

**A1**  
**Isle of Thanet Local Plan**  
**Site 2 Kent International**  
**Business Park**  
**Agricultural Land Classification**  
**ALC Map and Report**  
**September 1994**

# AGRICULTURAL LAND CLASSIFICATION REPORT

## ISLE OF THANET LOCAL PLAN

### SITE 2 KENT INTERNATIONAL BUSINESS PARK

#### 1 Summary

- 1.1 ADAS was commissioned by MAFF's Land Use Planning Unit to provide information on land quality for five sites in the Thanet district of Kent. This work forms part of MAFF's statutory input to the preparation of the Isle of Thanet Local Plan.
- 1.2 Site 2 comprises approximately 27 hectares of land to the north west of Manston Aerodrome near Minster east Kent. An Agricultural Land Classification (ALC) survey was carried out during September 1994. The survey was undertaken at a detailed level of approximately one boring per hectare. A total of 29 borings and two 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 a long term limitation on its use for agriculture.
- 1.3 The work was carried out by members of the Resource Planning Team in the Guildford Statutory Group of ADAS.
- 1.4 At the time of the survey the site was a mixture of cereal stubble and ploughed land.
- 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 1:10 000. It is accurate at this scale but any enlargement would be misleading.

**Table 1 Distribution of Grades and Subgrades**

Grade	Area (ha)	% of Agricultural Land
2	19.7	74.1
3a	<u>6.9</u>	<u>25.9</u>
Total area of site	26.6	100%

- 1.6 Appendix 1 gives a general description of the grades and landuse categories identified in this survey. The main classes are described in terms of the type of limitation that can occur, the typical cropping range and expected level and consistency of yield.
- 1.7 The land surveyed has been classified mainly as very good quality Grade 2 with smaller areas of good quality Subgrade 3a. The land is affected by soil droughtiness limitations. Typically silty or silty clay loam soils which are variably flinty overlie chalk or chalky drift deposits at varying depths. The interaction between these soil properties and the dry climate which occurs at this locality

causes profile available water to be restricted. The degree of restriction depends upon the soil textures, structures, stone contents and depth to underlying chalky deposits and determines the grade.

## 2 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 average annual 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 grid point 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. However, climatic factors do interact with soil factors to influence soil wetness and droughtiness limitations. At this locality, which is relatively warm and dry in a national sense, low field capacity days and high soil moisture deficits increase the likelihood of soil droughtiness being a problem whilst soil wetness is less likely to occur.
- 2.4 No local climatic factors such as exposure or frost risk are believed to affect the site.

**Table 2 Climatic Interpolations**

Grid Reference	TR315673	TR317669
Altitude (m AOD)	25	35
Accumulated Temperature (degree days Jan-June)	1461	1449
Average Annual Rainfall (mm)	601	604
Field Capacity (days)	121	121
Moisture Deficit Wheat (mm)	127	125
Moisture Deficit Potatoes (mm)	125	123
Overall Climatic Grade	1	1

## 3 Relief

- 3.1 The site lies at an altitude of approximately 25-35m AOD, rising gently towards the south east. A small dry valley occurs towards the north west of the site, but elsewhere the site is only slightly undulating. Nowhere on the site do gradient or relief affect land quality.

#### **4 Geology and Soil**

- 4 1 British Geological Survey (1980) Sheet 274 shows the entire site to be underlain by Upper Chalk This is overlain by drift deposits of Head Brickearth towards the north of the site in association with the dry valley and across the eastern part of the site
- 4 2 Soil Survey of England and Wales (1980) Soils of Kent shows the majority of the site to comprise variably chalky and flinty soils in Head associated with shallow chalky soils (SSEW 1980) Along the southern boundary of the site argillic brown earths described as silty soils in brickearth have been mapped
- 4 3 Detailed field examination found the soils on the site to comprise well drained silty clay loam profiles overlying chalky drift or chalk at variable depths A number of profiles are deep with chalk not being encountered

