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HAMPSHIRE MINERALS PLAN
SITE 8 THE TRIANGLE RIDGE
AGRICULTURAL LAND CLASSIFICATION
ALC MAP & REPORT
NOVEMBER 1993

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1 0 Introduction

1 1 ADAS was commissioned by MAFF s Land Use Planning Unit to provide information on land quality on a number of sites in Hampshire The work forms part of MAFF s statutory input to the preparation of the Hampshire Minerals Plan

1 2 Approximately 73 hectares of land relating to Site 8 west of the A31 and east of Gardener s Lane near Romsey in west Hampshire was surveyed during November 1993 The survey was undertaken at a detailed level of approximately one boring per hectare A total of 71 soil auger borings and 5 soil inspection pits were assessed in accordance with MAFF s revised guidelines and criteria for grading the quality of agricultural land (MAFF 1988) These guidelines provide a framework for classifying land according to the extent to which its physical or chemical characteristics impose long term limitations on its use for agriculture

1 3 The survey work was conducted by members of the Resource Planning Team in the Guildford Statutory Group of ADAS

1 4 At the time of the survey the land on the site had been recently ploughed and sown with arable crops

1 5 The distribution of grades and subgrades is shown on the attached ALC map and the areas are given in the table below The map has been drawn at a scale of 1 5 000 It is accurate at this scale but any enlargement would be misleading This map supersedes any previous information for this site

Table 1 - Distribution of Grades and Subgrades

Grade	Area (ha)	% of Site	% of Agricultural Area
3a	28 3	39 0	40 2
3b	42 1	58 0	59 8
Non Agricultural	0 9	1 2	100 (70 4 ha)
Woodland	1 3	1 8	
Total area of site	72 6	100	

1 6 Appendix 1 gives a general description of the grades subgrades and land use categories identified in the survey The main classes are described in terms of the type of limitation that can occur the typical cropping range and the expected level and consistency of yield

1 7 The majority of agricultural land surveyed has been classified as Subgrade 3b moderate quality land Soil droughtiness and soil wetness are the main limitations to agricultural use Where droughtiness is the principal limitation moderately stony topsoils are underlain by very or extremely stony subsoils in association with underlying gravel deposits Soil wetness is limiting where the presence of poorly structured clay horizons occur at shallow depths which significantly impede drainage A significant proportion of the site has been classed as Subgrade 3a good quality land This land is also restricted by moderate soil droughtiness and wetness limitations Profile characteristics are such that these limitations are less severe than for those described above and assigned to Subgrade 3b

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 conditions

2 2 The main parameters used in the assessment of the overall climatic limitation are average annual rainfall as a measure of overall wetness and accumulated temperature as a measure of the relative warmth of a locality

2 3 A detailed assessment of the prevailing climate was made by interpolation from a 5km gridpoint dataset (Met Office 1989) The details are given in the table below and these show that there is no overall climatic limitation affecting the site However climatic factors do interact with soil factors to influence soil wetness and soil droughtiness limitations At this locality the high average annual rainfall and field capacity level increase the risk of soil wetness

2 4 No local climatic factors such as exposure or frost risk affect the site

Table 2 - Climatic Interpolation

Grid Reference	SU 334 188
Altitude (m)	55
Accumulated Temperature (degree days Jan June)	1493
Average Annual Rainfall (mm)	852
Field Capacity (days)	180
Moisture Deficit Wheat (mm)	103
Moisture Deficit Potatoes (mm)	96
Overall Climatic Grade	1

3 0 Relief

4 1 The survey area is relatively flat lying at 55m AOD in the centre of the site and dropping gently to 50m AOD along the eastern and western boundaries of the site Nowhere on the site does gradient or relief impose any limitation to the land quality

4 0 Geology and Soil

4 1 British Geological Survey (1973) Sheet 315 Southampton shows the entire site to be underlain by Plateau Gravel

4 2 The published soils information for this site as shown on the Soil Survey map of South East England (SSEW 1983 1 250 000) shows the site to comprise the Sonning 2 Association These soils are described as well drained flinty coarse loamy and sandy soils mainly over gravel Associated with slowly permeable seasonally waterlogged fine loamy over clayey soils and coarse loamy over clayey soils with slowly permeable subsoils and slight seasonal waterlogging (SSEW 1983)

5 0 Agricultural Land Classification

5 1 Table 1 provides the details of the area measurements 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 are shown on the attached sample point map

Subgrade 3a

5 3 Approximately two fifths of the agricultural land surveyed has been classified as Subgrade 3a good quality land Soil droughtiness and soil wetness are the key limitations

5 4 Soil wetness is a limitation to land quality in the north of the site and to the east of Silverwood House Topsoils comprise medium clay loams which are underlain by heavy clay loam or sandy clay loam upper subsoils and clay lower subsoils Drainage is moderately impeded by the presence of a slowly permeable layer at varying depths Half of the profiles within this mapping unit have gleyed upper subsoils (i e they are gleyed within 40cm) and have poorly structured clay layers from approximately 49cm Such profiles are typified by Pit 1 The remaining profiles are gleyed and slowly permeable from approximately 45 60cm The relatively high field capacity level (180 FCD) at this locality means that these profiles are assigned to Wetness Class III In addition three profiles are eligible for Wetness Class II two being gleyed and slowly permeable from 65cm the remaining being gleyed within 40cm but not slowly permeable within 80cm The interaction between these drainage characteristics and topsoil textures with the local climatic regime means this land can be graded no higher than Subgrade 3a This moderate soil wetness limitation adversely affects seed germination and survival plus inhibits the development of a good root system This limits the range of crops which can tolerate such conditions In addition restrictions on cultivation grazing by livestock and trafficking by machinery are imposed

