AGRICULTURAL LAND CLASSIFICATION

(REVISION)

PROPOSED GLANFORD BUSINESS PARK

SCUNTHORPE, HUMBERSIDE

MAFF

Leeds Regional Office

September 1990

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MAPS

AGRICULTURAL LAND CLASSIFICATION REPORT FOR THE PROPOSED GLANFORD BUSINESS PARK, SCUNTHORPE, HUMBERSIDE.

SECTION 1: INTRODUCTION AND SITE CHARACTERISTICS

This report is a revision to that produced in March 1990. As a result of the planning application being subject to a local inquiry further survey work was carried out in September 1990 at the invitation of the landowner. In the light of this work the land grade in some small areas of the site has been changed. A revised agricultural land classification map is appended to this report.

1.1 LOCATION

The site is located around national grid reference SE 868136, approximately 3 km north west of Scunthorpe Town centre. It covers 163.6 hectares, 93 per cent of which is in agricultural use.

1.2 SURVEY METHOD

Survey work was carried out in February 1990 when soils were examined by hand auger borings at 100 metre intervals pre-determined by the National Grid. Soil profile pits were also dug where necessary to assess stoniness, soil structural characteristics and gley morphology. In September 1990 a further 20 soil pits were examined together with a number of intermediate soil anger borings to refine grade boundaries.

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).

1.3 LAND USE

All agricultural land on the site is in an arable use. At the time of survey winter cereals were the main arable crop. Sugar beet, potatoes, vining peas and field beans are also grown.

1.4 CLIMATE

Average annual rainfall in the area is approximately 617 mm. Accumulated temperature above 0°, between January and June, is 1412 day °C and the land is at field capacity for about 134 days a year. There is thus no overall climatic restriction on ALC grade. Soil moisture deficits of 111 mm for winter wheat and 103 mm for potatoes indicate a moderate drought limitation for the sandy to very coarse loamy profiles that occur in isolated patches across the site and in the extreme north. The fine silty to clayey soils which predominate on the site are not significantly limited by drought.

1.5 RELIEF

The majority of the site is virtually level at a mean altitude of 2 metres above ordnance datum. It gently rises to 8 metres aod in the north east.

1.6 DRAINAGE

Ground water tables are kept low, even in winter, by a network of ditches feeding Lysaght's Drain. This runs east-west to a point north of Neap House (NGR SE 862134) where water is pumped to the River Trent.

Soil wetness problems on the site are chiefly influenced by slowly permeable subsoil horizons. Where present these create a slight to moderate wetness limitation which, depending on topsoil workability characteristics, can restrict ALC grade.

1.7 SOILS AND GEOLOGY

Most soils have developed over artificially deposited river alluvium (warp) which forms a variable cover over underlying peat and sand.

Soils typically consist of stoneless fine silty topsoils over a clayey subsoil that passes into peaty textures at depth. Topsoils are slightly calcareous except in the north eastern quarter of the site where non-calcareous topsoils are the norm.

Where the alluvium is thin or absent, sand patches occur close to the surface. Soils developing over these deposits mainly consist of non calcareous coarse loamy to medium sandy topsoils over sand to depth. They tend to be stoneless, except near Stather Road where gravelly outwash gives rise to a small area of moderately stony subsoils.

SECTION 2: AGRICULTURAL LAND CLASSIFICATION GRADES

The ALC grades occurring on this site are as follows.

Grade	Hectares	Percentage of Total Site Area
1	10.9	6.5
2	94.2	57.5
3a	38.3	23.5
3b	17.6	11.0
Farm Woodland	1.9	1
Farm Buildings	0.7	0.5
TOTAL	163.6	100%

Grade 1

Grade 1 land occurs in three areas: the extreme east near Lysaght's Drain, around Neap House and to the south east of Neap House.

Soils in the extreme east have developed over thin calcareous warp and consist of medium silty clay loam topsoils and upper subsoils that pass into loamy peat and peat below about 60 cm depth.

The soils around Neap House have developed over thicker deposits and consist of non-calcareous medium silty clay loam or silty loam topsoils over similar subsoils to depth.

