AGRICULTURAL LAND CLASSIFICATION REPORT

SPRING FARM, CAWTON, HOVINGHAM

Proposed Sand and Gravel

Extraction Site

ADAS

Leeds Regional Office

NOVEMBER 1989

FILE REF: 2FCS 4572

PROJECT NO: 66/89

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AGRICULTURAL LAND CLASSIFICATION REPORT
ON LAND AT SPRING FARM, CAWTON, HOVINGHAM

1. INTRODUCTION AND SITE CHARACTERISTICS

This site is located around Grid Reference SE 651768 approximately 14 km north west of Malton. It covers 62.8 hectares, 80 per cent of which is in agricultural use.

Survey work was carried out in September 1989 when soils were examined by hand auger borings at 100 metre intervals pre-determined by the National Grid. Soil profile pits were also dug to assess topsoil and subsoil stone contents and soil structural characteristics.

All land quality assessments were made 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).

1.1 LAND USE

Most agricultural land on the site is used for cereal production except for areas north west of Spar Plantation, where grassland use is common.

1.2 CLIMATE

Average Annual Rainfall (AAR) is approximately 680 mm. Accumulated temperature (ATO) above 0°C between January and June is 1351 day degree C and the land is at field capacity for 169 days a year. There is thus no overall climatic limitation on ALC grade.

Summer Moisture Deficits of 98 mm for winter wheat and 87 mm for potatoes indicate a slight drought limitation on the coarse loamy and sandy soils which are common on the site. Wetness and workability problems, associated with a high ground water table are more restricting, however,

and always form the main limiting factor on ALC grade.

1.3 RELIEF

The site is virtually level at a mean altitude of 35 metres above Ordnance Datum.

1.4 GEOLOGY, SOILS AND DRAINAGE

Soils are formed on thick post glacial drift deposits and consist of stoneless to slightly stony, coarse or fine loamy topsoils over similar subsoils. The heaviest land occurs in the northern half of the site. Lighter soils occur mainly in the south, Here, especially near the southern boundary, where drainage is often poor and some areas are waterlogged for much of the year, topsoils are sometimes organic or peaty.

High ground water levels are a feature of the site, especially near the southern boundary where levels are high enough to restrict most soils to Wetness Class V. Elsewhere levels are slightly lower and soils fall within Wetness Class IV.

2. AGRICULTURAL LAND CLASSIFICATION GRADES

The ALC grades occurring on this site are as follows:-

Grade	Hectares	Per cent of total site area
3a	21.0	33%
3b	23.5	38%
4	5.7	9%
Non Agricultural	9.4	15%
Urban	3.2	5%
Total	62.8	100%

2.1 Subgrade 3a

Subgrade 3a quality land covers much of the central part of the site. Soils consist mainly of sandy loam or sandy silt loam topsoils over similar or slightly lighter subsoils. All profiles fall within wetness class IV and are limited by soil wetness problems which are more restricting than the slight summer droughtiness.

2.2 Subgrade 3b

Land in this subgrade is common in the north west and north eastern parts of the site. Soils consist mainly of heavy or medium clay loam topsoils and upper subsoils passing occasionally into sandy loam lower subsoils at depth.

Topsoil wetness and workability problems are more restricting than on the subgrade 3a land and are the main limitation on ALC grade.

2.3 Grade 4

Grade 4 land occurs near the southern boundary. Soils consist of organic clay loam or peaty topsoils over variable upper subsoils which pass into sandy loam at depth. All profiles fall within Wetness Class V and are limited by severe wetness and workability problems.

2.4 Non Agricultural

This includes farm woodland and some waterlogged uncultivated land near. the southern boundary.

2.5 Urban

This consists of the disused railway line in the north which has been converted into a farm track.

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November 1989