5 5 The remainder of the land classified as Subgrade 3a has been downgraded because of a moderate soil droughtiness limitation Profiles typically comprise medium clay loam topsoils over medium or heavy clay loam upper subsoils which extend to approximately 65cm The majority of soil auger borings in these soils proved to be impenetrable below the upper subsoil Therefore a subsequent soil inspection pit (Pit 5) was dug to assess the profile conditions at depth The pit showed the existence of a medium clay loam topsoil containing 15% total flints by volume An upper subsoil extending to 55cm was found to contain 40% total flints by volume This overlies a sandy clay loam horizon containing 41% total flints by volume which extends to 83cm A heavy silty clay loam horizon containing 58% total flints by volume extends to depth All subsoil structural conditions were assumed to be moderate From Pit 5 it could be seen that the profile was gleyed from 55cm but was not slowly permeable within 80cm This profile is thereby assigned to Wetness Class I However the combination of soil textures profile stone contents and the substructural conditions with the local climatic regime means that this land is prone to a moderate soil droughtiness risk Consequently this land can be classified as no better than Subgrade 3a There is a moderate restriction on the profile available water of this land and the range of crops that can tolerate such conditions

Subgrade 3b

5 6 Approximately three fifths of the agricultural land surveyed has been classified as Subgrade 3b moderate quality land This land is also restricted by soil wetness and soil droughtiness limitations However profile characteristics are such that these limitations are more severe than those described above and assigned to Subgrade 3a

5 7 Land prone to significant soil wetness is mostly found in the north of the site and surrounding the southerly drain Profiles typically comprise medium clay loam topsoils over heavier textured subsoils and are slightly stony throughout These soils are gleyed within 40cm and have a poorly structured clay horizon within 45cm Such profiles are typified by Pit 3 Due to the relatively wet climate of this locality (180 FCD) these soils are placed into Wetness Class IV The interaction between these drainage characteristics topsoil textures and the local climatic regime means that this land can be graded no higher than Subgrade 3b This wetness limitation adversely affects seed germination and survival plus inhibits the development of a good root system This limits the crops which

can tolerate such conditions In addition restrictions are imposed on cultivations grazing by livestock and trafficking by machinery

5 8 The remainder of the agricultural land classed as Subgrade 3b has been downgraded because of a significant soil droughtiness limitation In the south of the site topsoils comprise slightly stony (10% total flints by volume) medium clay loams and sandy loams These overlie very stony (50% total flints by volume) upper subsoils These upper subsoils mostly comprise medium clay loams but lighter and heavier soil textures also occur The majority of soil auger borings within this mapping unit proved to be impenetrable below these upper subsoils Consequently Pit 2 was dug to investigate the soil conditions below this level This showed the presence of a very stony (65% total flints by volume) gleyed clay lower subsoil In the north of the site the majority of soil auger inspections were impenetrable to the auger below the topsoil Pit 4 was dug to assess profile conditions at depth Topsoils comprise moderately stony (8% flints > 2cm by volume 38% total flints by volume) medium clay loams These are underlain by very stony (65% total flints by volume) medium clay loams to a depth of approximately 53cm Lower subsoils consist of gravel and extend to depth Agricultural land typified by Pits 2 and 4 can be graded no higher than Subgrade 3b The combination of soil textures profile stone contents and subsoil structural conditions with the local climatic regime results in a significant restriction on the profile available water of this land and the range of crops that can tolerate such conditions

Non Agricultural

5 9 The Non Agricultural land shown on the map is occupied by an airstrip

Woodland

5 10 The Woodland marked on the map consists of mature deciduous trees

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 re claimed 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

* British Geological Survey (1973) Sheet No 315 Southampton 1 50 000

* 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 Sets for Agricultural Land Classification

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

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 a ger boring information collected during ALC fieldwork is held on database This has commonly used otations and abbre iations is set out below

Boring Header Information

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

2 **USE** Land se t th time of survey The following bbre iation are sed

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

3 **GRDNT** Gradient s measured by a hand-h ld optical linometer

4 **GLEY/SPL** Depth in cm to gleying o slowly permeable layers

5 **AP (WHEAT/POTS)** Crop- dj sted ailabl w ter pa ity

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

7 **DRT** Best grade according to soil dro ghtin

8 If any of th f llowing f ctors are co sidered s gnificant an entry f Y w ll be entered in th rele ant column

MREL M crorelı f limitati **FLOOD** Flood risk **EROSN** So l ero on risk **EXP** Exposure limitat on **FROST** Frost
DIST D sturbed la d **CHEM** Chemi l limitat

9 **LIMIT** Th main limitation to land qu lity The following abbre iation are sed

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** Wetn **WK** Work bility
DR Drought **ER** Soil Ero ion Risk **WD** C mbined Soil W tn s/Dro ghtin **ST** Topso l Sto ness

Soil Pits and Auger Borings

1 **TEXTURE** soil texture lasses are den ted by the following bbre iation

S Sand **LS** Loamy Sa d **SL** Sa dy 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** Organ Loam **P** Peat **SP** Sandy Peat
LP Loamy Peat **PL** Peaty Loam **PS** Peaty Sand **MZ** Marine L ght Silts

Fo the sand loamy sand sa dy loam d sa dy silt loam classes the predominant iz of sa d fractio will be ind cated by th se f prefix

F Fin (more than 66% f th sa d less than 0 2mm)
M Medium (less than 66% fine sand and less than 33% coarse sand)
C Coarse (more than 33% f th sand larger than 0 6mm)

Th lay loam and silty lay loam classes will be s b-d ided according to th lay content

M Medium (< 27% clay) **H** Heavy (27 35% clay)

2 **MOTTLE COL** Mottle colour

3 **MOTTLE ABUN** Mottle bundance expressed percentag f th matrix or surf ce described

F few <2% **C** commo 2 20% **M** many 20-40 **VM** ery many 40%+

4 **MOTTLE CONT** Mottle contrast

F f nt nd stnct mottle e ident o ly on close nspection **D** dstnct mottle are readily seen
P prominent mottlng s con pcuou and on f th outstandng features f th horzon