The small area to the south east of Neap House has silt loam or medium silty loam topsoil giving way to peat at 30-40 cm depth.

All of these soils fall within wetness class I. They are light to medium in texture, are easily worked for most of the year and have adequate reserves of available water during summer months. There are thus, no significant restrictions on ALC grade.

Grade 2

Grade 2 land is widespread throughout the site.

Soils adjacent to the River Trent consist of non-calcareous medium silty clay loam topsoils over heavy silty clay loam and silty clay which becomes gleyed and slowly permeable below 50 to 70 cm depth. Here, soil wetness and workability problems are the overriding restriction to ALC grade.

Elsewhere, profiles typically consist of calcareous heavy silty clay loam topsoils over heavy silty clay loam and silty clay which often pass into peat below 80 cm. These also fall within wetness class II and are similarly restricted by wetness and topsoil workability problems.

Subgrade 3A

The main area of subgrade 3a occurs in the west near Flixborough Parkings. Soils fall within wetness class II and consist of non-calcareous heavy silty clay loam topsoils over silty clay. Workability problems are more restricting than on the adjacent grade 2 land and thus forms the overriding restriction on ALC grade. The isolated area of subgrade 3A east of the centre of the site has calcareous heavy silty clay loams that just fall into wetness class III and therefore causes a workability limitation.

Remaining soils in this subgrade have a patchy distribution along the eastern and southern site boundaries where the warp tends to be superficial or absent. They chiefly consist of medium silty clay loam to sandy loam topsoils, about 30-40 cm thick over medium sand. These fall within wetness class I and are restricted to subgrade 3a by a moderate summer drought risk.

Subgrade 3B

Along the north eastern edge of the site and along a very slight ridge south of Lysaght's Drain soils consist of stoneless to slightly stony

loamy medium sand passing into similar or slightly lighter textured subsoils. Soil droughtiness is moderately to severely limiting and forms the overriding restriction on ALC grade.

Remaining areas falling within this subgrade consist of silty clay topsoils over gleyed and slowly permeable silty clay. They fall within wetness classes III or IV and are limited by a combination of soil wetness and workability problems more severe than on adjacent 3a quality land.

Farm Woodland

Approximately 1.9 hectares of farm woodland occurs at Willow Holt in the north east of the site.

Farm Buildings

This consists of general farm buildings at Flixborough Parkings.

Resource Planning Group
Leeds Regional Office
March 1990

SAMPLE	ALC	DEPTH	TEXTURE	COLOUR	----MOTTLES--- COL	ABUND	CONT	STONY	PACK. DENSITY	COMPACTED	CaCO3	PSD	POROSITY	pH	ORG. MATTER
001	3B	0-25	msl	10YR43							C				
		25-100	ms	75YR46											
002	3B	0-35	lms	10YR43							N				
		35-100	lms	75YR46											
003	3A	0-25	scl	10YR44							C				
		25-50	scl	75YR56											
		50-120	lmstone	0							C				
004	3A	0-30	mzcl	10YR42							C				
		30-50	fsl	10YR43							C				
005	3B	0-35	lms	10YR43							N				
		35-100	ms	75YR46											
006	3B	0-35	zc	10YR42							N				
		35-100	zc	75YR42	G	C	D		H						
007	3B	0-25	hcl	10YR42							N				
		25-90	c	10YR52		C	D		H						
		90-100	ms	10YR62											
008	3B	0-30	lms	10YR43							C				
		30-60	lms	75YR46											
		60-100	ms	10YR62											
009	3A	0-30	msl	10YR43							C				
		30-35	lms	10YR43											
		35-100	ms	75YR46											
010	3B	0-25	hcl	10YR42	O	F	F				C				
		25-100	c	10YR52	OG	C	D		H						
011	3A	0-40	hzcl	10YR42							C				
		40-60	c	10YR52	OG	C	D		H						
		60-100	peat	5YR32											
012	2	0-40	hzcl	10YR42							C				
		40-60	hzcl	10YR42	OC	D	D				C				
014	3B	0-40	zc	10YR42	OF	F	F				N				
		40-100	zc	10YR52	OG	C	D		H						
015	3B	0-40	zc	10YR42							N				
		40-100	zc	10YR52	OG	M	P		H						
016	2	0-55	hzcl	10YR42							C				
		55-100	zc	N5	O	M	P								

