

STATEMENT OF PHYSICAL CHARACTERISTICS
AND
AGRICULTURAL LAND CLASSIFICATION

LAND AT SCARCROFT
Proposed Waste Disposal Site

ADAS
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LAND AT SCARCROFT

Proposed Waste Disposal Site

1. STATEMENT OF PHYSICAL CHARACTERISTICS

1.1 INTRODUCTION

The site (NGR SE 362 405) is located adjacent to the A58 Leeds-Wetherby Road, approximately 9 km north east of Leeds City Centre. It covers 11.5 hectares, 88 per cent of which is in agricultural use.

Survey work was carried out in June 1989 when soils were examined by hand auger borings at 100 metre intervals at points predetermined by the National Grid. A soil profile pit was also excavated at a representative point to provide a detailed soil profile description and samples for laboratory analyses.

All land quality assessments were made using the methods described in "Agricultural Land Classification of England and Wales: Revised Guidelines and Criteria for grading the quality of Agricultural Land" (MAFF 1988).

1.2 LAND USE

All agricultural land on the site is in grassland use. Non agricultural land consists largely of farm woodland on the northern and eastern boundaries.

1.3 CLIMATE AND RELIEF

Mean annual rainfall around Scarcroft is approximately 722 mm. Accumulated temperature (above 0°C) between January and June is 1300 day degrees C and the field capacity period is about 180 days. These factors indicate a slight climatic limitation which restricts agricultural land to a maximum of grade 2. Summer moisture deficits of

89 mm for winter wheat and 74 mm for potatoes indicate that soil droughtiness is also slightly limiting on the fine loamy and clayey soils prevalent in the area.

Altitude on the site, which is predominantly south and south east facing, varies from 90 to 177 metres aod. Slopes, which rarely exceed 6° , do not restrict the use of agricultural machinery.

1.4 GEOLOGY

Boulder clay forms a thick cover over the underlying Carboniferous shales and sandstones.

1.5 SOIL PROPERTIES

One soil type occurs on the site.

1.6 FINE LOAMY OVER CLAYEY SOILS

These consist of medium clay loam or sandy clay loam topsoils over similar or slightly heavier upper subsoils. Weathered boulder clay occurs below 35-50 cm depth.

A representative inspection pit (profile pit A) showed a moderately developed coarse sub angular blocky topsoil structure over a moderately developed coarse prismatic structured subsoil. All soils are non-calcareous and vary from slightly stony or moderately stony in topsoil and upper subsoil horizons, to stoneless or only very slightly stony at depth.

1.7 TOPSOIL CHARACTERISTICS

Topsoils (Unit T1) consist of medium textured material with an optimum thickness of 25 cm. Although a few disturbed patches near the access track contain topsoils which are thin or absent, these are too small to separate on the accompanying resource maps.

1.8 SUBSOIL CHARACTERISTICS

Subsoils consist of predominantly heavy textured material to depth. The median thickness of this is 75 cm.

2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades on the site are as follows:

Grade	Hectares	Per cent of total site area
3b	10.1	88%
Non Agricultural	0.5	4%
Farm Woodland	<u>0.9</u>	<u>8%</u>
Total	11.5	100%

2.1 Subgrade 3b

This is the only agricultural grade on the site. All profiles fall within Wetness Class IV and are limited by wetness and workability problems.

2.2 Non Agricultural

This consists of farm woodland on the northern and eastern site boundaries and small areas of disturbed ground around the access track and disused sewage treatment works.

3. SOIL PROFILE DESCRIPTIONS

LAND AT SCARCROFT

PIT A FINE LOAMY OVER CLAYEY SOIL

LAND USE: GRASS

SLOPE: 2° SOUTH EAST

Horizon	Depth	Description
1.	0-27	Very dark greyish brown (10YR 3/2) medium clay loam; unmottled; very slightly stony; few medium subrounded sandstones; slightly moist; moderately developed coarse sub angular blocky structure; high packing density; slightly porous; common fine fissures and macropores; moderately strong ped strength; moderately sticky; moderately plastic; many fine and very fine fibrous roots; non calcareous; sharp smooth boundary.
2.	27-42	Very pale brown (10YR 7/4) heavy clay loam with pale brown (10YR 6/3) structure faces; many medium prominent clear strong brown (7.5YR 5/8) mottles; slightly stony; common medium and large subrounded sandstones; moist; moderately developed medium prismatic structure; medium packing density; moderately porous; common fine pores and fissures; moderately firm soil strength; very sticky; very plastic; common very fine fibrous roots; common soft ferrimanganiferous concretions; non calcareous; abrupt wavy boundary.

3. 42-100+ Light brownish grey (10YR 6/2) clay; many medium and fine prominent sharp; strong brown (7.5YR 5/6) and grey (10YR 6/1) mottles; stoneless; moist; moderately developed coarse prismatic structure; high packing density; slightly porous; very firm soil strength; very sticky; very plastic; few very fine fibrous roots above 60 cm; common soft ferrimanganiferous concretions; non calcareous.