

A1
Basingstoke and Deane Local Plan
Site 14 : East of Station Road
Oakley
Agricultural Land Classification
ALC Map and Report
March 1993

**AGRICULTURAL LAND CLASSIFICATION
BASINGSTOKE AND DEANE BOROUGH LOCAL PLAN
SITE 14: EAST OF STATION ROAD, OAKLEY**

1. Summary

1.1 ADAS was commissioned by MAFF's Land Use Planning Unit to provide information on land quality on 22 sites around Basingstoke in Hampshire. The work forms part of MAFF's input to the Basingstoke and Deane Borough Local Plan.

1.2 14.9 hectares of land relating to site 14 at Oakley in Hampshire were surveyed during March 1993. The survey was undertaken at a detailed level of approximately one boring per hectare. A total of 15 borings and two soil inspection pits were described 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 agricultural use.

At the time of survey, the land was under permanent pasture, being grazed by horses.

1.3 The distribution of the grades and sub-grades 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 may be misleading.

Distribution of Grades and Subgrades

| | <u>Area(ha)</u> | <u>% total agricultural land</u> |
|-------------------------|-----------------|----------------------------------|
| Grade 2 | 5.9 | 39.9 |
| 3a | 6.4 | 43.2 |
| 3b | 2.5 | <u>16.9</u> |
| Total agricultural area | <u>14.8</u> | 100 |
| Urban | <u>0.1</u> | |
| Total area of site | <u>14.9 ha</u> | |

1.4 Appendix 1 gives a general description of the grades and land use categories identified in this survey.

1.5 A range of land classification grades were found to occur on the site, from very good quality grade 2 land, to moderate quality grade 3b land. Land assigned to grade 2 is subject to very slight workability and/or droughtiness limitations. Grade 3a land suffers from the same limitations, the difference being that heavier topsoil textures cause more severe workability problems, whilst shallower soil depth over chalk acts to impose a greater drought risk on the land. Grade 3b has been mapped where soils are very shallow over chalk, thereby being severely limited by droughtiness.

2. Climate

- 2.1 Estimates of climatic variables relevant to the assessment of agricultural land quality were obtained by interpolation from a 5km grid point dataset (Met. Office, 1989) for a representative location in the survey area.

Climatic Interpolation

| | |
|--|----------|
| Grid Reference | SU571507 |
| Altitude, (m,AOD) | 110 |
| Accumulated Temperature (°days, Jan-June) | 1411 |
| Average Annual Rainfall (mm) | 821 |
| Field Capacity Days | 178 |
| Moisture deficit, wheat (mm) | 97 |
| Moisture deficit, potatoes (mm) | 86 |

- 2.2 Climatic factors are considered first when classifying land since climate can be overriding in the sense that adverse climatic conditions may restrict land quality irrespective of favourable site and soil conditions. The details in the table above show that there is no overall climatic limitation affecting this site. In addition, no local climatic factors such as exposure or frost risk affect the land quality.
- 2.3 However, climatic factors do interact with soil factors to influence soil wetness and droughtiness limitations. At this locality, field capacity days are relatively high whilst moisture deficits are low, in a regional context. This cool, moist climate will mean a reduced likelihood of soil droughtiness problems and, correspondingly, an enhanced possibility of soil wetness restrictions.

3. Relief

- 3.1 The site lies at an altitude of approximately 110m AOD, falling gently from the highest point towards the north of the site, to the lowest around Park Farm.

4. Geology and Soils

- 4.1 British Geological Survey, (1978), Sheet 284, Basingstoke shows most of the site to be underlain by Upper Chalk with small areas of Clay-with-Flints mapped along the northern and southern-most site boundaries and in a small unit to the east.
- 4.2 Soil Survey of England and Wales, (1983), Sheet 6, Soils of South-East England shows the majority of the site to comprise soils of the Carstens Association, 'fine silty over clayey typical paleo-argillic brown earths, usually with reddish clayey subsoils and freely draining', (SSEW, 1984). A small area of Andover 1 association soils is mapped in the far southern part of the site, south of Park Farm and adjacent to Rectory Road. These soils are described as, 'variably flinty and chalky silty brown rendzinas over chalk', (SSEW, 1984).

- 4.3 Detailed field examination of the soils on the site broadly confirmed the presence of two main soil types similar to those described by the Soil Survey although the distribution was not as expected. Shallow chalky soils were observed across the mid slopes of the site, whilst deeper, variably flinty clayey soils were found either side of these.