SAMPLE	ALC	DEPTH	TEXTURE	COLOUR	----MOTTLES--- COL	ABUND	CONT	STONY	PACK. DENSITY	COMPACTED	CaCO3	PSD POROSITY	pH	ORG. MATTER
017	2	0-40	hzcl	10YR42							C			
		40-120	hzcl	10YR41	O	F	D				C			
018	2	0-45	hzcl	10YR41							C			
		45-120	hzcl	10YR43	O	F	D				C			
019	2	0-45	hzcl	10YR42							C			
		45-65	zc	10YR52							C			
		65-120	zc	10YR51	O	F	D				C			
020	2	0-45	hzcl	10YR43							C			
		45-60	hzcl	10YR32										
		60-120	zc	10YR51	O	F	F							
021	NA	0-0	na	0							C			
022	NA	0-0	non.agri	0							C			
023	3B	0-30	lms	10YR43										
		30-120	ms	10YR68										
024	2	0-40	mzcl	10YR32							C			
		40-60	mzcl	10YR33										
		60-100	zc	10YR52	OG	C	D							
025	3B	0-40	hzcl	10YR32							N			
		40-60	zc	10YR51	O	C	D							
026	3A	0-35	hzcl	10YR32							N			
		35-50	hzcl	10YR33	O	F	F							
		50-70	zc	10YR61	OG	M	P							
027	3B	0-30	hzcl	10YR32							N			
		30-45	zc	10YR51	O	C	P							
		45-80	zc	10YR52	OG	C	P							
028	2	0-35	mzcl	10YR32										
		35-40	hzcl	10YR33										
		40-80	zc	10YR52	OG	M	P							
029	3A	0-45	hzcl	10YR32							C			
		45-120	hzcl	10YR41							C			
030	2	0-55	hzcl	10YR42							C			
		55-100	hzcl	10YR52	O	F	F				C			
031	2	0-40	hzcl	10YR43							C			
		40-100	vfszl	10YR52	O	F	F							

SAMPLE	ALC	DEPTH	TEXTURE	COLOUR	----MOTTLES--- COL	ABUND	CONT	STONY	PACK. DENSITY	COMPACTED	CaCO3	PSD POROSITY	pH	ORG. MATTER
032	3A	0-45	hzcl	10YR42							C			
		45-65	hzcl	10YR52	O	F	D							
		65-100	ms	10YR21										
033	NA	0-0	non.agri	0										
034	NA	0-0	non.agri	0										
035	NA	0-0	non.agri	0										
036	2	0-35	mzcl	10YR32							C			
		35-50	mzcl	10YR33	O	F	D							
		50-70	zc	10YR52	OG	M	P							
037	3A	0-35	mzcl	10YR32							N			
		35-40	hzcl	10YR33	O	F	D							
		40-70	zc	10YR51	OG	M	P							
038	3B	0-30	hzcl	10YR32							N			
		30-100	zc	10YR52	OG	M	P							
039	3B	0-40	hzcl	10YR32							N			
		40-70	zc	10YR52	OG	M	P							
040	3A	0-40	hzcl	10YR42							C			
		40-80	hzcl	10YR52	O	F	F				C			
		80-100	mzcl	10YR53	O	F	F							
041	2	0-40	hzcl	10YR43							C			
		40-100	mzcl	10YR52	O	C	D							
042	1	0-30	mzcl	10YR33							C			
		30-35	msl	10YR33										
		35-46	zl	10YR31							S			
		46-60	csl	75YR44										
		60-80	mscl	75YR44	O	C	D							
		80-100	mscl	5YR46										
043	2	0-45	mzcl	10YR42							C			
		45-80	hzcl	10YR51	OG	F	F				C			
		80-120	peat	5YR251							N			
044	2	0-30	mzcl	10YR33							C			
		30-60	hzcl	10YR33		F	F				C			
		60-120	peat	5YR251							N			
045	1	0-30	mzcl	10YR33							C			
		30-55	hzcl	10YR33	O	G	F				C			
		55-75	mls	10YR31							N			
		75-120	ms	10YR46	O	F	F							