#### **5 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 Very good quality land has been mapped across much of the site where soil droughtiness limitations are only minor  
Profiles typically comprise calcareous or non calcareous medium silty clay loam topsoils containing 1-2% total flints by volume These overlie similar textures silt loam or heavy silty clay loam upper subsoils with approximately 2% flints or chalk fragments Profiles are similarly textured in the lower subsoil and either continue as such to at least 1.2m or pass to horizons of chalky drift containing 20-50% chalk below about 45-80 cm and becoming progressively more chalky with depth Commonly profiles were impenetrable (to soil auger) at variable depths due to 2-5% flints in the chalky drift deposits  
These soils are well drained Wetness Class I However profile available water is slightly restricted due to the interaction of soil properties and climatic factors It is the chalky lower subsoils in combination with an especially warm dry climatic regime which leads to a slight risk of drought stress Yield potential may be affected accordingly

##### **Subgrade 3a**

- 5 4 Good quality land has been mapped across the slightly higher land on the site Here the soils are generally shallower over the chalky drift deposits than elsewhere and the soil droughtiness restrictions are therefore slightly more limiting than for land classified as Grade 2

Profiles are similar to those described in paragraph 5.3 above with very slightly stony (ie 2-3% total flints by volume) medium silty clay loam topsoils over similar upper subsoils. Typically profiles pass to chalky drift horizons containing 35-50% chalk fragments between 30 and 45 cm or pass to hard white chalk below about 40-60 cm.

The higher volumes of chalk stones and/or the relatively shallow soil depth over chalk in these profiles combined with the dry climate restrict profile available water to a greater extent than is the case on the deeper soils graded as 2. Subgrade 3a is therefore appropriate.

ADAS Ref 2012/218/94  
MAFF Ref EL20/248

Resource Planning Team  
Guildford Statutory Group  
ADAS Reading

## **SOURCES OF REFERENCE**

British Geological Survey (1980) Sheet No 274 1 50 000 Solid & Drift Edition

MAFF (1988) Agricultural Land Classification of England and Wales Revised guidelines and criteria for grading the quality of agricultural land

Meteorological Office (1989) Climatic datasets for Agricultural Land Classification

Soil Survey of England and Wales (1980) Soils of Kent and accompanying bulletin

# APPENDIX I

## DESCRIPTION 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 (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 severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.



## APPENDIX II

### FIELD ASSESSMENT OF SOIL WETNESS CLASS

#### SOIL WETNESS CLASSIFICATION

Soil wetness is classified according to the depth and duration of waterlogging in the soil profile. Six soil wetness classes are identified and are defined in the table below.

#### Definition of Soil Wetness Classes

Wetness Class	Duration of Waterlogging <sup>1</sup>
I	The soil profile is not wet within 70 cm depth for more than 30 days in most years <sup>2</sup>
II	The soil profile is wet within 70 cm depth for 31-90 days in most years or if there is no slowly permeable layer within 80 cm depth it is wet within 70 cm for more than 90 days but only wet within 40 cm depth for 30 days in most years
III	The soil profile is wet within 70 cm depth for 91-180 days in most years or if there is no slowly permeable layer present within 80 cm depth it is wet within 70 cm for more than 180 days but only wet within 40 cm depth for between 31-90 days in most years
IV	The soil profile is wet within 70 cm depth for more than 180 days but not wet within 40 cm depth for more than 210 days in most years or if there is no slowly permeable layer present within 80 cm depth it is wet within 40 cm depth for 91-210 days in most years
V	The soil profile is wet within 40 cm depth for 211-335 days in most years
VI	The soil profile is wet within 40 cm depth for more than 335 days in most years

Soils can be allocated to a wetness class on the basis of quantitative data recorded over a period of many years or by the interpretation of soil profile characteristics, site and climatic factors. Adequate quantitative data will rarely be available for ALC surveys and therefore the interpretative method of field assessment is used to identify soil wetness class in the field. The method adopted here is common to ADAS and the SSLRC.