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 the north-eastern and south-western parts of the site in association with relatively deep, clayey soils with variable stone contents which have developed over Clay-with-Flints. Profiles typically comprise calcareous, or more usually non-calcareous, medium clay loam or occasionally, medium silty clay loam topsoils. These may contain between 0 and 10% total stones, usually flints but sometimes chalk fragments. Similarly stony upper subsoils of heavy clay loam overlie clay in the lower subsoil. Occasionally these may be impenetrable, (to soil auger) due to slight stoniness and around Park Farm, profiles rest over chalk between 50 and 80 cm.

The land is well drained, soils being assigned to Wetness Class I, but its use for agriculture is slightly restricted due to minor soil droughtiness and/or workability limitations. Profiles may have slightly inadequate reserves of available water for crop demand due to only moderate depth over chalk or slight profile stoniness. In addition, the interaction of medium topsoil textures with climatic factors, (specifically relatively high field capacity days) gives rise to minor restrictions in terms of workability. Soils may be prone to structural damage or poaching if the land is cultivated or grazed at the wettest times of the year.

Subgrade 3a

- 5.4 Good quality agricultural land has been mapped where the limitations to agricultural use are slightly greater than those described in para 5.3 above. The use of the land is restricted by soil droughtiness and/or soil workability limitations. Occasionally the drainage of land is slightly impeded and it is therefore limited by soil wetness. This applies to a small area of land adjacent to the eastern site boundary. Profiles are similar to those described for Grade 2 land, the difference being either that soils are shallower over chalk or more stony throughout, or that topsoils have heavier textures or profiles have slightly impeded drainage. As a result the soil droughtiness, workability or wetness limitations (respectively), are more evident. However, this good quality land is capable of producing moderate yields of a wide range of crops.

Subgrade 3b

- 5.5 Moderate quality land has been mapped across the mid-slopes of the site where chalk outcrops close to the surface. The resulting soils are shallow and suffer from a significant soil droughtiness limitation. Calcareous medium clay loam topsoils directly overlie chalk from approximately 25-30 cm depth. Profile available water is severely restricted due to shallow soil depth and poor rooting into the chalk substrate. As a consequence crops are likely to be prone to severe drought stress during the drier parts of the year. The range of crops which can tolerate such droughty conditions is small and will be limited mainly to grass.

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MAFF Ref: EL 15/144

Resource Planning Team
Guildford Statutory Group
ADAS Reading

SOURCES OF REFERENCE

- * British Geological Survey (1978) Sheet 284, Basingstoke.
- * 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 (1983) Sheet 6, Soils of South-East England.
- * Soil Survey of England and Wales (1984) Bulletin 15, Soils and their use in South-East England.

APPENDIX I

DESCRIPTION OF THE GRADES AND SUBGRADES

The ALC grades and subgrades are described below in terms of the types of limitation which can occur, typical cropping range and the expected level and consistency of yield. In practice, the grades are defined by reference to physical characteristics and the grading guidance and cut-offs for limitation factors in Section 3 enable land to be ranked in accordance with these general descriptions. The most productive and flexible land falls into Grades 1 and 2 and Subgrade 3a and collectively comprises about one-third of the agricultural land in England and Wales. About half the land is of moderate quality in Subgrade 3b or poor quality in Grade 4. Although less significant on a national scale such land can be locally valuable to agriculture and the rural economy where poorer farmland predominates. The remainder is very poor quality land in Grade 5, which mostly occurs in the uplands.

Descriptions are also given of other land categories which may be used on ALC maps.

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 and horticultural crops can usually be grown but on some land in 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. Where 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 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.

Descriptions of other land categories used on ALC maps

Urban

Built-up or 'hard' uses with relatively little potential for a return to agriculture including: 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. A distinction may be made as necessary between farm and non-farm 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 land cover types, eg buildings in large grounds, and where map scale permits, the cover types may be shown separately. Otherwise, the most extensive cover type will usually be shown.

