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**Milton Keynes Local Plan
Potential Development Area 10**

**Agricultural Land Classification
Semi-Detailed Survey
ALC Map and Report**

July 1997

**Resource Planning Team
Eastern Region
FRCA Reading**

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AGRICULTURAL LAND CLASSIFICATION REPORT

MILTON KEYNES LOCAL PLAN, POTENTIAL DEVELOPMENT AREA 10

SEMI-DETAILED SURVEY

INTRODUCTION

1. This report presents the findings of a semi-detailed Agricultural Land Classification (ALC) survey of 200.9 hectares of land to the south west of Two Mile Ash, to the west of Milton Keynes in Buckinghamshire. The survey was carried out in July 1997.
2. The survey was undertaken by the Farming and Rural Conservation Agency (FRCA) on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF), in connection with its statutory input to the Milton Keynes Local Plan. The results of this survey supersede any previous ALC information for this land. As part of the same plan, a survey was carried out on adjacent land to the north west, also in 1997 (FRCA Ref: 0304/087/97).
3. The work was conducted by members of the Resource Planning Team in the Eastern Region of the FRCA. The land has been graded in accordance with the published MAFF ALC guidelines and criteria (MAFF, 1988). A description of the ALC grades and subgrades is given in Appendix I.
4. At the time of survey the agricultural land was in permanent grass either being grazed or utilised for silage/hay production. Areas of the site mapped as 'Other Land' comprise dwellings and farm buildings associated with the six farms within the site. 'Other Land' has also been mapped where a metalled lane and unmetalled tracks occur as well as ponds and woodland.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:15,000. It is accurate at this scale, but any enlargement would be misleading.
6. The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1 below.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
3a	8.9	4.9	4.4
3b	173.6	95.1	86.4
Other land	18.4	N/A	9.2
Total surveyed area	182.5	100	90.8
Total site area	200.9	-	100

7. The fieldwork was conducted at an average density of just over 1 boring for every 2 hectares of agricultural land. A total of 97 borings and 5 soil pits were described.

8. The agricultural land on this site has been assigned to Subgrades 3a and 3b, good and moderate quality respectively. The soils are derived from the underlying geology which includes solid deposits of Oxford Clay and drift deposits including Boulder Clay, head and alluvium, all of which overlie the Oxford Clay. The principal limitation to land quality is soil wetness.

9. The soils across the site are essentially similar throughout, comprising loamy topsoils and upper subsoils overlying clay. The clay subsoil horizons, which impede soil drainage, occur at moderate and shallow depths in the profile; the relative depth determines the severity of the soil wetness problem and, therefore, the ALC grade. Soil wetness reduces the versatility of the land in terms of access by machinery (e.g. for cultivations or harvesting) and for grazing if damage to the soil is to be avoided. It also has the effect of reducing the level and consistency of yields.

FACTORS INFLUENCING ALC GRADE

Climate

10. Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.

11. The key climatic variables used for grading this site are given in Table 2 and were obtained from the published 5km grid datasets using the standard interpolation procedures (Met. Office, 1989).

Table 2: Climatic and altitude data

Factor	Units	Values		
Grid reference	N/A	SP 812 383	SP 812 373	SP 812 366
Altitude	m, AOD	95	105	115
Accumulated Temperature	day°C (Jan-June)	1384	1373	1362
Average Annual Rainfall	mm	660	661	663
Field Capacity Days	days	140	139	139
Moisture Deficit, Wheat	mm	104	103	102
Moisture Deficit, Potatoes	mm	95	94	92
Overall climatic grade	N/A	Grade 1	Grade 1	Grade 1

12. 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 conditions.

13. The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR), as a measure of overall wetness, and accumulated temperature (AT₀, January to June), as a measure of the relative warmth of a locality.

14. The combination of rainfall and temperature at this site mean that there is no overall climatic limitation. Other local climatic factors such as exposure and frost risk are also believed not to affect the site. The site is climatically Grade 1.

Site

15. The site lies at an altitude between approximately 95 and 115m AOD. The highest land is located towards the south of the site, the lowest to the north. The slopes within the site are slight and not of sufficient gradient to adversely affect land quality. Other site factors such as microrelief and flooding are also not significant.

Geology and soils

16. The published geological information for the site (BGS, 1971) shows the majority of the site to be underlain by Boulder Clay drift overlying Oxford Clay solid deposits. In addition, towards the north and east of the site small areas of head and alluvium drift deposits are mapped directly overlying the Oxford Clay.

17. The most detailed published soils information for the site (SSEW, 1983 and 1984) shows it to comprise soils of the Hanslope and Wickham 2 associations. Hanslope soils are mapped over the majority of the site approximately conforming to the Boulder Clay geology. They are described as, 'Slowly permeable calcareous clayey soils. Some slowly permeable, non-calcareous clayey soils. Slight risk of water erosion,' (SSEW, 1983). Wickham 2 soils are mapped approximately where the Oxford Clay and small areas of other drift deposits are shown. They are described as, 'Slowly permeable, seasonally waterlogged, fine loamy over clayey, fine silty over clayey and clayey soils. Small areas of slowly permeable calcareous soils on steeper slopes' (SSEW, 1983). Soils of these broad descriptions were found throughout the site.

AGRICULTURAL LAND CLASSIFICATION

18. The details of the classification of the site are shown on the attached ALC map and the area statistics of each grade are given in Table 1.

19. The location of the auger borings and pits is shown on the attached sample location map and the details of the soils data are presented in Appendix II.

Subgrade 3a

20. Land of good quality has been mapped in a single unit towards the south west of the site. The principal limitation to land quality here is soil wetness. Soils are characterised by the soil pit, 4P (see Appendix II).

21. The soils in this area commonly comprise a stoneless or very slightly stony, medium clay loam topsoil. This passes to a stoneless to slightly stony, moderately structured heavy

clay loam upper subsoil, which was either slightly gleyed or showed some evidence of wetness. The lower subsoils commonly comprise slightly stony or chalky, poorly structured, gleyed, slowly permeable clays which commonly become calcareous at depth. Given the local climate and this combination of imperfectly drained soils, the depth to the gleyed and slowly permeable horizons is the crucial factor in determining the land quality in this area. In this area, the soils equate with Wetness Class III which, when combined with the medium topsoil textures leads to Subgrade 3a being appropriate on the basis of a soil wetness limitation. Soil wetness restricts the versatility of the land by limiting the opportunities for cultivation or grazing without damaging the soil, as well as restricting plant growth and the level and consistency of yields.

Subgrade 3b

22. Land of moderate quality has been mapped over the majority of the agricultural land at this site in a single map unit. The principal limiting factor is soil wetness, occasionally in combination with topsoil workability. The soils are characterised by the soil pits, 1P, 3P and 5P (see Appendix II).

23. The soils are of a single overall type. They comprise a stoneless to very slightly stony, medium or heavy clay loam, occasionally clay topsoil, which is sometimes calcareous. The topsoils are a pale or grey colour and are occasionally gleyed. Below is a similarly stony and similarly calcareous, commonly gleyed, narrow upper subsoil horizon of heavy clay loam or clay overlying a gleyed and slowly permeable clay subsoil, which commonly becomes highly calcareous with depth. Structures in this layer are moderately developed and either coarse prismatic or coarse angular blocky. In some observations, the narrow upper subsoil horizon was non-existent, and the topsoil passed directly to the slowly permeable clay. In other observations, the slowly permeable horizons became impenetrable to the soil auger due to an increased stone content in the profile, commonly at a depth sufficient to allow a classification. Again, the crucial factor in determining the land quality on this land is the depth to the slowly permeable layer with topsoil texture as an additional factor. In the local climate, the soils are placed in Wetness Classes III or IV and, given the medium to heavy nature of the topsoils, leads to Subgrade 3b being appropriate. The limitations caused by soil wetness are detailed above in para. 21. In these areas they are of a more severe nature and, in some cases, where the topsoil is heavier, include an additional workability component. These factors significantly restrict land access and further reduce the flexibility of land use and yield potential.

23. Occasional observations of a slightly better quality have been included in this map unit, but were of too scattered a distribution to justify separate mapping. Pit 2, for example, is actually classified as Subgrade 3a. In this instance, there was no clear evidence of gleying until below 50 cm. The pit was placed in Wetness Class III and Subgrade 3a but additional borings in this area confirmed that the soils are generally gleyed and slowly permeable at shallower depths and normally fall into Wetness Class IV and Subgrade 3b.

SOURCES OF REFERENCE

British Geological Survey (1971) *Sheet No. SP83. Milton Keynes. Solid and Drift Edition. 1:25 000 scale.*
BGS: London.

Ministry of Agriculture, Fisheries and Food (1988) *Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land.*

MAFF: London.

Met. Office (1989) *Climatological Data for Agricultural Land Classification.*
Met. Office: Bracknell.

Soil Survey of England and Wales (1983) *Soils of South East England. 1:250 000 Scale.*
SSEW: Harpenden.

Soil Survey of England and Wales (1984) *Soils of South East England. Bulletin No. 15.*
SSEW: Harpenden.

APPENDIX I

DESCRIPTIONS OF THE GRADES AND SUBGRADES

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 of this 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 land.

Grade 3: Good to Moderate Quality Land

Land with moderate limitations which affect the choice of crops, the 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.

Subgrade 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.

Subgrade 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 (e.g. 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 severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

APPENDIX II

SOIL DATA

Contents:

Sample location map

Soil abbreviations - explanatory note

Soil pit descriptions

Soil boring descriptions (boring and horizon levels)

SOIL PROFILE DESCRIPTIONS: EXPLANATORY NOTE

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

Boring Header Information

1. **GRID REF:** national 100 km 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:	Brassicaceae
POT:	Potatoes	SBT:	Sugar beet	FCD:	Fodder crops
LIN:	Linseed	FRT:	Soft and top fruit	FLW:	Fallow
PGR:	Permanent pasture	LEY:	Ley grass	RGR:	Rough grazing
SCR:	Scrub	CFW:	Coniferous woodland	OTH:	Other
DCW:	Deciduous woodland	BOG:	Bog or marsh	SAS:	Set-Aside
HTH:	Heathland	HRT:	Horticultural crops	PLO:	Ploughed

3. **GRDNT:** Gradient as estimated or measured by a hand-held optical clinometer.
4. **GEY/SPL:** Depth in centimetres (cm) to gleying and/or slowly permeable layers.
5. **AP (WHEAT/POTS):** Crop-adjusted available water capacity.
6. **MB (WHEAT/POTS):** Moisture Balance. (Crop adjusted AP - crop adjusted MD)
7. **DRT:** Best grade according to soil droughtiness.
8. If any of the following factors are considered significant, 'Y' will be entered in the relevant column:

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

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

OC:	Overall Climate	AE:	Aspect	ST:	Topsoil Stoniness
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:	Erosion Risk	WD:	Soil Wetness/Droughtiness
EX:	Exposure				

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
ZL:	Silt 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 the following 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 using Munsell notation.
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 using Munsell notation.
6. **GLEY:** If the soil horizon is gleyed a 'Y' will appear in this column. If slightly gleyed, an 'S' will appear.
7. **STONE LITH:** Stone Lithology - one of the following is used:

