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BERKSHIRE MINERALS PLAN
OMMISSION SITE 14A
ARBORFIELD ROAD/BURLEY LODGE FARM
SHINFIELD, BERKSHIRE
AGRICULTURAL LAND CLASSIFICATION
ALC MAP & REPORT
AUGUST, 1993

BERKSHIRE MINERALS PLAN : OMMISSION SITE 14A
LAND AT ARBORFIELD ROAD/BURLEY LODGE FARM, SHINFIELD, BERKSHIRE
AGRICULTURAL LAND CLASSIFICATION REPORT

1.0 Summary

1.1 In August, 1993, a detailed Agricultural Land Classification (ALC) was made on approximately 115 hectares of land south of Shinfield on the western edge of the River Loddon floodplain.

1.2 The work was conducted by members of the Resource Planning Team in the Guildford Statutory Group of ADAS in response to a commission by MAFF's Land Use Planning Unit to provide information on the quality of agricultural land affected by an objection to the non-inclusion of this land in the Berkshire Minerals Plan.

1.3 The classification has been made using MAFF's revised guidelines and criteria for grading the quality of agricultural land. 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.

1.4 The fieldwork was carried out with an observation density of approximately one per hectare. A total of 91 borings and 7 soil pits was examined.

1.5 Table 1 provides the details of the grades and sub-grades found across the site. The majority of the land is classified as Sub-grade 3B with three central blocks of better quality land, Sub-grade 3A. The poorer land is downgraded on the basis of soil wetness and soil droughtiness with soil droughtiness also being the main limitation on the 3A land. Heavy alluvial soils lie adjacent to the River Loddon with poorly structured clay subsoils; further away from the River stony subsoils occur. Depending on the stoniness of the lower horizons there is a moderate or significant droughtiness limitation.

Table 1 : Distribution of Grades and Sub-grades

Grade	Area (ha)	%of Agricultural Area	% of Site
3A	35.2	30.8	32.6
3B	72.7	63.4	67.3
Non-agric.	2.8	2.4	100% (107.9 ha)
Urban	0.4	0.3	
Farm Buildings	1.3	1.1	
Woodland	2.3	2.0	
TOTAL	114.7 ha	100%	

1.6 The ALC information is presented at a scale of 1:10,000; it is accurate at this level but any enlargement would be misleading. This map supercedes any previous ALC information for this site.

1.7 A general description of the grades and sub-grades is provided as an appendix. 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.

2.0 Climate

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

2.2 The main parameters used in the assessment of the overall climatic limitation are annual average 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. The details are given in the table below and these show that there is no overall climatic limitation affecting the site.

2.4 No local climatic factors such as exposure or frost risk affect the site.

Table 2 : Climatic Interpolations

Grid Reference :	SU636694
Altitude (m) :	50
Accumulated Temperature (days) :	1470
Average Annual Rainfall (mm) :	689
Field Capacity (days) :	144
Moisture Deficit, Wheat (mm) :	113
Moisture Deficit, Potatoes (mm) :	107
Overall Climatic Grade :	1

3.0 Relief

3.1 The site occupies the western margin of the River Loddon floodplain between 45-50 metres.

4.0 Geology and Soil

4.1 The relevant geological sheet for the site shows the underlying geology to be Alluvium on the land adjacent to the River Loddon with Valley Gravel further west.

4.2 Heavy clay soils occur on the Alluvium with much lighter but stonier soils on the Valley Gravel.

5.0 Agricultural Land Classification

5.1 Table 1 provides the details of the area measuements for each grade and the distribution of each grade is shown on the attached ALC map.

5.2 The location of the soil observation points is shown on the attached sample point map.

5.3 Sub-grade 3A

5.3.1 The site was surveyed during extremely dry conditions and, given the stony nature of most of the soils, augering to depth proved difficult. The auger was often stopped at shallow depths by the presence of stones of varying percentages.

A number of soil pits were described across the site and the final grades were derived by extrapolation from these and by tieing them in with those borings that were described to depth.

5.3.2 Pits 1,3 and 5 typify the range of soils that exist in this grade and actually show individual descriptions that are better than 3A. Across the site, however, the soil resource is deemed to be quite variable over short distances and Sub-grade 3A is believed to be the appropriate classification, though it may be conservative in places.

5.3.3 Most of the soils exhibit light topsoil textures (Medium Sandy Loam) overlying heavier upper and lower subsoils of Heavy Clay Loam or Sandy Clay Loam, though occasionally lighter. Subsoil stone contents vary significantly. Pit 1, for example, contains subsoil contents of approximately 30% hard rock, but Pits 3 and 5 are relatively stone-free although nearby borings are again impenetrable to the auger at shallow depths.

5.3.4 Evidence of gleying is often found within 40 cm but the subsoils are not slowly permeable. The soils were very dry throughout the profile at the time of survey and, therefore, it is difficult to estimate the degree of wetness that there may be in the profile within 40 cm at critical times of the season as a result of any groundwater problem. The soils have been placed in Wetness Class II and this is not seen to be an active limitation to the grading of the land.

5.3.5 No detailed information on flooding was available at the time of survey.

5.3.6 Soils in this map unit are at least at the upper range of 3A with soil droughtiness as the main physical limitation. The degree of stoniness in Pit 3 restricts the amount of available water in the profile for extraction by roots. This water restriction limits the range of crops that can tolerate such conditions.

5.4 Sub-grade 3B

5.4.1 The majority of the site has been placed in this grade with a mixture of soil wetness and soil droughtiness affecting the final grading.

5.4.2 Pit 2 is typical of the wet soils that are found adjacent to the River Loddon. Heavy Silty Clay Loam topsoils overlie Silty Clay subsoils. The soils are clearly gleyed at shallow depths and the subsoils are slowly permeable, exhibiting Weakly Developed Angular Blocky structures and low within-ped porosity. These characteristics place the soil in Wetness Class IV and this, in combination with the heavy topsoil texture and the prevailing Field Capacity level (138 days) limits the land to Sub-grade 3B.

5.4.3 The wetness limitation reflects itself in a reduction in the range of crops that can tolerate such conditions and also in a restriction on the number of days when the soil is in a suitable condition for cultivation, trafficking by machinery or grazing by livestock.

