



Ministry of  
Agriculture  
Fisheries  
and Food

AGRICULTURAL LAND CLASSIFICATION  
WAKEFIELD UDP: LAND SOUTH OF  
JUNCTION 30, M62  
JANUARY 1994

ADAS  
Leeds Statutory Group

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## SUMMARY

An Agricultural Land Classification Survey of 81.5 ha of land to the south of junction 30 of the M62 was carried out in three stages between June 1992 and January 1994.

50.3 ha of this was agricultural land of which 9.1 ha falls within Grade 2. Soils in this grade consist of medium textured topsoils and upper subsoils over heavy textured subsoils which are slowly permeable below 55 cm depth. This land is moderately well drained (Wetness Class II) and is limited to Grade 2 by slight top soil wetness.

Subgrade 3a land covers 8.5 ha. Soils in this subgrade mostly consist of medium textured topsoils over heavy textured subsoils which are slowly permeable below 40 cm depth. These soils are imperfectly drained (Wetness Class III). This land is limited to Subgrade 3a by moderate soil wetness. Some of the land in this subgrade is better drained (Wetness Class II) and soils are lighter textured, the subsoils are not slowly permeable. Sandstone bedrock rock lies within 70 cm depth. This land is limited to Subgrade 3a by moderate droughtiness.

Subgrade 3b land covers 29.1 ha. Soils generally consist of medium or heavy clay loam topsoils overlying gleyed heavy clay loam or clay which is slowly permeable within 40 cm. Soil profiles are poorly drained (Wetness Class IV) and the land is limited to Subgrade 3b by severe soil wetness and workability restrictions.

Urban land covers 23.1 ha of the site. This consists of roads, houses, a disused mine and a riding school. 7.6 ha of the site is in various Non-Agricultural uses.

Agricultural buildings cover 0.2 ha.

0.3 ha of the site is under farm woodland.

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1. AGRICULTURAL LAND CLASSIFICATION

# AGRICULTURAL LAND CLASSIFICATION REPORT: WAKEFIELD UDP, LAND SOUTH OF JUNCTION 30, M62

## 1. INTRODUCTION AND SITE CHARACTERISTICS

### 1.1 Location and Survey Methods

The site is located approximately 5 km north east of Wakefield town centre, to the south of junction 30 of the M62 motorway. It is centred on National Grid Reference SE 358254. Survey work was carried out in three phases between June 1992 and January 1994. Soils were examined by hand auger borings at densities of between 1 and 4 borings per hectare. Soil inspection pits were dug to assess subsoil structure. Land quality was assessed using the methods described in 'Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land' (MAFF, 1988).

### 1.2 Land Use and Relief

61.7% of the site was in agricultural use at the time of survey. Most of this was arable land under cereals. A small area in the west of the site was used to grow cabbages and other brassicas. Land between the riding school and Newmarket Lane had been restored following minerals extraction. Urban land (consisting of roads, houses, a derelict coal mine and a riding school) covers 28.3% of the site. The remainder of the site consists of Non-Agricultural Land, Woodland and Agricultural buildings.

Altitude varies between 30 and 60 m AOD. The site is gently to moderately sloping with an overall southerly aspect.

### 1.3 Climate

Grid Reference	:	SE 358254
Altitude	:	45
Accumulated Temperature above 0°C (January - June)	:	1370 day °C
Average Annual Rainfall (mm)	:	639
Climatic Grade	:	1
Field Capacity Days	:	144
Moisture Deficit (mm) Wheat	:	104
Moisture Deficit (mm) Potatoes	:	95

#### 1.4 Geology, Soils and Drainage

The area is underlain by Carboniferous Coal Measures consisting of interbedded shales, sandstones and siltstones. There is little drift cover and soils are formed largely on weathering shale and siltstone.

Soil profiles generally consists of medium or heavy textured topsoils over gleyed clay subsoils. Medium textured upper subsoils occur in the north-east of the site. Slowly permeable layers occur at between 25 and 60 cm depth. In some places, weathering rock occurs at within 70 cm depth. Profiles vary from well to poorly drained (Wetness Classes I, II, III and IV). Soils are similar to those of the Dale Association as mapped by the Soil Survey and Land Research Centre.

## 2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>Percentage of Total Area</u>
1		
2	9.1	11.2
3a	8.5	10.4
3b	29.1	35.7
4	3.6	4.4
5		
(Sub total)	(50.3)	(61.7)
Urban	23.1	28.3
Non Agricultural	7.6	9.3
Woodland - Farm	0.3	0.4
- Commercial		
Agricultural Buildings	0.2	0.3
Open Water		
Land not surveyed		
(Sub total)	(31.2)	(38.3)
<b>TOTAL</b>	<b>81.5</b>	<b>100</b>

### 2.1 Grade 2

Grade 2 land occurs in the north eastern part of the site. Profiles generally consist of medium clay loam topsoils and upper subsoils over gleyed, slowly permeable clay subsoils, below about 55 cm depth. Profiles are moderately well drained (Wetness Class II) and limited to Grade 2 by slight soil wetness.

### 2.2 Subgrade 3a

Subgrade 3a land is found in three parts of the site: in the east, surrounding Newmarket Lane; in the centre, east of Aberford Road; in the south, south east of West Hall. Soil profiles in the centre and east of the site consist of medium clay loam top soils over heavy clay loam or clay subsoils which are slowly permeable below 40 cm depth. These soils are imperfectly drained (Wetness Class III) and are limited to Subgrade 3a by soil wetness.

Soil profiles in the south of the site consist of medium clay loam topsoils over medium clay loam or sandy clay loam subsoils. Weathering sandstone lies within 70 cm depth. These soils are moderately well drained (Wetness Class II) and the land is limited to Subgrade 3a by moderate droughtiness.

### 2.3 Subgrade 3b

Subgrade 3b land occurs in the west, east and centre of the site. Soils consist of medium clay loam, heavy clay loam or clay topsoils over gleyed heavy clay loam or clay subsoils which are slowly permeable within 40 cm depth. Soil profiles are poorly drained, falling within Wetness Class IV. This land is restricted to Subgrade 3b by severe soil wetness and workability problems.

### 2.4 Grade 4

A small area of Grade 4 land is found in the west of the site to the south east of the riding school. Soils have been restored following mineral extraction. Profiles generally consist of moderately stony (20% total small, medium and large sandstones and hard stones) medium clay loam topsoils over hard rock and gravel below 20 cm. These soils are well drained (Wetness Class I). The land is limited to Grade 4 by very severe droughtiness.

### 2.5 Urban

Urban land consists of roads, houses, the disused Newmarket Silkstone colliery and a riding school.

### 2.5 Non-Agricultural Land

Five areas of land in non agricultural use are distributed across the site.

### 2.6 Agricultural Buildings

This refers to the small holding and farm shop on Newmarket Lane in the west of the site.

### 2.7 Woodland

A small area of woodland lies to the west of the site.

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MAPS