5 **PED COL** Ped face colour

6 **STONE LITH** One f th f llowng sed

HR ll hard rocks and sto **MSST** soft medium or coarse grained sandstone
SI soft weathered gneou or metamorphic **SLST** soft oolitic or dolimitic limeston
FSST soft fine grained sandsto e **ZR** soft argillaceou or silty rock **CH** ch lk
GH gra el w th no porous (h d) sto es **GS** grav l w th poro s (soft) sto es

Sto co tents (>2cm >6cm a d total) are g en n percentages (by olum)

7 **STRUCT** th d gree of de lopment size and sh pe f soil peds are described ng th f llowng otation

d gree f de el pment **WK** we kly d v l ped **MD** moderately de loped **ST** stro gly de loped

ped ze **F** fin **M** med m **C** oarse **VC** ery coa se

ped h pe **S** ngl grain **M** mass e **GR** granula **AB** gular blocky **SAB** sub-ang la blocky **PR** prismatic **PL** platy

8 **CONSIST** So l co tence s d scribed ng the followng otatio

L loose **VF** ery frabl **FR** frabl **FM** firm **VM** ery firm **EM** trem ly firm **EH** xtrem ly hard

9 **SUBS STR** Subsoil stru tural co d t n ecorded fo the purpose of calcul tng prof l dro ghtn ss

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

10 **POR** Soil poros ty If soil horz h s less th 0 5% b pores >0 5 mm Y will ppear n th s column

11 **IMP** If the profile s mpe trabl Y will ppea n th s column t th ppropiate h rzo

12 **SPL** Slowly permeable layer If th soil h rzo s slowly permeable Y w ll ppe n this column

13 **CALC** If the so l h rzo s calcareous Y w ll ppear n th s column

14 Other otat ons

APW a ailable w ter capacity (n mm) dj sted for wheat
APP ilabl water capa ty (n mm) dj sted fo potatoe
MBW mo sture b lan wheat
MBP m ture balance potatoe

SOIL PIT DESCRIPTION

Site Name HANTS MINS SITE 8 Pit N mbe 1P

Grid Reference SU33341905 A e age Ann al Rainfall 852 mm
Accumul ted Tempe t re 1493 degree days
Field Capac ty Level 180 days
L nd Use A able
Slope d Aspect degrees

HORIZON	TEXTURE	COLOUR	STONES 2	TOT STONE	MOTTLES	STRUCTURE
0 35	MCL	10YR42 00	1	3		
35- 46	SCL	10YR63 00	0	5	C	MDCOAB
46 60	C	10YR53 00	0	5	C	MDVCSB
60 120	C	10YR53 00	0	7	M	WKCOAB

Wetness G ade 3A Wetne s Class III
Gley ng 035 cm
SPL 060 cm

Drought G de 2 APW 130mm MBW 27 mm
APP 110mm MBP 14 mm

FINAL ALC GRADE 3A
MAIN LIMITATION Wetness

SOIL PIT DESCRIPTION

S te Name HANTS MINS SITE 8 P t N mber 2P

G id Reference SU33611907 Average A nual Ra nfall 852 mm
Acc mulated Temperat re 1493 degree days
Field Cap c ty Le el 180 d ys
Land Use A able
Slope and Aspect degrees

HORIZON	TEXTURE	COLOUR	STONES 2	TOT STONE	MOTTLES	STRUCTURE
0 27	MCL	10YR31 00	10	20		
27 40	MCL	10YR32 00	0	50		
40 120	C	10YR53 00	0	65	M	

Wetness Grade 2 Wetnes Class I
Gleying 040 cm
SPL No SPL

Drought G d 3B APW 79 mm MBW 24 mm
APP 69 mm MBP 27 mm

FINAL ALC GRADE 3B
MAIN LIMITATION Dro ghtiness

SOIL PIT DESCRIPTION

Site Name HANTS MINS SITE 8 P t N mbe 3P

Grid Reference SU33381977 Ave age Annual Rai fall 852 mm
Accumulated Tempe at re 1493 degree days
Field Capac ty Le el 180 days
Land U e A able
Slope and Aspect degree

HORIZON	TEXTURE	COLOUR	STONES 2	TOT STONE	MOTTLES	STRUCTURE
0 30	MCL	10YR32 00	7	22		
30 43	HCL	25Y 53 00	0	30	M	MMSAB
43 75	C	10YR53 00	0	0	M	WCSAB
75-120	C	10YR53 00	0	0	M	MASSV

Wetne G de 3B Wetness Class IV
Gley ng 030 cm
SPL 043 cm

Drought Grad 2 APW 125mm MBW 22 mm
APP 105mm MBP 9 mm

FINAL ALC GRADE 3B
MAIN LIMITATION Wetness

SOIL PIT DESCRIPTION

S te Name HANTS MINS SITE 8 P t N mber 4P

G d Refere ce SU33901976 A ge Ann al Ra nfall 852 mm
Acc mul ted Tempe t re 1493 degree day
F ld C pa ty Level 180 days
L d Use A ble
Slope d A pect deg ee

HORIZON	TEXTURE	COLOUR	STONES 2	TOT STONE	MOTTLES	STRUCTURE
0 30	MCL	10YR32 00	8	38		
30 53	MCL	10YR43 00	0	65		
53 120	GH	75YR46 00	0	0		

W t ess Grad 2 W t ss Cl s I
Gley g cm
SPL No SPL

Dro ght Grade 3B APW 55 mm MBW 48 mm
APP 52 mm MBP 44 mm

FINAL ALC GRADE 3B
MAIN LIMITATION Dro ght ess

SOIL PIT DESCRIPTION

Site Name HANTS MINS SITE 8 Pit N mbe 5P

G id Reference SU33491937 A e age A al Ra f ll 852 mm
Accumulated Temperat re 1493 degree days
Field Capacity Level 180 d ys
L nd U A able
Slope and Aspect degrees