APPENDIX II

FIELD ASSESSMENT OF SOIL WETNESS CLASS

Definition of Soil Wetness Classes

| Wetness Class | Duration of Waterlogging ¹ |
|---------------|---|
| I | The soil profile is not wet within 70 cm depth for more than 30 days in most years ² . |
| II | The soil profile is wet within 70 cm depth for 31-90 days in most years <u>or</u> , if there is no slowly permeable layer within 80 cm depth, it is wet within 70 cm for more than 90 days, but not wet within 40 cm depth for more than 30 days in most years. |
| III | The soil profile is wet within 70 cm depth for 91-180 days in most years <u>or</u> , if there is no slowly permeable layer 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 and 90 days in most years. |
| IV | The soil profile is wet within 70 cm depth for more than 180 days but not within 40 cm depth for more than 210 days in most years <u>or</u> , if there is no slowly permeable layer 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. |

¹ The number of days specified is not necessarily a continuous period.

² 'In most years' is defined as more than 10 out of 20 years.

APPENDIX III

SOIL BORING AND SOIL PIT DESCRIPTIONS

Contents:

- * Soil boring descriptions**
- * Soil pit descriptions**
- * Soil Abbreviations : Explanatory Note**

SOIL PROFILE DESCRIPTIONS : EXPLANATORY NOTE

Soil profile and pit information obtained during ALC surveys is held on a database. This has commonly used notations and abbreviations as set out below.

BORING HEADERS

1. GRID REF : National grid square followed by 8 figure grid reference.

2. USE : Land-use at the time of survey.
The following abbreviations are used.

| | |
|-------------------------------|-----------------------------|
| ARA - arable | PAS/PGR - permanent pasture |
| WHT - wheat | RGR - rough grazing |
| BAR - barley | LEY - ley grassland |
| CER - cereals | CFW - coniferous woodland |
| OAT - oats | DCW - deciduous woodland |
| MZE - maize | SCR - scrub |
| OSR - oilseed rape | HTH - heathland |
| BEN - field beans | BOG - bog or marsh |
| BRA - brassicae | FLW - fallow |
| POT - potatoes | PLO - ploughed |
| SBT - sugarbeet | SAS - set-aside |
| FDC - fodder crops | OTH - other |
| FRT - soft and top fruit | LIN - linseed |
| HOR/HRT - horticultural crops | |

3. GRDNT : Gradient as measured by optical reading clinometer.

4. GLEY/SPL : Depth in centimetres (cm) to gleyed and/or slowly permeable horizons.

5. AP (WHEAT/POTS) : Crop-adjusted available water capacity. The amount of soil water (in millimetres) held in the soil profile that is available to a growing crop (wheat and potatoes are used as reference crops).

6. MB (WHEAT/POTS) : The moisture balance for wheat and potatoes obtained by subtracting the soil moisture deficit from the crop-adjusted available water capacity.

7. DRT: Grade according to soil droughtiness assessed against soil moisture balances.

8. M REL : Micro-relief)
FLOOD : Flood risk) If any of these factors are considered
EROSN : Soil erosion) significant in terms of the assessment
EXP : Exposure) of agricultural land quality a 'y' will
FROST : Frost prone) be entered in the relevant column.
DIST : Disturbed land)
CHEM : Chemical limitation)

9. **LIMIT** : Principal limitation to agricultural land quality.
The following abbreviations are used:

| | |
|----------------------|---|
| OC - overall climate | CH - chemical limitations |
| AE - aspect | WE - wetness |
| EX - exposure | WK - workability |
| FR - frost | DR - drought |
| GR - gradient | ER - erosion |
| MR - micro-relief | WD - combined soil wetness/soil droughtiness |
| FL - flooding | ST - topsoil stoniness |
| TX - soil texture | |
| DP - soil depth | |

PROFILES & PITS

1. **TEXTURE** : Soil texture classes are denoted by the following abbreviations:

| | |
|------|--------------------------|
| S | - sand |
| LS | - loamy sand |
| SL | - sandy loam |
| SZL | - sandy silt loam |
| ZL | - silt loam |
| MZCL | - medium silty clay loam |
| MCL | - medium clay loam |
| SCL | - sandy clay loam |
| HZCL | - heavy silty clay loam |
| HCL | - heavy clay loam |
| SC | - sandy clay |
| ZC | - silty clay |
| C | - clay |

For the sand, loamy sand, sandy loam and sandy silt loam classes, the predominant size of sand fraction may be indicated by the use of prefixes.

| | |
|---|--|
| F | - fine (more than $\frac{2}{3}$ of the sand less than 0.2 mm) |
| C | - coarse (more than $\frac{1}{3}$ of sand greater than 0.6 mm) |
| M | - medium (less than $\frac{2}{3}$ fine sand and less than $\frac{1}{3}$ coarse sand) |