<sup>1</sup>The number of days specified is not necessarily a continuous period

<sup>2</sup> In most years is defined as more than 10 out of 20 years

**APPENDIX III**  
**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 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>DCW</b> Deciduous Wood
<b>HTH</b> Heathland	<b>BOG</b> Bog or Marsh	<b>FLW</b> Fallow
<b>PLO</b> Ploughed	<b>SAS</b> Set aside	<b>OTH</b> Other
<b>HRT</b> Horticultural Crops		
- 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>EX</b> Exposure
<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>ST</b> Topsoil Stoniness		

## 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 **GLEYS** 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>SLST</b>	soft oolitic or dolomitic limestone
<b>CH</b>	chalk	<b>FSST</b>	soft fine grained sandstone
<b>ZR</b>	soft argillaceous or silty rocks	<b>GH</b>	gravel with non porous (hard) stones
<b>MSST</b>	soft medium grained sandstone	<b>GS</b>	gravel with porous (soft) stones
<b>SI</b>	soft weathered igneous/metamorphic rock		

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

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

degree of development    **WK** weakly developed            **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

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

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

- 10 **SUBS STR** Subsoil structural condition recorded for the purpose of calculating profile droughtiness    **G** good    **M** moderate    **P** poor

- 11 **POR** Soil porosity If a soil horizon has less than 0.5% biopores >0.5 mm a 'Y' will appear in this column

- 12 **IMP** If the profile is impenetrable to rooting a 'Y' will appear in this column at the appropriate horizon

- 13 **SPL** Slowly permeable layer If the soil horizon is slowly permeable a 'Y' will appear in this column

