2011-138-96

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Swale Borough Local Plan
Objector Site Fav 1,
Land adjacent to the
Western Link Road, Faversham

Agricultural Land Classification
November 1996

Ministry of
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Resource Planning Team
Guildford Statutory Group
ADAS Reading

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AGRICULTURAL LAND CLASSIFICATION REPORT

SWALE BOROUGH LOCAL PLAN
OBJECTOR SITE FAV 1,
LAND ADJACENT TO THE WESTERN LINK ROAD, FAVERSHAM, KENT

Introduction

1 This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of 15 8 ha of land on the western side of Faversham Kent The site is situated to the north of the main railway line and is bounded to the west by a small lane and to the north by woodland The eastern side of the side abuts an area of land which has been surveyed previously by ADAS in 1994 in connection with the Swale Borough Local Plan This survey was carried out during November 1996

2 The survey was commissioned by the Ministry of Agriculture Fisheries and Food (MAFF) from its Land Use Planning Unit in Reading in connection with the Swale Borough Local Plan This survey supersedes any previous ALC surveys on this land

3 The work was conducted under sub contracting arrangements by NA Duncan and Associates and was supervised by the Resource Planning Team in the Guildford Statutory Group in ADAS 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 western side of the site had been recently sown to linseed, with the remainder growing winter cereals

Summary

5 The findings of the survey are shown on the enclosed ALC map The map has been drawn at a scale of 1 10 000 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 overleaf in Table 1

7 The fieldwork was conducted at an average density of 1 boring per hectare A total of 16 borings were described which were backed up by data from 2 soil inspection pits

8 A very small area of Grade 1 excellent quality agricultural land has been delineated at the eastern edge of the site where deep free draining silty soils were mapped which have no or very minor limitation to agricultural use On the western side of the site very good quality agricultural land Grade 2 has been mapped The soils in this area have a slight droughtiness limitation and also at the extreme western end a minor wetness and workability restriction The remainder of the site has been mapped as Subgrades 3a and 3b good and moderate quality agricultural land respectively The land mapped as Subgrade 3b has been restricted to this grade due to a gradient limitation The area of Subgrade 3a comprises land which has

been restored following sand and gravel extraction resulting in compaction in the deeper subsoil horizons giving rise to a moderate droughtiness limitation In addition the enclosed valley formation which has been created will result in a frost pocket which may result in damage to certain crops

Table 1 Area of grades and other land

Grade/Other land	Area (hectares)	% Total site area	% Surveyed Area
1	0 6	3 8	3 8
2	6 0	38 0	38 2
3a	6 9	43 7	44 0
3b	2 2	13 9	14 0
Other land	0 1	0 6	
Total surveyed area	15 7		100 0
Total site area	15 8	100 0	

Factors Influencing ALC Grade

Climate

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

10 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	TQ 993 617
Altitude	m AOD	20
Accumulated Temperature	day°C (Jan June)	1476
Average Annual Rainfall	mm	648
Field Capacity Days	days	130
Moisture Deficit, Wheat	mm	120
Moisture Deficit, Potatoes	mm	117

11 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

12 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

13 The combination of rainfall and accumulated temperature at this site mean that under this warm and relatively dry climate soils will require a high available water capacity to avoid droughtiness limitations The eastern end of the site is a relatively deep valley with the railway line forming a barrier at the southern end The valley falls toward the railway line and, hence cold air will drain into this area resulting in a frost pocket Although the western side of the site has no climatic limitation, the presence of a frost pocket will limit the eastern end of the site to Grade 2 at best

Site

14 The site which lies to the north of the main railway line has been partly worked for sand and gravel in the past The eastern half of the site comprises a substantial valley created by the mineral working The valley slopes toward the south west where it meets the railway line which is on an embankment The side slopes of the valley are moderately steep ranging from 6-10° Where slopes in excess of 7° occur the land quality is limited to Subgrade 3b Slopes over the remainder of the site are relatively gentle typically 2-4° Altitudes on the site range from 15 m to 30 m AOD

Geology and soils

15 The published geological information for the area (BGS 1974) shows the north western part of the site to be underlain by Thanet Beds sands overlain by drift deposits of head gravel at the south east and south west corners of the site The central and north eastern part of the site comprises head brickearth deposits overlying Middle Chalk

16 There is no detailed soil survey map for the area, but the reconnaissance soil map (SSEW 1983) shows the whole site to comprise soils of the Hamble 1 association These soils are described as Deep well drained often stoneless fine silty soils Some similar soils affected by groundwater and some fine loamy soils with slowly permeable subsoils and slight seasonal waterlogging Some shallower soils over chalk Slight risk of water erosion (SSEW 1983)

Agricultural Land Classification

17 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 page 2

18 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 III

Grade 1

19 Two discrete areas at the eastern end of the site, on the upper valley slopes, have been mapped as Grade 1 excellent quality agricultural land The soils in this area comprise deep, well drained silty soils These soils have high levels of available water and moisture balance calculations indicate that even in this low rainfall area there will be sufficient moisture for crop growth Consequently this land has been mapped as Grade 1