SAMPLE	ALC	DEPTH	TEXTURE	COLOUR	----MOTTLES--- COL	ABUND	CONT	STONY	PACK. DENSITY	COMPACTED	CaCO3	PSD	POROSITY	pH	ORG. MATTER
046	2A	0-80	msl	10YR33											
		80-100	mscl	10YR54											
047	3A	0-30	msl	10YR33											
		30-60	msl	75YR46	O	F	F								
		60-80	mscl	75YR54	O	C	D								
		80-100	mcl	5YR56	O	C	D								
048	2	0-40	mzcl	10YR32							N				
		40-60	mzcl	10YR54	O	F	D								
		60-75	mzcl	10YR52	O	C	D								
		75-100	zc	10YR52	OG	C	D								
049	3B	0-35	hzcl	10YR32							N				
		35-40	hzcl	10YR42	O	C	D								
		40-80	zc	10YR52	OG	C	P								
050	3B	0-30	hzcl	10YR32							N				
		30-100	zc	10YR51	OG	C	D								
		100-120	c	5Y61											
051	2	0-40	hzcl	10YR32	O						N				
		40-80	hzcl	10YR33	O	F	D								
		80-100	zc	10YR52		M	P								
052	2	0-45	mzcl	10YR33							C				
		45-90	hzcl	10YR41	O	C	D				N				
		90-120	p	5YR251											
053	1	0-40	mzcl	10YR32							C				
		40-60	hzcl	75YR32	O	C	D				N				
		60-100	p	5YR251											
054	1	0-30	mzcl	10YR33							C				
		30-50	zl	10YR33							C				
		50-70	mzcl	10YR33	O	F	D				C				
		70-100	p	5YR251											
055	1	0-40	mzcl	10YR32							S				
		40-80	hzcl	10YR33	O	F	F				S				
		80-100	p	5YR251											
056	1	0-40	mzcl	10YR33							S				
		40-60	zl	10YR43	O	C	D				S				
		60-100	p	5YR251											
057	3A	0-40	zl	10YR32							N				
		40-60	p	5YR251											
		60-100	lms	75YR42											

SAMPLE	ALC	DEPTH	TEXTURE	COLOUR	----MOTTLES--- COL	ABUND	CONT	STONY	PACK. DENSITY	COMPACTED	CaCO3	PSD	POROSITY	pH	ORG. MATTER
058	2	0-40	hzcl	10YR32							C				
		40-60	fszl	10YR53		F	D								
		60-120	pl	10YR21											
059	3A	0-50	msl	10YR32											
		50-65	msl	75YR34	O	C	F								
060	2	0-40	zl	10YR33							N				
		40-75	mzcl	10YR33	OG	C	F								
		75-100	zc	10YR41	O	C	P								
061	2	0-40	mzcl	10YR33							N				
		40-55	hzcl	10YR43	O	C	D								
		55-100	zc	10YR41	O	M	P								
062	3A	0-40	zc	10YR42							C				
		40-100	zc	10YR52	OG	M	D		H		N				
063	2	0-40	mzcl	10YR42							C				
		40-70	c	10YR52	O	C	D				C				
		70-100	peat	5YR21											
064	2	0-35	mzcl	10YR42							C				
		35-60	szl	10YR43	O	C	F				C				
		60-90	c	10YR53	OG	C	D				C				
		90-100	peat	5YR21											
065	2	0-40	hzcl	10YR42							C				
		40-80	hzcl	10YR43	O	C	D				C				
		80-100	peat	5YR21											
066	2	0-40	hzcl	10YR42							C				
		40-100	hzcl	10YR43	O	C	D				C				
067	3A	0-45	hzcl	10YR32							C				
		45-60	zc	10YR53	O	C	P								
		60-80	zc	10YR52	OG										
068	3A	0-40	hzcl	10YR54							C				
		40-60	zc	10YR54	O						C				
		60-80	zc	10YR53	OG										
069	2	0-40	hzcl	10YR32							C				
		40-50	zc	10YR33											
		50-70	lms	10YR31											
		70-120	ms	10YR63	O	F	D								
070	1	0-50	mzcl	10YR32							C				
		50-80	lp	10YR21											
		80-120	ms	10YR61											

