AGRICULTURAL LAND CLASSIFICATION
AND SOIL RESOURCES REPORT
FOR
MUXTON, TELFORD

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AGRICULTURAL LAND CLASSIFICATION REPORT FOR MUXTON, TELFORD

1 SUMMARY

1.1 The Agricultural Land Classification (ALC) Survey for this site shows that the following proportions of ALC grades are present:

Grade/Subgrade	Area (ha)	% of site
2	11.6	19
3a	30.4	49
3b	17.0	27
Other land		
Woodland	3.0	5

1.2 The main limitation to the agricultural use of land on the site is soil wetness.

2 INTRODUCTION

2.1 The site was surveyed by the Resource Planning Team in January 1992 and April 1994. An ALC survey was undertaken according to the guidelines laid down in the "Agricultural Land Classification of England and Wales - Revised Guidelines and Criteria for Grading the Quality of Agricultural Land" (MAFF 1988).

2.2 The 62.0 ha site is situated to the east of the village of Muxton. It is bounded to the east and north west by roads and is surrounded by agricultural land.

2.3 The survey was requested by MAFF in connection with a proposal for an open cast working for clay and coal.

2.4 At the request of MAFF the survey was at scale of 1:10 000 with a minimum auger boring density of 1 per hectare. The attached map is only accurate at the base map scale and any enlargement would be misleading.

2.5 At the time of the most recent survey the south east portion of the site was under cereals whilst the north west portion was partly under a fodder crop and partly prepared for planting. The land in the south west of the site was under permanent grass.

3 CLIMATE

3.1 The following interpolated data are relevant for the site:

Average Annual Rainfall	683 mm
Accumulated Temperature above 0°C January to June	1387 day °C

3.2 There is no overall climatic limitation on the site

3.3 Other relevant climatic data for agricultural land classification are:

Field Capacity Days (days)	156
Moisture Deficit Wheat (mm)	96
Moisture Deficit Potatoes (mm)	85

4 SITE

4.1 When classifying land three site factors are taken into considered; gradient, micro relief and flooding.

4.2 These factors do not impose any limitations on the agricultural use of the land.

5 GEOLOGY AND SOILS

5.1 The solid geology of the area is dominated by Coal Measure Beds. In the north west of the site the soils are underlain by Protective measures, which consist of grey shales, clays and fireclays, with sandstones, coal seams and ironstones. In the south east of the site the soils are underlain by Coalport Beds, which consists of red and grey marls with thick sandstones, thin coals and Spirobis limestone. In the east of the site the soils are derived from Boulder Clay clay loam topsoils (British Geological Survey Sheet 153, 1 Inch).

5.2 The underlying geology influences the soils which consist predominantly of sandy clay loam textured topsoils over sandy clay loam with clay at depth. In the north west of the site sand occurs near the surface and the soils consist of sandy clay loam topsoils over sandy loams and loamy sands.

6 AGRICULTURAL LAND CLASSIFICATION

6.1 Grade 2 occupies 11.6 ha (19%) of the survey area and is found in the north west of the site; two soil types occur within this grade.

6.1.1 These soils typically have a sandy clay loam texture overlying sandy loam or loamy sand with clay or occasionally sand at depth.

6.1.2 The main limitation to the agricultural use of this land is soil droughtiness.

6.1.3 These soils typically have a clay loam topsoil over sandy clay loam with heavy clay loam or clay to depth.

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

6.2 Subgrade 3a occupies 30.4 ha (49%) of the survey area and occurs across the central portion of the site, extending into the northern corner.

6.2.1 These soils typically have a sandy clay loam texture overlying heavy clay loam and clay at depth. These soils are gleyed at about 40 cm with a slowly permeable layer occurring below 50 cm.

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

6.3 Subgrade 3b occupies 17.0 ha (27%) of the survey area and occurs in the south west and the east of the site.

6.3.1 These soils typically have a clay loam texture over clay to depth. These soils are gleyed and have a slowly permeable layer starting within 40 cm.

6.3.2 The main limitation to the agricultural use of the land in this grade is soil wetness.

6.4 Other land comprises woodland occupying 3.0 ha (5%).

6.5 SUMMARY OF AGRICULTURAL LAND CLASSIFICATION GRADES

Grade/Sub-grade	Area (ha)	% of Survey Area	% of Agricultural Land
2	11.6	19	20
3a	30.4	49	51
3b	17.0	27	29
Other land			
Woodland	3.0	5	
Totals	**62**	**100**	**100**

SOIL RESOURCES AND PHYSICAL CHARACTERISTICS REPORT FOR MUXTON, TELFORD

1.1 The soils on this site were examined using a Dutch auger at a detailed survey scale of 1:10 000 with a minimum auger boring density of 1 per hectare.

1.2 The soils have been divided into four soil units on the basis of the survey and pit profiles have been described to characterise these units.

1.3 Unit 1: This unit is mapped in the north and centre of the site and includes a small area to the west of Sulphur Piece Plantation. The soils typically comprise about 35 cm of sandy clay loam with clay at depth. in isolated areas medium sandy loam topsoils overlie medium sandy loam subsoils with loamy sand subsoils with loamy sand occurring at depth. A typical profile for this unit is as follows:

0.35 cm Dark greyish brown/brown (10 YR 4/2,4/3), very slightly stony, sandy loam/sandy clay loam, firm, moderately developed medium subangular blocky.

35-55 cm Brown (10 YR 4/3), common brownish yellow (10 YR 6/8), mottles, stoneless, sandy clay loam, friable, moderately developed medium to coarse subangular blocky.

55-120 cm Brown (10 YR 5/2), many brownish yellow (10 YR 6/8), mottles, clay, firm, strongly developed coarse subangular to angular blocky.

1.4 Unit 1a: This unit has a litter layer at the surface which has developed under woodland. The underlying soils are similar to those in Unit 1 but with about 5 cm of surface organic matter.

1.5 Unit 2: This unit is mapped in the south and east of the site and includes those soils derived form boulder clay. Typically clay loam topsoils overlie heavy clay loam and clay. A typical profile for this unit is as follows:

0.33 cm Brown (10 YR 4/3) very slightly stony, sandy clay loam, firm, moderately developed medium subangular blocky.

33-40 cm Brown (7.5 YR 5/4), common red (7.5 YR 5/8) mottles, heavy clay loam, very firm, weakly developed coarse prismatic.

40-100 Reddish brown (05 YR 4/4), clay, very firm, weakly developed very coarse prismatic.

1.6 Unit 3: This unit has no soil at the surface. It includes a tarmac road and a track which is composed of hardcore.

1.7 Unit 4: This unit is mapped on sandy textured soils at the north west end of the site. A typical profile consists of:

0-33 cm Brown (7.5 YR 4/2), very slightly stony, medium sandy loam, moderately developed medium to coarse subangular blocky.

33-54 cm Reddish brown (05 YR 4/3), stoneless, medium sandy loam, friable, moderately developed medium subangular blocky.

54-74 cm Brown (7.5 YR 5/4), slightly stony, loamy medium sand, very friable, weakly developed fine subangular blocky structure.

74-120 cm Reddish brown (2.5 YR 4/3), yellowish brown (10 YR 5/8) mottles, firm, clay, weakly developed coarse subangular blocky.

1.8 Summary of unit areas.

Unit	Area (ha)	% of the Site
1	33.2	53
1a	3.0	5
2	19.2	31
3	1.0	2
4	5.6	9
	62.0	100