STATEMENT OF PHYSICAL CHARACTERISTICS REPORT FOR WELLINGTON, HEREFORD AND WORCESTER MINERALS LOCAL PLAN

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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	ha	% of site
3a	2.3	25
3b	6.8	75

1.2 The main limitation to the agricultural use of land in Subgrade 3a is soil wetness.

1.3 The main limitations to the agricultural use of land in Subgrade 3b are flooding and soil wetness.

2 INTRODUCTION

2.1 The site was surveyed by the Resource Planning Team in March 1995. An Agricultural Land Classification 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 9.1 ha site is situated to the east of Wellington and the A49, approximately 5 miles north of Hereford. The land immediately to the north and west of the site is predominantly in agricultural use. The land immediately to the east and south is currently being worked for minerals.

2.3 The survey was requested by MAFF in connection with the Hereford and Worcester Local Minerals Plan.

2.4 At MAFF Land Use Planning Unit's request this was a detailed grid survey at 1:10000 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 survey the site was fallow.

3 CLIMATE

3.1 The following interpolated data are relevant for the site (SO 507 482) :

Average Annual Rainfall (mm)	722
Accumulated Temperature above 0°C January to June (day °C)	1454

3.2 There is no overall climatic limitation on the site

3.3 Other relevant data for classifying land include:

Field Capacity Days (days)	160
Moisture Deficit Wheat (mm)	104
Moisture Deficit Potatoes (mm)	95

4 SITE

4.1 Three site factors of gradient, micro relief and flooding are considered when classifying land.

4.2 Information from the National Rivers Authority (NRA) suggests that the eastern part of the site floods frequently for a medium duration in the winter. This is supported by evidence of flood debris in the hedges. This is the most accurate information available at the time of survey and as it stands suggests this area of land is limited to Subgrade 3b.

4.3 Gradient and micro relief 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 comprised of Old Red Sandstone - British Geological Survey Sheet 198 Hereford 1:50,000. This is overlain with deposits of alluvium.

5.2 The underlying geology influences the soils which have a silty clay loam or clay texture.

6 AGRICULTURAL LAND CLASSIFICATION

6.1 Subgrade 3a - occupies 2.3 ha (25%) of the survey area and is found mainly in the west of the site.

6.1.1 The soil has a heavy silty clay loam or clay texture over heavy silty clay loam and/or clay to depth, with few stones within the profile. These soils are in Wetness Class I because there is no gleying and the soils are porous.

6.1.2 The main limitation to the agricultural use of this land is soil wetness due to topsoil texture.

6.2 Subgrade 3b - occupies 6.8 ha (75%) of the survey area and is found in the east of the site.

6.2.1 The soil typically has a heavy silty clay loam or clay texture overlying clay and/or heavy silty clay loam to depth. Observations of gleying and the depth to the slowly permeable layer places these soils in Wetness Class IV in the south east of the site. In the north west of this grade soils are similar to paragraph 6.1.1, but they have been downgraded due to flooding.

6.2.2 The main limitations to the agricultural use of this land are flooding and soil wetness.

6.3 SUMMARY OF AGRICULTURAL LAND CLASSIFICATION GRADES

Grade/Sub-grade	Area in Hectares	% of Survey Area
3a	2.3	25
3b	6.8	75
Totals	**9.1**	**100**

7 SOIL UNITS

7.1 Soils have been placed into one soil unit. The unit identifies soils with similar handling and storage needs as a result of their soil textural characteristics.

7.2 Soil unit 1 - occupies 9.1 ha (100%) of the survey area.

7.2.1 The topsoil of this unit is typically 30 to 35 cm deep and has a reddish brown (5 YR 43/44) heavy silty clay loam or clay texture with few stones (<5%).

7.2.2 Below this topsoil, the subsoil is of a reddish brown (5 YR 53/44) heavy silty clay loam or clay texture. Mottling (75 YR 56/58) may be present.

7.2.3 A typical profile for Unit 1 (west) is given below:

0-30cm 5 YR 43	Clay, moderately well developed medium subangular blocky, few hard stones.
30-65cm 5 YR 44	Clay/heavy silty clay loam, moderately well developed medium subangular blocky, firm consistence, porous, few hard stones.
65-120 cm 5 YR 44	Clay, moderately well developed coarse subangular blocky, firm consistence, porous, few hard stones.

7.2.4 A typical profile for Unit 1 (east) is given below:

0.35 cm 5 YR 44/43	Clay, moderately well developed medium subangular blocky, few hard stones.
35-75 cm 5 YR 53/44	Silty clay, moderately well developed coarse angular blocky, very firm consistence, low porosity and few stones. Many mottles.
75cm + 75 YR 52/43	Heavy silty clay loam, moderately well developed medium subangular blocky, firm consistence, low porosity, few stones and many mottles.

7.3 SUMMARY OF SOIL UNITS

Unit	Area in Hectares	% of Survey Area
1	9.1	100
TOTAL	9.1	100