

**AGRICULTURAL LAND CLASSIFICATION  
AND SOIL RESOURCES  
LYME AND WOOD PIT COLLIERY, NEWTON-LE-WILLOWS.**

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# **AGRICULTURAL LAND CLASSIFICATION AND SOIL RESOURCES REPORT FOR LYME AND WOOD PIT COLLIERY, NEWTON-LE-WILLOWS**

## **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
3b	44.7	40
Other land	67.2	60

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

## **2 INTRODUCTION**

2.1 The site was surveyed by the Resource Planning Team in February 1996. 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 111.9 ha site is situated to the north of Newton-Le-Willocks. The land immediately to the north and south of the site is predominantly in urban use. The land immediately to the east and west is predominantly in agricultural use.

2.3 The survey was requested by MAFF in connection with a proposed reclamation and land fill scheme at Lyme and Wood pit.

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 under permanent grass and cereals .

### 3 CLIMATE

3.1 The following interpolated data are relevant for the site (SJ 566 965):

Average Annual Rainfall (mm)	899
Accumulated Temperature above 0°C January to June (day °C)	1398

3.2 There is no overall climatic limitation on the site.

3.3 Other relevant data for classifying land include:

Field Capacity Days (days)	210
Moisture Deficit Wheat (mm)	80
Moisture Deficit Potatoes (mm)	65

### 4 SITE

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

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 comprised of Westphalian Coal Measures and Bunter Sandstone including Pebble Beds - British Geological Survey Sheet 84 Wigan 1 Inch.

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

## 6 AGRICULTURAL LAND CLASSIFICATION

6.1 Grade 3b - occupies 44.7 ha (40%) of the survey area and occurs on undisturbed land and on an area of restored land.

6.1.1 In the undisturbed areas the soil typically has a clay loam texture overlying clay loam or clay. Observations of gleying and the depth to the slowly permeable layer place these soils in Wetness Class IV.

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

6.1.3 On the restored land in the northern most field, the soil has a clay loam texture of variable depth, over reclaimed colliery spoil comprising shaley material in a clay loam matrix with siltstones.

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

6.2 Other land on the site occupies 67.2 ha (60%) and includes the colliery spoil heaps, mine working areas, woodland and an area where there appears to have been dumping of material from the colliery.

### 6.3 SUMMARY OF AGRICULTURAL LAND CLASSIFICATION GRADES

Grade/Sub-grade	Area in Hectares	% of Survey Area	% of Agricultural Land
3b	44.7	40	100
Other land	67.2	60	
<b>Totals</b>	<b>111.9</b>	<b>100</b>	<b>100</b>

## **Soil Resources and Physical Characteristics Report**

### **1. Introduction**

- 1.1 The soils on the site have been divided into 4 soil units based on their physical characteristics and are described below.

### **2. Soil Units**

- 2.1. Unit 1 comprises 9.8 ha (8.8%) of the site. This is an area of restored colliery spoil, now returned to agriculture at the northern end of the site. The soils consist of a clay loam texture overlying colliery spoil of varying composition, including clay loam, shales and siltstones. The depth of restored topsoil varies between about 20cm and 40cm. A typical profile is as follows:

0 -25cm; Dark grey 10YR41 clay loam; moderately developed medium sub-angular blocky; friable; very slightly stony; common roots.

26-60cm; Grey 10YR51; clay loam; massive to weakly developed coarse angular blocky; firm; moderate to very stony; few fine roots.

- 2.2 Unit 2 occupies 14.4 ha (12.9%) of the site and comprises an area of non-agricultural land in the west of the site. The soils in this area are very mixed with evidence of dumping, therefore a typical profile has not been described.

- 2.3 Unit 3 occupies 35.7 ha (31.9%) of the site and comprises land in agricultural use. The soils have a clay loam texture with clay content increasing down the profile. The soils are gleyed and have a slowly permeable layer. A typical profile description is as follows:

0 -33cm; Dark greyish brown 10YR42; clay loam; strongly developed medium sub-angular blocky; friable; common roots.

34-55cm; Brown 75YR52, strong brown 75YR56 common mottles; clay loam; strongly developed medium prismatic; firm; porosity <0.5%; firm; few roots.

56-120cm; Reddish brown 05YR43, light grey 05YR71 common mottles; clay loam; strongly developed coarse prismatic; porosity <0.5%; firm; few roots to 75cm.

- 2.4 Unit 4 occupies 52.0 ha (46.4%) of the site and comprises the colliery spoil heap and the former colliery workings including hard standings and roads. Soil resources are very limited within this area and have not been described.

## 2.5 Summary of Soil Unit Areas:

<b>Unit</b>	<b>Area (ha)</b>	<b>% of Site</b>
1	9.8	8.8
2	14.4	12.9
3	35.7	31.9
4	52.0	46.4
<b>Totals</b>	<b>111.9</b>	<b>100.0</b>