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Hampshire Structure Plan Review
Land North of the M27, Bishopstoke to West End
Agricultural Land Classification
Reconnaissance Survey
ALC Map and Report
January 1995

AGRICULTURAL LAND CLASSIFICATION REPORT.

HAMPSHIRE STRUCTURE PLAN REVIEW
LAND NORTH OF THE M27, BISHOPSTOKE TO WEST END
RECONNAISSANCE SURVEY

1. Summary

1.1 ADAS was commissioned by MAFF's Land Use Planning Unit to provide information on land quality for a number of 'areas of search' in connection with MAFF's input to the Hampshire Structure Plan Review.

1.2 Land to the north of the M27 at Eastleigh comprises approximately 782 hectares of land bounded by Eastleigh, West End, Hedge End, Horton Heath, Fair Oak and Bishopstoke. An Agricultural Land Classification (ALC) survey was carried out during January 1995. The survey was completed at a reconnaissance level of detail on a 'free' survey basis. The primary purpose of the survey was to update the 1:63,360 scale provisional ALC maps for the area of search. Consequently the results are designed for strategic planning purposes only. For site specific proposals, further more detailed surveys may be required. A total of 100 borings and two soil inspection pits were assessed in accordance with MAFF's revised guidelines and criteria for grading the quality of agricultural land (MAFF, 1988). These guidelines provide a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on its use for agriculture.

1.3 The work was carried out by members of the Resource Planning Team in the Guildford Statutory Group of ADAS.

1.4 At the time of the survey the majority of the agricultural land was under permanent grassland. Areas of cereal and maize stubble were also observed on the site. Areas marked as urban include a Royal Navy depot, tarmac roads and private dwellings. Unmanaged scrubland and woodland is shown as Non-agricultural. Some areas of the site remain unsurveyed due to difficulties in obtaining access in order to carry out the survey

1.5 The distribution of grades and subgrades is shown on the attached ALC map and the areas are given in Table 1. The map has been drawn at a scale of 1:50,000. It is accurate at this scale, but any enlargement would be misleading.

1.6 Appendix I gives a general description of the grades, subgrades and land use categories identified in the survey. The main classes are described in terms of the type of limitation that can occur, the typical cropping range and the expected level and consistency of yield.

Table 1 : Distribution of Grades and Subgrades

Grade	Area (ha)	% of Site	% of Agricultural Land
3a	166	21.2	25.5
3b	455	58.2	69.8
4	31	4.0	4.7
Urban	44	5.6	100% (652 ha.)
Non-Agricultural	10	1.3	
Not surveyed	76	9.7	
Total area of Site	782	100%	

1.7 The principal limitation upon quality for the majority of the agricultural land within this 'area of search' tends to be soil wetness. Areas of poor quality land showing a severe wetness limitation, exhibiting signs of being waterlogged for long periods, have been mapped as Grade 4. Moderate quality Subgrade 3b land is mapped on the lower parts of the area where heavy or medium textured topsoils overlie slowly permeable clay subsoils at relatively shallow depths. These shallow clay subsoils significantly impede drainage such that a classification of Subgrade 3b is appropriate . Where the clays occur deeper in the profile or topsoils comprise lighter and sandier textures, the wetness limitation is less severe, such that land can be classified as better quality Subgrade 3a.
On the higher land soils tend to be more freely draining, comprising lighter and sandier textured topsoils and subsoils which are occasionally stony. These soils show some restriction upon profile available water, which can affect the level and consistency of crop yields. At this scale of mapping, an overall classification of Subgrade 3a is appropriate for land exhibiting this droughtiness limitation.

2. Climate

2.1 The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe climatic limitations will restrict land to low grades irrespective of favourable site or soil conditions.

2.2 The main parameters used in the assessment of an overall climatic limitation are average annual rainfall, as a measure of overall wetness, and accumulated temperature as a measure of the relative warmth of a locality.

2.3 A detailed assessment of the prevailing climate was made by interpolation from a 5km gridpoint dataset (Met. Office 1989). The details are given in the table below and these show that there is no overall climatic limitation affecting the site.

2.4 However, climatic factors do interact with soil factors to influence soil wetness and droughtiness limitations.

2.5 No local climatic factors such as exposure or frost risk are believed to affect the site.

Table 2 : Climatic Interpolations

Grid Reference	SU478177	SU476164	SU490160
Altitude (m)	15	20	35
Accumulated Temperature (Day ° C, Jan-June)	1536	1533	1514
Average Annual Rainfall (mm)	802	786	830
Field Capacity (days)	169	162	171
Moisture Deficit, Wheat (mm)	110	113	106
Moisture Deficit, Potatoes (mm)	104	108	100
Overall Climatic Grade	1	1	1

3. Relief

3.1 Land within the 'area of search' lies at an altitude of approximately 15-35m. AOD. The land tends to be gently undulating in parts, although notably flat around Chalcroft Farm and Little Moorgreen Farm.

3.2 Nowhere on the site do gradient or relief pose any limitation upon agricultural use.

4. Geology and Soils

4.1 The published geological information (BGS, 1973) shows the majority of the site to be underlain by Bracklesham Beds, comprising glauconitic sand and clay. Alluvium is mapped along a tributary of the River Itchen which runs across the site. A small area of Bagshot Sands with pebbles is mapped in the far northern tip of the site.

4.2 The published Soil Survey map (SSEW, 1983) shows three soil types across the site. The majority of the site is mapped as soils of the Wickham 3 and Wickham 4 associations. Wickham 3 soils are described as 'slowly permeable seasonally waterlogged fine loamy over clayey and coarse loamy over clayey soils, and similar more permeable soils with slight waterlogging'. Wickham 4 soils are described as 'slowly permeable seasonally waterlogged fine loamy over clayey and fine silty over clayey soils associated with similar clayey soils' (SSEW, 1983). Towards the south of the site a small area of soils of the Frilford association are mapped. These are described as 'deep well drained sandy and coarse loamy soils. Some ferruginous sandy and some coarse loamy soils affected by groundwater' (SSEW, 1983).

4.3 The site is also covered by a more detailed soil survey carried out by the Soil Survey and Land Research Centre in 1989 at a 1:10,000 scale of survey. Within the 'area of search', 19 different soil series were identified in the 1989 survey. This map was used to some extent for the land classification survey, yet to describe all of the identified soil series in this report would not be appropriate.