5.4.4 Pits 4, 6 and 7 are typical of the soils that occur on the land away from the River and which experience a significant droughtiness limitation. Topsoils and subsoils are generally light in texture even with Loamy Coarse Sand and Coarse Sand in places in the lower subsoil. These sandy textures in combination with the high subsoil stone contents (30-50%) significantly restrict the amount of water available in the profile available for crops. As a result, the range of crops is greatly restricted.

5.4.5 Only limited evidence of soil wetness was observed in these profiles. The

soils are placed in Wetness Class I or II but this is not an active limitation on the final grading.

5.6 The areas marked as Non-agricultural include a recreation ground and farm tracks.

ADAS REFERENCE : 0206/133/93
MAFF REFERENCE : EL 20/430

Resource Planning Team
Guildford Statutory Group

APPENDIX I

DESCRIPTION OF THE GRADES AND SUB-GRADES

Grade 1 : Excellent Quality Agricultural Land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft, fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2 : Very Good Quality Agricultural Land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural or horticultural crops can usually be grown but on some land on the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

Grade 3 : Good To Moderate Quality Agricultural Land

Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. When more demanding crops are grown yields are generally lower or more variable than on land in grades 1 and 2.

Sub-grade 3A : Good Quality Agricultural Land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Sub-grade 3B : Moderate Quality Agricultural Land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass, or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4 : Poor Quality Agricultural Land

Land with severe limitations which significantly restrict the range of crops and/or the level of yields. It is mainly suited to grass with occasional arable crops (eg. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. the grade also includes very droughty arable land.

Grade 5 : Very Poor Quality Agricultural Land

Land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

Urban

Built-up or 'hard' uses with relatively little potential for a return to agriculture : housing, industry, commerce, education, transport, religious buildings, cemeteries. Also, hard-surfaced sports facilities, permanent caravan sites and vacant land; all types of derelict land, including mineral workings which are only likely to be reclaimed using derelict land grants.

Non-agricultural

'Soft' uses where most of the land could be returned relatively easily to agriculture, including : private parkland, public open spaces, sports fields, allotments and soft-surfaced areas on airports/airfields. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

Woodland

Includes commercial and non-commercial woodland.

Agricultural Buildings

Includes the normal range of agricultural buildings as well as other relatively permanent structures such as glasshouses. Temporary structures (eg. polythene tunnels erected for lambing) may be ignored.

Open Water

Includes lakes, ponds and rivers as map scale permits.

Land Not Surveyed

Agricultural land which has not been surveyed.

Where the land use includes more than one of the above, eg. buildings in large grounds, and where map scale permits, the cover types may be shown separately. Otherwise, the most extensive cover type will be shown.

APPENDIX II

REFERENCES

* 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.

* British Geological Survey (1946), Sheet No.268, Reading, 1:63,360

APPENDIX III

DEFINITION OF SOIL WETNESS CLASSES

Wetness Class I

The soil profile is not wet within 70cm depth for more than 30 days in most years.

Wetness Class II

The soil profile is wet within 70cm depth for 31-90 days in most years **or**, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 90 days, but not wet within 40cm depth for more than 30 days in most years.

Wetness Class III

The soil profile is wet within 70cm depth for 91-180 days in most years **or**, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 180 days, but only wet within 40cm depth for 31-90 days in most years.

Wetness Class IV

The soil profile is wet within 70cm depth for more than 180 days but not wet within 40cm depth for more than 210 days in most years **or**, if there is no slowly permeable layer within 80cm depth, it is wet within 40cm depth for 91-210 days in most years.

Wetness Class V

The soil profile is wet within 40cm depth for 211-335 days in most years.

Wetness Class VI

The soil profile is wet within 40cm depth for more than 335 days in most years.

(The number of days is not necessarily a continuous period. 'In most years' is defined as more than 10 out of 20 years.)

APPENDIX IV

SOIL PIT AND SOIL BORING DESCRIPTIONS

Contents :

SOIL PROFILE DESCRIPTIONS : EXPLANATORY NOTE

Soil pit and auger boring information collected during ALC fieldwork is held on a database. This has commonly used notations and abbreviations as set out below.

Boring Header Information

1. **GRID REF** : national grid square and 8 figure grid reference.

2. **USE** : Land use at the time of survey. The following abbreviations are used.

ARA : Arable **WHT** : Wheat **BAR** : Barley **CER** : Cereals **OAT** : Oats **MZE** : Maize **OSR** : Oilseed rape
BEN : Field Beans **BRA** : Brassicae **POT** : Potatoes **SBT** : Sugar Beet **FCD** : Fodder Crops **LIN** : Linseed
FRT : Soft and Top Fruit **HRT** : Horticultural Crops **PGR** : Permanent Pasture **LEY** : Ley Grass **RGR** : Rough Grazing
SCR : Scrub **CFW** : Coniferous Woodland **DCW** : Deciduous Woodland **HTH** : Heathland **BOG** : Bog or Marsh
FLW : Fallow **PLO** : Ploughed **SAS** : Set aside **OTH** : Other

3. **GRDNT** : Gradient as measured by a hand-held optical clinometer.

4. **GLEY/SPL** : Depth in cm to gleying or slowly permeable layers.

5. **AP (WHEAT/POTS)** : Crop-adjusted available water capacity.

6. **MB (WHEAT/POTS)** : Moisture Balance.

7. **DRT** : Best grade according to soil droughtiness.

8. If any of the following factors are considered significant, an entry of 'Y' will be entered in the relevant column.

MREL : Microrelief limitation **FLOOD** : Flood risk **EROSN** : Soil erosion risk **EXP** : Exposure limitation **FROST** : Frost
DIST : Disturbed land **CHEM** : Chemical limitation

9. **LIMIT** : The main limitation to land quality. The following abbreviations are used.

OC : Overall Climate **AE** : Aspect **EX** : Exposure **FR** : Frost Risk **GR** : Gradient **MR** : Microrelief
FL : Flood Risk **TX** : Topsoil Texture **DP** : Soil Depth **CH** : Chemical **WE** : Wetness **WK** : Workability
DR : Drought **ER** : Soil Erosion Risk **WD** : Combined Soil Wetness/Droughtiness **ST** : Topsoil Stoniness

Soil Pits and Auger Borings

1. **TEXTURE** : soil texture classes are denoted by the following abbreviations.

