



AGRICULTURAL LAND CLASSIFICATION
NORTHUMBERLAND MINERALS LOCAL PLAN
BARRASFORD QUARRY
JULY 1995

ADAS
Leeds Statutory Group

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SUMMARY

A semi-detailed Agricultural Land Classification survey of 41.4 ha of land at Barrasford Quarry, near Barrasford, Northumberland, was carried out in June 1995. At the time of the survey all the land was in agricultural use.

11.4 ha of the land falls in Subgrade 3a. The soils are well to imperfectly drained. These soils are a mixture of light and medium textured topsoils over light, medium and heavy textured subsoils. The ALC grade is limited by a combination of soil droughtiness and soil wetness. Although some profiles corresponded to Grade 2, variability in the profiles gives an overall limitation to Subgrade 3a.

The remaining 30 ha of land fall into Subgrade 3b. These soils are poorly drained and consist of medium textured topsoils overlying slowly permeable heavy textured subsoils. The ALC grade is limited to Subgrade 3b by severe soil wetness and workability restrictions.

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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT BARRASFORD,
NORTHUMBERLAND (NORTHUMBERLAND MINERALS LOCAL PLAN)

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The site lies 11 km north of Hexham and 1 km north of Barrasford, around National Grid Reference NY923749, and covers 41.4 ha. Survey work was carried out in June 1995 when soils were examined by hand auger borings on a semi-detailed basis, at 141 m intervals, predetermined by the National Grid. A soil pit was dug to allow a full profile description to be made. The land quality was assessed using the methods described in "Agricultural Land Classification of England & Wales. Revised guidelines and criteria for grading the quality of agricultural land" (MAFF 1988).

1.2 Land Use and Relief

At the time of the survey all of the site was in agricultural use, with a mixture of cereals, oilseed rape and permanent grass being present.

1.3 Climate

Grid Reference	:	NY923749
Altitude (m)	:	120
Accumulated Temperature above 0°C (January - June)	:	1228 day °C
Average Annual Rainfall (mm)	:	749
Climatic Grade	:	2
Field Capacity Days	:	195
Moisture Deficit (mm) Wheat	:	79
Moisture Deficit (mm) Potatoes	:	61

1.4 Geology, Soils and Drainage

Most of the centre and east of the site is underlain by boulder clay. Drift is absent in the west, where the geology is more complex, consisting of mudstones/siltstones, limestone and quartz dolerite (Whin Sill).

Soils to the east and centre of the site are poorly drained (Wetness Class IV), and typically consist of medium clay loam topsoils over clay subsoils.

The remainder of the site consists of a mixture of well drained (Wetness Class I) and imperfectly drained (Wetness Class III) medium sandy loam and medium clay loam topsoils over medium sandy loam, loamy medium sand and medium clay loam, with occasional medium sand subsoils.

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		
3a	11.4	27.5
3b	30.0	72.5
4		
5		
(Sub total)	(41.4)	(100.0)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
	_____	_____
TOTAL	41.4	100.0
	_____	_____

2.1 Subgrade 3a

Subgrade 3a land occurs over the west of the site. The soils are well to imperfectly drained (Wetness Class I, II and III), with very slightly stony medium clay loam, medium silty clay loam and occasional medium sandy loam topsoils. Subsoils that are well and moderately well drained consist of very slightly to slightly stony medium sandy loam, loamy medium sand and medium clay loam and are sometimes gleyed at depth. The ALC grade is limited by a mixture of soil droughtiness and soil wetness. Remaining imperfectly drained subsoils consist of gleyed medium clay loam upper subsoils over gleyed, slowly permeable clay subsoils. The slowly permeable layer occurs at around 55cm depth. The ALC grade is limited by moderate soil wetness restrictions. Although some profiles within this area correspond to Grade 2, the variability of soil type gives an overall pattern limitation of Subgrade 3a.

2.2 Subgrade3b

The remaining land on the site consists of Subgrade 3b. Soils consist of poorly drained (Wetness Class IV), very slightly stony medium clay loam topsoils over gleyed, slowly permeable clay subsoils. The slowly permeable layer occurs within 30cm depth and this land is limited to Subgrade 3b by severe soil wetness and workability restrictions.

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MAP