4.4 Field examination for the purposes of land classification found three broad soil types. The majority of the site comprises poorly drained loamy soils with clay subsoils, being prevalent on the lowlying flatter land. Towards the south-west of the site, sandier textured topsoils were found to overlie poorly drained clay subsoils, these clays being occasionally interbedded with sands. On the higher ground towards the north and east of the site, more

free draining coarse textured sandy soils were observed, sometimes showing evidence of stonier subsoils.

5. Agricultural Land Classification

5.1 The location of the soil observation points are shown on the attached sample point map.

Subgrade 3a

5.2 A number of areas of agricultural land on the site have been classified as Subgrade 3a, good quality land, with soil droughtiness and wetness as the main limitations.

5.3 On the higher ground, principally towards the north-east and south-east of the site, soil droughtiness tends to be the main limitation. Coarser textured sandier soils tend to dominate within these areas. Topsoils tend to be more sandy, commonly comprising medium sandy loams, with coarse textures such as loamy medium sand and some sandy clay loams prevailing in the subsoils. However, the banded sand and clay nature of the geology means that some more loamy textures were occasionally observed in the subsoils. A soil inspection pit (pit no.1) was dug in the northern tip of the site. At this location, a slightly stony (10% total flints v/v) medium sandy loam topsoil was found to overlie a slightly stony (10% total flints v/v) and well structured loamy medium sand upper subsoil which became stoneless at 50cm and extended to 90cm. The lower subsoil was found to comprise a medium sand extending to 120cm. The profile was well drained and suitably assigned to Wetness Class I. However, there was found to be a moderate restriction upon profile available water for plant growth, which can affect the level and consistency of crop yields. Therefore a classification of Subgrade 3a is appropriate due to this moderate droughtiness limitation. It should be noted that some better quality land was observed within this mapping unit, but at this scale of survey it would be unfeasible to map these as a separate unit.

5.4 Subgrade 3a land on the lowerlying reaches of the site, principally on the southern edges, shows signs of a moderate wetness limitation. Profiles within this area tend to comprise coarse textured topsoils such as medium sandy loams and medium sandy silt loams, overlying variably texture upper subsoils which in turn tend to overlie clay lower subsoils. In certain areas, particularly around Moorgreen Farm, medium sandy loam topsoils were found to rest directly upon clay subsoils. The clay subsoils are slowly permeable (see soil inspection pit no.2) and where they occur at shallow depths, act to cause a significant soil drainage impedance (Wetness Class IV). This drainage impedance is evidenced by gleying from the surface or at shallow depths within the soil profile. However, the interaction between the relatively light and easily worked topsoil textures and the soil drainage status means that this land is subject to moderate restrictions upon the flexibility of cropping, stocking and cultivations if soil structural damage is to be avoided. Variability in textures and depths to the slowly permeable clays across the site and within this mapping unit means that some instances of better quality land were observed. Yet once again at this scale of survey, the dispersed nature of these observations means that they do not warrant mapping as a separate unit.

Subgrade 3b

5.5 Moderate quality Subgrade 3b land is mapped across the majority of the site, showing signs of a wetness limitation which is related to the prevalence of heavily textured clayey soils which exists within the 'area of search'. Topsoils tend to comprise medium clay loams, and to a lesser extent heavy clay loams. These overlie similar textured or clay upper subsoils and clay lower subsoils. The clay subsoils are slowly permeable, causing a significant drainage impedance. Signs of a wetness imperfection in the form of gleying were commonly observed from the topsoils or upper subsoils. The presence of gleying and the relatively shallow depth to the slowly permeable clays equates these soils to Wetness Class IV. The combination of topsoil textures and the local climatic regime (which is relatively wet in a regional context) means that a classification of Subgrade 3b is appropriate. Poorly drained wet soils can inhibit plant and root development, and may be more susceptible to structural damage through trafficking by agricultural machinery or poaching by grazing livestock.

Grade 4

5.6 Approximately 30 hectares of land on the site has been classified as Grade 4, poor quality land, with soil wetness as the main limitation. Hydrophilic plant species such as Juncus rushes were obsereved in these areas. The presence of such species suggests that the land is waterlogged for long periods of time, such that a classification of Grade 4 is appropriate.

ADAS Ref: 1503/247/94
MAFF Ref: EL 15/518

Resource Planning Team
Guildford Statutory Group
ADAS Reading

SOURCES OF REFERENCE

British Geological Survey (1973), Sheet No. 315, Southampton, 1:50,000 Series (drift edition).

MAFF (1988), Agricultural Land Classification of England and Wales : Revised guidelines and criteria for grading the quality of agricultural land.

Meteorological Office (1989), Climatological Data for Agricultural Land Classification.

Soil Survey of England and Wales (1983), Sheet 6, Soils of South East England, 1:250,000 and accompanying legend.

Soil Survey and Land Research Centre (1989), Southampton District maps, 1:25,000 and accompanying report 'Applied soil mapping in the Southampton area'.

SOIL PIT DESCRIPTION

Site Name : HANTS STRUC BISHOPSTOKE Pit Number : 1P

Grid Reference: SU48501850 Average Annual Rainfall : 802 mm
Accumulated Temperature : 1536 degree days
Field Capacity Level : 169 days
Land Use : Permanent Grass
Slope and Aspect : 01 degrees S

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 35	MSL	10YR43 00	6	10	HR					
35- 50	LMS	10YR44 00	0	10	HR		MDCSAB	VF	G	
50- 90	LMS	10YR44 00	0	0			MDCSAB	VF	G	
90-120	MS	10YR76 00	0	0			WKMSAB	VF	M	

Wetness Grade : 1 Wetness Class : I
Gleying : cm
SPL : No SPL

Drought Grade : 3A APW : 108mm MBW : 0 mm
APP : 086mm MBP : -16 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : HANTS STRUC BISHOPSTOKE Pit Number : 2P

Grid Reference: SU48101550 Average Annual Rainfall : 802 mm
Accumulated Temperature : 1536 degree days
Field Capacity Level : 169 days
Land Use : Permanent Grass
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 29	MSZL	10YR41 00	0	2	HR	C				
29- 36	SCL	25Y 53 00	0	1	HR	M	MDCSAB	FR	M	
36- 50	HCL	05G 62 00	0	1	HR	M	MDCSAB	FM	M	
50- 62	HCL	05Y 62 00	0	10	HR	M	WKCSAB	FM	P	
62-120	C	05G 62 00	0	1	HR	M	MASSIV	FM	P	