S : Sand **LS** : Loamy Sand **SL** : Sandy Loam **SZL** : Sandy Silt Loam **CL** : Clay Loam **ZCL** : Silty Clay Loam
SCL : Sandy Clay Loam **C** : Clay **SC** : Sandy Clay **ZC** : Silty Clay **OL** : Organic Loam **P** : Peat **SP** : Sandy Peat
LP : Loamy Peat **PL** : Peaty Loam **PS** : Peaty Sand **MZ** : Marine Light Silts

For the sand, loamy sand, sandy loam and sandy silt loam classes, the predominant size of sand fraction will be indicated by the use of prefixes.

F : Fine (more than 66% of the sand less than 0.2mm)
M : Medium (less than 66% fine sand and less than 33% coarse sand)
C : Coarse (more than 33% of the sand larger than 0.6mm)

The clay loam and silty clay loam classes will be sub-divided according to the clay content.

M : Medium (< 27% clay) **H** : Heavy (27-35% clay)
2. **MOTTLE COL** : Mottle colour

3. **MOTTLE ABUN** : Mottle abundance, expressed as a percentage of the matrix or surface described.

F : few <2% **C** : common 2-20% **M** : many 20-40 **VM** : very many 40%+

4. **MOTTLE CONT** : Mottle contrast

F : faint - indistinct mottles, evident only on close inspection **D** : distinct - mottles are readily seen
P : prominent - mottling is conspicuous and one of the outstanding features of the horizon

5. **PED. COL** : Ped face colour

6. **STONE LITH** : One of the following is used.

HR : all hard rocks and stones **MSST** : soft, medium or coarse grained sandstone
SI : soft weathered igneous or metamorphic **SLST** : soft oolitic or dolimitic limestone
FSST : soft, fine grained sandstone **ZR** : soft, argillaceous, or silty rocks **CH** : chalk
GH : gravel with non-porous (hard) stones **GS** :gravel with porous (soft) stones

Stone contents (>2cm, >6cm and total) are given in percentages (by volume).

7. **STRUCT** : the degree of development, size and shape of soil peds are described using the following notation:

- degree of development **WK** : weakly developed **MD** : moderately developed **ST** : strongly developed

- ped size **F** : fine **M** : medium **C** : coarse **VC** : very coarse

- ped shape **S** : single grain **M** : massive **GR** : granular **AB** : angular blocky **SAB** : sub-angular blocky **PR** : prismatic **PL** : platy

8. **CONSIST** : Soil consistence is described using the following notation:

L : loose **VF** : very friable **FR** : friable **FM** : firm **VM** : very firm **EM** : extremely firm **EH** : extremely hard

9. **SUBS STR** : Subsoil structural condition recorded for the purpose of calculating profile droughtiness.

G : good **M** : moderate **P** : poor

10. **POR** : Soil porosity. If a soil horizon has less than 0.5% biopores >0.5 mm, a 'Y' will appear in this column.

11. **IMP** : If the profile is impenetrable a 'Y' will appear in this column at the appropiate horizon.

12. **SPL** : Slowly permeable layer. If the soil horizon is slowly permeable a 'Y' will appear in this column.

13. **CALC** : If the soil horizon is calcareous, a 'Y' will appear in this column.

14. Other notations

APW : available water capacity (in mm) adjusted for wheat
APP : available water capacity (in mm) adjusted for potatoes
MBW : moisture balance, wheat
MBP : moisture balance, potatoes

SOIL PIT DESCRIPTION

Site Name : BERKS.MINS.PLAN SITE 14A Pit Number : 1P

Grid Reference: SU730 664 Average Annual Rainfall : 671 mm
Accumulated Temperature : 1468 degree days
Field Capacity Level : 138 days
Land Use : Permanent Grass
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 29	MSL	10YR44 00	4	11		
29- 70	SCL	10YR52 00	0	30	C	
70-120	HCL	10YR52 00	0	35	C	

Wetness Grade : 1 Wetness Class : II
Gleying :029 cm
SPL : No SPL

Drought Grade : 3A APW : 115mm MBW : 1 mm
APP : 088mm MBP : -21 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : *Droughtiness*

SOIL PIT DESCRIPTION

Site Name : BERKS.MINS.PLAN SITE 14A Pit Number : 2P

Grid Reference: SU 3 Average Annual Rainfall : 671 mm
Accumulated Temperature : 1468 degree days
Field Capacity Level : 138 days
Land Use : Permanent Grass
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 14	HZCL	10YR41 00	0	0	C	
14- 60	ZC	10YR51 00	0	0	M	WDAMAB
60-120	GH	10YR44 00	0	0		

Wetness Grade : 3B Wetness Class : IV
Gleying :000 cm
SPL : No SPL

Drought Grade : 3B APW : 077mm MBW : -37 mm
APP : 082mm MBP : -27 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : BERKS.MINS.PLAN SITE 14A Pit Number : 3P

Grid Reference: SU7285662 Average Annual Rainfall : 671 mm
Accumulated Temperature : 1468 degree days
Field Capacity Level : 138 days
Land Use : Permanent Grass
Slope and Aspect : 01 degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 31	MSL	10YR52 00	7	10	C	
31- 66	HCL	10YR62 00	0	1	C	MDCSAB
66-120	HCL	05Y 63 00	0	0	C	

Wetness Grade : 1 Wetness Class : II
Gleying :000 cm
SPL : No SPL

Drought Grade : 2 APW : 148mm MBW : 34 mm
APP : 110mm MBP : 1 mm

FINAL ALC GRADE : 2
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : BERKS.MINS.PLAN SITE 14A Pit Number : 4P

Grid Reference: SU732 670
Average Annual Rainfall : 671 mm
Accumulated Temperature : 1468 degree days
Field Capacity Level : 138 days
Land Use : Permanent Grass
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 29	MSL	10YR33 00	2	5		MDMSB
29- 48	LMS	10YR33 00	0	10		MDMSB
48-120	MS	10YR54 00	0	30		SG