HORIZON	TEXTURE	COLOUR	STONES 2	TOT STONE	MOTTLES	STRUCTURE
0 31	MCL	10YR32 00	0	15		
31 55	MCL	10YR42 00	0	40		MCAB
55 65	SCL	10YR62 00	0	41	C	
65 83	SCL	10YR62 00	0	41	M	
83 120	HZCL	10YR66 00	0	58	M	

Wetness G de 2 Wetne Cl s I
Gley ng 055 cm
SPL No SPL

Dro ght G de 3A APW 88 mm MBW 15 mm
APP 86 mm MBP 10 mm

FINAL ALC GRADE 3A
MAIN LIMITATION Drought ne

SAMPLE NO	GRID REF	USE	ASPECT	GRDNT	GLEY	SPL	WETNESS CLASS	WHEAT GRADE	WHEAT AP	WHEAT MB	POTS- AP	POTS- MB	M REL DRT	FLOOD	EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
1	SU33602000	ARA					1	2	64	39	65	31	3B				DR	3B	
1P	SU33341905	ARA			035	060	3	3A	130	27	110	14	2				WE	3A	SPL AT 60
2	SU33702000	ARA			050		1	2	112	9	113	17	2				WD	2	
2P	SU33611907	ARA			040		1	2	79	24	69	27	3B				DR	3B	PIT DUG TO 110
3	SU33802000	ARA					1	2	97	6	107	11	3A				DR	3A	
3P	SU33381977	ARA			030	043	4	3B	125	22	105	9	2				WE	3B	PIT DUG TO 75
4	SU33902000	ARA					1	2	075	28	075	21	3B				DR	3B	IMPEN 57-Q DR
4P	SU33901976	ARA					1	2	55	48	52	44	3B				DR	3B	GRAVEL 53 CM
5	SU34002000	ARA					1	2	054	49	051	45	3B				DR	3B	IMPEN 42-Q DR
5P	SU33491937	ARA			055		1	2	88	15	86	10	3A				DR	3A	PIT DUG TO 88
6	SU34102000	ARA					1	2	051	52	048	48	4				DR	4	IMPEN 38 Q DR
7	SU33201990	ARA			035	035	4	3B	113	10	101	5	2				WE	3B	AUGD 100
8	SU33301990	ARA			035		2	3A	061	42	058	38	3B				DR	3B	IMPEN 45-Q DR
9	SU33401990	ARA			045	045	3	3A	129	26	107	11	2				WE	3A	
10	SU33501990	ARA			030	050	3	3A	000	0	000	0					WE	3A	
11	SU33601990	ARA			040	040	4	3B	000	0	000	0					WE	3B	
12	SU33701990	ARA			035	045	4	3B	000	0	000	0					WE	3B	
13	SU33801990	ARA					1	2	90	13	95	1	3A				DR	3A	IMPEN 60-Q DR
14	SU33901990	ARA					1	2	071	32	068	28	3B				DR	3B	IMPEN 45 Q DR
15	SU34001990	ARA					1	2	080	23	080	16	3B				DR	3B	IMPEN 50-Q DR
16	SU34101990	ARA					1	2	055	48	052	44	3B				DR	3B	IMPEN 30 Q DR
17	SU33201980	ARA			028	035	4	3B	112	9	103	7	2				WE	3B	WC IV
18	SU33301980	ARA					1	2	068	35	065	31	3B				DR	3B	IMPEN 42-Q DR
19	SU33401980	ARA			029	045	4	3B	122	19	106	10	2				WE	3B	
20	SU33501980	ARA			025	025	4	3B	113	10	99	3	2				WE	3B	WC IV
21	SU33601980	ARA					1	2	097	6	106	10	3A				DR	3A	IMPEN 65 Q DR
22	SU33701980	ARA			030	049	3	3A	117	14	106	10	2				WE	3A	
23	SU33801980	ARA					1	2	055	48	052	44	3B				DR	3B	IMPEN 30 PIT4
24	SU33901980	ARA					1	2	065	38	062	34	3B				DR	3B	IMPEN 35 PIT4
25	SU34001980	ARA					1	2	057	46	054	42	3B				DR	3B	IMPEN 32 PIT4
26	SU33201970	ARA			040	040	4	3B	94	9	100	4	3A				WE	3B	IMPEN 80-Q DR
27	SU33301970	ARA					1	2	68	35	68	28	3B				DR	3B	IMPEN 40 Q DR
28	SU33401970	ARA			065	065	2	3A	122	19	108	12	2				WE	3A	
29	SU33501970	ARA					1	2	86	17	89	7	3A				DR	3A	IMPEN 55-Q DR
30	SU33601970	ARA					1	2	078	25	075	21	3B				DR	3B	IMPEN 45 Q DR
31	SU33701970	ARA			025	060	3	3A	121	18	107	11	2				WE	3A	
32	SU33801970	ARA					1	2	95	8	101	5	3A				DR	3A	IMPEN 75-Q DR
33	SU33951970	ARA	N	04	060		2	2	91	12	96	0	3A				DR	3A	
34	SU33301960	ARA			030	030	4	3B	122	19	101	5	2				WE	3B	SPL 30
35	SU33401960	ARA			070	070	2	3A	125	22	107	11	2				WE	3A	SPL 70
36	SU33501960	ARA			060		1	2	101	2	107	11	3A				DR	3A	IMPEN 75-Q DR
37	SU33601960	ARA			028	028	4	3B	129	26	109	13	2				WE	3B	IMPEN 80-Q DR