The sub-divisions of clay loam and silty clay loam classes according to clay content are indicated as follows:

| | |
|---|-------------------------------|
| M | - medium (less than 27% clay) |
| H | - heavy (27-35% clay) |

- ped size

F - fine
M - medium
C - coarse
VC - very coarse

- ped shape

S - single grain
M - massive
GR - granular
SB/SAB - sub-angular blocky
AB - 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 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

| SAMPLE | DEPTH | TEXTURE | COLOUR | ---MOTTLES--- | | | PED COL. | ---STONES--- | | | STRUCT/ CONSIST | SUBS STR POR IMP SPL | CALC |
|--------|--------|---------|-----------|---------------|-------------|------|-------------|--------------|----|----|--------------------|-------------------------|----------|
| | | | | COL | ABUN | CONT | | GLE | >2 | >6 | | | |
| 1 | 0-26 | mc1 | 10YR54 00 | | | | | 0 | 0 | HR | 5 | | |
| | 26-35 | hc1 | 10YR56 00 | | | | | 0 | 0 | HR | 5 | M | |
| | 35-65 | c | 75YR46 00 | | | | | 0 | 0 | HR | 6 | M | Y |
| | 65-70 | c | 75YR56 00 | | | | | 0 | 0 | HR | 10 | M | Y Imp 70 |
| 1P | 0-24 | mc1 | 10YR54 00 | | | | | 0 | 0 | CH | 2 | | Y |
| | 24-30 | mc1 | 10YR54 00 | | | | | 0 | 0 | CH | 80 | M | Y |
| | 30-60 | ch | 10YR81 00 | | | | | 0 | 0 | | 0 | M | Y |
| 2 | 0-22 | mc1 | 10YR43 00 | | | | | 0 | 0 | HR | 6 | | |
| | 22-35 | hc1 | 10YR56 00 | | | | | 0 | 0 | HR | 8 | M | Y |
| | 35-60 | c | 75YR56 00 | | | | | 0 | 0 | HR | 10 | M | Y Imp 60 |
| 2P | 0-10 | hc1 | 10YR33 00 | | | | | 0 | 0 | HR | 2 | | |
| | 10-23 | c | 10YR44 00 | | | | | 0 | 0 | HR | 2 | STMSAB FR G | |
| | 23-120 | c | 75YR44 00 | 00MN00 00 C | | | | 0 | 0 | HR | 5 | STMDAB FM M Y | |
| 3 | 0-32 | mc1 | 10YR54 00 | 75YR56 00 C | | | | 2 | 0 | HR | 8 | | |
| | 32-55 | hc1 | 10YR54 00 | | | | | 0 | 0 | HR | 6 | M | |
| | 55-90 | c | 75YR54 00 | | | | | 0 | 0 | HR | 12 | M | Y Imp 90 |
| 4 | 0-28 | mc1 | 10YR54 00 | | | | | 0 | 0 | HR | 4 | | |
| | 28-35 | hc1 | 10YR54 00 | 75YR58 00 F | | | | 0 | 0 | HR | 2 | M | |
| | 35-52 | c | 10YR56 00 | | | | | 0 | 0 | | 0 | M | |
| | 52-68 | c | 75YR56 00 | | | | | 0 | 0 | HR | 2 | M | |
| | 68-93 | c | 75YR54 56 | | | | | 0 | 0 | HR | 4 | M | Y Imp 93 |
| 5 | 0-20 | hc1 | 10YR42 00 | | | | | 0 | 0 | | 0 | | Y |
| | 20-60 | c | 75YR56 00 | 00MN00 00 F | | | | 0 | 0 | HR | 2 | M | |
| | 60-120 | c | 75YR56 00 | 75YR68 00 F | 10YR64 00 Y | | | 0 | 0 | HR | 5 | M | |
| 6 | 0-32 | hc1 | 10YR43 00 | | | | | 0 | 0 | HR | 3 | | |
| | 32-45 | c | 75YR56 00 | | | | | 0 | 0 | HR | 3 | M | Y |
| | 45-85 | c | 75YR56 00 | | | | | 0 | 0 | HR | 2 | M | Y Imp 85 |
| 7 | 0-34 | mc1 | 10YR44 00 | | | | | 0 | 0 | HR | 4 | | |
| | 34-72 | c | 10YR56 00 | | | | | 0 | 0 | HR | 2 | M | |
| | 72-110 | c | 75YR56 00 | | | | | 0 | 0 | HR | 4 | M | Y |
| 8 | 0-30 | mc1 | 10YR53 00 | | | | | 0 | 0 | CH | 5 | | Y |
| | 30-60 | ch | | | | | | 0 | 0 | | 0 | M | Y |
| 9 | 0-29 | hc1 | 10YR43 00 | | | | | 0 | 0 | HR | 5 | | Y |
| | 29-60 | c | 10YR44 00 | | | | | 0 | 0 | CH | 2 | M | Y |
| | 60-90 | ch | | | | | | 0 | 0 | | 0 | M | Y |
| 10 | 0-28 | mc1 | 10YR43 00 | | | | | 0 | 0 | HR | 2 | | Y |
| | 28-50 | c | 10YR53 00 | | | | | 0 | 0 | HR | 2 | M | Y |
| | 50-120 | c | 75YR56 00 | 00MN00 00 F | | | | Y | 0 | 0 | HR | 2 | M |