Wetness Grade : 2 Wetness Class : III
Gleying : 0 cm
SPL :050 cm

Drought Grade : 2 APW : 134mm MBW : 27 mm
APP : 110mm MBP : 9 mm

FINAL ALC GRADE : 2
MAIN LIMITATION : Soil Wetness/Droughtiness

SAMPLE NO.	GRID REF	USE	ASPECT	GRDNT	--WETNESS-- GLEY	SPL	CLASS	-WHEAT- GRADE	AP	MB	-POTS- AP	MB	DRT	M.REL FLOOD	EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
1	SU48661845	PGR	S	01	050	050	3	2	129	22	106	5	2				WD	2	
1P	SU48501850	PGR	S	01			1	1	108	0	086	-16	3A				DR	3A	SANDY
2	SU48531832	PGR	S	02	035		2	1	135	28	110	9	2				DR	2	
2P	SU48101550	PGR			0	050	3	2	134	27	110	9	2				WD	2	
3	SU48701847	PGR	S	01			1	1	136	29	107	6	2				DR	2	SANDY
4	SU48751830	PGR	S	01	035	055	3	3A		0		0					WE	3A	
5	SU47751815	TUR					1	2	126	16	118	14	2				DR	2	WK ALSO
6	SU48501820	PGR	E	01	60		1	1	157	50	119	18	1					1	3A MORE LIKELY
7	SU49321795	PGR	S	03	085		1	1	118	8	082	-22	3A				DR	3A	SAND & GRAVEL
8	SU49251765	PGR	N	01	0	045	4	3A		0		0					WE	3A	
9	SU49501757	PGR			0	045	4	3B		0		0					WE	3B	POACHED
10	SU48951740	STB			S55		1	1	143	36	096	-5	2				DR	2	SANDY
11	SU47651745	PGR	S	01	0	065	3	2		0		0					WE	2	SURFACE WATER
12	SU48551732	STB	S	02	055	063	2	1	140	33	117	16	1					1	
13	SU48801725	STB			0	045	4	3B		0		0					WE	3B	
14	SU49071712	CER	S	02	065		1	1	147	40	116	15	1					1	SANDY
15	SU47621715	PGR			0	035	4	3B		0		0					WE	3B	POACHED
16	SU48601705	PGR	S	02	0	028	4	3B		0		0					WE	3B	POACHED
17	SU48161690	PGR	W	01	025	25	4	3B		0		0					WE	3B	
18	SU49021687	PGR	W	03	0	048	3	3A		0		0					WE	3A	
19	SU47951676	PGR			0	30	4	3B		0		0					WE	3B	
20	SU47561670	PGR			0	28	4	3B		0		0					WE	3B	
21	SU48461660	PGR			0	032	4	3B		0		0					WE	3B	
22	SU48701646	PGR			0	025	4	3B		0		0					WE	3B	
23	SU49501650	PGR			0	025	4	3B		0		0					WE	3B	
24	SU47751637	PGR	N	02	0	035	4	3B		0		0					WE	3B	POACHED
25	SU48801634	PGR			0	020	4	3B		0		0					WE	3B	
26	SU47921625	PGR	N	05	028	055	3	3B		0		0					WE	3B	
27	SU47771612	PGR	W	03			1	1	118	11	086	-15	3A				DR	3A	SANDY
28	SU47871605	PGR	E	02	068	068	2	1	114	7	116	15	2				DR	2	
29	SU49071665	PGR	S	03	0	055	3	3A		0		0					WE	3A	
30	SU49641617	PGR			030	030	4	3B		0		0					WE	3B	
31	SU47361587	PGR			0	045	4	3A	136	29	110	9	2				WE	3A	
32	SU47471582	PGR	W	02	025	035	4	3A		0		0					WE	3A	
33	SU47851592	PGR			0	035	4	3B		0		0					WE	3B	POACHED
34	SU48071597	PGR	W	01	0	028	4	3B		0		0					WE	3B	
35	SU48201592	PGR	E	01	0	028	4	3B		0		0					WE	3B	
36	SU48351585	PGR	W	01	028	040	4	3B		0		0					WE	3B	
37	SU48571585	PGR			0	048	3	3A		0		0					WE	3A	
38	SU49101595	PGR			040	055	3	3A		0		0					WE	3A	
39	SU49301597	PGR			0	042	4	3B		0		0					WE	3B	
40	SU49021578	STB			030	060	3	2		0		0					WE	2	