SAMPLE NO	GRID REF	USE	ASPECT	GRDNT	GLEY	SPL	WETNESS CLASS	WHEAT GRADE	POTS AP	POTS MB	M REL AP	M REL MB	DRT	FLOOD	EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
38	SU33701960	ARA			050	050	3	3A	129	26	109	13	2				WE	3A	SPL 50
39	SU33801960	ARA			050		1	2	152	49	115	19	1				WE	2	GLEY 50
40	SU33301950	ARA			025	025	4	3B	000	0	000	0					WE	3B	
41	SU33401950	ARA	SE	01	035	060	3	3A	109	6	105	9	2				WE	3A	IMPEN 92-Q DR
42	SU33501950	ARA	SE	01			1	2	73	30	73	23	3B				DR	3B	POSS 3A
43	SU33601950	ARA			048	048	3	3A	94	9	104	8	3A				WE	3A	IMPEN 70 Q DR
44	SU33701950	ARA			055		1	2	121	18	101	5	2				WD	2	IMPEN 100-Q DR
45	SU33301940	ARA					1	2	56	47	56	40	3B				DR	3B	IMPEN 45-Q DR
46	SU33401940	ARA			058	058	3	3A	104	1	95	1	3A				WD	3A	
47	SU33501940	ARA	E	01			1	2	89	14	93	3	3A				DR	3A	POSS PIT
48	SU33601940	ARA	E	01	032	045	4	3B	115	12	108	12	2				WE	3B	
49	SU33701940	ARA	E	01			1	2	89	14	93	3	3A				DR	3A	POSS 2 DR
50	SU33301930	ARA			045	045	3	3A	000	0	000	0					WE	3A	
51	SU33401930	ARA					1	1	74	29	77	19	3B				DR	3B	HARD ROCK 40
52	SU33501930	ARA			030	030	4	3B	000	0	000	0					WE	3B	
53	SU33601930	ARA			030	045	4	3B	000	0	000	0					WE	3B	
54	SU33301920	ARA			045	045	3	3A	97	6	94	2	3A				WD	3B	IMPEN 92 Q DR
55	SU33401920	ARA					1	2	47	56	47	49	4				DR	3B	IMPEN 32 Q DR
56	SU33501920	ARA			030	070	3	3A	113	10	108	12	2				WE	3A	
57	SU33601920	ARA			025	025	4	3B	131	28	109	13	2				WE	3B	
58	SU33301910	ARA			033	033	4	3B	112	9	97	1	2				WE	3B	
59	SU33401910	ARA			038	045	4	3B	105	2	108	12	3A				WE	3B	IMPEN 85 Q DR
60	SU33501910	ARA			025	045	4	3B	000	0	000	0					WE	3B	
61	SU33601910	ARA					1	1	73	30	76	20	3B				DR	3B	HARD ROCK 35
62	SU33301900	ARA			035	040	4	3B	107	4	98	2	3A				WE	3B	
63	SU33401900	ARA			042	055	3	3A	120	17	111	15	2				WE	3A	
64	SU33501900	ARA					1	1	73	30	76	20	3B				DR	3B	HARD ROCK 35
65	SU33601900	ARA					1	1	63	40	64	32	3B				DR	3B	
66	SU33401890	ARA			048		1	2	96	7	104	8	3A				DR	3A	IMPEN 65 Q DR
67	SU33501890	ARA					1	1	72	31	75	21	3B				DR	3B	HARD ROCK 35
68	SU33601890	ARA					1	1	73	30	75	21	3B				DR	3B	HARD ROCK 35
69	SU33401880	ARA					1	1	70	33	71	25	3B				DR	3B	
70	SU33501880	ARA					1	1	82	21	87	9	3B				DR	3B	
71	SU33501870	ARA					1	1	73	30	76	20	3B				DR	3B	HARD ROCK 35

				-MOTTLES			PED		STONES-				STRUCT/	SUBS			
SAMPLE	DEPTH	TEXTURE	COLOUR	COL	ABUN	CONT	COL	GLEY	2	6	LITH	TOT	CONSIST	STR	POR	IMP	SPL	CALC
1	0 30	mcl	10YR32 00						0	0	HR	15						
	30 50	mcl	10YR32 00						0	0	HR	50		M				
	50 120	gh	10YR33 00						0	0		0		M				
1P	0 35	mcl	10YR42 00						1	0	HR	3						
	35 46	cl	10YR63 00	10YR58 00	C			Y	0	0	HR	5	MDCOAB	VF	M			
	46 60	c	10YR53 00	75YR58 00	C			Y	0	0	HR	5	MDVCSB	FM	M			
	60 120	c	10YR53 00	75YR58 00	M		25YR46 00	Y	0	0	HR	7	WKCOAB	FM	P	Y		Y
2	0 30	mcl	10YR33 00						6	0	HR	6						
	30 50	mcl	10YR34 00						0	0	HR	3		M				
	50 80	mcl	10YR51 00	10YR58 00	C			Y	0	0	HR	3		M				
	80 120	gh	10YR33 00					Y	0	0		0		M				
2P	0 27	mcl	10YR31 00						10	0	HR	20						
	27 40	mcl	10YR32 00						0	0	HR	50		FR	M			
	40 120	c	10YR53 00	10YR58 00	M			Y	0	0	HR	65		FM	M			
3	0 30	mcl	10YR33 00						0	0	HR	10						
	30 70	mcl	10YR44 00						0	0	HR	10		M				
	70 120	gh	10YR33 00						0	0		0		M				
3P	0 30	mcl	10YR32 00						7	0	HR	22						
	30 43	hcl	25Y 53 00	10YR56 00	M			Y	0	0	HR	30	MMSAB	FR	G			
	43-75	c	10YR53 00	10YR56 00	M		25YR46 00	Y	0	0		0	WCSAB	FM	M	Y		Y
	75 120	c	10YR53 00	25YR46 00	M		10YR56 00	Y	0	0		0	MASSV	FM	P	Y		Y
4	0 29	mcl	10YR32 42						4	0	HR	25						
	29 57	mcl	10YR42 00						0	0	HR	30		M				
	57 120	gh	10YR33 00						0	0		0		M				
4P	0 30	mcl	10YR32 00						8	0	HR	38		FR				
	30 53	mcl	10YR43 00						0	0	HR	65		FR	M			
	53 120	gh	75YR46 00						0	0		0			P			
5	0 30	mcl	10YR32 00						8	0	HR	38						
	30 42	hcl	10YR43 00						0	0	HR	45		M				
	42 120	gh	10YR33 00						0	0		0		M				
5P	0 31	mcl	10YR32 00						0	0	HR	15						
	31 55	mcl	10YR42 00						0	0	HR	40	MCAB	VF	M			
	55 65	scl	10YR62 00	75YR58 00	C			Y	0	0	HR	41		FR	M			
	65 83	cl	10YR62 00	75YR58 00	M			Y	0	0	HR	41		FR	M			
	83 120	h cl	10YR66 00	75YR58 00	M			Y	0	0	HR	58		FR	M			
6	0 30	mcl	10YR32 00						8	0	HR	38						
	30 38	hcl	10YR42 00						0	0	HR	45		M				
	38 120	gh	10YR33 00						0	0		0		M				