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

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

8. **STRUCT:** the degree of development, size and shape of soil pedes 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		
Ped shape	S:	single grain	M:	massive
	GR:	granular	AB:	angular blocky
	SAB:	sub-angular blocky	PR:	prismatic
	PL:	platy		

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

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

10. **SUBS STR:** Subsoil structural condition recorded for the purpose of calculating profile droughtiness: G: good M: moderate P: poor
11. **POR:** Soil porosity. If a soil horizon has less than 0.5% biopores >0.5 mm, a 'Y' will appear in this column.
12. **IMP:** If the profile is impenetrable to rooting a 'Y' will appear in this column at the appropriate horizon.
13. **SPL:** Slowly permeable layer. If the soil horizon is slowly permeable a 'Y' will appear in this column.
14. **CALC:** If the soil horizon is calcareous, a 'Y' will appear in this column.
15. 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 : MILTON KEYNES UDP AREA10 Pit Number : 1P
 Grid Reference: SP81313809 Average Annual Rainfall : 660 mm
 Accumulated Temperature : 1384 degree days
 Field Capacity Level : 140 days
 Land Use : Permanent Grass
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT. STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 21	HCL	10YR31 41	0	0		C				
21- 47	C	25Y 42 00	0	0		M	MDCAB	FM	P	
47- 60	C	05Y 51 00	0	0		M	MDCPR	FM	P	

Wetness Grade : 3B Wetness Class : IV
 Gleying : 0 cm
 SPL : 21 cm

Drought Grade : 3B APW : 83mm MBW : -21 mm
 APP : 89mm MBP : -6 mm

FINAL ALC GRADE : 3B
 MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : MILTON KEYNES UDP AREA10 Pit Number : 2P
 Grid Reference: SP80613784 Average Annual Rainfall : 660 mm
 Accumulated Temperature : 1384 degree days
 Field Capacity Level : 140 days
 Land Use : Permanent Grass
 Slope and Aspect : 1 degrees N

HORIZON	TEXTURE	COLOUR	STONES >2	TOT. STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 26	MCL	10YR33 00	0	0						
26- 42	HCL	25Y 53 00	0	5	HR	F	MDCSAB	FR	M	
42- 51	C	10YR42 00	0	0		F	MDCAB	FM	P	
51- 80	C	25Y 52 00	0	5	CH	M	MDCPR	FM	P	Y

Wetness Grade : 3A Wetness Class : III
 Gleying : 51 cm
 SPL : 42 cm

Drought Grade : 3A APW : 103mm MBW : -1 mm
 APP : 107mm MBP : 12 mm

FINAL ALC GRADE : 3A
 MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : MILTON KEYNES UDP AREA10 Pit Number : 3P

Grid Reference: SP81703770 Average Annual Rainfall : 660 mm
 Accumulated Temperature : 1384 degree days
 Field Capacity Level : 140 days
 Land Use : Permanent Grass
 Slope and Aspect : 1 degrees E

HORIZON	TEXTURE	COLOUR	STONES >2	TOT. STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 23	MCL	10YR32 00	0	2	HR					
23- 41	C	10YR42 00	0	5	HR	C	MDCAB	FR	M	
41- 60	C	25Y 52 00	0	5	HR	M	STCAB	FM	P	Y

Wetness Grade : 3B Wetness Class : IV
 Gleying : 23 cm
 SPL : 23 cm

Drought Grade : 3A APW : 86mm MBW : -18 mm
 APP : 92mm MBP : -3 mm

FINAL ALC GRADE : 3B

MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : MILTON KEYNES UDP AREA10 Pit Number : 4P

Grid Reference: SP80803720 Average Annual Rainfall : 660 mm
 Accumulated Temperature : 1384 degree days
 Field Capacity Level : 140 days
 Land Use : Permanent Grass
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT. STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 19	MCL	10YR42 00	0	2	HR					
19- 41	HCL	25Y 44 00	3	5	HR	F	WKCSAB	FM	M	
41- 62	C	25Y 42 52	0	2	HR	M	MDCPR	VM	P	
62- 80	C	25Y 61 00	0	10	CH	M	WKCPR	VM	P	Y

Wetness Grade : 3A Wetness Class : III
 Gleying : 41 cm
 SPL : 41 cm

Drought Grade : 3A APW : 99mm MBW : -5 mm
 APP : 104mm MBP : 9 mm

FINAL ALC GRADE : 3A

MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : MILTON KEYNES UDP AREA10 Pit Number : 5P

Grid Reference: SP81103690 Average Annual Rainfall : 660 mm
Accumulated Temperature : 1384 degree days
Field Capacity Level : 140 days
Land Use : Permanent Grass
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT. STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 21	HCL	10YR31 41	0	2	HR					
21- 31	C	10YR53 00	0	5	HR	C	MDCPR	FR	M	
31- 55	C	25Y 52 53	0	5	HR	M	MDCPR	FM	P	
55- 70	C	05Y 51 00	0	10	CH	M	MDCAB	FM	P	Y

Wetness Grade : 3B Wetness Class : IV
Gleying : 21 cm
SPL : 21 cm

Drought Grade : 3A APW : 89mm MBW : -15 mm
APP : 100mm MBP : 5 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Wetness

SAMPLE NO.	GRID REF	ASPECT USE	GRDN/T	GLEY	SPL	CLASS	GRADE	AP	MB	AP	MB	M.REL	EROSN	FROST	CHEM	ALC LIMIT	COMMENTS
1	SP81203854	PGR N	1	0	30	4	3B		0		0					WE 3B	
1P	SP81313809	PGR		0	21	4	3B	83	-21	89	-6	3B				WE 3B	PIT 60
2	SP81203840	PGR N	1	0	28	4	3B		0		0					WE 3B	
2P	SP80613784	PGR N	1	51	42	3	3A	103	-1	107	12	3A				WE 3A	PIT 80
3	SP81403840	PGR SE	1	0	10	4	3B		0		0					WE 3B	
3P	SP81703770	PGR E	1	23	23	4	3B	86	-18	92	-3	3A				WE 3B	PIT 60
4	SP81113830	PGR N	1	0	25	4	3B		0		0					WE 3B	IMP 60
4P	SP80803720	PGR		41	41	3	3A	99	-5	104	9	3A				WE 3A	PIT 80
5	SP81303830	PGR N	1	25	25	4	3B		0		0					WE 3B	
5P	SP81103690	PGR		21	21	4	3B	89	-15	100	5	3A				WE 3B	PIT 70
6	SP81603830	LEY		30	30	4	3B		0		0					WE 3B	
7	SP81203820	PGR SE	1	0	30	4	3B		0		0					WE 3B	
8	SP81393820	PGR SE	1	30	45	3	3A		0		0					WE 3A	
9	SP81603820	LEY		0	30	4	3B		0		0					WE 3B	
10	SP81103810	PGR SE	1	22	22	4	3B		0		0					WE 3B	
11	SP81313809	LEY		30	30	4	3B		0		0					WE 3B	SEE 1P
12	SP81503810	LEY		0	25	4	3B		0		0					WE 3B	
13	SP81703810	LEY		30	30	4	3B		0		0					WE 3B	
14	SP80783799	PGR		25	25	4	3B		0		0					WE 3B	
15	SP81003800	PGR SE	1	30	30	3	3A		0		0					WE 3B	
16	SP81203800	LEY		0	28	4	3B	65	-39	65	-30	3B				WE 3B	IMP42 PROBSPL
17	SP81403800	LEY		0	25	4	3B		0		0					WE 3B	IMP 50
18	SP81603800	LEY		0	35	4	3B		0		0					WE 3B	
19	SP81803800	PGR SE	2	0	35	4	3B		0		0					WE 3B	RIDGE&FURROW
20	SP82003800	PGR S	1	28	28	4	3B		0		0					WE 3B	IMP60 RGE&FRW
21	SP80643790	PGR		0	25	4	3B		0		0					WE 3B	
22	SP80703790	PGR		34	34	4	3B	141	37	112	17	1				WE 3B	
23	SP80903790	PGR		45	45	3	3A		0		0					WE 3A	
24	SP81103790	LEY		30	30	4	3B		0		0					WE 3B	
25	SP81503790	LEY		30	30	4	3B		0		0					WE 3B	
26	SP81703790	PGR SE	2	20	35	4	3B		0		0					WE 3B	RIDGE&FURROW
27	SP81903790	PGR SE	1	0	30	4	3B		0		0					WE 3B	RIDGE&FURROW
28	SP80603780	PGR		28	28	4	3B		0		0					WE 3B	
29	SP80743780	LEY		30	30	4	3B		0		0					WE 3B	
30	SP80803780	PGR		30	30	4	3B		0		0					WE 3B	
31	SP81003780	PGR		0	25	4	3B		0		0					WE 3B	
32	SP81203780	LEY		0	25	4	3B		0		0					WE 3B	
33	SP81403780	PGR W	1	0	24	4	3B		0		0					WE 3B	
34	SP81603780	PGR		0	28	4	3B		0		0					WE 3B	RIDGE&FURROW
35	SP81803780	PGR SE	1	20	35	4	3B		0		0					WE 3B	RIDGE&FURROW
36	SP80503770	PGR		28	28	4	3B		0		0					WE 3B	
37	SP80703770	PGR		30	30	4	3B		0		0					WE 3B	