Wetness Grade : 1
Wetness Class : I
Gleying :000 cm
SPL : No SPL

Drought Grade : 3B
APW : 086mm MBW : -28 mm
APP : 073mm MBP : -36 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : BERKS.MINS.PLAN SITE 14A Pit Number : 5P

Grid Reference: SU736 673 Average Annual Rainfall : 671 mm
Accumulated Temperature : 1468 degree days
Field Capacity Level : 138 days
Land Use : Ley
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 20	MSZL	10YR54 00	1	1	C	MDMSB
20- 66	MZCL	10YR62 00	0	0	C	MDCSAB
66-110	SCL	10YR63 00	0	0	C	MDMSB
110-120	MSL	10YR73 00	0	0	C	

Wetness Grade : 1 Wetness Class : II
Gleying :000 cm
SPL : No SPL

Drought Grade : 1 APW : 177mm MBW : 63 mm
APP : 123mm MBP : 14 mm

FINAL ALC GRADE : 1
MAIN LIMITATION :

SOIL PIT DESCRIPTION

Site Name : BERKS.MINS.PLAN SITE 14A Pit Number : 6P

Grid Reference: SU738 6765 Average Annual Rainfall : 671 mm
Accumulated Temperature : 1468 degree days
Field Capacity Level : 138 days
Land Use : Ley
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 35	MSL	10YR52 00	1	13		MCSAB
35- 61	MSL	10YR53 00	0	32		
61- 72	LCS	10YR54 00	0	35		
72-120	CS	10YR54 00	0	50		

Wetness Grade : 1 Wetness Class : I
Gleying :000 cm
SPL : No SPL

Drought Grade : 3B APW : 089mm MBW : -25 mm
APP : 084mm MBP : -25 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Droughtiness

SOIL PIT DESCRIPTION

Site Name : BERKS.MINS.PLAN SITE 14A Pit Number : 7P

Grid Reference: SU732 661

Average Annual Rainfall : 671 mm
Accumulated Temperature : 1468 degree days
Field Capacity Level : 138 days
Land Use : Permanent Grass
Slope and Aspect : 01 degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 18	MSL	10YR42 00	6	13	F	
18- 50	MSL	10YR51 00	0	27	C	MSAB
50- 75	HCL	10YR61 00	0	10	C	CSAB

Wetness Grade : 1

Wetness Class : II
Gleying :000 cm
SPL : No SPL

Drought Grade : 3B

APW : 083mm MBW : -31 mm
APP : 089mm MBP : -20 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Droughtiness

AMPLE ID.	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
1	SU737 678	PP		000		1	1	031	-83	031	-78	4				DR	4	STNS-20
1P	SU730 664	PGR		029		2	1	115	1	088	-21	3A				DR	3A	
2	SU738 678	LEY		000		1	1	031	-83	031	-78	4				DR	3A	
2	SU 3	PGR		000		4	3B	077	-37	082	-27	3B				WE	3B	GH-60
3	SU739 678	PP		040		2	2	108	-6	122	13	3A				DR	3A	GH-70
3	SU7285662	PGR	01	000		2	1	148	34	110	1	2				DR	2	
4	SU740 678	PGR		030	045	3	3A	000	0	000	0					WE	3A	STNS-85
4P	SU732 670	PGR		000		1	1	086	-28	073	-36	3B				DR	3B	
5	SU741 678	PGR		000	020	4	3B	000	0	000	0					WE	3B	
5	SU736 673	LEY		000		2	1	177	63	123	14	1					1	
6P	SU738 6765	LEY		000		1	1	089	-25	084	-25	3B				DR	3B	
7	SU737 677	PP		000		1	1	031	-83	031	-78	4				DR	4	STNS-20
7	SU732 661	PGR	01	000		2	1	083	-31	089	-20	3B				DR	3B	
8	SU738 677	LEY		000		1	1	031	-83	031	-78	4				DR	3A	
9	SU739 677	PGR		040	040	3	3A	109	-5	117	8	3A				DR	3A	
10	SU 740677	PGR		010	030	4	3B	000	0	000	0					WE	3B	
11	SU 741677	PGR		025	025	4	3B	098	-16	105	-4	3A				WE	3B	GH-60
12	SU 742677	PGR		000	002	4	3B	000	0	000	0					WE	3B	
13	SU 737676	PP		000		1	1	031	-83	031	-78	4				DR	4	STNS-20
14	SU 738676	LEY		000		1	1	031	-83	031	-78	4				DR	3A	
15	SU 739676	PP		000	020	4	3B	000	0	000	0					WE	3B	
17	SU 741676	PGR		025	025	4	3B	000	0	000	0					WE	3B	
18	SU 742676	PGR		000	020	4	3B	000	0	000	0					WE	3B	
20	SU 737675	PP		070	070	2	1	106	-8	097	-12	3A				DR	3A	GH-85
21	SU7380675	LEY		000		1	1	031	-83	031	-78	4				DR	3A	
22	SU7390675	PP		030	030	4	3B	000	0	000	0					WE	3B	
24	SU741 675	PGR		010	010	4	3B	000	0	000	0					WE	3B	
28	SU736 674	HAY		035	065	3	2	154	40	118	9	2				WE	2	2-3A
29	SU7370674	PP		000		1	1	000	-114	000	-109	4				DR	4	STNS-20
30	SU738 674	LEY		000		1	1	039	-75	039	-70	4				DR	3A	
34	SU735 673	HAY		030	030	4	3B	131	17	121	12	2				WE	3B	GH-100
35	SU7360673	HAY		035		2	2	105	-9	116	7	3A				DR	3A	GH-65
38	SU737 673	PP		000		1	1	096	-18	102	-7	3A				DR	3A	GH-60
40	SU735 672	LEY		028	028	4	3B	000	0	000	0					WE	3B	
41	SU736 672	LEY		000		1	1	000	0	000	0					DR	3A	
42	SU737 672	PP		000		2	2	075	-39	075	-34	3B				DR	3B	GH-40
43	SU732 671	PGR		000		1	1	000	0	000	0						3A	
44	SU733 671	PGR		000		1	1	000	0	000	0					DR	3A	
45	SU734 671	PGR		000		1	1	000	0	000	0					DR	3A	
45A	SU734 671	LEY		035	035	4	3B	000	0	000	0					WE	3B	
46	SU735 671	LEY		042	042	3	3A	000	0	000	0					WE	3A	
47	SU736 671	PP		000	020	4	3B	000	0	000	0					WE	3B	