SAMPLE	ALC	DEPTH	TEXTURE	COLOUR	----MOTTLES--- COL	ABUND	CONT	STONY	PACK. DENSITY	COMPACTED	CaCO3	PSD	POROSITY	pH	ORG. MATTER
071	1	0-45	msl	10YR31							N				
		45-80	msl	10YR31											
		80-120	pl	10YR21											
072	2	0-55	zl	10YR33							N				
		55-80	mzcl	10YR41	O	C	D								
		80-100	hzcl	10YR41		M	D								
073	2	0-50	zl	10YR33							N				
		50-80	hzcl	10YR42	O	C	D								
		80-100	zc	10YR42	O	C	P								
074	2	0-35	hzcl	10YR42							C				
		35-60	hzcl	10YR43	O	C	F				C				
		60-100	c	N6	O	C	D								
075	2	0-40	hzcl	10YR42							C				
		40-65	zc	10YR43	O	C	D				C				
		65-100	c	N5	OG	C	D		H						
076	2	0-35	hzcl	10YR42							C				
		35-90	hzcl	10YR43	O	C	D				C				
		90-100	peat	5YR21											
077	2	0-40	zc	10YR42							C				
		40-90	zc	10YR43	O	C	D				C				
		90-100	peat	5YR21											
078	2	0-35	zc	10YR42							C				
		35-100	zc	10YR43	O	C	F				C				
079	3A	0-45	hzcl	10YR42							C				
		45-80	zc	10YR42	O	C	D								
		80-100	p	5YR251											
080	3A	0-45	zc	10YR42							C				
		45-60	hzcl	10YR42	O	C	F								
		60-90	zc	10YR42	O	C	D								
		90-100	p	5YR251											
081	3A	0-45	hzcl	10YR33							C				
		45-75	zc	10YR42	OG	C	F								
		75-100	ms	10YR53											
082	2	0-45	hzcl	10YR33							C				
		45-60	zl	5YR251											
		60-80	ms	10YR54											
		80-100	ms	75YR56											

SAMPLE	ALC	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUND	MOTTLES CONT	STONY	PACK. DENSITY	COMPACTED	CaCO3	PSD POROSITY	pH	ORG. MATTER
083	3A	0-55	zc	10YR33							S			
		55-70	zc	10YR42	OG	C	F							
		70-100	p	5YR251										
084	1	0-50	zl	10YR33							N			
		50-100	zl	10YR43										
085	2	0-45	zl	10YR33							N			
		45-70	mzcl	10YR52	O	C	D							
		70-100	zc	10YR42	O	M	P							
086	3A	0-35	hzcl	10YR42							C			
		35-40	hzcl	10YR43							C			
		40-60	zc	10YR53	OG	M	D		H					
		60-100	n5	N5	O	C	D		H					
087	2	0-40	hzcl	10YR42							C			
		40-70	hzcl	10YR43							C			
		70-100	c	10YR51	OG	C	D		H					
088	2	0-35	hzcl	10YR42							C			
		35-70	hzcl	10YR43	O	C	D				C			
		70-95	c	10YR51	O	M	D		H					
		95-100	peat	5YR21										
089	2	0-35	hzcl	10YR42							C			
		35-90	hzcl	10YR43	O	C	D				C			
		90-100	mzcl	10YR53	O	C	F				C			
090	2	0-35	hzcl	10YR42							C			
		35-60	hzcl	10YR43	O	C	F				C			
		60-100	mzcl	10YR54	O	C	D				C			
091	2	0-35	mzcl	10YR33							C			
		35-90	hzcl	10YR31	O	F	F				S			
		90-120	zc	10YR52	OG	M	D				S			
092	1	0-100	mzcl	10YR43					N		C			
093	2	0-50	hzcl	10YR32							C			
		50-60	hzcl	10YR33	O	F	D							
		60-120	p	5YR251										
094	2	0-50	hzcl	10YR33							S			
		50-65	hzcl	10YR33		F	F							
		65-100	p	100										
095	1	0-40	zl	10YR33							C			
		40-100	zl	10YR44										