SAMPLE NO.	GRID REF	ASPECT USE	GRDN	GLEY	SPL	CLASS	GRADE	--WETNESS--	-WHEAT-	-POTS-	M.REL	EROSN	FROST	CHEM	ALC LIMIT	COMMENTS	
								AP	MB	AP	MB	DRT	FLOOD	EXP	DIST		
38	SP80903770	PGR		28	28	4	3B		0	0					WE	3B	
39	SP81103770	PGR		25	25	4	3B		0	0					WE	3B	
40	SP81303770	PGR		0	25	4	3B		0	0					WE	3B	
41	SP81503770	PGR		0	30	4	3B		0	0					WE	3B	RIDGE&FURROW
42	SP81703770	PGR	SE	2	0	25	4	3B		0	0				WE	3B	SEE 3P RG&FRW
43	SP80603760	PGR		28	35	4	3B		0	0					WE	3B	
44	SP80803760	PGR		0	3	3A		69	-35	69	-26	38			WE	3A	IMP 40 QWE
45	SP81003760	LEY		25	25	4	3B		0	0					WE	3B	
46	SP81203760	PGR		0	25	4	3B		0	0					WE	3B	
47	SP81403760	PGR		0	24	4	3B		0	0					WE	3B	
48	SP81603760	PGR		0	30	4	3B		0	0					WE	3B	RIDGE&FURROW
49	SP81793760	PGR		0	25	4	3B		0	0					WE	3B	RIDGE&FURROW
50	SP80503750	PGR		30	30	4	3B		0	0					WE	3B	
51	SP80703750	PGR		0	30	4	3B		0	0					WE	3B	
52	SP80903750	PGR		0	30	4	3B		0	0					WE	3B	
53	SP81303750	PGR	E	1	18	18	4	3B		0	0				WE	3B	
54	SP81503750	PGR			35	35	4	3B		0	0				WE	3B	
55	SP81723750	PGR			30	30	4	3B		0	0				WE	3B	IMP 60
56	SP80403740	PGR			45	45	3	3B		0	0				WE	3B	
57	SP80603740	PGR			35	35	4	3B		0	0				WE	3B	
58	SP80803740	PGR			28	28	4	3B		0	0				WE	3B	
59	SP81023739	PGR			30	30	4	3B		0	0				WE	3B	IMP FLINT 70
60	SP81203740	PGR	E	1	19	19	4	3B		0	0				WE	3A	
61	SP81403740	PGR	NE	1	28	28	4	3B		0	0				WE	3B	
62	SP81603740	PGR	NE	1	28	28	4	3B		0	0				WE	3B	
63	SP80603730	PGR			35	35	4	3B		0	0				WE	3B	
64	SP80703730	LEY			0	28	4	3B		0	0				WE	3B	
65	SP80803730	PGR			25	35	4	3B		0	0				WE	3B	
66	SP80903730	PGR			50	50	3	3A	113	9	104	9	2		WE	3A	SL GLEY 23
67	SP81103730	PGR			35	35	4	3B		0	0				WE	3B	SL GLEY 18
68	SP81303730	PGR	NE	1	25	35	4	3B		0	0				WE	3B	
69	SP81503730	LEY			0	28	4	3B		0	0				WE	3B	
70	SP80403720	PGR			0	28	4	3B		0	0				WE	3B	
71	SP80503720	PGR			30	30	4	3B		0	0				WE	3B	
72	SP80603720	LEY			0	28	4	3B		0	0				WE	3B	
73	SP80703720	PGR			0	20	4	3B		0	0				WE	3B	
74	SP80803720	PGR			40	40	3	3A		0	0				WE	3A	SL GLEY 25 4P
75	SP81003720	PGR			22	22	4	3B		0	0				WE	3B	
76	SP81203720	PGR	NE	1	30	30	4	3B	139	35	103	8	2		WE	3B	
77	SP81403720	LEY			0	28	4	3B		0	0				WE	3B	
78	SP81603720	LEY			0	28	4	3B		0	0				WE	3B	
79	SP80503710	PGR			0	30	4	3B		0	0				WE	3B	

SAMPLE NO.	GRID REF	ASPECT USE	--WETNESS--				-WHEAT-		-POTS-		M.REL	EROSN	FROST	CHEM	ALC	COMMENTS	
			GRDN	GLEY	SPL	CLASS	GRADE		AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	
80	SP80703710	PGR	45	45	3	3A			0	0					WE	3A	SL GLEY 25
81	SP80903710	PGR	45	45	3	3A			0	0					WE	3A	IMP FLINTS 70
82	SP81103710	PGR	30	30	4	3B			0	0					WE	3B	
83	SP81303710	LEY	28	35	4	3B			0	0					WE	3B	
84	SP81503710	LEY	28	28	4	3B			0	0					WE	3B	
85	SP80603700	PGR	28	28	4	3B			0	0					WE	3B	
86	SP80803700	PGR	45	45	3	3A			0	0					WE	3A	SL GLEY 28
87	SP81003700	LEY	0	28	4	3B			0	0					WE	3B	
88	SP81203700	LEY	30	30	4	3B			0	0					WE	3B	
89	SP80503690	PGR	30	30	4	3B			0	0					DR	3B	IMP 60
90	SP80703690	PGR	28	28	4	3B			0	0					WE	3B	IMP 90
91	SP80903690	LEY	0	30	4	3B			0	0					WE	3B	
92	SP81103690	LEY	28	28	4	3B			0	0					WE	3B	SEE 5P
93	SP80803680	PGR	28	28	4	3B			0	0					WE	3B	MOIST
94	SP81003680	LEY	30	30	4	3B			0	0					WE	3B	
95	SP81203680	LEY	28	28	4	3B			0	0					WE	3B	
96	SP81103670	LEY	28	28	4	3B			0	0					WE	3B	
97	SP81203660	LEY	25	25	4	3B			0	0					WE	3B	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED	----STONES----			STRUCT/	SUBS						
				COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC
1	0-25	mc1	10YR41 00	75YR46 00	C			Y	0	0		0						
	25-30	c	10YR53 00	10YR58 00	C			Y	0	0		0		M				
	30-70	c	10YR61 00	75YR58 00	M			Y	0	0		0		P		Y		PLASTIC
1P	0-21	hc1	10YR31 41	10YR46 00	C			Y	0	0		0						
	21-47	c	25Y 42 00	10YR58 00	M		25Y 41 00	Y	0	0		0	MDCAB	FM P	Y		Y	
	47-60	c	05Y 51 00	75YR58 00	M		05Y 51 61	Y	0	0		0	MDCPR	FM P	Y		Y	
2	0-28	hc1	10YR52 53	75YR56 00	C			Y	0	0		0						
	28-70	c	10YR62 00	75YR58 00	M			Y	0	0		0		P		Y		PLASTIC
2P	0-26	mc1	10YR33 00						0	0		0						
	26-42	hc1	25Y 53 00	00MN00 00	F		00FE00 00		0	0	HR	5	MDCSAB	FR M				
	42-51	c	10YR42 00	10YR56 00	F		00MN00 00		0	0		0	MDCAB	FM P	Y		Y	WETNESS EVIDENCE
	51-80	c	25Y 52 00	10YR58 00	M			Y	0	0	CH	5	MDCPR	FM P	Y		Y	Y
3	0-10	mc1	10YR41 00	10YR58 00	C			Y	0	0	HR	2						
	10-70	c	25Y 71 00	75YR68 00	M			Y	0	0	HR	2		P		Y		PLASTIC
3P	0-23	mc1	10YR32 00						0	0	HR	2						RIDGE AND FURROW
	23-41	c	10YR42 00	10YR56 00	C			Y	0	0	HR	5	MDCAB	FR M	Y		Y	TENDS WKCAB
	41-60	c	25Y 52 00	10YR58 00	M		25Y 53 00	Y	0	0	HR	5	STCAB	FM P	Y		Y	FEW MN CONCS
4	0-25	mc1	10YR42 00	10YR58 00	C			Y	0	0		0						
	25-60	c	25Y 63 71	75YR58 00	C		00MN00 00	Y	0	0	HR	5		P		Y		IMP FLINTS 60
4P	0-19	mc1	10YR42 00						0	0	HR	2						
	19-41	hc1	25Y 44 00	10YR58 00	F		10YR44 43		3	0	HR	5	WKCSAB	FM M				
	41-62	c	25Y 42 52	10YR58 00	M		25Y 42 52	Y	0	0	HR	2	MDCPR	VM P	Y		Y	
	62-80	c	25Y 61 00	10YR58 00	M		25Y 53 00	Y	0	0	CH	10	WKCPR	VM P	Y		Y	Y
5	0-25	mc1	10YR42 00						0	0		0						Y
	25-70	c	25Y 52 00	10YR58 00	C			Y	0	0	HR	5		P		Y	Y	
5P	0-21	hc1	10YR31 41						0	0	HR	2						
	21-31	c	10YR53 00	10YR56 00	C		25Y 43 53	Y	0	0	HR	5	MDCPR	FR M	Y		Y	
	31-55	c	25Y 52 53	10YR58 00	M		25Y 52 00	Y	0	0	HR	5	MDCPR	FM P	Y		Y	
	55-70	c	05Y 51 00	10YR58 00	M		25Y 52 00	Y	0	0	CH	10	MDCAB	FM P	Y		Y	+5% FLINTS
6	0-30	hc1	10YR42 00						0	0	HR	1						
	30-60	c	25Y 53 00	000C00 00	M			Y	0	0	HR	1		P	Y		Y	
7	0-30	hc1	10YR41 00	10YR56 00	C			Y	0	0		0						
	30-70	c	25Y 61 00	75YR58 00	M			Y	0	0	HR	3		P		Y		
8	0-30	mc1	10YR43 00						0	0		0						
	30-45	hc1	10YR53 00	10YR58 00	C			Y	0	0		0		M				FRIABLE
	45-60	c	25Y 53 00	10YR58 00	C			Y	0	0	HR	3		P		Y		
	60-75	c	10YR61 00	75YR58 00	M			Y	0	0	HR	3		P		Y		PLASTIC