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
48	SU737 671	PP		000	010	4	3B	000	0	000	0					WE	3B	STNS-95
50	SU733 670	PP		000				000	0	000	0					DR	4	STNS-20
51	SU734 670	PP		000	030	4	3B	108	-6	115	6	3A				WE	3B	STNS-80
52	SU735 670	PP		000		1	1	000	0	000	0					DR	4	STNS-20
53	SU736 670	PP		000	025	4	3B	000	0	000	0					WE	3B	
54	SU737 670	LEY		000	020	4	3B	000	0	000	0					WE	3B	4
55	SU731 669	PGR		000		1	1	000	0	000	0					DR	3A	
56	SU732 669	PGR		000		1	1	071	-43	071	-38	3B				DR	3B	
57	SU733 669	PP		000		1	1	031	-83	031	-78	4				DR	4	STNS-20
58	SU734 669	PP		030	040	3	3A	090	-24	096	-13	3B				DR	3B	STNS-60
59	SU735 669	SET		000	018	4	3B	000	0	000	0					WE	3B	4
60	SU736 669	LEY		000	025	4	3B	000	0	000	0					WE	3B	4
61	SU737 669	PGR		000		1	1	028	-86	028	-81	4				DR	3A	
63	SU732 668	PGR		000		1	1	000	0	000	0					DR	3A	
64	SU733 668	NAG		030	045	3	3A	000	0	000	0					WE	3A	GH-80
65	SU734 668	NAG		065		1	1	110	-4	112	3	3A				DR	3A	GH-80
66	SU735 668	SET		000	018	4	3B	000	0	000	0					WE	3B	
67	SU736 668	LEY		000	018	4	3B	000	0	000	0					WE	3B	GWT 75
69	SU732 667	PGR		000		1	1	000	0	000	0					DR	3A	
70	SU733 667	NAG		025	025	4	3B	152	38	114	5	2				WE	3B	
71	SU734 667	PP		020		1	1	061	-53	061	-48	4				DR	4	3A-4STNS
72	SU735 667	PGR		028		2	2	129	15	127	18	2				DR	2	
75	SU733 666	PP		020		1	1	094	-20	099	-10	3B				DR	3B	3A-3B
76	SU734 666	PP		025		1	1	108	-6	109	0	3A				DR	3A	GH-80
77	SU735 666	PGR		045		1	1	097	-17	101	-8	3A				DR	2	
78	SU736 666	PGR		000	025	4	3B	000	0	000	0					WE	3B	
79	SU732 665	PP		040		1	1	085	-29	090	-19	3B				DR	3B	3A-3B
80	SU733 665	PP		000		1	1	105	-9	115	6	3A				DR	3A	GH-65
81	SU734 665	PGR		000		1	1	029	-85	029	-80	4				DR	3A	
81A	SU7340665			000		1	1	160	46	126	17	1				DR	1	
84	SU730 664	PGR		000		1	1	028	-86	028	-81	4				DR	3A	DTA 20
85	SU731 664	PGR		000		1	1	035	-79	035	-74	4				DR	3B	
88	SU734 664	PGR		000		1	1	030	-84	030	-79	4				DR	3A	
89	SU735 664	PGR	01	000	020	4	3B	000	0	000	0					WE	3B	
90	SU728 663	PP	02	025	040	3	3A	000	0	000	0					WE	3A	
91	SU728 663	PP	01	000		1	1	045	-69	045	-64	4				DR	4	HR-30
92	SU729 663	PP		000		1	1	028	-86	028	-81	4				DR	4	HR-15
93	SU730 663	PP		000		1	1	031	-83	031	-78	4				DR	4	HR-20
98	SU728 663	PP	02	000		1	1	053	-61	053	-56	4				DR	4	
99	SU728 663	PP	01	025	065	3	3A	132	18	107	-2	2				WE	3A	
100	SU729 662	PGR		035				106	-8	113	4	3A				DR	3A	CHK SPL
101	SU730 662	PP		020	020	4	3B	108	-6	110	1	3A				WE	3B	CHECKSPL

AM E			ASPECT				--WETNESS--		-WHEAT-		-POTS-		M.REL	EROSN	FROST	CHEM	ALC	
D.	GRID	REF	USE	GRDNT	GLEY	SPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	LIMIT	COMMENTS
D2	SU731	662	PGR		028	028	4	3B	113	-1	107	-2	3A				WE 3B	
D3	SU732	662	PP		025	025	4	3B	000	0	000	0					WE 3B	CHK SPL
D4	SU734	662	RGR		025	025	4	3B	000	0	000	0					WE 3B	
D5	SU726	661			030		1	1	059	-55	059	-50	4				DR 4	3A-4
D6	SU727	661	PP	01	035		1	1	059	-55	059	-50	4				DR 4	3A-4STNS
D7	SU728	661	PGR		000		1	1	054	-60	054	-55	4				DR 3A	
D8	SU729	661	PGR		000	028	4	3B	113	-1	107	-2	3A				WE 3B	
D9	SU730	661	PGR		000	030	4	3B	143	29	113	4	2				WE 3B	GWT 90
10	SU731	661	PP		020	020	4	3B	094	-20	100	-9	3A				WE 3B	GH-60
11	SU732	661	PP		025	040	3	3B	000	0	000	0					WE 3B	
12	SU733	661	PGR		038	038	4	3B	000	0	000	0					WE 3B	
13	SU734	661	PGR		055	055	2	2	000	0	000	0					WE 3B	
14	SU727	660	PP	01	000		1	1	000	0	000	0					DR 4	3A-4STNS
16	SU729	660	PGR		000		1	1	036	-78	036	-73	4				DR 3A	