SAMPLE	ALC	DEPTH	TEXTURE	COLOUR	----MOTTLES--- COL	ABUND	CONT	STONY	PACK. DENSITY	COMPACTED	CaCO3	PSD	POROSITY	pH	ORG. MATTER
096	2	0-45	zl	10YR33							N				
		45-65	mzcl	10YR44											
		65-100	mzcl	10YR51	O	C	D								
097	2	0-30	mzcl	10YR42							C				
		30-65	hzcl	10YR42	O	M	F								
098	2	0-30	mzcl	10YR42							C				
		30-60	mzcl	10YR42	O	F	F								
		60-90	hzcl	10YR43	O	F	F								
		90-120	zc	10YR51	OG	C	D								
099	2	0-32	mzcl	10YR42							C				
		32-60	hzcl	10YR43	O	F	F								
		60-100	zc	10YR51	OG	M	D								
		100-120	peat	5YR251											
100	2	0-30	mzcl	10YR33							C				
		30-45	mzcl	10YR42							C				
		45-80	zc	10YR41	O	C	P				N				
		80-100	p	5YR251											
101	3B	0-30	lms	10YR31							N				
		30-60	cs	75YR32							N				
		60-120	cs	75YR46							N				
102	2	0-30	mzcl	10YR42							C				
		30-45	hzcl	10YR43		F	F								
		45-70	zc	10YR51	OG	C	D				N				
		70-120	peat	5YR251							N				
103	2	0-60	mzcl	10YR42					N		C				
		60-80	hzcl	10YR52	O	C	D				C				
		80-100	p	BLACK											
104	2	0-50	hzcl	10YR42							C				
		50-55	zc	10YR31	O	F	D								
		55-100	p	2.5Y40	O	C	D								
105	2	0-60	hzcl	10YR42							C				
		60-100	p	2.5Y40											
106	1	0-35	msl	10YR22							N				
		35-75	scl	10YR32											
		75-100	hzcl	10YR42	O	C	F								
107	1	0-60	mzcl	10YR33							C				
		60-100	p	5YR251											

SAMPLE	ALC	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUND	MOTTLES CONT	STONY	PACK. DENSITY	COMPACTED	CaCO3	PSD	POROSITY	pH	ORG. MATTER
108	1	0-50	mzcl	10YR33							S				
		50-80	hzcl	10YR33	OG	F	F								
		80-100	p	5YR251											
109	1	0-50	mzcl	10YR33							N				
		50-100	mzcl	10YR44	OG	C	F								
110	1	0-40	mzcl	10YR33							S				
		40-80	hzcl	10YR33							N				
		80-100	mzcl	10YR41	O	F	D				N				
111	2	0-30	mzcl	10YR33							S				
		30-45	zl	10YR53	O	C	D				C				
		45-60	mzcl	10YR41	O	C	D				N				
		60-100	p	5YR251											
112	3A	0-30	mzcl	10YR32							S				
		30-45	hzcl	10YR41	O	C	D				N				
		45-120	p	5YR251											
113	3B	0-30	lms	10YR33							N				
		30-120	lms	10YR54	O	F	F				N				
114	1	0-35	mzcl	10YR32							C				
		35-60	hzcl	10YR33	O	F	D				S				
		60-100	p	5YR251											
115	2	0-60	mzcl	10YR42							C				
		60-80	hzcl	10YR43	O	C	D								
		80-100	p	10YR31	O	C	D				C				
116	2	0-40	mzcl	10YR42							C				
		40-65	hzcl	10YR41	O	F	D								
		65-100	p	2.5Y40											
117	2	0-33	mzcl	10YR32							C				
		33-50	hzcl	10YR33											
		50-100	hcl	10YR54	O	F	D								
118	2	0-35	hzcl	10YR32							C				
		35-50	zc	75YR32	OG	C	D								
		50-100	pt	75YR20											
119	2	0-35	zc	10YR32							C				
		35-50	zc	10YR53	OG	C	D								
		50-100	pt	25YR21											
120	1	0-33	mzcl	10YR32											
		33-90	fszl	10YR54	OG	C	D								
		90-100	pt	25YR21											

