Shropshire Minerals Local Plan
Pave Lane, Newport
Agricultural Land Classification
ALC Map and Report
May 1997

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RPT Reference: **004/97 & 25/RPT/0119A**
FRCA Reference: **EL 35/10168**
LURET Job Number: **W02306**

AGRICULTURAL LAND CLASSIFICATION REPORT
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INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 82.3 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located to the north west of Woodcote Hall, near Newport. The survey was in connection with the Shropshire Minerals Local Plan.

2. The survey was undertaken in May 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, sugar beet and turf.

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	-	-	
3a	42.0	58	51
3b	28.1	39	34
4	1.9	3	2
5	-	-	-
Agricultural land not surveyed	-	N/A	-
Other land	10.3	N/A	13
Total surveyed area	72.0	100	-
Total site area	82.3	-	100

7. The agricultural land on this site has been classified as Subgrade 3a (good quality), Subgrade 3b (moderate quality) and Grade 4 (poor quality). The key limitations to the agricultural use of this land include topsoil stone content, gradient, soil wetness and soil droughtiness.

8. The area of good quality land is located mainly on the lower lying land to the east and west of the Muster Hill ridge. The soils commonly have either a sandy loam or a sandy clay loam topsoil overlying sandy loam, loamy sand and sand.

9. The area of moderate quality land is mainly on the Muster Hill ridge. The soils in this area have a sandy clay loam or a sandy loam topsoil overlying either a gleyed and slowly permeable clay subsoil or sandy loam and loamy sand to depth.

10. The area of poor quality land is found on the western side of Muster Hill where the gradient of the land is between 11° and 15°.

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	SJ 764 160
Altitude	m, AOD	120
Accumulated Temperature	day°C (Jan-June)	1346
Average Annual Rainfall	mm	694
Field Capacity Days	days	161
Moisture Deficit, Wheat	mm	92
Moisture Deficit, Potatoes	mm	80
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 (ATO, January to June), as a measure of the relative warmth of a locality.

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

Site

16. The site lies at an altitude of 108 to 135 metres AOD. The land falls away to the east and west of the Muster Hill ridge which trends north south through the centre of the site.

17. The three site factors of gradient, microrelief and flooding are considered when classifying the land.

18. To the north and west of Muster Hill the angle of slope is between 7°and 15° limiting the agricultural use of the land to Subgrade 3b and Grade 4.

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

Geology and Soils

20. The solid geology of the area is comprised of Lower Mottled Sandstone, Pebble Beds and Enville Beds (1958).

21. The soils that have developed on this geology are generally of a sandy clay loam and sandy loam texture.

Agricultural Land Classification

22. 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.

Subgrade 3a

23. Land of good quality occupies 42.0 hectares (51%) of the site area and is found to the east and west of Muster Hill.

24. The soil has either a sandy loam or a sandy clay loam texture over loamy sand and sand to depth with few to many stones within the profile. In some areas the volume of topsoil stones greater than 2cm is size places these soils in Subgrade 3a. The lower subsoil does contain isolated lenses of sandy loam, sandy clay loam and clay. The moisture balance places these soils in Subgrade 3a.

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

Subgrade 3b

26. Land of moderate quality occupies 28.1 hectares (34%) of the site area and is mainly associated with the Muster Hill ridge.

27. To the west of Muster Hill the soil has a sandy clay loam texture overlying clay. The depth to gleying and the slowly permeable layer place these soils in Wetness Class IV. The main limitation to the agricultural use of this land is soil wetness.

28. On the Muster Hill ridge the soil has either a sandy clay loam or a sandy loam texture over sandy loam and loamy sand, with the subsoil becoming extremely stony. In some areas the volume of topsoil stones greater than 2cm ins size places these soils in subgrade 3b. The moisture balance places these soils in subgrade 3b. The main limitations to the agricultural use of this land include topsoil stone content and soil droughtiness.

29. Where the gradient on some of the land to the north and south of Muster Hill is between 7° and 11° the agricultural use of the land is limited to subgrade 3b. The main limitation to the agricultural use of the land is gradient.

Grade 4

30. Land of poor quality occupies 1.9 hectares (2%) of the site area and is found on the western side of Muster Hill.

31. The soils have a sandy loam texture over loamy sand and sand. The gradient is between 11° and 15°. Here the land is limited by gradient to Grade 4.

32. The main limitation to the agricultural use of the land is gradient.

Other Land

34. Other land occupies 10.3 hectares (13%) of the site area. Land within this category includes woodland, a reservoir, trackways and a recently planted shelterbelt along the A41 road which forms the eastern boundary of the site.

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SOURCES OF REFERENCE

British Geological Survey (1958) Sheet 153, Wolverhampton Solid and Drift Edition. 1:63 360 Scale.
BGS: London.

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