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED	----STONES----			STRUCT/	SUBS	
				COL.	ABUN	CONT		COL.	GLEY	>2	>6	LITH	
9	0-30	hc1	10YR42 00 000C00 00 C					Y	0	0	HR	1	
	30-60	c	10YR53 00 000C00 00 M					Y	0	0		0	P Y Y
10	0-22	hc1	10YR42 00 10YR46 00 F						0	0		0	
	22-55	c	25Y 52 53 10YR56 00 C					Y	0	0	HR	3	P Y
	55-75	c	25Y 62 00 10YR56 00 M					Y	0	0		0	P Y
11	0-30	hc1	10YR42 00						0	0	HR	1	
	30-60	c	10YR53 00 000C00 00 M					Y	0	0		0	P Y Y
12	0-25	hc1	10YR42 00 000C00 00 C					Y	0	0	HR	1	
	25-60	c	25Y 53 00 000C00 00 M					Y	0	0		0	P Y Y
13	0-30	hc1	10YR42 00						0	0	HR	1	
	30-60	c	25Y 53 00 000C00 00 M					Y	0	0		0	P Y Y
14	0-25	mc1	10YR43 00						0	0	HR	3	
	25-52	c	25Y 53 54 10YR56 00 C					Y	0	0	HR	5	P Y
	52-80	c	25Y 61 63 10YR56 00 M					Y	0	0	CH	10	P Y Y PLASTIC
15	0-30	hc1	10YR43 00						0	0	HR	3	
	30-44	c	25Y 54 00 10YR56 00 C					Y	0	0	HR	5	P Y
	44-80	c	25Y 52 53 10YR56 00 C					Y	0	0	CH	20	P Y Y
16	0-28	c	10YR52 00 000C00 00 C					Y	0	0	HR	1	
	28-42	c	10YR53 00 000C00 00 M					Y	0	0	HR	2	P Y Y PROB SPL IMP 42
17	0-25	hc1	10YR42 00 000C00 00 C					Y	0	0	HR	1	
	25-50	c	25Y 53 00 000C00 00 M					Y	0	0		0	P Y Y IMP FLINTS 50
18	0-25	c	10YR41 00 000C00 00 M					Y	0	0	HR	1	
	25-60	c	10YR52 00 000C00 00 M					Y	0	0		0	P Y Y
19	0-25	mc1	10YR41 42 10YR46 56 C					Y	0	0		0	
	25-35	hc1	10YR53 00 10YR56 00 C					Y	0	0		0	M
	35-80	c	25Y 52 53 10YR58 00 M		00MN00 00 Y			Y	0	0	HR	10	P Y Y
20	0-28	mc1	10YR41 42 10YR46 00 F						0	0		0	
	28-60	c	10YR53 52 10YR58 00 C		00MN00 00 Y			Y	0	0	HR	5	P Y Y RIDGE & FURROW
													IMP FLINT 60
21	0-25	c	10YR53 00 000C00 00 M					Y	0	0		0	
	25-60	c	25Y 53 00 000C00 00 M					Y	0	0		0	P Y Y Y Y CALC 50+
22	0-24	mc1	10YR43 00						0	0	HR	3	
	24-34	mc1	25Y 53 00 10YR56 00 F						0	0	HR	3	M
	34-74	c	25Y 63 64 10YR56 00 C					Y	0	0	HR	5	P Y
	74-90	cs1	10YR54 00					Y	0	0	HR	15	M Y +10% CHALK
	90-120	hc1	10YR68 00 10YR68 00 C					Y	0	0		0	P Y Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL.	----STONES----			STRUCT/ LITH TOT	CONSIST	SUBS				
				COL	ABUN	CONT		GEYL	>2	>6			STR	POR	IMP	SPL	CALC
23	0-28	mc1	10YR42 00						0	0	HR	1					
	28-45	c	25Y 54 00 10YR56 00 F						0	0		0	M				
	45-70	c	25Y 61 00 10YR56 00 M						Y	0	0	CH	15	P	Y	Y	Y
24	0-30	hc1	10YR42 00						0	0	HR	1					
	30-60	c	25Y 53 00 000C00 00 M						Y	0	0		0	P	Y	Y	
25	0-30	hc1	10YR42 00						0	0	HR	1					
	30-60	c	25Y 53 00 000C00 00 M						Y	0	0		0	P	Y	Y	
26	0-20	mc1	10YR41 00						0	0		0					RIDGE & FURROW
	20-35	hc1	10YR53 00 10YR56 00 C				00MN00 00 Y		0	0		0	M				
	35-55	c	10YR53 00 10YR56 00 C				00MN00 00 Y		0	0		0	P		Y		
	55-80	c	25Y 51 52 10YR58 00 M				00MN00 00 Y		0	0	CH	10	P		Y	Y	
27	0-30	mc1	10YR42 00 10YR58 00 C					Y	0	0		0					RIDGE & FURROW
	30-55	c	25Y 52 53 10YR58 00 M				00MN00 00 Y		0	0	HR	5	P		Y		
	55-80	c	05Y 61 51 10YR58 00 M					Y	0	0	CH	8	P		Y	Y	
28	0-28	mc1	10YR42 00						0	0	HR	1					
	28-60	c	25Y 53 00 000C00 00 C						Y	0	0		0	P	Y	Y	Y
29	0-30	hc1	10YR42 00 000C00 00 F						0	0	HR	1					
	30-60	c	10YR53 00 000C00 00 M						Y	0	0		0	P	Y	Y	CALC 50+
30	0-30	hc1	10YR42 00						0	0	HR	1					
	30-60	c	10YR53 00 000C00 00 M						Y	0	0	HR	2	P	Y	Y	
31	0-25	mc1	10YR42 00 000C00 00 C						Y	0	0		0				
	25-60	c	25Y 53 00 000C00 00 C						Y	0	0		0	P	Y	Y	
32	0-25	hc1	10YR42 00 000C00 00 C						Y	0	0	HR	1				
	25-60	c	25Y 53 00 000C00 00 M						Y	0	0		0	P	Y	Y	
33	0-24	hc1	10YR42 00 10YR56 00 C						Y	0	0	HR	2				
	24-58	c	25Y 42 43 10YR56 00 C						Y	0	0	HR	2	P		Y	
	58-70	c	25Y 52 00 10YR58 00 M						Y	0	0	HR	2	P		Y	
34	0-28	mc1	10YR42 00 10YR56 00 C						Y	0	0	HR	2				RIDGE & FURROW
	28-36	c	25Y 43 00 10YR56 00 C						Y	0	0	HR	2	P		Y	
	36-60	c	25Y 61 62 10YR56 00 M						Y	0	0	HR	2	P		Y	Y
35	0-20	mc1	10YR41 00						0	0		0					POSS ORG RIDG&FURW
	20-35	hc1	10YR52 53 10YR56 00 C						Y	0	0		0	M			
	35-50	c	25Y 52 53 10YR58 00 C				00MN00 00 Y		0	0		0	P		Y		
	50-70	c	25Y 51 61 10YR58 00 M						Y	0	0	CH	10	P		Y	Y
36	0-28	mc1	10YR42 00						0	0	HR	1					
	28-60	c	25Y 53 00 000C00 00 C						Y	0	0		0	P	Y	Y	Y

SAMPLE	DEPTH	TEXTURE	COLOUR	---MOTTLES---			PED COL.	---STONES---			STRUCT/ SUBS								
				COL	ABUN	CONT		GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC	
37	0-30	mc1	10YR42 00						0	0	HR	1							
	30-60	c	25Y 53 00 000C00 00 C					Y	0	0		0		P	Y	Y	Y	Y	
38	0-28	hc1	10YR43 00						0	0	HR	1							
	28-60	c	25Y 53 00 000C00 00 C					Y	0	0		0		P	Y	Y	Y	Y	
39	0-25	hc1	10YR42 00						0	0	HR	1							
	25-60	c	25Y 53 00 000C00 00 C					Y	0	0		0		P	Y	Y			
40	0-25	c	10YR42 00 000C00 00 C					Y	0	0		0							
	25-60	c	10YR53 00 000C00 00 M					Y	0	0		0		P	Y	Y			
41	0-30	mc1	10YR42 00 000C00 00 C					Y	0	0	HR	1							RIDGE & FURROW
	30-60	c	25Y 53 00 000C00 00 M					Y	0	0		0		P	Y	Y	Y	Y	
42	0-25	mc1	10YR42 00 10YR46 00 C					Y	0	0	HR	2							SEE 3P RIDGE&FURROW
	25-48	c	25Y 52 53 10YR56 00 C					Y	0	0	HR	2		P		Y			
	48-70	c	25Y 61 62 10YR56 00 M					Y	0	0	CH	10		P		Y	Y		
43	0-28	mc1	10YR43 00						0	0	HR	1							
	28-35	c	10YR53 00 000C00 00 C					Y	0	0	HR	1		M					
	35-60	c	10YR53 00 000C00 00 C					Y	0	0		0		P	Y	Y			
44	0-30	mc1	10YR42 00 000C00 00 C					Y	0	0	HR	1							
	30-40	c	10YR53 00 000C00 00 C					Y	0	0	HR	5		M					IMP FLINT 40
45	0-25	hc1	10YR42 00						0	0	HR	1							
	25-60	c	25Y 53 00 000C00 00 C					Y	0	0		0		P	Y	Y	Y	Y	
46	0-25	c	10YR42 00 000C00 00 C					Y	0	0	HR	1							
	25-60	c	10YR52 00 000C00 00 M					Y	0	0		0		P	Y	Y			
47	0-24	mc1	10YR41 42 10YR56 00 C					Y	0	0	HR	2							
	24-60	c	25Y 71 00 10YR56 00 M					Y	0	0	HR	2		P		Y			
48	0-30	hc1	10YR42 00 000C00 00 C					Y	0	0		0							RIDGE & FURROW
	30-60	c	10YR53 00 000C00 00 M					Y	0	0		0		P	Y	Y			
49	0-25	c	10YR42 52 10YR56 00 C					Y	0	0		0							RIDGE & FURROW
	25-70	c	25Y 53 52 10YR58 00 M					Y	0	0		0		P		Y			
50	0-30	mc1	10YR43 00						0	0	HR	1							
	30-60	c	10YR53 00 000C00 00 C					Y	0	0	HR	1		P		Y			
51	0-30	mc1	10YR42 00 000C00 00 C					Y	0	0	HR	1							
	30-60	c	25Y 53 00 000C00 00 C					Y	0	0	HR	1		P	Y	Y			
52	0-30	hc1	10YR42 00 000C00 00 C					Y	0	0	HR	1							
	30-60	c	25Y 53 00 000C00 00 C					Y	0	0		0		P	Y	Y	Y	Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED	----STONES----			STRUCT/	SUBS							
				COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC	
53	0-18	mc1	10YR42 00	10YR46 00	F				0	0	HR	2						ROOT MOTTLING	
	18-42	c	25Y 61 63	10YR58 00	M				Y	0	0	HR	2	P				Y	
	42-70	c	25Y 71 00	10YR58 00	M				Y	0	0	HR	2	P				Y	
54	0-20	mc1	10YR41 42	10YR46 00	F	00MN00 00		0	0			0							
	20-35	hc1	10YR53 54	10YR56 00	F	00MN00 00		0	0			0		M					
	35-70	c	25Y 53 54	10YR56 00	C	00MN00 00	Y	0	0			0		P				Y	
55	0-30	mc1	10YR41 00					0	0			0						POSS ORG TOPSOIL	
	30-60	c	10YR52 53	10YR56 58	C	00MN00 00	Y	0	0	HR		5		P				IMP FLINTS 60	
56	0-25	hc1	10YR42 00					0	0	HR		1							
	25-45	c	10YR43 00	10YR46 00	F			0	0	HR		1		M					
	45-60	c	10YR53 00	10YR46 00	C			Y	0	0	HR		1	P				Y	
	60-80	c	25Y 61 62	10YR56 00	M	00FE00 00	Y	0	0	HR		1		P				Y	
57	0-28	mc1	10YR42 00					0	0	HR		1							
	28-35	c	10YR53 00					0	0			0		M					
	35-60	c	10YR53 00	000C00 00	C			Y	0	0		0		P	Y			Y	
58	0-28	hc1	10YR42 00					0	0	HR		1							
	28-60	c	25Y 53 00	000C00 00	C			Y	0	0		0		P	Y			Y	
59	0-30	hc1	25Y 42 00					0	0	HR		3							
	30-65	c	10YR53 52	10YR56 00	C	00MN00 00	Y	0	0	HR		5		P				Y	
	65-70	c	25Y 53 00	10YR56 58	C			Y	0	0	CH		3		P		Y	Y	IMP FLINT 70
60	0-19	mc1	10YR42 00					0	0	HR		2						RIDGE & FURROW	
	19-54	hc1	25Y 42 00	10YR58 00	C			Y	0	0	HR		2		P			Y	
	54-80	c	25Y 61 53	10YR58 00	M			Y	0	0	HR		2		P		Y	Y	
61	0-28	hc1	10YR41 42	10YR46 00	F			0	0	HR		2							
	28-60	c	10YR53 00	10YR56 00	C	00MN00 00	Y	0	0	HR		5		P				Y	
	60-80	c	25Y 52 00	10YR58 00	M	00MN00 00	Y	0	0	CH		10		P		Y	Y		
62	0-28	mc1	10YR41 00	10YR46 00	F			0	0			0						POSS ORG TOPSOIL	
	28-50	c	25Y 53 00	10YR56 00	C	00MN00 00	Y	0	0	HR		2		P				Y	
	50-70	c	25Y 62 63	10YR58 00	M			Y	0	0	CH		5		P		Y	Y	
63	0-28	mc1	10YR42 00					0	0	HR		2							
	28-35	c	10YR53 00					0	0	HR		2		M					
	35-60	c	10YR53 00	000C00 00	C			Y	0	0	HR		2		P	Y		Y	
64	0-28	hc1	10YR42 00	000C00 00	C			Y	0	0	HR		2						
	28-60	c	25Y 53 00	000C00 00	C			Y	0	0	HR		5		P	Y		Y	
65	0-25	mc1	10YR32 42					0	0			0							
	25-35	hc1	10YR42 52	10YR56 00	C			Y	0	0	HR		5		M				
	35-60	c	25Y 53 00	10YR58 00	M	00MN00 00	Y	0	0	HR		5		P				Y	
	60-80	c	05Y 51 00	10YR58 00	M	00MN00 00	Y	0	0	CH		10		P		Y	Y		