- 14 **CALC** If the soil horizon is calcareous a 'Y' will appear in this column

- 15 Other notations

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

SAMPLE NO	GRID REF	ASPECT USE	- WETNESS--		-WHEAT-		-POTS-		M REL		EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
			GRDNT	GLEYSPL	CLASS	GRADE	AP	MB	AP	MB					
1	TR31406740	PLO NE	01		1	1	120	7	124	-1	3A		DR	2	Imp80 DR to 12
1P	TR31476722	PLO NW	01		1	1	116	-11	118	-7	3A		DR	3A	Roots 78
2	TR31406730	PLO NE	01		1	1	129	2	122	-3	3A		DR	3A	Almost 2
2P	TR31336682	PLO			1	1	172	45	124	-1	2		DR	2	
3	TR31503730	PLO			1	1	161	34	125	0	2		DR	2	Valley
4	TR31606730	PLO S	02		1	1	113	-14	121	-4	3A		DR	2	Imp75 DR to 12
5	TR31406720	PLO			1	1	179	52	131	6	2		DR	2	
6	TR31503720	PLO			1	1	072	-55	072	-53	4		DR	3A	Imp 45 See 1P
7	TR31603720	PLO			1	1	177	50	145	20	1			1	Valley
8	TR31706720	PLO			1	1	096	-31	102	-23	3B		DR	3B	Chalk 40
9	TR31403710	PLO			1	1	105	22	118	-7	3B		DR	2	Imp70 DR to 1
10	TR31503710	PLO			1	1	092	-35	098	-27	3B		DR	3B	Chalk 40
11	TR31603710	PLO			1	1	124	3	136	11	3A		DR	2	Imp70 DR to 12
12	TR31706710	PLO			1	1	162	35	132	7	2		DR	2	Valley
13	TR31406700	PLO			1	1	097	30	102	-23	3B		DR	3A	Imp60 DR to 12
14	TR31506700	PLO			1	1	098	-29	105	-20	3B		DR	2	DR to 120
15	TR31606700	PLO			1	1	128	1	121	-4	3A		DR	2	Imp93 DR to 12
16	TR31706700	PLO			1	1	150	23	123	-2	2		DR	2	Chalk 95
17	TR31306690	PLO SW	01		1	1	117	-10	116	-9	3A		DR	3A	Chalk 60
18	TR31406690	PLO SW	01		1	1	098	-29	104	-21	3B		DR	3A	DR to 120
19	TR31506690	PLO			1	1	156	29	123	-2	2		DR	2	
20	TR31606690	PLO			1	1	166	39	134	9	2		DR	2	Almost 1
21	TR31706690	SAS			1	1	134	7	125	0	2		DR	2	
22	TR31856690	PLO			1	1	115	-12	121	-4	3A		DR	2	DR to 120
24	TR31306680	PLO			1	1	144	17	124	-1	2		DR	2	Imp 93
25	TR31406680	PLO W	02		1	1	111	-16	110	-15	3A		DR	3A	Chalk 50
26	TR31506680	PLO W	01		1	1	096	-31	102	-23	3B		DR	3A	DR to 120
28	TR31706680	SAS			1	1	143	16	116	-9	2		DR	2	
29	TR31806680	SAS			1	1	148	21	121	-4	2		DR	2	
30	TR31906680	SAS				1	124	-3	118	-7	3A		DR	2	Imp90 DR to 12
31	TR32006680	SAS			1	1	154	27	116	-9	2		DR	2	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL	----STONES---			STRUCT/ CONSIST	SUBS			CALC
				COL	ABUN	CONT		GLEYS	>2	>6		LITH	TOT	STR	
1	0-33	mzc1	10YR43 00					0	0	HR	1				
	33-80	mzc1	10YR54 00					0	0	HR	2		M		Y IMP FLINTS
1P	0-29	mzc1	10YR42 00					0	0	HR	3				Y
	29-45	mzc1	10YR54 00					0	0	HR	2	MDCSAB	VF G		Y + 2% CHALK
	45-78	mzc1	10YR74 00					0	0	CH	60		M		Y + 15% FLINTS
2	0-34	mzc1	10YR43 00					0	0	HR	1				
	34-55	mzc1	10YR54 00					0	0	HR	5		M		Y
	55-62	hzc1	10YR54 00					0	0	HR	5		M		Y
	62-70	c	10YR56 00					0	0	HR	5		M		Y
	70-77	hzc1	10YR74 00					0	0	CH	50		M		Y CHALKY DRIFT
	77-100	ch	10YR81 00					0	0		0		P		Y IMP HARD CHALK
2P	0-25	mzc1	10YR42 00					0	0		0				
	25-45	mzc1	10YR54 00					0	0		0	MDCSAB	FR M		
	45-72	hzc1	75YR46 00					0	0		0	MDCSAB	FM M		
	72-100	mzc1	10YR56 00					0	0		0	MDCSAB	FR M		
	100-120	fsz1	10YR56 00					0	0		0	WKCSAB	VF G		
3	0-32	mzc1	10YR43 00					0	0		0				
	32-50	mzc1	10YR54 00					0	0		0		M		
	50-120	mzc1	10YR54 00					0	0	CH	2		M		Y
4	0-29	mzc1	10YR43 00					0	0	HR	1				Y
	29-40	mzc1	10YR54 00					0	0	CH	2		M		Y
	40-50	mzc1	10YR64 00					0	0	CH	5		M		Y
	50-70	mzc1	10YR64 00					0	0	CH	20		M		Y CHALKY DRIFT
	70-75	mzc1	10YR74 00					0	0	CH	50		M		Y IMP +5% FLINTS
5	0-25	mzc1	10YR43 00					0	0	HR	2				
	25-40	z1	10YR44 00					0	0		0		M		
	40-90	mzc1	10YR54 00					0	0		0		M		
	90-120	z1	10YR72 54					0	0		0		M		
6	0-29	mzc1	10YR43 00					0	0	HR	2				
	29-45	mzc1	10YR64 00					0	0	CH	35		M		Y IMP FLINTS
7	0-28	mzc1	10YR43 00					0	0	HR	2				
	28-75	z1	10YR54 56					0	0		0		M		
	75-100	hzc1	10YR56 00					0	0		0		M		
	100-120	c	10YR56 00					0	0		0		M		
8	0-29	mzc1	10YR43 00					0	0	HR	3				
	29-40	mzc1	10YR64 00					0	0	CH	50		M		Y
	40-70	ch	05Y 82 00					0	0		0		M		Y
9	0-26	mzc1	10YR43 00					0	0	HR	2				
	26-35	hzc1	10YR54 00					0	0		0		M		
	35-55	c	10YR54 00					0	0		0		M		
	55-70	hzc1	10YR64 00					0	0	CH	35		M		Y IMP FLINTS

