

**Shropshire Minerals Local Plan
Objection 81/5362
Agricultural Land Classification
ALC Map and Report
April 1997**

**M J WOOD
Resource Planning Team
Northern Region
FRCA Wolverhampton**

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AGRICULTURAL LAND CLASSIFICATION REPORT
Shropshire Minerals Local Plan
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INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 44.3 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located to the south east of Morville, near Bridgnorth. The survey was in connection with Shropshire Minerals Local Plan.
2. The survey was undertaken in April 1997 by the Farming and Rural Conservation Agency (FRCA) on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF). The work was conducted by members of the Resource Planning Team (RPT) in the Northern Region of FRCA.
3. The land has been graded in accordance with the publication "Agricultural Land Classification of England and Wales - Revised guidelines and criteria for grading the quality of agricultural land" (MAFF 1988).
4. At the time of survey the agricultural land on this site was under cereals, grass and potatoes, with a small area remaining fallow.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10 000 with an average auger boring density of 1 per hectare. The ALC map is only accurate at this base map scale and any enlargement would be misleading.
6. The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
1	-	-	-
2	3.8	9	9
3a	31.4	74	71
3b	7.2	17	16
4	-	-	-
5	-	-	-
Agricultural land not surveyed	-	N/A	-
Other land	1.9	N/A	4
Total surveyed area	42.4	100	-
Total site area	44.3	-	100

7. The agricultural land on this site has been classified as Grade 2 (very good quality), Subgrade 3a (good quality) and Subgrade 3b (moderate quality), the key limitations being soil droughtiness, soil wetness and topsoil stone content.

8. The area of very good quality land is located to the north east of the Lye Farm. The soils have a sandy loam topsoil overlying sandy clay loam, sandy loam, loamy sand and sand.

9. The area of good quality land covers the majority of the site. The soils either have a sandy loam texture over loamy sand and sand or a sandy clay loam texture over sandy clay loam and heavy clay loam.

10. The area of moderate quality land is mapped mainly in the north west of the site. The soils in this area have either a clay loam topsoil overlying a gleyed and slowly permeable clay subsoil or a loamy sand topsoil texture over sand.

FACTORS INFLUENCING ALC GRADE

Climate

11. Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.

12. The key climatic variables used for grading this site are given in Table 2 and were obtained from the published 5km grid datasets using standard interpolation procedures (Meteorological Office, 1989).

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	SO 679 932
Altitude	m, AOD	99
Accumulated Temperature	day°C (Jan-June)	1381
Average Annual Rainfall	mm	721
Field Capacity Days	days	173
Moisture Deficit, Wheat	mm	93
Moisture Deficit, Potatoes	mm	81
Overall climatic grade	N/A	Grade 1

13. The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions.

14. The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR), as a measure of overall wetness, and accumulated temperature (AT0, January to June), as a measure of the relative warmth of a locality.

14. The combination of rainfall and temperature at this site means that there is no overall climatic limitation. The site is climatically Grade 1.

Site

15. The site lies at altitudes of between 80 and 108m AOD. The land rises from Mor Brook in the south of the site towards the north.

16. Three site factors of gradient, microrelief and flooding are considered when classifying the land.

17. The land to the north of Lye Bridge and south east of The Lye Farm has slopes of between 7° and 11°. Here the gradient limits the agricultural use of the land to Subgrade 3b.

18. The remaining factors do not impose any limitations on the agricultural use of this land.

Geology and soils

19. The solid geology of the area is comprised of Purple and Green Marl with Micaceous Sandstone. This is overlain with deposits of boulder clay and glacial sands and gravels - British Geological Survey (1975).

20. The soils that have developed on this geology are generally of a sandy and loamy texture.

Agricultural Land Classification

21. The details of the classification of the site are shown on the enclosed ALC map and the area statistics of each grade are given in Table 1, page 1.

Grade 2

22. Land of very good quality occupies 3.8 hectares (9%) of the site area and is found to the north east of Lye Farm.

23. The soil has a sandy loam texture over sandy loam, loamy sand and sand to depth with common stones within the profile. In places the volume of topsoil stones greater than 2cm in size limits these soils to Grade 2. Occasionally there are lenses of sandy silt loam, sandy clay loam and clay in the subsoil. The moisture balance places these soils in Grade 2.

24. The main limitations to the agricultural use of this land are topsoil stone content and soil droughtiness.

Subgrade 3a

25. Land of good quality occupies 31.4 hectares (71%) of the site.

26. The soil has a sandy loam or sandy silt loam texture over loamy sand and sand to depth with common to abundant stones within the profile. In places the volume of topsoil stones greater than 2cm in size places these soils in Subgrade 3a. The moisture balance places these soils in Subgrade 3a.

27. The main limitation to the agricultural use of this land is either soil droughtiness or topsoil stone content.

28. The soil east of Boars Head Farm has a sandy clay loam texture over sandy clay loam and heavy clay loam to depth, with few stones within the profile. The depth to gleying and the slowly permeable layer place these soils in Wetness Class III.

29. The main limitation to the agricultural use of this land is soil wetness.

Subgrade 3b

30. Land of moderate quality occupies 7.2 hectares (16%) of the site area and is mapped mainly in the north west of the site.

31. The soil has either a clay loam topsoil texture lying directly over clay or a loamy sand topsoil texture over sand to depth. Where the clay is encountered the depth to gleying and the slowly permeable layer place these soils in Wetness Class IV. The soils which have sand in the subsoil have a moisture balance which places them in Subgrade 3b.

32. The main limitation to the agricultural use of this land is either soil wetness or soil droughtiness.

Other Land

33. Other land occupies 1.9 hectares (4%) of the site area and is found as scrub, trackways and roads.

Resource Planning Team
Northern Region
FRCA Wolverhampton

SOURCES OF REFERENCE

British Geological Survey (1975) *Sheet 167, Dudley Solid and Drift Edition.*
1:50 000 Scale.

BGS: London.

Ministry of Agriculture, Fisheries and Food (1988) *Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land.*
MAFF: London.

Meteorological Office (1989) *Climatological Data for Agricultural Land Classification.*
Meteorological Office: Bracknell.