| SAMPLE | DEPTH | TEXTURE | COLOUR | ----MOTTLES---- | | | PED | | ----STONES---- | | | STRUCT/ CONSIST | SUBS | | | CALC |
|--------|--------|---------|-----------------------|-----------------|------|------|------|-----|----------------|----|------|--------------------|------|-----|-----|------|
| | | | | COL | ABUN | CONT | COL. | GLE | >2 | >6 | LITH | | TOT | STR | POR | |
| 11 | 0-28 | mc1 | 10YR42 00 | | | | | | 0 | 0 | CH | 10 | | | | Y |
| | 28-40 | hc1 | 10YR54 00 | | | | | | 0 | 0 | CH | 10 | M | | | Y |
| | 40-80 | hc1 | 10YR54 00 | | | | | | 0 | 0 | CH | 5 | M | | | Y |
| | 80-110 | ch | | | | | | | 0 | 0 | | 0 | M | | | Y |
| 12 | 0-27 | mzc1 | 10YR43 00 | | | | | | 0 | 0 | | 0 | | | | Y |
| | 27-50 | hc1 | 10YR54 64 | | | | | | 0 | 0 | | 0 | M | | | Y |
| | 50-80 | ch | | | | | | | 0 | 0 | | 0 | M | | | Y |
| 13 | 0-30 | hc1 | 10YR43 00 | | | | | | 0 | 0 | CH | 5 | | | | Y |
| | 30-60 | ch | | | | | | | 0 | 0 | | 0 | M | | | Y |
| 14 | 0-30 | hc1 | 10YR43 00 | | | | | | 0 | 0 | HR | 5 | | | | Y |
| | 30-45 | c | 10YR53 00 10YR58 00 C | | | | | Y | 0 | 0 | HR | 2 | M | | | Y |
| | 45-75 | ch | | | | | | | 0 | 0 | | 0 | M | | | Y |
| 15 | 0-27 | mc1 | 10YR42 00 | | | | | | 0 | 0 | | 0 | | | | Y |
| | 27-60 | hc1 | 10YR43 00 | | | | | | 0 | 0 | HR | 5 | M | | | Y |
| | 60-95 | c | 10YR44 00 | | | | | | 0 | 0 | HR | 2 | M | | | Y |