SAMPLE NO.	GRID REF	USE	ASPECT	GRDNT	GLEY	SPL	--WETNESS-- CLASS	GRADE	-WHEAT- AP	MB	-POTS- AP	MB	M.REL DRT	FLOOD	EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
41	SU47651576	PGR	E	02	039	110	2	1	157	50	114	13	1					1	
42	SU47731577	PGR	E	01	0	045	4	3B		0		0					WE	3B	
43	SU47471555	PGR	S	02	055	055	3	2	131	24	107	6	2				WD	2	
44	SU47951560	PGR			030	070	3	3A	142	35	119	18	1				WE	3A	
45	SU48101550	PGR			030	065	3	2	140	33	116	15	1				WE	2	
46	SU47711560	PGR			030		2	1	151	44	113	12	1				WE	2	
47	SU48321552	PGR			0	032	4	3B		0		0					WE	3B	
48	SU48621555	PGR	S	02	0	029	4	3B		0		0					WE	3B	
49	SU50201550	PGR	E	01	030	030	4	3B		0		0					WE	3B	
50	SU49871525	PGR	E	01	037	050	3	3A		0		0					WE	3A	
51	SU49951523	PGR	E	01	035	035	4	3B		0		0					WE	3B	
52	SU50151520	PGR	W	01	0	032	4	3B		0		0					WE	3B	
53	SU50421435	STB	SW	03	027	042	4	3A		0		0					WE	3A	
54	SU50031425	STB	SW	02	035	045	4	3A		0		0					WE	3A	
55	SU50401425	STB	SW	03	028	028	4	3B		0		0					WE	3B	
56	SU49901405	STB	NE	01	0	055	3	3A		0		0					WE	3A	
57	SU50201393	STB			0	028	4	3B		0		0					WE	3B	
58	SU50401391	PGR			0	026	4	3B		0		0					WE	3B	
59	SU50601434	PGR			0	060	3	2	133	25	110	7	2				WD	2	
60	SU50521435	PGR			0	025	4	3B		0		0					WE	3B	
61	SU50401445	PGR			0	027	4	3A		0		0					WE	3A	
62	SU50221460	PGR			0	023	4	3B		0		0					WE	3B	
63	SU50201471	PGR			0	035	4	3B		0		0					WE	3B	
64	SU49901485	PGR			0	029	4	3B		0		0					WE	3B	
65	SU50631477	PGR			0	041	4	3B		0		0					WE	3B	
66	SU50671462	PGR			0	032	4	3B		0		0					WE	3B	
67	SU50521451	PGR			0	039	4	3A		0		0					WE	3A	
68	SU48351540	PGR			030	058	3	2		0		0					WE	2	
69	SU48451495	PGR			0	043	4	3A		0		0					WE	3A	
70	SU48361485	STB			023	023	4	3A		0		0					WE	3A	
71	SU48301470	PGR			0	035	4	3A		0		0					WE	3A	
72	SU48501530	PGR			0	027	4	3B		0		0					WE	3B	
73	SU48851475	PGR			0	029	4	3B		0		0					WE	3B	
74	SU48651530	PGR			0	022	4	3B		0		0					WE	3B	
75	SU47251590	PGR			0	025	4	3B		0		0					WE	3B	
76	SU47151580	PGR			0	025	4	3B		0		0					WE	3B	
77	SU47251565	PGR			055	070	2	1	137	29	122	20	2				DR	2	
78	SU47201530	PGR			027	041	4	3A		0		0					WE	3A	
79	SU47481530	PGR			0	039	4	3A		0		0					WE	3A	
80	SU47561521	PGR			045	075	2	1		0		0						1	
81	SU48151736	PGR			0	055	3	3A		0		0					WE	3A	
82	SU48031700	PGR			0	035	4	3B		0		0					WE	3B	

