58 00	M			Y	0	0	HR	5	WKCSAB	FM P	Y			
	46-80	c	25Y 53 00	75YR56 00	M			Y	0	0	HR	18	WKCSAB	FM P			Y	
	80-90	c	25Y 52 00	75YR58 00	M			Y	0	0	HR	18	WKCSAB	FM P			Y	
	90-110	msl	10YR56 00						0	0	HR	30		M				
3	0-26	c	10YR42 43						0	0		0						
	26-80	c	25Y 53 00	10YR56 00	M		00MN00 00	Y	0	0		0		P			Y	
4	0-25	hcl	10YR43 00						0	0		0						
	25-60	c	25Y 52 00	75YR46 56	M			Y	0	0	HR	5		P			Y	
	60-95	msl	10YR58 00						0	0	HR	30		M				
	95-110	gh	25Y 62 72						0	0		0		P				
5	0-25	c	10YR42 43						0	0		0						
	25-90	c	25Y 52 00	75YR56 00	M			Y	0	0	HR	5		P				
	90-120	hcl	10YR63 00	10YR66 00	M			Y	0	0	HR	20		M			Y	
6	0-27	c	10YR43 00						0	0		0						
	27-80	c	25Y 52 00	75YR46 56	M			Y	0	0		0		P			Y	
	80-100	scl	10YR62 00	10YR56 00	M			Y	0	0	HR	30		P				
7	0-23	c	10YR43 00						0	0	HR	1						
	23-40	c	25Y 52 00	10YR56 00	M			Y	0	0	HR	2		P				
	40-55	scl	10YR53 00	10YR56 00	M			Y	0	0	HR	30		M				
	55-65	msl	10YR66 00						0	0	HR	50		M				
8	0-28	c	25Y 42 00						0	0		0						
	28-80	c	25YZ52 00	10YR56 00	M			Y	0	0		0		P			Y	
	80-90	scl	10YR56 00	25Y 62 00	C			Y	0	0	HR	30		M				
9	0-26	c	25Y 42 00						0	0		0						
	26-45	c	25Y 52 00	10YR56 00	M			Y	0	0	HR	10		P			Y	
	45-65	msl	25YZ62 00	10YR66 00	M			Y	0	0	HR	30		M				
	65-75	ms	25Y 72 00	10YR76 00	M			Y	0	0	HR	50		M				