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	ABUN	CONT	PED COL	GLEY	STONES 2	6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
7	0 29	mcl	10YR32 00						3	0	HR	8						
	29 35	c	10YR32 56						0	0	HR	4		M				
	35-45	c	10YR53 00	10YR58 00	M		05YR46 00	Y	0	0		0		P	Y		Y	
	45-75	c	10YR53 52	05YR46 00	C		10YR58 00	Y	0	0	HR	5		P	Y		Y	
	75-100	scl	10YR52 00	10YR58 00	M		05YR46 00	Y	0	0		0		P	Y		Y	
8	0 35	mcl	10YR32 00						8	0	HR	38						
	35-45	mcl	10YR32 00	75YR58 00	C			Y	0	0	HR	25		M				
	45-120	gh	10YR33 00					Y	0	0		0		M				
9	0 30	mcl	10YR33 00						0	0	HR	5						
	30 45	hcl	10YR51 00						0	0	HR	3		M				
	45-120	c	10YR51 00	10YR58 00	C			Y	0	0	HR	2		P	Y		Y	
10	0 30	mcl	10YR32 00						0	0	HR	5						
	30 50	hcl	10YR51 00	10YR58 00	C			Y	0	0	HR	3		M				
	50 70	c	10YR51 00	10YR58 00	C			Y	0	0	HR	5		P			Y	
11	0 40	mcl	10YR32 00						0	0	HR	10						
	40 120	c	05YR62 00	10YR58 00	C			Y	0	0	HR	2		P			Y	
12	0 35	mcl	10YR33 00						0	0	HR	6						
	35-45	hcl	10YR51 00	10YR68 00	C			Y	0	0	HR	2		M				
	45 120	c	10YR51 00	10YR58 00	C			Y	0	0	HR	2		P			Y	
13	0 30	mcl	10YR32 00						0	0	HR	6						
	30 60	mcl	10YR34 00						0	0	HR	10		M				
	60 80	h	10YR33 00						0	0		0		M				
14	0 27	mcl	10YR42 00						3	0	HR	15						
	27 40	mcl	10YR43 00						0	0	HR	25		M				
	40 45	h l	10YR43 00						0	0	HR	35		M				
	45 120	gh	10YR33 00						0	0		0		M				
15	0 25	mcl	10YR42 00						2	0	HR	6						
	25-50	mcl	75YR46 00						0	0	HR	6		M				
16	0 30	mcl	10YR32 00						3	0	HR	20						
	30 120	gh	10YR33 00						0	0		0		M				
17	0 28	mcl	10YR32 00						1	0	HR	8						
	28 35	mcl	10YR52 00	10YR56 00	C			Y	0	0		0		M				
	35 65	c	10YR53 00	10YR56 00	M			Y	0	0		0		P	Y		Y	
	65 100	c	10YR51 00	05YR46 00	M		10YR58 00	Y	0	0		0		P	Y		Y	
18	0 30	mcl	10YR31 00						3	0	HR	18						
	30 42	mcl	10YR32 00						0	0	HR	25		M				
	42 120	gh	10YR33 00						0	0		0		M				

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
19	0 29	mcl	10YR42 00						1	0	HR	8						
	29 45	hcl	10YR53 00	10YR56 00	C			Y	0	0		0		M				
	45-65	c	10YR53 00	10YR56 00	M		05YR46 00	Y	0	0		0		P	Y		Y	
	65-110	c	10YR53 52	10YR58 00	M			Y	0	0	HR	2		P	Y		Y	
20	0 25	mcl	10YR32 00						0	0	HR	4						
	25-55	c	10YR53 00	10YR56 00	M			Y	0	0	HR	3		P	Y		Y	
	55 75	hcl	10YR53 00	10YR56 00	C			Y	0	0	HR	1		P	Y		Y	
	75-88	mcl	10YR53 00	10YR56 00	C			Y	0	0		0		M				
	88 100	c	10YR52 00	10YR58 00	M			Y	0	0	HR	5		P	Y		Y	
21	0 29	mcl	10YR32 00						0	0	HR	4						
	29 55	hcl	75YR32 00						0	0	HR	2		M				
	55-65	hcl	10YR42 00						0	0	HR	10		M				
	65 120	gh	10YR33 00						0	0		0		M				
22	0 30	mcl	10YR32 00						0	0	HR	3						
	30 49	hcl	10YR53 52	10YR56 00	C			Y	0	0	HR	4		M				
	49 95	hcl	10YR52 00	10YR56 00	C			Y	0	0	HR	4		P	Y		Y	
	95 100	c	10YR53 00	10YR58 00	M			Y	0	0	HR	5		P	Y		Y	
23	0 30	mcl	10YR32 00						4	0	HR	20						
	30 30	mcl	10YR32 00						4	0	HR	20						
	30 120	gh	10YR33 00						0	0		0		M				
24	0 29	mcl	10YR32 00						3	0	HR	10						
	29 35	mcl	10YR42 00						0	0	HR	25		M				
	35 120	gh	10YR33 00						0	0		0		M				
25	0 32	mcl	10YR32 00						3	0	HR	20						
	32 120	gh	10YR33 00						0	0		0		M				
26	0 28	mcl	10YR32 00	75YR46 00	F				1	0	HR	11						
	28 40	c	75YR46 00						0	0	HR	20		M				
	40 70	c	10YR53 00	10YR56 00	M			Y	0	0		0		P	Y		Y	
	70 80	c	10YR52 00	05YR56 00	M			Y	0	0	HR	25		M			Y	
27	0 40	mcl	10YR42 00						0	0	HR	6						
28	0 40	mcl	10YR42 00						8	0	HR	12						
	40 65	hcl	10YR52 00						0	0	HR	5		M				
	65 110	c	75YR53 00	05YR56 81	M			Y	0	0	HR	10		P	Y		Y	
29	0 35	hzcl	10YR42 00						7	0	HR	10						
	35 55	hcl	10YR52 00						0	0	HR	10		M				
30	0 35	mcl	10YR42 00						8	0	HR	10						
	35-45	hcl	10YR43 00						0	0	HR	20		M				
	45-120	gh	10YR33 00						0	0		0		M				