SAMPLE NO.	GRID REF	ASPECT USE	GRDNT	GLEY	SPL	--WETNESS-- CLASS	GRADE	-WHEAT- AP	MB	-POTS- AP	MB	M.REL DRT	FLOOD	EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
83	SU48301700	PGR		0	027	4	3B		0		0					WE	3B	
84	SU48251742	PGR		0	028	4	3B		0		0					WE	3B	
85	SU48461732	PGR		0	048	3	3A		0		0					WE	3A	
86	SU48401750	PGR		0	035	4	3B		0		0					WE	3B	
87	SU47801756	PGR		0	036	4	3B		0		0					WE	3B	
88	SU48021740	STR		026	055	3	3A		0		0					WE	3A	
89	SU47801746	NUR		045		1	1		0		0					DR	2	IMPEN 75
90	SU48061761	STB		0	050	3	3A		0		0					WE	3A	
91	SU47901785	PGR		0	028	4	3B		0		0					WE	3B	
92	SU48151810	PGR		0	040	4	3B		0		0					WE	3B	
93	SU48611792	PGR		0	024	4	3B		0		0					WE	3B	
94	SU48281815	PGR		0	053	3	3A		0		0					WE	3A	
95	SU48451810	NUR		0	029	4	3B		0		0					WE	3B	
96	SU48601812	PGR		0	050	3	3A		0		0					WE	3A	
97	SU48381771	PGR		0	037	4	3B		0		0					WE	3B	
98	SU48481785	PGR		0	029	4	3B		0		0					WE	3B	
99	SU48551760	PGR		0	029	4	3B		0		0					WE	3B	
100	SU48771762	PGR		0	045	4	3B		0		0					WE	3B	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
1	0-30	msl	10YR42 00						0	0	HR	2						
	30-50	scl	10YR44 00	10YR56 00	F				0	0		0		M				
	50-120	c	25Y 53 00	10YR58 00	M			Y	0	0		0		P			Y	
1P	0-35	msl	10YR43 00						6	0	HR	10						
	35-50	lms	10YR44 00						0	0	HR	10	MDCSAB VF	G				
	50-90	lms	10YR44 00						0	0		0	MDCSAB VF	G				
	90-120	ms	10YR76 00						0	0		0	WKMSAB VF	M				
2	0-35	msl	10YR42 00						0	0	HR	3						
	35-55	msl	10YR53 00	10YR56 00	C			Y	0	0		0		M				
	55-90	scl	25Y 52 00					Y	0	0		0		M				
	90-120	lms	25Y 52 62	10YR58 00	M			Y	0	0		0		G				
2P	0-29	mszl	10YR41 00	75YR46 00	C			Y	0	0	HR	2						
	29-36	scl	25Y 53 00	75YR58 00	M			Y	0	0	HR	1	MDCSAB FR	M				
	36-50	hcl	05G 62 00	75YR58 00	M			Y	0	0	HR	1	MDCSAB FM	M				
	50-62	hcl	05Y 62 00	75YR58 00	M			Y	0	0	HR	10	WKCSAB FM	P	Y		Y	
	62-120	c	05G 62 00	75YR58 00	M			Y	0	0	HR	1	MASSIV FM	P	Y		Y	
3	0-30	msl	10YR42 00						0	0	HR	2						
	30-45	scl	10YR42 00						0	0	HR	5		M				
	45-85	scl	10YR54 00						0	0	HR	5		M				
	85-120	lms	75YR56 00						0	0	HR	5		G				
4	0-35	mcl	10YR53 00	75YR58 00	F				0	0	HR	1						
	35-48	hcl	10YR52 00	10YR58 00	C		00MN00 00	Y	0	0	HR	1		M				
	48-55	hcl	10YR54 00	10YR58 00	C		00MN00 00	S	0	0	HR	1		M				
	55-80	c	10YR53 00	75YR58 00	C		00MN00 00	Y	0	0	HR	1		P			Y	
	80-120	hcl	10YR54 00	10YR58 00	C		00	S	0	0	HR	1		M			Y	
5	0-30	hcl	10YR43 00						0	0		0						
	30-50	hcl	10YR43 44						0	0		0		M				
	50-100	c	10YR54 00	00MN00 00	F				0	0		0		M				
6	0-35	mcl	10YR42 00						0	0		0						
	35-60	mcl	10YR44 00	10YR56 00	F		00MN00 00		0	0		0		M				
	60-90	hcl	25Y 62 63	10YR58 00	C			Y	0	0		0		M				
	90-120	hcl	25Y 61 62	10YR58 00	M			Y	0	0		0		M				
7	0-15	msl	10YR32 00						0	0	HR	2						
	15-40	msl	10YR32 00						0	0	HR	15		M				
	40-85	lms	10YR32 00						0	0	HR	15		G				
	85-95	msl	10YR53 00	75YR58 00	C			Y	0	0	HR	2		M				
	95-120	scl	10YR63 00	10YR58 00	C			Y	0	0	HR	2		P				
8	0-25	mszl	10YR52 00	10YR58 00	C			Y	0	0	HR	2						
	25-35	mcl	10YR52 00	10YR58 00	C			Y	0	0	HR	1		M				
	35-45	hcl	10YR52 00	10YR58 00	C			Y	0	0	HR	1		M				
	45-75	hcl	10YR52 00	10YR58 00	M			Y	0	0	HR	1		P	Y		Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC
9	0-35	mcl	25Y 53 00	10YR58 00	C			Y	0	0	HR	1						
	35-45	hcl	25Y 53 00	10YR58 00	C			Y	0	0	HR	1		M				
	45-70	c	10YR62 00	75YR58 00	M			Y	0	0	HR	1		P	Y		Y	
10	0-30	msl	10YR42 43						1	0	HR	2						
	30-55	lms	10YR53 54						0	0	HR	1		G				
	55-120	msl	10YR43 00	75YR58 00	C			S	0	0	HR	1		M				
11	0-30	mszl	10YR42 00	10YR58 00	C			Y	0	0	HR	2						
	30-55	msl	10YR52 00	10YR58 00	C			Y	0	0	HR	1		M				
	55-65	scl	10YR52 00	10YR58 00	C			Y	0	0	HR	1		M				
	65-90	c	10YR62 00	75YR58 00	M			Y	0	0	HR	1		P	Y		Y	
12	0-30	mszl	10YR42 00						1	0	HR	2						
	30-55	mcl	10YR43 00						0	0	HR	1		M				
	55-63	hcl	10YR53 00	10YR58 00	C			Y	0	0	HR	1		M				
	63-120	c	10YR63 00	75YR58 00	M			Y	0	0	HR	1		P	Y		Y	
13	0-30	mcl	10YR42 00	10YR58 00	C			Y	2	0	HR	3						
	30-45	hcl	10YR53 00	10YR58 00	C			Y	0	0	HR	2		M				
	45-70	c	10YR63 00	75YR58 00	M			Y	0	0	HR	2		P	Y		Y	
14	0-30	mszl	10YR42 00						1	0	HR	2						
	30-40	mcl	10YR54 00						0	0	HR	1		M				
	40-65	msl	10YR54 00						0	0	HR	1		M				
	65-100	scl	10YR54 00	10YR58 00	C			S	0	0	HR	1		M				
	100-120	lms	10YR63 58						0	0	HR	1		M				
15	0-25	mcl	10YR42 00	10YR58 00	C			Y	0	0	HR	2						
	25-35	hcl	10YR52 00	10YR58 00	C			Y	0	0	HR	5		M				
	35-60	c	10YR62 00	75YR58 00	C			Y	0	0	HR	5		P	Y		Y	