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
10	0-26	c	25Y 42 00						0	0		0						
	26-60	c	25Y 42 52	10YR56 00	M			Y	0	0	HR	2		P			Y	
	60-90	hcl	10YR56 00	25Y 52 00	C			Y	0	0	HR	25		M				
11	0-30	c	10YR42 00						0	0		0						
	30-80	c	25Y 52 00	10YR58 61	C			Y	0	0		0		P	Y		Y	
	80-110	scl	10YR56 00						0	0	HR	12		M				
12	0-30	c	10YR42 00						0	0		0						
	30-85	c	25Y 52 00	10YR58 61	C			Y	0	0		0		P	Y		Y	
	85-100	hcl	10YR56 00						0	0	HR	9		M				
13	0-30	hcl	25Y 42 00						0	0		0						
	30-95	c	10YR52 00	10YR58 61	M			Y	0	0		0		P	Y		Y	
14	0-25	c	25Y 42 00						0	0		0						
	25-100	c	10YR52 00	10YR58 61	M			Y	0	0		0		P	Y		Y	
15	0-25	c	25Y 42 00						0	0		0						
	25-55	c	25Y 63 00	10YR58 61	M			Y	0	0		0		P			Y	
	55-65	hcl	10YR54 00						0	0	HR	6		M				
	65-80	msl	10YR56 00						0	0	HR	15		M				
16	0-25	hcl	10YR42 00						0	0		0						
	25-65	c	25Y 53 00	10YR58 61	M			Y	0	0		0		P	Y		Y	
	65-80	hcl	10YR56 00						0	0	HR	8		M				
	80-95	scl	10YR58 00						0	0	HR	12		M				
17	0-25	c	10YR42 00						0	0		0						
	25-50	c	10YR52 00	10YR58 61	M			Y	0	0		0		P	Y		Y	
	50-65	hcl	10YR54 00					Y	0	0	HR	10		M				
	65-95	scl	10YR56 00					Y	0	0	HR	15		M				
18	0-25	c	25Y 42 00						0	0	HR	2						
	25-85	c	25Y 53 00	10YR58 61	C		00MN00 00	Y	0	0	HR	4		P	Y		Y	
	85-120	hcl	10YR56 00						0	0	HR	15		M				
19	0-30	c	25Y 42 00						0	0		0						
	30-75	c	10YR51 00	10YR58 61	M			Y	0	0		0		P	Y		Y	
	75-95	c	10YR52 00	10YR58 61	C			Y	0	0	HR	10		P	Y		Y	
20	0-30	c	10YR42 00						0	0		0						
	30-60	c	25Y 53 00	10YR58 61	M		00MN00 00	Y	0	0		0		P	Y		Y	
	60-75	hcl	25Y 64 00						0	0	HR	5		M				
	75-100	c	25Y 63 00	10YR58 61	C			Y	0	0	HR	10		P	Y		Y	
21	0-30	c	10YR42 00						0	0		0						
	30-90	c	25Y 52 00	10YR58 61	M			Y	0	0		0		P	Y		Y	
	90-110	hcl	25Y 68 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
22	0-25	hcl	25Y 52 00						0	0		0						
	25-80	c	25Y 53 00	10YR58	61	M		Y	0	0		0		P	Y		Y	
	80-110	hcl	25Y 56 00						0	0	HR	12		M				
23	0-25	c	25Y 42 00						0	0		0						
	25-55	c	10YR53 00	10YR58	61	M		Y	0	0		0		P	Y		Y	
	55-95	c	25Y 63 00	10YR58	61	M		Y	0	0		0		P	Y		Y	
24	0-20	c	10YR42 00						0	0		0						
	20-35	c	10YR53 00	10YR58	61	M		Y	0	0		0		P	Y		Y	
	35-55	c	25Y 63 00	10YR58	61	C		Y	0	0		0		P	Y		Y	
	55-65	hcl	10YR54 00						0	0	HR	6		M				
	65-110	msl	25Y 68 74						0	0		0		M				

SOIL PIT DESCRIPTION

Site Name : LANGLEY LANE, STANDLAKE Pit Number : 1P

Grid Reference: TQ38950162 Average Annual Rainfall : 760 mm
Accumulated Temperature : 1467 degree days
Field Capacity Level : 161 days
Land Use : Linseed
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 26	C	10YR42 00	0	0		WKCSAB
26- 63	C	10YR56 00	0	0	M	MDCAB
63- 95	C	10YR66 00	0	18	C	WKCSAB
95-110	SCL	10YR66 00	0	30	M	

Wetness Grade : 3B Wetness Class : IV
Gleying :026 cm
SPL :026 cm

Drought Grade : 3A APW : 117mm MBW : 8 mm
APP : 102mm MBP : -12 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : LANGLEY LANE, STANDLAKE Pit Number : 2P

Grid Reference: TQ38610180
Average Annual Rainfall : 760 mm
Accumulated Temperature : 1467 degree days
Field Capacity Level : 161 days
Land Use : Linseed
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 19	C	25Y 42 00	0	3		WKCSAB
19- 46	C	25Y 51 00	0	5	M	WKCSAB
46- 80	C	25Y 53 00	0	18	M	WKCSAB
80- 90	C	25Y 52 00	0	18	M	WKCSAB
90-110	MSL	10YR56 00	0	30		

Wetness Grade : 3B
Wetness Class : II
Gleying :019 cm
SPL : cm

Drought Grade : 3A
APW : 108mm MBW : -1 mm
APP : 91 mm MBP : -23 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Wetness