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL	----STONES----			STRUCT/ CONSIST	SUBS				
				COL	ABUN	CONT		GLEY	>2	6		LITH	TOT	STR	POR	IMP
10	0-28	mzc1	10YR43 00					0	0	HR	3					
	28-40	mzc1	10YR64 00					0	0	CH	50	M				Y
	40-70	ch	05Y 82 00					0	0		0	M				Y
11	0-22	mzc1	10YR43 00					0	0	HR	2					
	22-45	z1	10YR54 00					0	0		0	M				
	45-70	z1	10YR64 00					0	0	CH	35	M			Y	IMP FLINTS
12	0-27	mzc1	10YR42 00					0	0	HR	2					
	27-45	z1	10YR54 00					0	0		0	M				
	45-90	mzc1	10YR54 00					0	0		0	M				
	90-120	c	10YR56 00					0	0		0	M				
13	0-25	mzc1	10YR43 00					0	0	HR	2					
	25-45	hzc1	10YR54 00					0	0		0	M				
	45-60	hzc1	10YR64 00					0	0	CH	35	M			Y	IMP FLINTS
14	0-30	mzc1	10YR42 00					0	0	HR	1					
	30-48	mzc1	10YR54 00					0	0	HR	3	M				
	48-60	hzc1	10YR54 00					0	0	HR	10	M				IMP FLINTS
15	0-29	mzc1	10YR42 00					0	0	HR	2					Y
	29-55	mzc1	10YR54 00					0	0	HR	2	M				Y
	55-60	hzc1	10YR54 00					0	0	HR	2	M				Y
	60-70	c	10YR54 56					0	0	HR	2	M				Y
	70-93	hc1	10YR64 00					0	0	CH	30	M			Y	IMP FLINTS
16	0-30	mzc1	10YR43 00					0	0	HR	2					Y
	30-45	mzc1	10YR54 00					0	0	HR	1	M				Y
	45-60	hzc1	10YR54 00					0	0	HR	1	M				Y
	60-80	mzc1	10YR64 00					0	0	HR	1	M				Y
	80-95	mzc1	10YR74 00					0	0	CH	30	M				Y CHALKY DRIFT
	95-120	ch	10YR81 00					0	0		0	P				Y
17	0-30	mzc1	10YR43 00					0	0	HR	2					Y
	30-60	mzc1	10YR54 00					0	0	CH	3	M				Y + 2% FLINTS
	60-85	ch	10YR81 00					0	0		0	P				Y
18	0-30	mzc1	10YR42 00					0	0	HR	2					
	30-40	mzc1	10YR54 00					0	0	HR	2	M				
	40-48	hzc1	10YR54 00					0	0	HR	2	M				
	48-55	c	10YR54 00					0	0	HR	2	M				
	55-60	hzc1	10YR54 56					0	0	CH	30	M			Y	IMP FLINTS
19	0-29	mzc1	10YR43 00					0	0	HR	1					
	29-90	mzc1	10YR54 00					0	0	HR	2	M				
	90-100	c	10YR54 00					0	0	HR	2	M				
	100-120	hc1	10YR64 00					0	0	CH	10	M				Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED COL	GLEY	----STONES---			STRUCT/ CONSIST	SUBS					
				COL	ABUN	CONT			2	>6	LITH		TOT	STR	POR	IMP	SPL	CALC
20	0-30	mzc1	10YR42 00						0	0	HR	1						
	30-50	mzc1	10YR54 00						0	0	HR	2		M				
	50-80	z1	10YR54 00						0	0		0		M				
	80-90	hc1	10YR54 00				F		0	0		0		M				
	90-120	c	75YR46 00				F		0	0		0		M				
21	0-32	mzc1	10YR42 00						0	0		0						
	32-50	mzc1	10YR54 00						0	0	HR	2		M				
	50-80	mzc1	10YR64 00						0	0	CH	2		M			Y	
	80-90	mzc1	10YR74 00						0	0	CH	25		M			Y	CHALKY DRIFT
	90-95	mzc1	10YR74 00						0	0	CH	50		M			Y	IMP FLINTS
22	0-25	mzc1	10YR42 00						0	0	HR	2						
	25-55	mzc1	10YR54 00						0	0		0		M				
	55-65	hzc1	75YR46 00						0	0	HR	5		M				
	65-80	c	75YR46 00						0	0	HR	5		M				IMP FLINTS
24	0-30	mzc1	10YR42 00						0	0	HR	1					Y	
	30-68	mzc1	10YR54 00						0	0	HR	2		M			Y	
	68-88	fsz1	10YR64 00						0	0		0		G			Y	
	88-93	fsz1	10YR72 00						0	0	CH	30		G			Y	IMP FLINTS
25	0-27	mzc1	10YR43 00						0	0	CH	2					Y	
	27-50	mzc1	10YR54 00						0	0		0		M			Y	
	50-80	ch	10YR81 00						0	0		0		P			Y	
26	0-30	mzc1	10YR42 00						0	0	HR	2					Y	
	30-35	mzc1	10YR54 64						0	0	CH	5		M			Y	+ 2% FLINTS
	35-40	mzc1	10YR64 00						0	0	CH	50		M			Y	DRIFT + 2% FLINTS
	40-60	mzc1	10YR74 00						0	0	CH	25		M			Y	IMP FLINTS
28	0-25	mc1	10YR42 43						0	0	HR	2						
	25-65	mc1	10YR54 00						0	0		0		M				
	65-120	c	10YR56 54						0	0		0		M				
29	0-25	mc1	10YR42 00						0	0	HR	2						
	25-65	mzc1	10YR54 00						0	0		0		M				
	65-75	hzc1	10YR54 00						0	0		0		M				
	75-120	c	10YR56 00						0	0		0		M				
30	0-25	mzc1	10YR42 00						0	0	HR	2						
	25-60	hc1	10YR54 00						0	0		0		M				
	60-65	hc1	10YR54 00						0	0	CH	10		M			Y	
	65-90	hzc1	10YR64 00						0	0	CH	30		M			Y	IMP FLINTS
31	0-26	mc1	10YR42 00						0	0	HR	2						
	26-40	mc1	10YR44 00						0	0		0		M				
	40-70	hc1	10YR54 00						0	0		0		M				
	70-120	mc1	10YR54 00						0	0		0		M				