16	0-28	mzcl	10YR52 00	75YR46 58	C			Y	1	0	HR	2						
	28-60	c	10YR62 00	75YR58 46	M			Y	0	0	HR	1		P	Y		Y	
17	0-25	mcl	10YR42 00						0	0	HR	5						
	25-70	c	25Y 63 00	10YR68 00	M			Y	0	0		0		P	Y		Y	
18	0-30	mcl	10YR42 00	10YR46 00	C			Y	0	0	HR	2						
	30-48	mcl	10YR42 00	10YR46 52	C			Y	0	0	HR	3		M				
	48-70	c	10YR63 00	75YR46 52	M			Y	0	0	HR	1		P	Y		Y	
19	0-30	mcl	10YR41 00	10YR56 00	C			Y	0	0		0						
	30-70	c	25Y 61 00	10YR68 00	M			Y	0	0	HR	5		P	Y		Y	
20	0-28	mcl	10YR42 41	10YR46 00	C			Y	0	0	HR	5						
	28-70	c	25Y 61 62	10YR58 00	M			Y	0	0	HR	5		P	Y		Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC
21	0-32	hcl	10YR42 00	10YR58 00	C			Y	0	0		0						
	32-70	c	10YR62 52	10YR68 00	M			Y	0	0		0		P	Y		Y	
22	0-25	mcl	10YR42 00	10YR58 61	C			Y	0	0		0						
	25-35	hcl	10YR52 00	10YR58 00	C			Y	0	0		0		P	Y		Y	
	35-70	c	10YR62 00	10YR68 72	C			Y	0	0		0		P	Y		Y	
23	0-25	hcl	10YR42 00	10YR58 00	C			Y	0	0		0						
	25-60	c	10YR62 00	10YR68 00	M			Y	0	0		0		P	Y		Y	
24	0-25	mcl	10YR42 00	10YR58 00	C			Y	0	0	HR	3						
	25-35	hcl	10YR52 00	75YR58 00	M			Y	0	0	HR	1		M				
	35-60	c	10YR62 00	75YR58 00	M			Y	0	0	HR	1		P	Y		Y	
25	0-20	hcl	10YR42 51	10YR58 00	C			Y	0	0		0						
	20-60	c	10YR62 00	10YR68 72	M			Y	0	0		0		P	Y		Y	
26	0-28	hcl	10YR42 00	10YR58 00	F				0	0	HR	1						
	28-35	hzcl	10YR61 00	75YR58 00	M			Y	0	0	HR	1		M				
	35-45	c	10YR61 00	75YR58 00	M			Y	0	0	HR	1		P	Y			
	45-55	lms	10YR54 00					Y	0	0	HR	1		G				
	55-75	c	10YR61 00	75YR58 00	M			Y	0	0	HR	1		P	Y		Y	
27	0-25	msl	10YR54 00						0	0	HR	1						
	25-55	lms	10YR54 00						0	0	HR	1		M				
	55-80	msl	10YR56 00						0	0	HR	1		M				
	80-120	lms	10YR66 00						0	0	HR	1		G				
28	0-30	mszl	10YR42 00						0	0	HR	1						
	30-68	msl	10YR43 00						0	0	HR	1		M				
	68-80	c	10YR52 00	10YR58 00	M			Y	0	0	HR	1		P	Y		Y	
29	0-30	mcl	10YR42 00	10YR58 00	C			Y	1	0	HR	2						
	30-55	c	11YR52 00	10YR58 00	C			Y	0	0	HR	1		M				
	55-70	c	10YR62 00	75YR46 00	M			Y	0	0	HR	1		P	Y		Y	
30	0-30	hcl	10YR42 51						0	0		0						
	30-37	c	10YR42 52	10YR58 00	C			Y	0	0		0		P	Y		Y	
	37-70	c	10YR62 00	10YR68 74	M			Y	0	0		0		P	Y		Y	
31	0-25	mszl	25Y 41 00	10YR58 00	C			Y	0	0		0						
	25-45	scl	05G 62 00	10YR58 00	M			Y	0	0		0		M				
	45-90	c	05G 62 00	75YR58 00	M			Y	0	0		0		P	Y		Y	
	90-120	sc	05G 62 00	05YR58 00	M			Y	0	0		0		P	Y		Y	
32	0-25	fszl	10YR42 00						0	0		0						
	25-35	mcl	10YR53 00	10YR56 00	C			Y	0	0		0		M				
	35-100	c	25Y 53 00	10YR68 00	M			Y	0	0		0		P	Y		Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
33	0-35	mcl	10YR42 00	75YR46 00	C			Y	0	0	HR	1							
	35-60	c	05Y 52 00	75YR58 00	M			Y	0	0	HR	1		P	Y		Y		
34	0-28	hcl	10YR42 00	75YR58 00	M			Y	0	0	HR	1							
	28-60	c	10YR62 00	10YR58 00	M			Y	0	0	HR	2		P	Y		Y		
35	0-28	hcl	10YR52 00	75YR46 00	M			Y	0	0	HR	2							Q SPL FROM TOPSOIL
	28-60	c	10YR61 00	10YR58 00	M			Y	0	0	HR	1		P	Y		Y		
36	0-28	mcl	10YR42 00	75YR58 00	M				0	0	HR	1							
	28-40	mcl	10YR62 00	75YR58 00	M			Y	0	0	HR	1		M					
	40-70	c	05 Y52 00	75YR58 00	M			Y	0	0	HR	1		P	Y		Y		
37	0-28	mcl	10YR42 00	10YR58 00	C			Y	0	0	HR	1							
	28-48	scl	25Y 52 00	10YR58 00	C			Y	0	0	HR	1		M					
	48-70	c	05 Y52 00	10YR88 00	M			Y	0	0	HR	1		P	Y		Y		
38	0-30	mcl	10YR42 00						0	0	HR	3							
	30-40	msl	10YR42 43						0	0		0							
	40-55	hcl	10YR52 62	10YR68 00	C			Y	0	0	HR	10		M					
	55-80	c	10YR62 00	10YR68 00	M			Y	0	0		0		P	Y		Y		
39	0-25	mcl	10YR42 00	10YR58 00	C			Y	0	0		0							
	25-42	hcl	10YR42 52	10YR68 00	C			Y	0	0		0							
	42-70	c	10YR62 00	10YR68 61	M			Y	0	0		0		P	Y		Y		
40	0-30	msl	10YR42 00						0	0	HR	2							
	30-50	lms	10YR52 62	10YR68 00	C			Y	0	0		0		M					
	50-60	hcl	10YR52 00	10YR68 00	C			Y	0	0		0		M					
	60-80	c	10YR62 00	10YR68 00	M			Y	0	0		0		P	Y		Y		
41	0-25	mszl	10YR41 00						0	0	HR	2							
	25-39	msl	10YR54 00						0	0	HR	2		M					
	39-70	msl	10YR52 00	10YR56 00	C			Y	0	0		0		M					
	70-110	mszl	25Y 52 00	10YR66 00	M			Y	0	0		0		M					
	110-120	c	05Y 51 00	10YR58 00	M			Y	0	0		0		P	Y		Y		
42	0-25	mcl	05G 51 00	10YR46 00	C			Y	0	0	HR	2							
	25-45	mcl	05Y 51 00	10YR46 00	M			Y	0	0		0		M					
	45-80	c	05Y 51 00	10YR68 00	M			Y	0	0		0		P	Y		Y		
43	0-25	msl	10YR42 43						0	0		0							
	25-55	msl	25Y 51 52	10YR46 00	F				0	0		0		M					
	55-120	c	25Y 61 00	10YR68 00	M			Y	0	0		0		P	Y		Y		
44	0-30	mcl	10YR42 00						0	0		0							
	30-45	scl	10YR41 51	10YR46 00	F			Y	0	0		0		M					
	45-70	mszl	10YR53 00	10YR56 00	C			Y	0	0		0		M					
	70-120	c	05Y 53 00	10YR58 00	M			Y	0	0		0		P	Y		Y		