SAMPLE	DEPTH	TEXTURE	COLOUR	-MOTTLES COL	ABUN	CONT	PED COL	GLEY	STONES 2	6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
31	0 25	mcl	10YR42 00						4	0	HR	8						
	25-60	c	10YR53 00	10YR58 61	C			Y	0	0	HR	5		M				
	60 110	c	75YR63 00	05YR56 00	M			Y	0	0	HR	5		P	Y		Y	
32	0 30	mcl	10YR42 00						8	0	HR	12						
	30 55	hcl	75YR43 00						0	0	HR	15		M				
	55 75	hcl	75YR58 00						0	0	HR	25		M				
33a	0 25	mcl	10YR42 00						8	0	HR	12						
	25 60	hcl	01YR43 00						0	0	HR	25		M				
	60 80	c	10YR52 00	10YR58 61	C			Y	0	0	HR	20		M				
34	0 30	mcl	10YR32 42						0	0	HR	5						
	30 80	c	25Y 62 00	10YR58 00	M		25YR46 00	Y	0	0	HR	5		P			Y	
	80 120	c	25Y 62 00	10YR58 00	M		25YR46 00	Y	0	0	HR	10		P			Y	
35	0 28	mcl	10YR43 00						0	0	HR	5						
	28 50	mcl	10YR43 44						0	0	HR	10		M				
	50 60	mcl	10YR46 56						0	0	HR	15		M				
	60 70	c	10YR56 00						0	0	HR	15		M				
	70 120	c	10YR58 00	10YR61 00	M		25YR46 00	Y	0	0	HR	15		P			Y	
36	0 28	mcl	10YR42 43						0	0	HR	5						
	28 60	hcl	10YR46 56						0	0	HR	10		M				
	60 75	hcl	10YR43 53	10YR56 00	C			Y	0	0	HR	20		M				
37	0 28	mcl	10YR42 00						0	0	HR	3						
	28 75	c	25Y 61 62	10YR58	M			Y	0	0	HR	5		P	Y		Y	
	75-80	c	25Y 61 62	10YR58	M			Y	0	0	HR	15		P	Y		Y	
38	0 28	mcl	10YR42 00						0	0	HR	3						
	28 50	hcl	10YR43 00						0	0	HR	3		M				
	50 75	c	10YR52 00	10YR58 00	M			Y	0	0		0		P			Y	
	75-120	c	25Y 62 00	75YR58 00	M		25YR46 00	Y	0	0	HR	10		P			Y	
39	0 30	mcl	10YR42 00						0	0	HR	3						
	30 50	hcl	10YR44 46						0	0	HR	3		M				
	50 120	hcl	75YR53 00	75YR56 00	M			Y	0	0	HR	3		M				
40	0 25	mcl	10YR33 00						0	0	HR	3						
	25-110	c	10YR51 00	25YR56 00	C			Y	0	0	HR	1		P			Y	
41	0 35	scl	10YR43 00						3	0	HR	5						
	35-60	scl	10YR53 64	10YR58 00	C			Y	0	0	HR	5		M				
	60 92	c	10YR52 00	75YR56 62	M		25YR46 00	Y	0	0	HR	5		P			Y	
42	0 28	mcl	10YR32 00						3	0	HR	10						
	28 40	mcl	10YR44 00						0	0	HR	10		M				
	40 50	mcl	10YR44 00						0	0	HR	40		M				