SAMPLE NO.	GRID REF	ASPECT USE	GRDNT	GLEY	SPL	CLASS	GRADE	AP	MB	AP	MB	M.REL	EROSN	FROST	CHEM	ALC	COMMENTS
1	SP81203854	PGR N	1	0	30	4	3B		0		0					WE	3B
1P	SP81313809	PGR		0	21	4	3B	83	-21	89	-6	3B				WE	3B PIT 60
2	SP81203840	PGR N	1	0	28	4	3B		0		0					WE	3B
2P	SP80613784	PGR N	1	51	42	3	3A	103	-1	107	12	3A				WE	3A PIT 80
3	SP81403840	PGR SE	1	0	10	4	3B		0		0					WE	3B
3P	SP81703770	PGR E	1	23	23	4	3B	86	-18	92	-3	3A				WE	3B PIT 60
4	SP81113830	PGR N	1	0	25	4	3B		0		0					WE	3B IMP 60
4P	SP80803720	PGR		41	41	3	3A	99	-5	104	9	3A				WE	3A PIT 80
5	SP81303830	PGR N	1	25	25	4	3B		0		0					WE	3B
5P	SP81103690	PGR		21	21	4	3B	89	-15	100	5	3A				WE	3B PIT 70
6	SP81603830	LEY		30	30	4	3B		0		0					WE	3B
7	SP81203820	PGR SE	1	0	30	4	3B		0		0					WE	3B
8	SP81393820	PGR SE	1	30	45	3	3A		0		0					WE	3A
9	SP81603820	LEY		0	30	4	3B		0		0					WE	3B
10	SP81103810	PGR SE	1	22	22	4	3B		0		0					WE	3B
11	SP81313809	LEY		30	30	4	3B		0		0					WE	3B SEE 1P
12	SP81503810	LEY		0	25	4	3B		0		0					WE	3B
13	SP81703810	LEY		30	30	4	3B		0		0					WE	3B
14	SP80783799	PGR		25	25	4	3B		0		0					WE	3B
15	SP81003800	PGR SE	1	30	30	3	3A		0		0					WE	3B
16	SP81203800	LEY		0	28	4	3B	65	-39	65	-30	3B				WE	3B IMP42 PROBSPL
17	SP81403800	LEY		0	25	4	3B		0		0					WE	3B IMP 50
18	SP81603800	LEY		0	35	4	3B		0		0					WE	3B
19	SP81803800	PGR SE	2	0	35	4	3B		0		0					WE	RIDGE&FURROW
20	SP82003800	PGR S	1	28	28	4	3B		0		0					WE	IMP60 RGE&FRW
21	SP80643790	PGR		0	25	4	3B		0		0					WE	3B
22	SP80703790	PGR		34	34	4	3B	141	37	112	17	1				WE	3B
23	SP80903790	PGR		45	45	3	3A		0		0					WE	3A
24	SP81103790	LEY		30	30	4	3B		0		0					WE	3B
25	SP81503790	LEY		30	30	4	3B		0		0					WE	3B
26	SP81703790	PGR SE	2	20	35	4	3B		0		0					WE	RIDGE&FURROW
27	SP81903790	PGR SE	1	0	30	4	3B		0		0					WE	RIDGE&FURROW
28	SP80603780	PGR		28	28	4	3B		0		0					WE	3B
29	SP80743780	LEY		30	30	4	3B		0		0					WE	3B
30	SP80803780	PGR		30	30	4	3B		0		0					WE	3B
31	SP81003780	PGR		0	25	4	3B		0		0					WE	3B
32	SP81203780	LEY		0	25	4	3B		0		0					WE	3B
33	SP81403780	PGR W	1	0	24	4	3B		0		0					WE	3B
34	SP81603780	PGR		0	28	4	3B		0		0					WE	RIDGE&FURROW
35	SP81803780	PGR SE	1	20	35	4	3B		0		0					WE	RIDGE&FURROW
	SP80503770	PGR		28	28	4	3B		0		0					WE	3B
	SP80703770	PGR		30	30	4	3B		0		0					WE	3B

SAMPLE NO.	GRID REF	USE	ASPECT	--WETNESS--				-WHEAT-		-POTS-		M. REL	EROSN	FROST	CHEM	ALC	COMMENTS	
				GRDN	GLEY	SPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	LIMIT	
38	SP80903770	PGR		28	28	4	3B		0	0					WE	3B		
39	SP81103770	PGR		25	25	4	3B		0	0					WE	3B		
40	SP81303770	PGR		0	25	4	3B		0	0					WE	3B		
41	SP81503770	PGR		0	30	4	3B		0	0					WE	3B	RIDGE&FURROW	
42	SP81703770	PGR	SE	2	0	25	4	3B		0	0				WE	3B	SEE 3P RG&FRW	
43	SP80603760	PGR		28	35	4	3B		0	0					WE	3B		
44	SP80803760	PGR		0	3	3A	69	-35	69	-26	3B				WE	3A	IMP 40 QWE	
45	SP81003760	LEY		25	25	4	3B		0	0					WE	3B		
46	SP81203760	PGR		0	25	4	3B		0	0					WE	3B		
47	SP81403760	PGR		0	24	4	3B		0	0					WE	3B		
48	SP81603760	PGR		0	30	4	3B		0	0					WE	3B	RIDGE&FURROW	
49	SP81793760	PGR		0	25	4	3B		0	0					WE	3B	RIDGE&FURROW	
50	SP80503750	PGR		30	30	4	3B		0	0					WE	3B		
51	SP80703750	PGR		0	30	4	3B		0	0					WE	3B		
52	SP80903750	PGR		0	30	4	3B		0	0					WE	3B		
53	SP81303750	PGR	E	1	18	18	4	3B		0	0				WE	3B		
54	SP81503750	PGR		35	35	4	3B		0	0					WE	3B		
55	SP81723750	PGR		30	30	4	3B		0	0					WE	3B	IMP. 60	
56	SP80403740	PGR		45	45	3	3B		0	0					WE	3B		
57	SP80603740	PGR		35	35	4	3B		0	0					WE	3B		
58	SP80803740	PGR		28	28	4	3B		0	0					WE	3B		
59	SP81023739	PGR		30	30	4	3B		0	0					WE	3B	IMP FLINT 70	
60	SP81203740	PGR	E	1	19	19	4	3B		0	0				WE	3A		
61	SP81403740	PGR	NE	1	28	28	4	3B		0	0				WE	3B		
62	SP81603740	PGR	NE	1	28	28	4	3B		0	0				WE	3B		
63	SP80603730	PGR		35	35	4	3B		0	0					WE	3B		
64	SP80703730	LEY		0	28	4	3B		0	0					WE	3B		
65	SP80803730	PGR		25	35	4	3B		0	0					WE	3B		
66	SP80903730	PGR		50	50	3	3A	113	9	104	9	2			WE	3A	SL GLEY 23	
67	SP81103730	PGR		35	35	4	3B		0	0					WE	3B	SL GLEY 18	
68	SP81303730	PGR	NE	1	25	35	4	3B		0	0				WE	3B		
69	SP81503730	LEY		0	28	4	3B		0	0					WE	3B		
70	SP80403720	PGR		0	28	4	3B		0	0					WE	3B		
71	SP80503720	PGR		30	30	4	3B		0	0					WE	3B		
72	SP80603720	LEY		0	28	4	3B		0	0					WE	3B		
73	SP80703720	PGR		0	20	4	3B		0	0					WE	3B		
74	SP80803720	PGR		40	40	3	3A		0	0					WE	3A	SL GLEY 25 4P	
75	SP81003720	PGR		22	22	4	3B		0	0					WE	3B		
76	SP81203720	PGR	NE	1	30	30	4	3B	139	35	103	8	2			WE	3B	
77	SP81403720	LEY		0	28	4	3B		0	0					WE	3B		
78	SP81603720	LEY		0	28	4	3B		0	0					WE	3B		
79	SP80503710	PGR		0	30	4	3B		0	0					WE	3B		