Imp 95

| SAMPLE NO. | GRID REF | ASPECT USE | GRDNT | GLEY | SPL | --WETNESS-- | | -WHEAT- | | -POTS- | | M.REL | | EROSN | FROST | CHEM | ALC | COMMENTS | |
|------------|------------|------------|-------|------|-------|-------------|-------|---------|-----|--------|----|-------|-------|-------|-------|-------|-----|----------|----------|
| | | | | | | CLASS | GRADE | AP | MB | AP | MB | DRT | FLOOD | EXP | DIST | LIMIT | | | |
| 1 | SU57005090 | PGR | | | | 1 | 2 | 96 | -1 | 111 | 25 | 3A | | | | | DR | 3A | IMP 70 |
| 1P | SU57005060 | PGR | N | 02 | | 1 | 2 | 77 | -20 | 80 | -6 | 3A | | | | | DR | 3B | ROOTS 60 |
| 2 | SU57005080 | PGR | | | | 1 | 2 | 86 | -11 | 93 | 7 | 3A | | | | | DR | 3A | IMP 60 |
| 2P | SU57005070 | PGR | N | 02 | | 1 | 3A | 139 | 42 | 116 | 30 | 1 | | | | | WK | 3A | |
| 3 | SU57105080 | PGR | | | | 1 | 2 | 110 | 13 | 109 | 23 | 2 | | | | | DR | 2 | IMP 90 |
| 4 | SU57205080 | | | | | 1 | 2 | 117 | 20 | 115 | 29 | 2 | | | | | DR | 2 | IMP 93 |
| 5 | SU57005070 | PGR | N | 01 | 60 | 1 | 3A | 137 | 40 | 114 | 28 | 1 | | | | | WK | 3A | IMP 90 |
| 6 | SU57105070 | PGR | | 01 | | 1 | 3A | 112 | 15 | 115 | 29 | 2 | | | | | WK | 3A | IMP 85 |
| 7 | SU57205070 | | | | | 1 | 2 | 131 | 34 | 115 | 29 | 1 | | | | | WK | 2 | |
| 8 | SU57005060 | PGR | S | 02 | | 1 | 2 | 80 | -17 | 83 | -3 | 3A | | | | | DR | 3A | CHALK 30 |
| 9 | SU57105060 | PGR | S | 01 | | 1 | 3A | 112 | 15 | 109 | 23 | 2 | | | | | WK | 3A | CHALK 60 |
| 10 | SU57205060 | PGR | S | | 50 50 | 3 | 3A | 139 | 42 | 115 | 29 | 1 | | | | | WE | 3A | SLGLEY50 |
| 11 | SU56905050 | PGR | S | 02 | | 1 | 2 | 133 | 36 | 114 | 28 | 1 | | | | | WK | 2 | |
| 12 | SU57005050 | PGR | S | 02 | | 1 | 2 | 109 | 12 | 108 | 22 | 2 | | | | | WK | 2 | CHALK 50 |
| 13 | SU57105050 | PGR | S | 02 | | 1 | 3A | 80 | -17 | 83 | -3 | 3A | | | | | WK | 3A | CHALK 30 |
| 14 | SU57205050 | PGR | S | 01 | 30 | 2 | 3A | 98 | 1 | 100 | 14 | 3A | | | | | WE | 3A | GLEY 30 |
| 15 | SU56905040 | PGR | S | 01 | | 1 | 2 | 121 | 24 | 115 | 29 | 2 | | | | | WK | 2 | IMP 95 |

SOIL PIT DESCRIPTION

Site Name : BASINGSTOKE LP SITE 14 Pit Number : 1P

Grid Reference: SU57005060 Average Annual Rainfall : 821 mm
Accumulated Temperature : 1411 degree days
Field Capacity Level : 178 days
Land Use : Permanent Grass
Slope and Aspect : 02 degrees N

| HORIZON | TEXTURE | COLOUR | STONES >2 | TOT.STONE | MOTTLES | STRUCTURE |
|---------|---------|-----------|-----------|-----------|---------|-----------|
| 0- 24 | MCL | 10YR54 00 | 0 | 2 | | |
| 24- 30 | MCL | 10YR54 00 | 0 | 80 | | |
| 30- 60 | CH | 10YR81 00 | 0 | 0 | | |

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

Drought Grade : 3A APW : 77 mm MBW : -20 mm
APP : 80 mm MBP : -6 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : BASINGSTOKE LP SITE 14 Pit Number : 2P

Grid Reference: SU57005070 Average Annual Rainfall : 821 mm
 Accumulated Temperature : 1411 degree days
 Field Capacity Level : 178 days
 Land Use : Permanent Grass
 Slope and Aspect : 02 degrees N

| HORIZON | TEXTURE | COLOUR | STONES >2 | TOT.STONE | MOTTLES | STRUCTURE |
|---------|---------|-----------|-----------|-----------|---------|-----------|
| 0- 10 | HCL | 10YR33 00 | 0 | 2 | | |
| 10- 23 | C | 10YR44 00 | 0 | 2 | | STMSAB |
| 23-120 | C | 75YR44 00 | 0 | 5 | C | STMDAB |

Wetness Grade : 3A Wetness Class : I
 Gleying : cm
 SPL : No SPL

Drought Grade : 1 APW : 139mm MBW : 42 mm
 APP : 116mm MBP : 30 mm

FINAL ALC GRADE : 3A
 MAIN LIMITATION : Workability