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
45	0-30	msz1	10YR42 43						0	0	HR	3						
	30-45	msz1	10YR53 54	10YR56 00	C			Y	0	0		0		M				
	45-65	hcl	25Y 53 00	10YR56 00	M			Y	0	0	HR	10		M				
	65-120	c	05G 62 00	10YR68 00	M			Y	0	0		0		P	Y		Y	
46	0-30	msl	10YR41 51	10YR46 56	F				0	0		0						
	30-45	msl	10YR52 62	10YR46 56	C			Y	0	0		0		M				
	45-55	scl	05BG51 00	10YR58 00	M			Y	0	0		0		M				
	55-120	hcl	05G 62 00	10YR58 00	M			Y	0	0		0		M				
47	0-32	mcl	10YR41 00	10YR58 00	C			Y	0	0	HR	1						
	32-60	c	05Y 52 00	10YR58 00	M			Y	0	0	HR	1		P	Y		Y	
48	0-29	mcl	10YR42 00	10YR58 00	C			Y	0	0	HR	1						
	29-70	c	05Y 52 00	10YR58 00	M			Y	0	0	HR	1		P	Y		Y	
49	0-30	mcl	10YR42 00						0	0	HR	2						
	30-65	c	10YR62 00	75YR58 00	M		10YR51 00	Y	0	0		0		P	Y		Y	
50	0-37	mcl	10YR43 00						0	0		0						
	37-50	hcl	10YR53 00	75YR58 00	C			Y	0	0		0		M				
	50-75	c	10YR52 00	75YR58 00	M			Y	0	0		0		P	Y		Y	
51	0-35	mcl	10YR43 00						0	0		0						
	35-65	c	10YR62 00	75YR68 00	M			Y	0	0		0		P	Y		Y	
52	0-32	mcl	10YR42 00	10YR58 00	C			Y	0	0		0						
	32-65	c	10YR62 00	75YR56 00	M		10YR61 00	Y	0	0		0		P	Y		Y	
53	0-27	msl	10YR41 00						3	0	HR	5						
	27-42	msl	05 Y62 00	75YR56 58	M			Y	0	0	HR	3		M				
	42-70	c	05 Y62 00	75YR56 00	M			Y	0	0		0		P	Y		Y	
54	0-35	msl	10YR43 00						3	0	HR	5						
	35-45	msl	10YR72 00	10YR58 00	C			Y	0	0	HR	3		M				
	45-80	c	10YR62 00	75YR58 00	M			Y	0	0		0		P	Y		Y	
55	0-28	mcl	10YR43 00						2	0	HR	5						
	28-65	c	05 Y42 00	75YR56 00	M		05GY41 00	Y	0	0		0		P	Y		Y	
56	0-26	mcl	10YR42 00	10YR46 00	C			Y	0	0		0						
	26-55	hcl	25 Y62 00	10YR58 00	C			Y	0	0		0		M				
	55-75	c	05 Y62 00	75YR56 00	M			Y	0	0		0		P	Y		Y	
57	0-28	mcl	10YR42 00	10YR58 00	C			Y	0	0		0						
	28-65	c	10YR62 00	75YR58 00	M			Y	0	0		0		P	Y		Y	
58	0-26	mcl	10YR42 00	10YR58 00	C		10YR61 00	Y	0	0		0						
	26-70	c	25 Y62 00	75YR68 00	M			Y	0	0		0		P	Y		Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC
59	0-30	msl	10YR42 00	10YR58 00	C			Y	0	0		0						
	30-50	msl	10YR42 00	10YR58 00	C			Y	0	0		0		M				
	50-60	hcl	10YR52 00	10YR58 00	C			Y	0	0		0		M				
	60-120	c	10YR62 63	10YR68 00	C			Y	0	0		0		P			Y	
60	0-25	mcl	10YR42 43	10YR58 00	C			Y	0	0		0						
	25-70	c	25Y 63 00	10YR68 71	M			Y	0	0		0		P			Y	
61	0-27	msl	10YR42 41	10YR58 00	C			Y	0	0		0						
	27-65	c	05Y 52 00	75YR58 63	M			Y	0	0		0		P			Y	
62	0-23	mcl	10YR42 00	10YR58 61	C			Y	0	0		0						
	23-70	c	10YR52 00	75YR68 62	M			Y	0	0		0		P			Y	
63	0-22	mcl	10YR42 00	10YR58 00	C			Y	0	0		0						
	22-35	hcl	10YR62 00	10YR68 00	C			Y	0	0		0		M				
	35-70	c	10YR63 72	10YR68 71	M			Y	0	0		0		P			Y	
64	0-29	mcl	10YR42 00	10YR58 61	C			Y	0	0		0						
	29-70	c	10YR62 00	10YR68 71	M			Y	0	0		0		P			Y	
65	0-29	mcl	10YR42 00	10YR58 00	C			Y	0	0		0						
	29-41	scl	10YR72 00	10YR68 71	M			Y	0	0		0		M				
	41-70	c	10YR63 00	10YR68 73	M			Y	0	0		0		P			Y	
66	0-22	mcl	10YR42 00	10YR58 61	C			Y	0	0		0						
	22-32	scl	10YR72 00	10YR68 71	M			Y	0	0		0		M				
	32-70	c	10YR62 00	10YR68 71	M			Y	0	0		0		P			Y	
67	0-22	msl	10YR42 00	10YR58 00	C			Y	0	0		0						
	22-39	lms	05Y 72 00	10YR68 00	C			Y	0	0		0		M				
	39-60	c	05Y 52 00	75YR68 63	M			Y	0	0		0		P			Y	
68	0-30	msl	10YR42 00						0	0		0						
	30-46	msl	10YR42 00	10YR58 00	C			Y	0	0		0		M				
	46-58	scl	10YR72 00	10YR58 00	C			Y	0	0		0		M				
	58-80	c	25Y 52 00	75YR68 62	C			Y	0	0		0		P			Y	
69	0-23	msl	10YR42 41	10YR58 00	C			Y	0	0		0						
	23-43	mcl	10YR42 00	10YR58 00	C			Y	0	0		0		M				
	43-70	c	25Y 52 00	75YR58 62	C			Y	0	0		0		P			Y	
70	0-23	msl	10YR31 00						0	0		0						
	23-70	c	10YR62 00	75YR68 61	C			Y	0	0		0		P			Y	
71	0-25	msl	10YR31 00	10YR58 00	C			Y	0	0		0						
	25-35	hcl	10YR52 00	10YR58 00	C			Y	0	0		0		M				
	35-70	c	10YR72 00	10YR68 71	M			Y	0	0		0		P			Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC
72	0-27	mcl	10YR42 52	10YR56	00	M		Y	0	0		0						
	27-70	c	25Y 52 00	10YR68	00	M		Y	0	0		0		P			Y	
73	0-29	mcl	10YR52 00	10YR58	00	M		Y	0	0		0						
	29-70	c	25Y 52 00	10YR68	00	M		Y	0	0		0		P			Y	
74	0-22	mcl	10YR41 42	10YR58	00	C		Y	0	0		0						