SAMPLE NO.	GRID REF	ASPECT USE	--WETNESS--				-WHEAT-		-POTS-		M.REL	EROSN	FROST	CHEM	ALC	COMMENTS	
			GRDN	GLEY	SPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST	LIMIT	
80	SP80703710	PGR		45	45	3	3A		0	0					WE	3A	SL GLEY 25
81	SP80903710	PGR		45	45	3	3A		0	0					WE	3A	IMP FLINTS 70
82	SP81103710	PGR		30	30	4	3B		0	0					WE	3B	
83	SP81303710	LEY		28	35	4	3B		0	0					WE	3B	
84	SP81503710	LEY		28	28	4	3B		0	0					WE	3B	
85	SP80603700	PGR		28	28	4	3B		0	0					WE	3B	
86	SP80803700	PGR		45	45	3	3A		0	0					WE	3A	SL GLEY 28
87	SP81003700	LEY		0	28	4	3B		0	0					WE	3B	
88	SP81203700	LEY		30	30	4	3B		0	0					WE	3B	
89	SP80503690	PGR		30	30	4	3B		0	0					DR	3B	IMP 60
90	SP80703690	PGR		28	28	4	3B		0	0					WE	3B	IMP 90
91	SP80903690	LEY		0	30	4	3B		0	0					WE	3B	
92	SP81103690	LEY		28	28	4	3B		0	0					WE	3B	SEE 5P
93	SP80803680	PGR		28	28	4	3B		0	0					WE	3B	MOIST
94	SP81003680	LEY		30	30	4	3B		0	0					WE	3B	
95	SP81203680	LEY		28	28	4	3B		0	0					WE	3B	
96	SP81103670	LEY		28	28	4	3B		0	0					WE	3B	
97	SP81203660	LEY		25	25	4	3B		0	0					WE	3B	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL.	----STONES----			STRUCT/ LITH TOT CONSIST	SUBS				
				COL	ABUN	CONT		GLEY	>2	>6		STR	POR	IMP	SPL	CALC
1	0-25	mc1	10YR41 00	75YR46 00	C			Y	0	0	0					
	25-30	c	10YR53 00	10YR58 00	C			Y	0	0	0	M				
	30-70	c	10YR61 00	75YR58 00	M			Y	0	0	0	P		Y	PLASTIC	
1P	0-21	hc1	10YR31 41	10YR46 00	C			Y	0	0	0					
	21-47	c	25Y 42 00	10YR58 00	M		25Y 41 00	Y	0	0	0	MDCAB	FM P	Y	Y	
	47-60	c	05Y 51 00	75YR58 00	M		05Y 51 61	Y	0	0	0	MDCPR	FM P	Y	Y	
2	0-28	hc1	10YR52 53	75YR56 00	C			Y	0	0	0					
	28-70	c	10YR62 00	75YR58 00	M			Y	0	0	0	P		Y	PLASTIC	
2P	0-26	mc1	10YR33 00						0	0	0					
	26-42	hc1	25Y 53 00	00MN00 00	F		00FE00 00		0	0	HR	5	MDCSAB	FR M		
	42-51	c	10YR42 00	10YR56 00	F		00MN00 00		0	0		0	MDCAB	FM P	Y	Y
	51-80	c	25Y 52 00	10YR58 00	M			Y	0	0	CH	5	MDCPR	FM P	Y	Y Y
3	0-10	mc1	10YR41 00	10YR58 00	C			Y	0	0	HR	2				
	10-70	c	25Y 71 00	75YR68 00	M			Y	0	0	HR	2	P		Y	PLASTIC
3P	0-23	mc1	10YR32 00						0	0	HR	2				RIDGE AND FURROW
	23-41	c	10YR42 00	10YR56 00	C			Y	0	0	HR	5	MDCAB	FR M	Y	Y
	41-60	c	25Y 52 00	10YR58 00	M		25Y 53 00	Y	0	0	HR	5	STCAB	FM P	Y	Y Y
4	0-25	mc1	10YR42 00	10YR58 00	C			Y	0	0		0				FEW MN CONCS
	25-60	c	25Y 63 71	75YR58 00	C		00MN00 00	Y	0	0	HR	5	P		Y	IMP FLINTS 60
4P	0-19	mc1	10YR42 00						0	0	HR	2				
	19-41	hc1	25Y 44 00	10YR58 00	F		10YR44 43		3	0	HR	5	WKCSAB	FM M		
	41-62	c	25Y 42 52	10YR58 00	M		25Y 42 52	Y	0	0	HR	2	MDCPR	VM P	Y	Y
	62-80	c	25Y 61 00	10YR58 00	M		25Y 53 00	Y	0	0	CH	10	WKCPR	VM P	Y	Y Y
5	0-25	mc1	10YR42 00						0	0		0				
	25-70	c	25Y 52 00	10YR58 00	C			Y	0	0	HR	5	P		Y Y	
5P	0-21	hc1	10YR31 41						0	0	HR	2				
	21-31	c	10YR53 00	10YR56 00	C		25Y 43 53	Y	0	0	HR	5	MDCPR	FR M	Y	Y
	31-55	c	25Y 52 53	10YR58 00	M		25Y 52 00	Y	0	0	HR	5	MDCPR	FM P	Y	Y
	55-70	c	05Y 51 00	10YR58 00	M		25Y 52 00	Y	0	0	CH	10	MDCAB	FM P	Y	Y Y +5% FLINTS
6	0-30	hc1	10YR42 00						0	0	HR	1				
	30-60	c	25Y 53 00	000C00 00	M			Y	0	0	HR	1	P	Y	Y	
7	0-30	hc1	10YR41 00	10YR56 00	C			Y	0	0		0				
	30-70	c	25Y 61 00	75YR58 00	M			Y	0	0	HR	3	P		Y	
8	0-30	mc1	10YR43 00						0	0		0				
	30-45	hc1	10YR53 00	10YR58 00	C			Y	0	0		0	M			FRIABLE
	45-60	c	25Y 53 00	10YR58 00	C			Y	0	0	HR	3	P		Y	
	60-75	c	10YR61 00	75YR58 00	M			Y	0	0	HR	3	P		Y	PLASTIC

