

AGRICULTURAL LAND CLASSIFICATION
WAKEFIELD UDP. SITE 69N
WEST YORKSHIRE

OCTOBER 1992

ADAS
Leeds Statutory Group

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SUMMARY

Arable land covering a total of 18.37ha was surveyed in the area between the village of Lower Altofts and the M62 Motorway. All of this falls within Grade 2 or Subgrade 3a. Grade 2 land covers a total of 14.21ha and consists typically of medium clay loam or medium sandy loam topsoils overlying similarly textured subsoils. Heavy textured lower subsoils (generally heavy clay loam or clay) occur at depth in places. Profiles are moderately well drained (falling in Wetness Class II) and the land is restricted to Grade 2 by a slight soil wetness limitation. Subgrade 3a land covers 4.16ha and consists mainly of medium clay loam topsoils and upper subsoils, overlying heavy clay loam or clay lower subsoils at around 50cm depth. Profiles are imperfectly drained (falling in Wetness Class III) and this land is limited to Subgrade 3a by a moderate soil wetness limitation.

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AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT WAKEFIELD UDP SITE 69N

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods.

The site is located around Grid Reference SE 386240 and lies 6Km north east of Wakefield city centre, between the village of Lower Altofts and the M62 Motorway.

Survey work was carried out in October 1992 when soils were examined by hand auger borings at points predetermined by the National Grid. Boring density was two per hectare and two soil pits were dug to allow detailed profile descriptions to be made and samples collected, for laboratory analysis. 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

At the time of survey all of the land was in arable use. The site is flat to gently sloping (typically 0-3°) with a north-westerly aspect.

1.3 Climate

Grid Reference	:	SE 386240
Altitude (m)	:	20
Accumulated Temperature above 0°C (January-June)	:	1398 day°C
Average Annual Rainfall (mm)	:	625
Climatic Grade	:	1
Field Capacity Days	:	138
Moisture Deficit (mm) Wheat	:	107
Moisture Deficit (mm) Potatoes	:	99

1.4 Geology, Soils and Drainage

The site is underlain by Carboniferous Coal Measures consisting of sandstones (which occur within one metre of the soil surface in parts of the centre of the site) interbedded with shales. Drift deposits are absent and soils on the site are derived from the underlying weathering rock strata. Profiles consist typically of medium clay loam, medium sandy loam or sandy clay loam topsoils and upper subsoils overlying slowly permeable heavy clay loam or clay lower subsoils. Slowly permeable layers begin at between 40cm and 90cm depth. Soils are generally moderately well drained (Wetness Class II) or imperfectly drained (Wetness Class III).

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	14.21	77.3
3a	4.16	22.7
3b		
4		
5		
(Sub total)	(18.37)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
	_____	_____
TOTAL	18.37	100
	_____	_____

2.1 Grade 2

Grade 2 land occurs in the central and southern parts of the site. Topsoils and upper subsoils typically consist of medium clay loam, medium sandy loam or sandy clay loam, with slowly permeable horizons of heavy clay loam or clay occurring at around 70cm depth in places. Profiles are moderately well drained (Wetness Class II) and limited to Grade 2 by slight soil wetness.

2.2 Subgrade 3a

Land in this subgrade occurs in three separate areas in the north and west of the site. Generally medium clay loam topsoils and upper soils overlie slowly permeable heavy clay loam or clay lower subsoils at between 40 and 60cm depth. Profiles are imperfectly drained (falling in Wetness Class III) and the land is restricted to Subgrade 3a by a moderate soil wetness limitation.

In parts of the centre of the site sandy clay loam subsoils overlie sandstone bedrock at around 70cm depth. These profiles are well or moderately well drained (falling in Wetness Class II) but limited to Subgrade 3a by soil droughtiness.

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MAP