	22-70	c	10YR62 00	10YR68	71	M		Y	0	0		0		P			Y	
75	0-15	mzcl	25Y 42 00	75YR46	00	C		Y	0	0		0						
	15-25	mcl	05Y 51 00	75YR58	00	C		Y	0	0		0		M				
	25-60	c	05Y 62 00	75YR78	00	C		Y	0	0		0		P			Y	
76	0-18	mzcl	25Y 42 00	75YR46	00	C		Y	0	0		0						
	18-25	hcl	05Y 51 00	75YR58	68	C		Y	0	0		0		M				
	25-60	c	25Y 62 00	75YR78	00	C		Y	0	0		0		P			Y	
77	0-35	fsl	10YR43 00						0	0		0						
	35-55	fsl	10YR44 00						0	0		0		M				
	55-70	lfs	10YR42 00	10YR58	00	C		Y	0	0		0		M				
	70-100	c	10YR53 00	75YR58	00	C		Y	0	0		0		P			Y	
78	0-27	msl	10YR43 00						0	0		0						
	27-41	scl	10YR53 00	10YR68	00	C		Y	0	0		0		M				
	41-70	c	05Y 62 00	10YR68	71	M		Y	0	0		0		P			Y	
79	0-26	msl	10YR42 43	10YR58	00	C		Y	0	0		0						
	26-39	scl	10YR72 00	10YR68	00	C		Y	0	0		0		M				
	39-70	c	05Y 62 00	10YR68	71	M		Y	0	0		0		P			Y	
80	0-30	msl	10YR42 00						0	0		0						
	30-45	msl	10YR42 00						0	0		0						
	45-75	scl	10YR72 00	10YR68	00	C		Y	0	0		0						
	75-100	c	05Y 62 00	10YR68	71	M		Y	0	0		0		P			Y	
81	0-26	mcl	10YR42 00	10YR58	61	C		Y	0	0		0						
	26-55	hcl	10YR53 00	10YR68	00	C		Y	0	0		0		M				
	55-80	c	05Y 62 00	10YR68	71	M		Y	0	0		0		P			Y	
82	0-29	mcl	10YR42 43	10YR58	61	M		Y	0	0		0						
	29-35	hcl	10YR52 00	10YR58	61	C		Y	0	0		0		M				
	35-70	c	05Y 62 00	10YR68	71	M		Y	0	0		0		P			Y	
83	0-27	mcl	10YR42 43	10YR58	61	C		Y	0	0		0						
	27-65	c	10YR52 53	10YR68	71	M		Y	0	0		0		P			Y	
84	0-28	mcl	10YR42 43	10YR58	61	C		Y	0	0		0						
	28-65	c	05Y 62 00	75YR58	72	C		Y	0	0		0		P			Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
85	0-30	mcl	10YR42 43	10YR58 61	C			Y	0	0		0						
	30-48	scl	10YR52 53	10YR58 00	C			Y	0	0		0		M				
	48-70	c	05Y 62 00	10YR68 71	M			Y	0	0		0		P			Y	
86	0-26	mcl	10YR42 43	10YR58 61	C			Y	0	0		0						
	26-35	scl	10YR52 53	10YR58 61	C			Y	0	0		0		M				
	35-70	c	05Y 62 00	10YR68 71	M			Y	0	0		0		P			Y	
87	0-27	mcl	10YR42 43	10YR58 00	C			Y	0	0		0						
	27-36	mcl	10YR52 00	10YR58 61	C			Y	0	0		0		M				
	36-65	c	05Y 62 00	10YR68 71	M			Y	0	0		0		P			Y	
88	0-26	mcl	10YR42 43	10YR58 00	F				0	0		0						
	26-40	mcl	10YR52 00	10YR58 61	C			Y	0	0		0		M				
	40-55	scl	10YR52 72	10YR58 00	C			Y	0	0		0		M				
	55-75	c	05Y 62 00	10YR68 71	M			Y	0	0		0		P			Y	
89	0-26	mcl	10YR43 00						0	0	HR	3						
	26-45	mcl	10YR53 00	10YR58 00	F				0	0		0						
	45-75	scl	10YR52 72	10YR68 00	C			Y	0	0		0		M				
90	0-26	mcl	10YR42 43	10YR58 00	C			Y	0	0		0						
	26-50	mcl	10YR52 00	10YR58 61	C			Y	0	0		0		M				
	50-75	c	10YR62 00	10YR68 71	M			Y	0	0		0		P			Y	
91	0-28	mcl	10YR42 00	10YR58 61	C			Y	0	0		0						
	28-65	c	05Y 62 00	10YR68 71	M			Y	0	0		0		P			Y	
92	0-29	mcl	10YR42 00	10YR58 61	C			Y	0	0		0						
	29-40	mcl	10YR52 00	10YR58 61	C			Y	0	0		0		M				
	40-70	c	05Y 62 00	10YR68 71	M			Y	0	0		0		P			Y	
93	0-24	mcl	10YR42 00	10YR58 61	C			Y	0	0		0						
	24-65	c	05Y 62 00	10YR68 71	M			Y	0	0		0		P			Y	
94	0-26	mcl	10YR42 00	10YR58 61	C			Y	0	0		0						
	26-53	mcl	10YR52 53	10YR58 61	C			Y	0	0		0		M				
	53-75	c	05Y 62 00	10YR68 71	M			Y	0	0		0		P			Y	
95	0-29	mcl	10YR42 52	10YR58 61	C			Y	0	0		0						
	29-65	c	10YR52 00	10YR58 61	C			Y	0	0		0		P			Y	
96	0-27	mcl	10YR42 00	10YR58 00	C			Y	0	0		0						
	27-50	mcl	10YR53 00	10YR58 00	C			Y	0	0		0		M				
	50-75	c	10YR62 00	10YR68 71	M			Y	0	0		0		P			Y	
97	0-24	mcl	10YR42 00	10YR58 61	C			Y	0	0		0						
	24-37	mcl	10YR52 00	10YR58 61	C	00MN00	00	Y	0	0		0		M				
	37-70	c	05Y 62 00	10YR68 71	M			Y	0	0		0		P			Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- COL	ABUN	CONT	PED COL.	GLEY	----STONES---- >2	>6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
98	0-29	mcl	10YR42 00	10YR58	61	C		Y	0	0		0						
	29-65	c	05Y 62 00	10YR68	71	M		Y	0	0		0		P			Y	
99	0-29	mcl	10YR42 00	10YR58	61	C		Y	0	0		0						
	29-80	c	10YR52 00	75YR58	00	M	10YR62 00	Y	0	0		0		P			Y	
100	0-22	mcl	10YR42 00	75YR46	00	C		Y	0	0		0						
	22-35	mcl	10YR53 00	75YR58	00	C	10YR62 00	Y	0	0		0		M				
	35-45	hcl	10YR53 00	10YR58	00	C		Y	0	0		0		M				
	45-80	c	10YR53 00	75YR68	00	C		Y	0	0		0		P			Y	