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL.	----STONES----			STRUCT/ TOT CONSIST	SUBS				
				COL	ABUN	CONT		GLEY	>2	>6	LITH	STR	POR	IMP	SPL	CALC
23	0-28	mc1	10YR42 00					0	0	HR	1					
	28-45	c	25Y 54 00	10YR56 00	F			0	0		0	M				
	45-70	c	25Y 61 00	10YR56 00	M			Y	0	0	CH	15	P	Y	Y	Y
24	0-30	hc1	10YR42 00					0	0	HR	1					
	30-60	c	25Y 53 00	000C00 00	M			Y	0	0		0	P	Y	Y	
25	0-30	hc1	10YR42 00					0	0	HR	1					
	30-60	c	25Y 53 00	000C00 00	M			Y	0	0		0	P	Y	Y	
26	0-20	mc1	10YR41 00					0	0		0					RIDGE & FURROW
	20-35	hc1	10YR53 00	10YR56 00	C	00MN00 00	Y	0	0		0	M				
	35-55	c	10YR53 00	10YR56 00	C	00MN00 00	Y	0	0		0	P		Y		
	55-80	c	25Y 51 52	10YR58 00	M	00MN00 00	Y	0	0	CH	10	P		Y	Y	
27	0-30	mc1	10YR42 00	10YR58 00	C			Y	0	0		0				RIDGE & FURROW
	30-55	c	25Y 52 53	10YR58 00	M	00MN00 00	Y	0	0	HR	5	P		Y		
	55-80	c	05Y 61 51	10YR58 00	M			Y	0	0	CH	8	P		Y	Y
28	0-28	mc1	10YR42 00					0	0	HR	1					
	28-60	c	25Y 53 00	000C00 00	C			Y	0	0		0	P	Y	Y	Y
29	0-30	hc1	10YR42 00	000C00 00	F			0	0	HR	1					
	30-60	c	10YR53 00	000C00 00	M			Y	0	0		0	P	Y	Y	CALC 50+
30	0-30	hc1	10YR42 00					0	0	HR	1					
	30-60	c	10YR53 00	000C00 00	M			Y	0	0	HR	2	P	Y	Y	
31	0-25	mc1	10YR42 00	000C00 00	C			Y	0	0		0				
	25-60	c	25Y 53 00	000C00 00	C			Y	0	0		0	P	Y	Y	
32	0-25	hc1	10YR42 00	000C00 00	C			Y	0	0	HR	1				
	25-60	c	25Y 53 00	000C00 00	M			Y	0	0		0	P	Y	Y	
33	0-24	hc1	10YR42 00	10YR56 00	C			Y	0	0	HR	2				
	24-58	c	25Y 42 43	10YR56 00	C			Y	0	0	HR	2	P		Y	
	58-70	c	25Y 52 00	10YR58 00	M			Y	0	0	HR	2	P		Y	
34	0-28	mc1	10YR42 00	10YR56 00	C			Y	0	0	HR	2				RIDGE & FURROW
	28-36	c	25Y 43 00	10YR56 00	C			Y	0	0	HR	2	P		Y	
	36-60	c	25Y 61 62	10YR56 00	M			Y	0	0	HR	2	P		Y	Y
35	0-20	mc1	10YR41 00					0	0		0					POSS ORG RIDG&FURW
	20-35	hc1	10YR52 53	10YR56 00	C			Y	0	0		0	M			
	35-50	c	25Y 52 53	10YR58 00	C	00MN00 00	Y	0	0		0	P		Y		
	50-70	c	25Y 51 61	10YR58 00	M			Y	0	0	CH	10	P		Y	Y
36	0-28	mc1	10YR42 00					0	0	HR	1					
	28-60	c	25Y 53 00	000C00 00	C			Y	0	0		0	P	Y	Y	Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL.	----STONES----			STRUCT/ TOT CONSIST	SUBS			
				COL	ABUN	CONT		GEY	>2	>6	LITH	STR	POR	IMP	SPL
37	0-30	mc1	10YR42 00					0	0	HR	1				
	30-60	c	25Y 53 00 000C00 00 C					Y	0	0	0	P	Y	Y	Y
38	0-28	hc1	10YR43 00					0	0	HR	1				
	28-60	c	25Y 53 00 000C00 00 C					Y	0	0	0	P	Y	Y	Y
39	0-25	hc1	10YR42 00					0	0	HR	1				
	25-60	c	25Y 53 00 000C00 00 C					Y	0	0	0	P	Y	Y	
40	0-25	c	10YR42 00 000C00 00 C					Y	0	0	0				
	25-60	c	10YR53 00 000C00 00 M					Y	0	0	0	P	Y	Y	
41	0-30	mc1	10YR42 00 000C00 00 C					Y	0	0	HR	1			RIDGE & FURROW
	30-60	c	25Y 53 00 000C00 00 M					Y	0	0	0	P	Y	Y	Y
42	0-25	mc1	10YR42 00 10YR46 00 C					Y	0	0	HR	2			SEE 3P RIDGE&FURROW
	25-48	c	25Y 52 53 10YR56 00 C					Y	0	0	HR	2	P		Y
	48-70	c	25Y 61 62 10YR56 00 M					Y	0	0	CH	10	P	Y	Y
43	0-28	mc1	10YR43 00					0	0	HR	1				
	28-35	c	10YR53 00 000C00 00 C					Y	0	0	HR	1	M		
	35-60	c	10YR53 00 000C00 00 C					Y	0	0	0	P	Y	Y	
44	0-30	mc1	10YR42 00 000C00 00 C					Y	0	0	HR	1			
	30-40	c	10YR53 00 000C00 00 C					Y	0	0	HR	5	M		IMP FLINT 40
45	0-25	hc1	10YR42 00					0	0	HR	1				
	25-60	c	25Y 53 00 000C00 00 C					Y	0	0	0	P	Y	Y	Y
46	0-25	c	10YR42 00 000C00 00 C					Y	0	0	HR	1			
	25-60	c	10YR52 00 000C00 00 M					Y	0	0	0	P	Y	Y	
47	0-24	mc1	10YR41 42 10YR56 00 C					Y	0	0	HR	2			
	24-60	c	25Y 71 00 10YR56 00 M					Y	0	0	HR	2	P		Y
48	0-30	hc1	10YR42 00 000C00 00 C					Y	0	0	0				RIDGE & FURROW
	30-60	c	10YR53 00 000C00 00 M					Y	0	0	0	P	Y	Y	
49	0-25	c	10YR42 52 10YR56 00 C					Y	0	0	0				RIDGE & FURROW
	25-70	c	25Y 53 52 10YR58 00 M					Y	0	0	0	P		Y	
50	0-30	mc1	10YR43 00					0	0	HR	1				
	30-60	c	10YR53 00 000C00 00 C					Y	0	0	HR	1	P		Y
51	0-30	mc1	10YR42 00 000C00 00 C					Y	0	0	HR	1			
	30-60	c	25Y 53 00 000C00 00 C					Y	0	0	HR	1	P	Y	Y
52	0-30	hc1	10YR42 00 000C00 00 C					Y	0	0	HR	1			
	30-60	c	25Y 53 00 000C00 00 C					Y	0	0	0	P	Y	Y	Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED	---STONES---			STRUCT/	SUBS						
				COL	ABUN	CONT	COL.	GEYL	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC
53	0-18	mc1	10YR42 00	10YR46 00	F				0	0	HR	2						ROOT MOTTLING
	18-42	c	25Y 61 63	10YR58 00	M				Y	0	0	HR	2	P				Y
	42-70	c	25Y 71 00	10YR58 00	M				Y	0	0	HR	2	P				Y
54	0-20	mc1	10YR41 42	10YR46 00	F			00MN00 00		0	0		0					
	20-35	hc1	10YR53 54	10YR56 00	F			00MN00 00		0	0		0	M				
	35-70	c	25Y 53 54	10YR56 00	C			00MN00 00	Y	0	0		0	P				Y
55	0-30	mc1	10YR41 00						0	0		0						POSS ORG TOPSOIL
	30-60	c	10YR52 53	10YR56 58	C			00MN00 00	Y	0	0	HR	5	P				IMP FLINTS 60
56	0-25	hc1	10YR42 00						0	0	HR	1						
	25-45	c	10YR43 00	10YR46 00	F				0	0	HR	1	M					
	45-60	c	10YR53 00	10YR46 00	C				Y	0	0	HR	1	P				Y
	60-80	c	25Y 61 62	10YR56 00	M			00FE00 00	Y	0	0	HR	1	P				Y
57	0-28	mc1	10YR42 00						0	0	HR	1						
	28-35	c	10YR53 00						0	0		0	M					
	35-60	c	10YR53 00	000C00 00	C				Y	0	0		0	P	Y			Y
58	0-28	hc1	10YR42 00						0	0	HR	1						
	28-60	c	25Y 53 00	000C00 00	C				Y	0	0		0	P	Y			Y
59	0-30	hc1	25Y 42 00						0	0	HR	3						
	30-65	c	10YR53 52	10YR56 00	C			00MN00 00	Y	0	0	HR	5	P				Y
	65-70	c	25Y 53 00	10YR56 58	C				Y	0	0	CH	3	P		Y	Y	IMP FLINT 70
60	0-19	mc1	10YR42 00						0	0	HR	2						RIDGE & FURROW
	19-54	hc1	25Y 42 00	10YR58 00	C				Y	0	0	HR	2	P				Y
	54-80	c	25Y 61 53	10YR58 00	M				Y	0	0	HR	2	P		Y	Y	
61	0-28	hc1	10YR41 42	10YR46 00	F				0	0	HR	2						
	28-60	c	10YR53 00	10YR56 00	C			00MN00 00	Y	0	0	HR	5	P				Y
	60-80	c	25Y 52 00	10YR58 00	M			00MN00 00	Y	0	0	CH	10	P		Y	Y	
62	0-28	mc1	10YR41 00	10YR46 00	F				0	0		0						POSS ORG TOPSOIL
	28-50	c	25Y 53 00	10YR56 00	C			00MN00 00	Y	0	0	HR	2	P				Y
	50-70	c	25Y 62 63	10YR58 00	M				Y	0	0	CH	5	P		Y	Y	
63	0-28	mc1	10YR42 00						0	0	HR	2						
	28-35	c	10YR53 00						0	0	HR	2	M					
	35-60	c	10YR53 00	000C00 00	C				Y	0	0	HR	2	P	Y			Y
64	0-28	hc1	10YR42 00	000C00 00	C				Y	0	0	HR	2					
	28-60	c	25Y 53 00	000C00 00	C				Y	0	0	HR	5	P	Y			Y
65	0-25	mc1	10YR32 42						0	0		0						
	25-35	hc1	10YR42 52	10YR56 00	C				Y	0	0	HR	5	M				
	35-60	c	25Y 53 00	10YR58 00	M			00MN00 00	Y	0	0	HR	5	P				Y
	60-80	c	05Y 51 00	10YR58 00	M			00MN00 00	Y	0	0	CH	10	P		Y	Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED	----STONES----			STRUCT/	SUBS						
				COL	ABUN	CONT	COL.	GEYL	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC
66	0-23	mc1	10YR42 00					0	0	HR	2							
	23-50	c	10YR54 00	10YR56 00	C		00MN00 00	S	0	0	HR	8	M					SLIGHTLY GLEYED
	50-65	c	10YR52 00	10YR58 00	M			Y	0	0	HR	10	P					SLIGHTLY SANDY
	65-100	c	05Y 51 00	75YR68 00	M			Y	0	0	HR	5	P			Y	Y	
67	0-18	mc1	10YR42 00					0	0	HR	2							RIDGE & FURROW
	18-35	hc1	25Y 54 00	10YR56 00	C			S	0	0	HR	2	M					SLIGHTLY GLEYED
	35-58	c	25Y 53 00	10YR56 00	C			Y	0	0	HR	2	P			Y		
	58-70	c	25Y 51 53	10YR56 00	M			Y	0	0	CH	10	P			Y	Y	
68	0-25	hc1	10YR41 42	10YR46 00	F			0	0	HR	2							
	25-35	hc1	10YR53 00	10YR56 00	C		00MN00 00	Y	0	0		0	M					
	35-50	c	25Y 51 00	10YR58 00	C		00MN00 00	Y	0	0		0	P			Y		
	50-80	c	05Y 51 00	10YR58 00	M		00MN00 00	Y	0	0	CH	5	P			Y	Y	
69	0-28	c	10YR42 00	000C00 00	C			Y	0	0	HR	1						
	28-60	c	25Y 53 00	000C00 00	C			Y	0	0	CH	1	P	Y		Y	Y	
70	0-28	c	10YR42 00	000C00 00	C			Y	0	0	HR	1						
	28-60	c	25Y 53 00	000C00 00	M			Y	0	0		0	P	Y		Y		
71	0-30	hc1	10YR42 00					0	0	HR	1							
	30-60	c	25Y 53 00	000C00 00	C			Y	0	0		0	P	Y		Y	Y	
72	0-28	mc1	10YR42 00	000C00 00	C			Y	0	0	HR	1						
	28-60	c	25Y 53 00	000C00 00	C			Y	0	0	HR	2	P	Y		Y	Y	
73	0-20	mc1	10YR32 42	10YR46 00	C			Y	0	0		0						
	20-40	c	10YR42 52	10YR56 00	C			Y	0	0		0	P			Y		
	40-70	c	25Y 52 00	10YR58 00	M		00MN00 00	Y	0	0	HR	5	P			Y		
	70-90	c	25Y 51 00	10YR58 00	M		00MN00 00	Y	0	0	HR	5	P			Y		
74	0-25	mc1	10YR42 00					0	0	HR	3							SEE 4P
	25-40	hc1	25Y 54 00	10YR56 58	C		00MN00 00	S	0	0	HR	5	M					SLIGHTLY GLEYED
	40-70	c	25Y 53 00	10YR58 00	C		00MN00 00	Y	0	0	HR	2	P			Y		
	70-90	c	05Y 62 00	10YR68 00	M			Y	0	0	CH	10	P			Y	Y	CLAY-DRY & CRUMBLY
75	0-22	mc1	10YR42 00					0	0		0							
	22-56	c	25Y 53 00	10YR56 00	C			Y	0	0	HR	2	P			Y		
	56-70	c	25Y 52 53	10YR56 00	M			Y	0	0	CH	10	P			Y	Y	
76	0-30	mc1	10YR41 42	10YR46 00	F			0	0	HR	2							
	30-75	c	10YR53 54	10YR56 00	C		00MN00 00	Y	0	0	HR	5	P			Y		CLAY-DRY & CRUMBLY
	75-120	sc1	25Y 51 52	10YR58 00	M		00MN00 00	Y	0	0		0	M					
77	0-28	hc1	10YR42 00	000C00 00	C			Y	0	0	HR	1						
	28-60	c	25Y 53 00	000C00 00	M			Y	0	0		0	P	Y		Y		

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----- PED			----STONES----			STRUCT/ CONSIST	SUBS									
				COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT	STR	POR	IMP	SPL	CALC			
78	0-28	c	10YR42 00	000C00	00	C		Y	0	0	HR	1								
	28-60	c	10YR53 00	000C00	00	M		Y	0	0	HR	1	P	Y	Y	Y	Y			
79	0-30	c	10YR42 00	000C00	00	C		Y	0	0	HR	1								
	30-60	c	25Y 53 00	000C00	00	C		Y	0	0		0	P	Y	Y					
80	0-25	mc1	10YR42 00						0	0	HR	2								
	25-45	hc1	10YR54 00	10YR56 00	C		00MN00 00	S	0	0	HR	10	M				SLIGHTLY GLEYED			
	45-75	c	10YR54 53	10YR58 00	C		00MN00 00	Y	0	0	HR	5	P		Y					
	75-90	c	05Y 62 00	10YR58 00	M			Y	0	0	CH	10	P		Y					
81	0-25	mc1	10YR42 00						0	0	HR	2								
	25-45	c	10YR54 00	10YR58 00	F				0	0	HR	3	M							
	45-70	c	10YR54 53	10YR58 00	C		00MN00 00	Y	0	0	HR	20	P		Y		IMP FLINTS 70			
82	0-30	mc1	10YR42 00						0	0	HR	2								
	30-60	c	25Y 62 63	10YR56 00	C			Y	0	0	HR	2	P		Y					
	60-80	c	25Y 71 00	10YR56 00	C			Y	0	0	CH	15	P		Y	Y				
83	0-28	hc1	10YR42 00						0	0	HR	1								
	28-35	c	10YR53 00	000C00	00	C		Y	0	0		0	M							
	35-60	c	25Y 53 00	000C00	00	M		Y	0	0		0	P	Y	Y					
84	0-28	hc1	10YR42 00						0	0	HR	1								
	28-60	c	25Y 63 00	000C00	00	C		Y	0	0	HR	1	P	Y	Y	Y				
85	0-28	mc1	10YR43 00						0	0	HR	2								
	28-50	c	10YR53 54	10YR58 00	C		00MN00 00	Y	0	0	HR	5	P		Y					
	50-75	c	25Y 42 52	75YR58 00	M		00MN00 00	Y	0	0		0	P		Y					
	75-100	c	05Y 61 00	75YR68 00	M			Y	0	0	CH	12	P		Y	Y		CLAY-DRY & CRUMBLY		
86	0-28	mc1	10YR42 00						0	0	HR	3								
	28-45	c	10YR44 54	10YR56 00	C		00MN00 00	S	0	0	HR	8	M				SLIGHTLY GLEYED			
	45-60	c	10YR53 00	10YR56 00	C		00MN00 00	Y	0	0		0	P		Y					
	60-80	c	25Y 51 00	10YR68 00	M			Y	0	0		0	P		Y	Y				
87	0-28	hc1	10YR42 00	000C00	00	C		Y	0	0	HR	1								
	28-60	c	25Y 53 00	000C00	00	M		Y	0	0		0	P	Y	Y					
88	0-30	hc1	10YR32 00	000C00	00	F			0	0	HR	1								
	30-60	c	25Y 53 00	000C00	00	C		Y	0	0		0	P	Y	Y					
89	0-30	hc1	10YR43 53						0	0	HR	3								
	30-60	c	10YR54 64	10YR68 00	C		00MN00 00	Y	0	0	CH	5	P		Y	Y		IMP FLINT 60		
90	0-28	hc1	10YR42 00						0	0	HR	2								
	28-45	c	10YR53 54	10YR56 66	C			Y	0	0	HR	5	P		Y					
	45-55	c	10YR52 53	10YR56 00	C			Y	0	0		0	P		Y					
	55-90	c	25Y 61 62	10YR68 00	M			Y	0	0	CH	15	P		Y	Y		IMP CH FRAGS 90		