SAMPLE	ALC	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUND	MOTTLES CONT	STONY	PACK. DENSITY	COMPACTED	CaCO3	PSD	POROSITY	pH	ORG. MATTER
121	1	0-40	mzcl	10YR33							N				
		40-70	mzcl	10YR43	OG	C	D								
		70-100	zl	10YR44											
122	1	0-30	mzcl	10YR33							S				
		30-70	hzcl	10YR43	OG	M	D				N				
		70-120	peat	5YR251							N				
123	2	0-30	mzcl	10YR42							N				
		30-45	hzcl	10YR42	O	F	F								
		45-70	zc	10YR51	O	M	D				N				
		70-120	peat	5YR251											
124	3A	0-30	mzcl	10YR42							N				
		30-40	hzcl	10YR43	O	F	F				N				
		40-65	zc	10YR41	OG	M	D								
		65-120	pt	5YR251							N				
125	3A	0-40	msl	10YR33							N				
		40-80	ms	10YR46											
		80-120	ms	10YR64	R	F	D								
126	1	0-35	mzcl	10YR33							C				
		35-65	hzcl	10YR33							C				
		65-120	p	5YR251											
127	3A	0-40	hzcl	10YR42							C				
		40-70	hzcl	10YR52	O	C	D								
		70-100	p	2.5Y50											
128	2	0-40	hzcl	10YR42							C				
		40-65	mzcl	10YR41	O	F	D								
		65-100	p	2.5Y40	O										
129	2	0-40	hzcl	10YR32							C				
		40-60	hzcl	10YR53	OG	C	D								
		60-100	pt	75YR20											
130	3A	0-38	zc	10YR32							C				
		38-100	ms	75YR68											
131	2	0-37	mzcl	10YR32							C				
		37-65	zc	10YR52	OG	C	D								
		65-100	pt	75YR20											
132	1	0-32	mzcl	10YR32											
		32-60	zc	10YR33	OG	C	D								
		60-100	pt	75YR20											

SAMPLE	ALC	DEPTH	TEXTURE	COLOUR	----MOTTLES--- COL	ABUND	CONT	STONY	PACK. DENSITY	COMPACTED	CaCO3	PSD	POROSITY	pH	ORG. MATTER
133	2	0-55	mzcl	10YR33							N				
		55-65	c	10YR42	O	M	D								
		65-100	pl	5YR251											
134	1	0-38	mzcl	10YR33							N				
		38-90	pl	5YR251											
		90-100	p	5YR251											
135	2	0-55	hzcl	10YR33							N				
		55-100	pl	5YR251											
136	1	0-35	mzcl	10YR33							N				
		35-70	msl	10YR34											
		70-100	lms	10YR34											
137	2	0-35	zl	10YR34							C				
		35-80	lms	10YR34											
		80-100	ms	10YR46											
138	1	0-35	mzcl	10YR42							C				
		35-100	vfszl	10YR52	O	C	D								
139	1	0-40	mzcl	10YR42	O	C	D				C				
		40-100	vfszl	10YR52	O	F									
140	3A	0-37	hzcl	10YR32							C				
		37-65	zc	10YR52	OG	C	D								
		65-100	lp	75YR20											
141	1	0-40	hzcl	10YR32							C				
		40-45	zc	10YR32											
		45-60	hzcl	10YR42	OG	C	D								
		60-100	ms	10YR63											
		100-120	pt	75YR20	OG	C	D								
142	2	0-35	mzcl	10YR32							C				
		35-60	hzcl	10YR33											
		60-80	zc	10YR52	OG	C	D								
		80-100	pt	75YR20											
143	3A	0-35	hzcl	10YR32							C				
		35-100	ms	10YR62											
144	3A	0-38	msl	10YR32							C				
		38-100	ms	10YR73											
145	3A	0-45	hzcl	10YR33							N				
		45-75	zc	10YR42	OG	C	D								
		75-100	lp	5YR251											