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
1	0-20	msl	10YR44 00						0	0	HR	10						
1P	0-29	msl	10YR44 00						4	0	HR	11						
	29-70	scl	10YR52 00	75YR58 00	C			Y	0	0	HR	30		M				
	70-120	hcl	10YR52 00	75YR58 00	C			Y	0	0	HR	35		M				
2	0-20	msl	10YR54 00						0	0	HR	8						
2P	0-14	hzcl	10YR41 00	05YR56 00	C			Y	0	0		0						
	14-60	zc	10YR51 00	75YR56 00	M			Y	0	0		0	WDAMAB	FM	P			
	60-120	gh	10YR44 00					Y	0	0		0			P			
3	0-25	mzcl	10YR44 00						0	0	HR	5						
	25-40	hzcl	10YR44 00						0	0		0		M				
	40-70	hzcl	10YR53 00	75YR58 00	C			Y	0	0		0		M				
3P	0-31	msl	10YR52 00	10YR58 00	C			Y	7	0	HR	10						
	31-66	hcl	10YR62 00	10YR68 00	C			Y	0	0	HR	1	MDCSAB	FM	M			
	66-120	hcl	05Y 63 00	10YR68 00	C			Y	0	0		0		M				
4	0-30	mzcl	10YR33 00						0	0	HR	3						
	30-45	hzcl	10YR51 00	75YR58 00	C			Y	0	0	GH	2						
	45-85	hzcl	10YR51 00	75YR58 00	C			Y	0	0	GH	2						Y
4P	0-29	msl	10YR33 00						2	0	HR	5	MDMSB	FR				
	29-48	lms	10YR33 00						0	0	HR	10	MDMSB	FR	G			
	48-120	ms	10YR54 00						0	0	GH	30	SG	L	M			
5	0-20	hzcl	10YR51 00	75YR58 00	C			Y	0	0	GH	1						
	20-60	hzcl	10YR51 00	75YR58 00	C			Y	0	0		0						Y
	60-120	zc	10YR51 00	75YR58 00	C			Y	0	0	GH	2						Y
5P	0-20	mszl	10YR54 00	75YR58 00	C			Y	1	0	HR	1	MDMSB					
	20-66	mzcl	10YR62 00	10YR58 00	C			Y	0	0		0	MDCSAB	FM	M			
	66-110	scl	10YR63 00	75YR68 00	C			Y	0	0		0	MDMSB	FR	G			
	110-120	msl	10YR73 00	75YR58 00	C			Y	0	0		0			M			
6P	0-35	msl	10YR52 00						1	0	HR	13	MCSAB	FR		Y		
	35-61	msl	10YR53 00						0	0	HR	32			M			
	61-72	lcs	10YR54 00						0	0	HR	35			M			
	72-120	cs	10YR54 00						0	0	HR	50			M			
7	0-20	msl	10YR44 00						0	0	HR	10						
7P	0-18	msl	10YR42 00	75YR58 00	F			Y	6	0	HR	13						
	18-50	msl	10YR51 00	75YR58 00	C			Y	0	0	HR	27	MSAB	FR	G			
	50-75	hcl	10YR61 00	10YR68 00	C			Y	0	0	HR	10	CSAB	FM	P			

MPLE	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
	0-20	ms1	10YR54 00						0	0	HR	8						
9	0-20	msz1	10YR54 00						0	0	HR	5						
	20-40	msz1	10YR54 00	10YR58 00	C				0	0	HR	5		M				
	40-75	hzc1	10YR53 00	10YR58 00	C			Y	0	0	HR	5		M			Y	
	0-10	mzc1	10YR33 00						0	0	HR	2						
	10-30	hzc1	10YR51 00	75YR58 00	C			Y	0	0	HR	2						
	30-120	zc	10YR62 00	75YR58 00	C			Y	0	0	GH	3					Y	
	0-25	mzc1	10YR33 00						0	0	GH	2						
	25-60	hzc1	10YR51 00	75YR58 00	C			Y	0	0	GH	2		M			Y	
	0-2	hzc1	10YR51 00	75YR58 00	C			Y	0	0		0						
	2-120	zc	10YR52 00	75YR58 00	C			Y	0	0		0					Y	
	0-20	ms1	10YR44 00						0	0	HR	10						
14	0-20	ms1	10YR54 00						0	0	HR	8						
	0-20	hzc1	10YR41 00	75YR58 00	C			Y	0	0	HR	1						
	20-60	c	10YR51 00	75YR58 00	C			Y	0	0		0					Y	
	60-120	zc	10YR62 00	10YR68 00	C			Y	0	0		0					Y	
	0-25	hzc1	10YR42 00	10YR58 00	F				0	0		0						
	25-120	hzc1	10YR62 00	10YR58 00	M			Y	0	0		0					Y	
	0-20	hzc1	10YR51 00	75YR58 00	C			Y	0	0		0						
	20-120	zc	10YR52 00	75YR58 00	C			Y	0	0		0					Y	
	0-30	ms1	10YR44 00						0	0	HR	5						
	30-55	ms1	10YR56 00						0	0	HR	1		M				
	55-70	lms	10YR56 00						0	0		0		M				
	70-85	hc1	10YR62 00	75YR58 00	C			Y	0	0		0		M			Y	
21	0-20	ms1	10YR54 00						0	0	HR	8						
	0-30	hzc1	10YR32 00						0	0	HR	1						
	30-75	hzc1	10YR51 00	75YR58 00	C			Y	0	0		0					Y	
	0-10	hzc1	10YR33 00						0	0		0						
	10-40	hzc1	10YR51 00	75YR58 00	C			Y	0	0		0					Y	
	40-120	zc	10YR62 00	75YR58 00	C			Y	0	0		0					Y	
	0-35	ms1	10YR33 00						0	0	HR	2						
	35-65	mzc1	10YR52 00	10YR58 00	C			Y	0	0		0		M				
	65-120	hzc1	10YR51 00	75YR58 00	C			Y	0	0		0		M			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
29	0-20	msl	10YR33 00						0	0	HR	10						
30	0-25	msl	10YR54 00						0	0	HR	8						
34	0-30	hzcl	10YR34 00						0	0	HR	1						
	30-55	hzcl	10YR62 00	10YR68 00	C			Y	0	0		0		M			Y	
	55-85	scl	10YR62 00	10YR68 00	C			Y	0	0		0		M			Y	
	85-100	ms	10YR62 00	10YR68 00	C			Y	0	0		0		M			Y	
35	0-35	mzcl	10YR33 00						0	0	HR	2						
	35-65	hzcl	10YR62 00	10YR68 00	C			Y	0	0	HR	1		M				
36	0-25	mszl	10YR33 00						0	0	HR	2						
	25-60	mcl	10YR44 00						0	0	HR	2		M				
40	0-28	hcl	10YR54 00						0	0		0						
	28-70	hcl	10YR64 00	10YR68 00	C			Y	0	0		0					Y	
41	0-40	msl	10YR43 00						0	0		0						
	40-60	scl	10YR58 00						0	0	HR	10						
42	0-40	hzcl	10YR51 00	75YR58 00	C			Y	0	0	HR	2						
43	0-25	msl	10YR53 00						0	0	GH	8						
44	0-25	msl	10YR53 00						0	0	GH	8						
45	0-28	zcl	10YR43 00						0	0	GH	8						
45A	0-35	hcl	10YR42 00						0	0		0						
	35-120	c	10YR62 00	10YR58 00	M			Y	0	0		0					Y	
46	0-42	mszl	10YR54 00						0	0		0						
	42-90	hcl	10YR56 00	10YR58 00	C		10YR64 00	Y	0	0		0					Y	
	90-101	zzzz	00ZZ00 00					Y	0	0		0					Y	
47	0-20	hzcl	10YR32 00	75YR58 00	F			Y	0	0		0						
	20-50	hzcl	10YR51 00	75YR58 00	C			Y	0	0		0					Y	
	50-100	zc	10YR51 00	75YR58 00	C			Y	0	0		0					Y	
48	0-10	hzcl	10YR32 00	75YR58 00	C			Y	0	0		0						
	10-95	zc	10YR61 00	75YR58 00	C			Y	0	0		0					Y	
50	0-20	msl	10YR33 00						0	0		0						
51	0-30	hcl	10YR62 00	75YR58 00	C			Y	0	0	HR	5						
	30-55	hcl	10YR51 00	75YR58 00	C			Y	0	0	HR	1		M			Y	
	55-80	c	10YR51 00	75YR58 00	F			Y	0	0	HR	1		M			Y	