SOIL PIT DESCRIPTION

Site Name THANET LP SITE 2 Pit Number 1P

Grid Reference TR31476722 Average Annual Rainfall 601 mm  
 Accumulated Temperature 1461 degree days  
 Field Capacity Level 121 days  
 Land Use Ploughed  
 Slope and Aspect 01 degrees NW

HORIZON	TEXTURE	COLOUR	STONES >2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 29	MZCL	10YR42 00	0	3	HR					Y
29- 45	MZCL	10YR54 00	0	2	HR		MDCSAB	VF	G	Y
45- 78	MZCL	10YR74 00	0	60	CH				M	Y

Wetness Grade 1 Wetness Class I  
 Gleying cm  
 SPL No SPL

Drought Grade 3A APW 116mm MBW -11 mm  
 APP 118mm MBP -7 mm

FINAL ALC GRADE 3A  
 MAIN LIMITATION Droughtiness

SOIL PIT DESCRIPTION

Site Name THANET LP SITE 2 Pit Number 2P

Grid Reference TR31336682 Average Annual Rainfall 601 mm  
 Accumulated Temperature 1461 degree days  
 Field Capacity Level 121 days  
 Land Use Ploughed  
 Slope and Aspect degrees

HORIZON	TEXTURE	COLOUR	STONES	2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 25	MZCL	10YR42 00	0		0						
25- 45	MZCL	10YR54 00	0		0			MDCSAB	FR	M	
45- 72	HZCL	75YR46 00	0		0			MDCSAB	FM	M	
72 100	MZCL	10YR56 00	0		0			MDCSAB	FR	M	
100 120	FSZL	10YR56 00	0		0			WKCSAB	VF	G	

Wetness Grade 1 Wetness Class I  
 Gleying cm  
 SPL No SPL

Drought Grade 2 APW 172mm MBW 45 mm  
 APP 124mm MBP -1 mm

FINAL ALC GRADE 2  
 MAIN LIMITATION Droughtiness