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL.	----STONES----			STRUCT/ TOT CONSIST	SUBS		
				COL	ABUN	CONT		GLEY	>2	>6	LITH	STR	POR	IMP
91	0-30	mc1	10YR42 00	000C00	00	C		Y	0	0	HR	1		
	30-60	c	10YR53 00	000C00	00	M		Y	0	0	HR	1	P	Y
92	0-28	hc1	10YR32 00	000C00	00	F			0	0	HR	1		
	28-60	c	25Y 63 00	000C00	00	M		Y	0	0		0	P	Y
93	0-28	hc1	10YR43 53						0	0	HR	2		
	28-45	c	25Y 51 52	10YR58 00	M		00MN00	00	Y	0	0	0	P	Y
	45-75	c	25Y 51 52	10YR58 00	M			Y	0	0	CH	2	P	Y
	75-90	c	05Y 51 00	10YR58 00	M			Y	0	0	CH	10	P	Y
94	0-30	hc1	10YR42 00						0	0	HR	1		
	30-60	c	25Y 53 00	000C00	00	M		Y	0	0		0	P	Y
95	0-28	hc1	10YR42 00						0	0	HR	1		
	28-60	c	25Y 53 00	000C00	00	M		Y	0	0		0	P	Y
96	0-28	c	10YR42 00						0	0	HR	1		
	28-60	c	25Y 53 00	000C00	00	M		Y	0	0		0	P	Y
97	0-25	c	10YR42 00						0	0	HR	1		
	25-60	c	25Y 53 00	000C00	00	M		Y	0	0		0	P	Y

SEE 5P

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED	---STONES---			STRUCT/	SUBS						
				COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC
66	0-23	mc1	10YR42 00					0	0	HR	2							
	23-50	c	10YR54 00	10YR56 00	C		00MN00 00	S	0	0	HR	8	M					SLIGHTLY GLEYED
	50-65	c	10YR52 00	10YR58 00	M			Y	0	0	HR	10	P					SLIGHTLY SANDY
	65-100	c	05Y 51 00	75YR68 00	M			Y	0	0	HR	5	P			Y	Y	
67	0-18	mc1	10YR42 00					0	0	HR	2							RIDGE & FURROW
	18-35	hc1	25Y 54 00	10YR56 00	C			S	0	0	HR	2	M					SLIGHTLY GLEYED
	35-58	c	25Y 53 00	10YR56 00	C			Y	0	0	HR	2	P			Y		
	58-70	c	25Y 51 53	10YR56 00	M			Y	0	0	CH	10	P			Y	Y	
68	0-25	hc1	10YR41 42	10YR46 00	F			0	0	HR	2							
	25-35	hc1	10YR53 00	10YR56 00	C		00MN00 00	Y	0	0		0	M					
	35-50	c	25Y 51 00	10YR58 00	C		00MN00 00	Y	0	0		0	P			Y		
	50-80	c	05Y 51 00	10YR58 00	M		00MN00 00	Y	0	0	CH	5	P			Y	Y	
69	0-28	c	10YR42 00	000C00 00	C			Y	0	0	HR	1						
	28-60	c	25Y 53 00	000C00 00	C			Y	0	0	CH	1	P	Y		Y	Y	
70	0-28	c	10YR42 00	000C00 00	C			Y	0	0	HR	1						
	28-60	c	25Y 53 00	000C00 00	M			Y	0	0		0	P	Y		Y		
71	0-30	hc1	10YR42 00					0	0	HR	1							
	30-60	c	25Y 53 00	000C00 00	C			Y	0	0		0	P	Y		Y	Y	
72	0-28	mc1	10YR42 00	000C00 00	C			Y	0	0	HR	1						
	28-60	c	25Y 53 00	000C00 00	C			Y	0	0	HR	2	P	Y		Y	Y	
73	0-20	mc1	10YR32 42	10YR46 00	C			Y	0	0		0						
	20-40	c	10YR42 52	10YR56 00	C			Y	0	0		0	P			Y		
	40-70	c	25Y 52 00	10YR58 00	M		00MN00 00	Y	0	0	HR	5	P			Y		
	70-90	c	25Y 51 00	10YR58 00	M		00MN00 00	Y	0	0	HR	5	P			Y		
74	0-25	mc1	10YR42 00					0	0	HR	3							SEE 4P
	25-40	hc1	25Y 54 00	10YR56 58	C		00MN00 00	S	0	0	HR	5	M					SLIGHTLY GLEYED
	40-70	c	25Y 53 00	10YR58 00	C		00MN00 00	Y	0	0	HR	2	P			Y		
	70-90	c	05Y 62 00	10YR68 00	M			Y	0	0	CH	10	P			Y	Y	CLAY-DRY & CRUMBLY
75	0-22	mc1	10YR42 00					0	0		0							
	22-56	c	25Y 53 00	10YR56 00	C			Y	0	0	HR	2	P			Y		
	56-70	c	25Y 52 53	10YR56 00	M			Y	0	0	CH	10	P			Y	Y	
76	0-30	mc1	10YR41 42	10YR46 00	F			0	0	HR	2							
	30-75	c	10YR53 54	10YR56 00	C		00MN00 00	Y	0	0	HR	5	P			Y		CLAY-DRY & CRUMBLY
	75-120	sc1	25Y 51 52	10YR58 00	M		00MN00 00	Y	0	0		0	M					
77	0-28	hc1	10YR42 00	000C00 00	C			Y	0	0	HR	1						
	28-60	c	25Y 53 00	000C00 00	M			Y	0	0		0	P	Y		Y		

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL.	----STONES----			STRUCT/		SUBS			
				COL	ABUN	CONT		GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP
78	0-28	c	10YR42 00	000C00	00	C		Y	0	0	HR	1				
	28-60	c	10YR53 00	000C00	00	M		Y	0	0	HR	1		P	Y	Y
79	0-30	c	10YR42 00	000C00	00	C		Y	0	0	HR	1				
	30-60	c	25Y 53 00	000C00	00	C		Y	0	0		0		P	Y	Y
80	0-25	mc1	10YR42 00						0	0	HR	2				
	25-45	hc1	10YR54 00	10YR56 00	C		00MN00 00	S	0	0	HR	10		M		
	45-75	c	10YR54 53	10YR58 00	C		00MN00 00	Y	0	0	HR	5		P		Y
	75-90	c	05Y 62 00	10YR58 00	M			Y	0	0	CH	10		P		Y
81	0-25	mc1	10YR42 00						0	0	HR	2				
	25-45	c	10YR54 00	10YR58 00	F				0	0	HR	3		M		
	45-70	c	10YR54 53	10YR58 00	C		00MN00 00	Y	0	0	HR	20		P		IMP FLINTS 70
82	0-30	mc1	10YR42 00						0	0	HR	2				
	30-60	c	25Y 62 63	10YR56 00	C			Y	0	0	HR	2		P		Y
	60-80	c	25Y 71 00	10YR56 00	C			Y	0	0	CH	15		P		Y
83	0-28	hc1	10YR42 00						0	0	HR	1				
	28-35	c	10YR53 00	000C00	00	C		Y	0	0		0		M		
	35-60	c	25Y 53 00	000C00	00	M		Y	0	0		0		P	Y	Y
84	0-28	hc1	10YR42 00						0	0	HR	1				
	28-60	c	25Y 63 00	000C00	00	C		Y	0	0	HR	1		P	Y	Y
85	0-28	mc1	10YR43 00						0	0	HR	2				
	28-50	c	10YR53 54	10YR58 00	C		00MN00 00	Y	0	0	HR	5		P		Y
	50-75	c	25Y 42 52	75YR58 00	M		00MN00 00	Y	0	0		0		P		Y
	75-100	c	05Y 61 00	75YR68 00	M			Y	0	0	CH	12		P		Y Y CLAY-DRY & CRUMBLY
86	0-28	mc1	10YR42 00						0	0	HR	3				
	28-45	c	10YR44 54	10YR56 00	C		00MN00 00	S	0	0	HR	8		M		
	45-60	c	10YR53 00	10YR56 00	C		00MN00 00	Y	0	0		0		P		Y
	60-80	c	25Y 51 00	10YR68 00	M			Y	0	0		0		P		Y Y
87	0-28	hc1	10YR42 00	000C00	00	C		Y	0	0	HR	1				
	28-60	c	25Y 53 00	000C00	00	M		Y	0	0		0		P	Y	Y
88	0-30	hc1	10YR32 00	000C00	00	F			0	0	HR	1				
	30-60	c	25Y 53 00	000C00	00	C		Y	0	0		0		P	Y	Y
89	0-30	hc1	10YR43 53						0	0	HR	3				Y
	30-60	c	10YR54 64	10YR68 00	C		00MN00 00	Y	0	0	CH	5		P		Y Y IMP FLINT 60
90	0-28	hc1	10YR42 00						0	0	HR	2				
	28-45	c	10YR53 54	10YR56 66	C			Y	0	0	HR	5		P		Y
	45-55	c	10YR52 53	10YR56 00	C			Y	0	0		0		P		Y
	55-90	c	25Y 61 62	10YR68 00	M			Y	0	0	CH	15		P		Y Y IMP CH FRAGS 90

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED	---STONES---			STRUCT/	SUBS				
				COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT	CONSIST	STR	POR	IMP
91	0-30	mcl	10YR42 00 000C00 00 C				Y	0	0	HR	1					
	30-60	c	10YR53 00 000C00 00 M				Y	0	0	HR	1		P	Y		Y
92	0-28	hc1	10YR32 00 000C00 00 F					0	0	HR	1					
	28-60	c	25Y 63 00 000C00 00 M				Y	0	0		0		P	Y	Y	Y
93	0-28	hc1	10YR43 53					0	0	HR	2					
	28-45	c	25Y 51 52 10YR58 00 M	00MN00 00 Y			Y	0	0		0		P		Y	
	45-75	c	25Y 51 52 10YR58 00 M				Y	0	0	CH	2		P		Y	Y
	75-90	c	05Y 51 00 10YR58 00 M				Y	0	0	CH	10		P		Y	Y
94	0-30	hc1	10YR42 00					0	0	HR	1					
	30-60	c	25Y 53 00 000C00 00 M				Y	0	0		0		P	Y		Y
95	0-28	hc1	10YR42 00					0	0	HR	1					
	28-60	c	25Y 53 00 000C00 00 M				Y	0	0		0		P	Y		Y
96	0-28	c	10YR42 00					0	0	HR	1					
	28-60	c	25Y 53 00 000C00 00 M				Y	0	0		0		P	Y	Y	Y
97	0-25	c	10YR42 00					0	0	HR	1					
	25-60	c	25Y 53 00 000C00 00 M				Y	0	0		0		P	Y	Y	Y