MPLE	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
5	0-20	msl	10YR33 00						0	0	HR	10						
53	0-25	hzcl	10YR32 00	75YR58 00	C			Y	0	0	HR	1						
	25-50	hzcl	10YR51 00	75YR58 00	C			Y	0	0		0					Y	
	50-120	zc	10YR62 00	75YR58 00	C			Y	0	0		0					Y	
5	0-20	hcl	10YR42 00	10YR58 00	C			Y	0	0		0						
	20-120	zc	10YR62 00	10YR58 00	C			Y	0	0		0					Y	
55	0-25	msl	10YR53 00						0	0	GH	8						
56	0-40	msl	10YR53 00						0	0	GH	8						
	40-48	csl	10YR43 00						0	0	GH	45		M				
5	0-20	msl	10YR33 00						0	0	HR	10						
2	0-30	msl	10YR33 00						0	0	HR	3						
	30-40	scl	10YR51 00	10YR58 00	C			Y	0	0	HR	2		M				
	40-60	hcl	10YR51 00	10YR58 00	C			Y	0	0	HR	2		M			Y	
5	0-18	hcl	10YR52 00	10YR58 00	C			Y	0	0		0						
	18-70	zc	10YR61 00	10YR58 00	C			Y	0	0		0					Y	
	70-120	zc	10YR56 00	10YR61 00	C			Y	0	0	HR	8					Y	
6	0-25	hcl	10YR53 00	10YR58 00	C			Y	0	0		0						
	25-120	zc	10YR61 00	10YR68 00	C			Y	0	0		0					Y	
	0-18	msl	10YR53 00						0	0	GH	8						
63	0-20	msl	10YR53 00						0	0	GH	20						
	0-30	mcl	10YR33 00						0	0	HR	2						
	30-45	hcl	10YR51 00	10YR58 00	C			Y	0	0	HR	1						
	45-80	hcl	10YR51 00	10YR58 00	C			Y	0	0	HR	1					Y	
65	0-25	msl	10YR34 00						0	0	HR	3						
	25-65	mcl	10YR44 00						0	0	HR	2		M				
	65-80	hcl	10YR51 00	10YR58 00	C			Y	0	0	HR	5		M				
66	0-18	hcl	10YR42 00	75YR58 00	C			Y	0	0		0						
	18-55	zc	10YR62 00	10YR58 00	M			Y	0	0	HR	5					Y	
	55-120	hcl	10YR61 00	10YR58 00	C			Y	0	0	HR	5					Y	
67	0-18	hcl	10YR42 00	10YR58 00	C			Y	0	0		0						
	18-75	zc	10YR62 00	10YR68 00	C			Y	0	0	HR	3					Y	
	75-85	scl	10YR52 00					Y	0	0	HR	30					Y	
	0-20	msl	10YR53 00						0	0	GH	15						