SAMPLE	ALC	DEPTH	TEXTURE	COLOUR	----MOTTLES--- COL	ABUND	CONT	STONY	PACK. DENSITY	COMPACTED	CaCO3	PSD	POROSITY	pH	ORG. MATTER
146	1	0-40	mzcl	10YR33							N				
		40-100	lp	5YR251											
147	2	0-45	hzcl	10YR33							N				
		45-100	lp	5YR251											
148	2	0-55	hzcl	10YR33							N				
		55-75	lp	5YR251											
		75-120	ms	10YR63											
149	3A	0-45	msl	10YR33							N				
		45-80	ms	10YR46											
		80-120	ms	10YR64	O	F	D								
150	2	0-40	mzcl	10YR42							C				
		40-65	hzcl	10YR52	O	F	F								
		65-100	p	2.5Y40	O										
151	3A	0-40	hzcl	10YR43							C				
		40-55	hzcl	10YR52	O	F	F								
		55-100	p	2.5Y50											
153	3A	0-40	zc	10YR32							C				
		40-50	zc	10YR52	ZG	C	D								
		50-100	pt	75YR20											
154	2	0-40	hzcl	10YR32							C				
		40-60	zc	10YR52	O	C									
		60-100	pt	75YR20											
155	3A	0-38	msl	10YR32							C				
		38-50	msl	10YR33											
		50-70	lms	10YR51	O	C	D								
		70-100	ms	10YR52											
156	3A	0-35	hzcl	10YR33							N				
		35-55	zc	10YR42	OG	C	D								
		55-100	p	5YR251											
157	1	0-60	mzcl	10YR33							N				
		60-80	mszl	10YR33											
		80-95	ms	75YR44											
		95-100	ms	10YR64	R	F	D								
158	3A	0-40	msl	10RY42							N				
		40-120	fs	10YR68											
159	2	0-60	hzcl	10YR43							C				
		60-100	hzcl	10YR41	O	F	F								

SAMPLE	ALC	DEPTH	TEXTURE	COLOUR	----MOTTLES--- COL	ABUND	CONT	STONY	PACK. DENSITY	COMPACTED	CaCO3	PSD	POROSITY	pH	ORG. MATTER
160	3A	0-33	mzcl	10YR42							C				
		33-120	ms	10YR68											
161	3A	0-40	msl	10YR32							N				
		40-80	ms	10YR62											
		80-100	ms	75YR66											
162	3A	0-30	mzcl	10YR42											
		30-45	mzcl	10YR33							C				
		45-60	peat	5YR251							N				
		60-100	ms	5YR251							N				
		100-120	ms	10YR22							N				
163	1	0-30	mzcl	10YR33							S				
		30-45	hzcl	10YR33											
		45-55	lp	5YR251											
		55-100	ms	10YR64											
164	2	0-40	mzcl	10YR32							C				
		40-100	hzcl	10YR52											
165	3A	0-33	msl	10YR43							N				
		33-120	ms	10YR68											
166	3B	0-35	hcl	10YR33							N				
		35-40	zc	10YR53	O	F	D								
		40-100	zc	5GY51	O	C	P								
167	3B	0-32	zc	10YR33							N				
		32-70	zc	75YR52	OG	M	P								
168	3B	0-32	c	10YR32											
		32-40	c	10YR52	O	C									
		40-60	c	75YR52	OG	M	P								
169	3B	0-35	hzcl	10YR33							N				
		35-48	zc	10YR51	O	C	P								
		48-80	zc	25Y50	O	C	P								
170	3B	0-33	zc	10YR32							N				
		33-80	zc	25Y50	O	C	P								
171	3B	0-35	hzcl	10YR33							N				
		35-60	zc	10YR52	O	C	D								
172	3B	0-35	hzcl	10YR33							C				
		35-80	zc	25Y50	O	C	P								

SAMPLE	ALC	DEPTH	TEXTURE	COLOUR	----MOTTLES--- COL	ABUND	CONT	STONY	PACK. DENSITY	COMPACTED	CaCO3	PSD	POROSITY	pH	ORG. MATTER
173	1	0-40	mzcl	10YR33							C				
		40-60	zl	10YR43	O	F	F								
		60-120	hzcl	10YR33	O	C	D								
174	3B	0-35	hzcl	10YR33							N				
		35-100	zc	25Y50	O	C	P								