SAMPLE	DEPTH	TEXTURE	COLOUR	-MOTTLES- COL	ABUN	CONT	PED COL	GLEY	STONES 2	6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
43	0 33	mcl	10YR32 00						2	0	HR	5						
	33 48	mcl	10YR42 00						0	0	HR	5		M				
	48 70	c	10YR53 00	75YR56 58	M		25YR46 00	Y	0	0	HR	15		P			Y	
44	0 35	mcl	10YR43 00						2	0	HR	5						
	35 42	mcl	10YR44 00				00MN00 00		0	0	HR	3		M				
	42 55	mcl	10YR44 54						0	0	HR	35		M				
	55 70	hcl	10YR53 00	75YR58 00	C		10YR61 00	Y	0	0	HR	35		M				
	70 100	scl	10YR53 62	75YR58 00	C		10YR72 00	Y	0	0	HR	5		M				
45	0 30	cl	10YR42 00						9	0	HR	20						
	30 45	scl	10YR62 00						0	0	HR	40		M				
46	0 38	scl	10YR43 00						7	0	HR	15						
	38 58	cl	10YR53 00	10YR66 00	F				0	0	HR	15		M				
	58 100	c	10YR66 00	25YR46 00	M		10YR62 00	Y	0	0	HR	10		P			Y	
47	0 34	mcl	10YR32 00						3	0	HR	5						
	34 58	mcl	10YR42 00						0	0	HR	10		M				
48	0 32	mcl	10YR43 00						0	0	HR	2						
	32 45	c	10YR53 54	75YR56 00	C			Y	0	0	HR	5		M				
	45 70	c	10YR53 00	75YR56 00	M		25YR46 00	Y	0	0	HR	2		P			Y	
	70 100		10YR53 00	75YR56 00	M		25YR46 00	Y	0	0	HR	15		P			Y	
49	0 32	mcl	10YR32 00						0	0	HR	2						
	32 57	hcl	10YR43 00						0	0	HR	10		M				
50	0 30	msl	10YR33 00						0	0	HR	6						
	30 45	hcl	10YR46 00						0	0	HR	8		M				
	45 95	c	10YR52 00	25YR58 00	C			Y	0	0	HR	1		P			Y	
51	0 25	scl	10YR33 00						0	0	HR	10						
	25 40	hcl	10YR44 00						0	0	HR	15		M				
	40 60	hcl	10YR44 00						0	0	HR	50		M				
	60 80	gh	10YR33 00						0	0		0		M				
52	0 30	mcl	10YR33 00						0	0	HR	5						
	30 110	c	10YR52 00	75YR56 00	C			Y	0	0	HR	2		P			Y	
53	0 30	mcl	10YR33 00						0	0	HR	3						
	30 45	hcl	10YR52 00	10YR68 00	C			Y	0	0	HR	2		M				
	45 120	c	10YR52 00	10YR58 00	C			Y	0	0	GH	2		P			Y	
54	0 35	mcl	10YR42 00						7	0	HR	20						
	35 45	scl	10YR42 00	10YR58 00	F				0	0	HR	10		M				
	45 92	c	10YR53 00	75YR46 00	M		25YR46 00	Y	0	0	HR	10		P			Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	-MOTTLES- COL	ABUN	CONT	PED COL	GLEY	STONES 2	6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
55	0 28	mcl	10YR42 00						5	0	HR	15						
	28-32	mcl	10YR42 00						0	0	HR	50		M				
56	0 30	mcl	10YR33 00						0	0	HR	6						
	30 70	scl	05YR54 00	10YR58 00	F			Y	0	0	HR	5		M				
	70 90	c	10YR51 00	10YR58 00	C			Y	0	0	HR	10		M		Y		
57	0 25	mcl	10YR33 00						0	0	HR	5						
	25 40	hcl	10YR51 00	10YR58 00	C			Y	0	0	HR	5		M				
	40 120	c	10YR51 00	10YR58 00	C			Y	0	0	HR	10		M		Y		
58	0 33	mcl	10YR42 00						0	0	HR	7		M				
	33 110	c	25Y 63 00	75YR68 71	M		05YR44 00	Y	0	0	HR	2		P		Y		
59	0 38	mcl	10YR42 00						0	0	HR	5						Y
	38 45	mcl	25 Y63 00	10YR68 00	C			Y	0	0	HR	5		M				
	45 70	c	10YR66 00	25YR46 00	M		10YR61 00	Y	0	0	HR	2		P		Y		
	70 85	c	10YR66 00	25YR46 00	M		10YR61 00	Y	0	0	HR	10		P		Y		
60	0 25	mcl	10YR33 00						0	0	HR	5						
	25-45	hcl	10YR51 00	10YR58 00	C			Y	0	0	HR	2		M				
	45 95	c	10YR51 00	10YR58 00	C			Y	0	0	HR	10		P		Y		
61	0 35	mcl	10YR32 00						0	0	HR	10						
	35 55	mcl	10YR32 00						0	0	HR	50		M				
	55 75	gh	10YR33 00						0	0		0		M				
62	0 35	mcl	10YR42 00						0	0	HR	5		M				
	35 40	scl	25Y 75 00	10YR66 71	C			Y	0	0	HR	10		M				
	40 100	c	25Y 74 00	75YR46 71	M		25YR46 00	Y	0	0	HR	2		P		Y		
63	0 42	mcl	10YR32 00						3	0	HR	5						
	42 55	hcl	25Y 63 00	10YR58 00	C			Y	0	0	HR	5		M				
	55 100	c	25Y 63 00	75YR58 00	M			Y	0	0		0		P		Y		
64	0 35	mcl	10YR32 00						0	0	HR	10						
	35-55	mcl	10YR32 00						0	0	HR	50		M				
	55 75	gh	10YR33 00						0	0		0		M				
65	0 30	msl	10YR32 00						0	0	HR	10						
	30 50	msl	10YR32 00						0	0	HR	50		M				
	50 70	gh	10YR33 00						0	0		0		M				
66	0 38	mcl	10YR32 00						3	0	HR	5						
	38 48	mcl	10YR56 00						0	0	HR	5		M				
	48 65	mcl	10YR53 00	75YR58 44	C			Y	0	0	HR	15		M				
67	0 35	fsl	10YR32 00						0	0	HR	15						
	35 55	mcl	10YR32 00						0	0	HR	50		M				
	55 75	gh	10YR33 00						0	0		0		M				

SAMPLE	DEPTH	TEXTURE	COLOUR	-MOTTLES COL	ABUN	CONT	PED COL	GLEY	STONES 2	6	LITH	TOT	STRUCT/ CONSIST	SUBS STR	POR	IMP	SPL	CALC
68	0 35	fsl	10YR32 00						0	0	HR	15						
	35-55	fsl	10YR32 00						0	0	HR	50		M				
	55 75	gh	10YR33 00						0	0		0		M				
69	0 35	msl	10YR32 00						0	0	HR	10						
	35 55	msl	10YR32 00						0	0	HR	50		M				
	55 75	hr	10YR33 00						0	0		0		M				
70	0 25	mcl	10YR32 00						0	0	HR	10						
	25 60	mcl	10YR32 00						0	0	HR	20		M				
	60 80	gh	10YR33 00						0	0		0		M				
71	0 35	mcl	10YR32 00						0	0	HR	10						
	35 55	mcl	10YR32 00						0	0	HR	50		M				
	55 75	gh	10YR33 00						0	0		0		M				