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
70	0-25	mcl	10YR33 00						0	0	HR	5						
	25-120	hcl	10YR51 00	10YR58 00	C			Y	0	0	HR	1		M			Y	
71	0-20	msl	10YR34 00						0	0	HR	5						
	20-40	msl	10YR62 00	10YR58 00	C			Y	0	0	HR	5		M				
72	0-28	fszl	10YR54 00						0	0	HR	5						
	28-38	mzcl	10YR53 00	10YR58 00	C			Y	0	0	HR	5		M				
	38-80	mzcl	10YR63 00	10YR58 00	C			Y	0	0	GH	5		M				
	80-90	scl	10YR63 00					Y	0	0	GH	50		M				
75	0-20	mzcl	10YR34 00						0	0	GH	5						
	20-40	mzcl	10YR61 00	10YR58 00	F			Y	0	0	GH	5		M				
	40-60	hcl	10YR51 00	10YR58 00	C			Y	0	0	GH	5		M				
76	0-25	msl	10YR33 00						0	0	HR	2						
	25-55	msl	10YR62 00	10YR58 00	C			Y	0	0	HR	3		M				
	55-80	hcl	10YR51 00	10YR58 00	C			Y	0	0	HR	2		M				
77	0-45	fsl	10YR54 00						0	0		0						
	45-55	msl	10YR63 00	75YR56 00	C			Y	0	0	GH	5		M				
	55-60	scl	10YR54 00					Y	0	0	GH	30		M				
78	0-25	hzcl	10YR51 00	75YR58 00	C			Y	0	0		0						
	25-120	zc	10YR62 00	75YR58 00	C			Y	0	0		0					Y	
79	0-20	msl	10YR33 00						0	0	HR	5						
	20-40	mcl	10YR44 00						0	0	HR	10		M				
	40-60	hcl	10YR51 00	10YR58 00	C			Y	0	0	HR	10		M				
80	0-30	mzcl	10YR33 00						0	0	HR	1						
	30-65	mzcl	10YR44 00						0	0	HR	1		M				
81	0-20	mszl	10YR43 00						0	0	HR	25						
81A	0-85	fsl	10YR56 00						0	0		0						
	85-95	msl	75YR46 00						0	0	GH	40		M				
84	0-20	msl	10YR43 00						0	0	HR	20						
85	0-25	scl	10YR43 00						0	0	HR	20						
88	0-20	msl	10YR43 00						0	0	GH	15						
89	0-20	hzcl	10YR51 00	75YR58 00	C			Y	0	0	HR	1						
	20-120	zc	10YR62 00	75YR58 00	C			Y	0	0		0					Y	
90	0-25	msl	10YR34 00						0	0	HR	5						
	25-40	msl	10YR51 00	10YR58 00	C			Y	0	0	HR	2						
	40-120	hzcl	10YR51 00	10YR58 00	C			Y	0	0		0					Y	

MPLE	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	0-30	msl	10YR44 00						5	0	HR	12						
92	0-20	msl	10YR44 00						0	0	HR	20						
9	0-20	msl	10YR44 00						0	0	HR	10						
9	0-35	msl	10YR34 00						0	0	HR	12						
99	0-25	msl	10YR44 00						0	0	HR	5						
	25-65	scl	10YR51 00	10YR58 00	C			Y	0	0	HR	2		M				
	65-95	hcl	10YR51 00	10YR58 00	C			Y	0	0		0		M			#N	
	95-120	ms	10YR51 00	10YR58 00	C			Y	0	0		0		M			Y	
10	0-35	fszl	10YR43 00						0	0	GH	10						
	35-55	mszl	10YR62 00	10YR58 00	C			Y	0	0	HR	10		M				
	55-65	scl	10YR52 00					Y	0	0	HR	20		M				
10	0-20	msl	10YR44 00						0	0	GH	5						
	20-80	hcl	10YR51 00	10YR58 00	C			Y	0	0	HR	3		M			Y	
10	0-28	scl	10YR43 00	10YR58 00	F				0	0	HR	8						
	28-40	hzcl	10YR53 00	10YR56 00	C			Y	0	0		0		M			Y	
	40-85	zc	10YR62 00	10YR68 00	M			Y	0	0	HR	5		M			Y	
	85-95	hzcl	10YR63 00	10YR68 00	M			Y	0	0	GH	30		M			Y	
103	0-25	msl	10YR43 00						0	0	GH	10						
	25-110	scl	10YR62 00	10YR58 00	M			Y	0	0	GH	5					Y	
	110-120	szl	10YR61 00					Y	0	0	GH	20					Y	
104	0-25	hzcl	10YR33 00						0	0	HR	2						
	25-65	hzcl	10YR51 00	75YR58 00	C			Y	0	0	HR	1					Y	
105	0-30	msl	10YR33 00						0	0	HR	12						
	30-40	msl	10YR51 00	10YR58 00	C			Y	0	0	HR	12		M				
106	0-35	msl	10YR33 00						0	0	HR	12						
	35-40	msl	10YR51 00	10YR58 00	C			Y	0	0	HR	12		M				
1	0-22	mszl	10YR42 00	10YR58 00	F				0	0	HR	8						
	22-35	scl	10YR54 00	10YR58 00	C				0	0	HR	25		M				
1	0-28	mzcl	10YR53 00	10YR58 00	C			Y	0	0	GH	8						
	28-65	zc	25Y 53 00	10YR58 00	C			Y	0	0	GH	10		M			Y	
	65-85	scl	25Y 66 00	25Y 68 00	C			Y	0	0	GH	12		M			Y	
	85-90	msl	25Y 72 00					Y	0	0	GH	20		M			Y	
109	0-30	hzcl	10YR52 00	75YR56 00	M			Y	0	0	HR	2						
	30-60	zc	75YR61 00	10YR56 00	C			Y	0	0	HR	5		M			Y	
	60-70	hzcl	10YR61 00					Y	0	0	HR	18		M			Y	
	70-90	msl	10YR72 00					Y	0	0	GH	30		M			Y	
	90-120	csl	10YR53 00					Y	0	0	GH	20		M			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	
110	0-20	hzcl	10YR34 00						0	0	HR	2							
	20-60	hcl	10YR51 00	10YR58 00	C			Y	0	0	HR	2		M			Y		
111	0-25	hzcl	10YR33 00						0	0		0							
	25-40	hcl	10YR51 00	10YR58 00	F			Y	0	0		0							
	40-120	hcl	10YR62 00	75YR58 00	C			Y	0	0	HR	1					Y		
112	0-38	hzcl	10YR43 00						0	0	HR	5							
	38-85	hcl	10YR61 00	10YR56 00	M			Y	0	0		0					Y		
	85-95	zc	10YR62 00					Y	0	0	GH	25					Y		
113	0-35	mzcl	10YR43 00						0	0	GH	10							
	35-55	zc	10YR42 00	10YR58 00	F				0	0	HR	5							
	55-120	zc	10YR53 00	10YR58 00	C			Y	0	0		0					Y		
114	0-30	mszl	10YR33 00						0	0	HR	12							
116	0-25	mszl	10YR53 00						0	0	HR	25							
43	0-120	ch							0	0		0		P			Y		Rooting to 120