Grade 2

20 The western half of the site has been mapped as Grade 2 very good quality agricultural land This land is subject to a minor soil droughtiness limitation which, at the extreme western end of the site acts in conjunction with soil wetness and workability limitations At the extreme western end of the site the soils are developed on the Thanet Beds The soils typically have a fine sandy loam topsoil overlying a fine sandy loam or loamy fine sand upper subsoil which, in some profiles is mottled These pass into slowly permeable fine sandy clay loam or heavy clay loam lower subsoils at approximately 50-80 cm depth Depending upon the depth to gleying and to the slowly permeable layers these soils are assessed as Wetness Class II or III (see Appendix II) However the light topsoils and dry prevailing climate means that the imperfectly drained profiles have a minor soil wetness and workability limitation

21 The majority of land classified as Grade 2 comprises soils developed on the head gravels Topsoils comprise fine sandy loams which are slightly stony containing 2-5% flints larger than 2 cm and 2 8% total flints These overlie similarly textured and stony upper subsoils These overlie variably textured lower subsoils typically sandy clay loams medium clay loams and medium silty clay loams which are very slightly to moderately stony containing 2-20% total flints These soils which are represented by Pit 2 (see Appendix III) are free draining Wetness Class I The interaction between these soil characteristics and those discussed in para 20 with the relatively dry prevailing climate slightly reduces the amount of profile available water for plants This is likely to have the effect of restricting the level and consistency of crop yields to the extent that Grade 2 is appropriate

Subgrade 3a

22 The lower slopes of the valley feature at the eastern end of the site have been classified as Subgrade 3a, good quality agricultural land This area has been worked for sand and gravel and subsequently restored Soil quality is somewhat variable across the area, with some reasonably well restored soil profiles together with others showing pronounced compaction in the subsoil horizons The soil profiles were somewhat variable but topsoils were typically silt loam whilst subsoils included sandy clay loam, medium silty clay loam and fine sandy loam Soil Pit 1 (see Appendix III) revealed a reasonably structured subsoil to 45 cm depth overlying severely compacted material where roots did not penetrate beyond 60-65 cm depth The layer from 45-65 cm was found to be slowly permeable resulting in imperfectly drained conditions such that Wetness Class III is appropriate

23 The interaction between the soil characteristics and in particular the restricted rooting depth caused by compaction, at a locality where the climate is relatively dry causes the profile available water to be somewhat lowered as indicated by moisture balance calculations for the

soils on the site Soil droughtiness may cause crops to experience drought stress and thereby affect the versatility of the land in terms of the yield potential of crops which are grown Land with severly compacted slowly permeable lower subsoils is also subject to soil wetness and workability limitations This results in some restrictions on the flexibility of cropping stocking and cultivations The area is also a frost pocket Spring frosts can cause serious damage to fruit crops and may check the growth of arable crops

Subgrade 3b

24 Two areas of Subgrade 3b land have been mapped on the side slopes of the restored valley formation Gradients on the east facing slopes are the steepest ranging from 7 10° with the west facing slopes ranging from 6 8° Slopes in excess of 7° hamper the safe and efficient use of many types of farm machinery Consequently the land cannot be graded any higher than Subgrade 3b

N A Duncan
for the Resource Planning Team
Guildford Statutory Group
ADAS Reading

SOURCES OF REFERENCE

British Geological Survey (1974) *Sheet No 273 Faversham*
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) *Sheet 6 Soils of South East England 1 250 000 and accompanying legend*
SSEW Harpenden.

Soil Survey of England and Wales (1984) *Soils and their Use in South East England*
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 WETNESS CLASSIFICATION

Definitions of Soil Wetness Classes

Soil wetness is classified according to the depth and duration of waterlogging in the soil profile Six soil wetness classes are identified and are defined in the table below

Wetness Class	Duration of waterlogging[1]
I	The soil profile is not wet within 70 cm depth for more than 30 days in most years [2]
II	The soil profile is wet within 70 cm depth for 31 90 days in most years **or** if there is no slowly permeable layer within 80 cm depth it is wet within 70 cm for more than 90 days but only wet within 40 cm depth for 30 days in most years
III	The soil profile is wet within 70 cm depth for 91 180 days in most years **or** if there is no slowly permeable layer present within 80 cm depth, it is wet within 70 cm for more than 180 days but only wet within 40 cm depth for between 31 90 days in most years
IV	The soil profile is wet within 70 cm depth for more than 180 days but not wet within 40 cm depth for more than 210 days in most years **or** if there is no slowly permeable layer present within 80 cm depth, it is wet within 40 cm depth for 91 210 days in most years
V	The soil profile is wet within 40 cm depth for 211 335 days in most years
VI	The soil profile is wet within 40 cm depth for more than 335 days in most years

Assessment of Wetness Class

Soils have been allocated to wetness classes by the interpretation of soil profile characteristics and climatic factors using the methodology described in *Agricultural Land Classification of England and Wales Revised guidelines and criteria for grading the quality of agricultural land* (MAFF 1988)

[1] The number of days is not necessarily a continuous period

[2] In most years is defined as more than 10 out of 20 years

APPENDIX III

SOIL DATA

Contents

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**	Brassicae
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	
DCW	Deciduous Wood				
HTH	Heathland	**BOG**	Bog or Marsh	**FLW**	Fallow
PLO	Ploughed	**SAS**	Set aside	**OTH**	Other
HRT	Horticultural Crops				

3 **GRDNT** Gradient as estimated or measured by a hand held optical clinometer

4 **GLEY/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	**EX**	Exposure
FR	Frost Risk	**GR**	Gradient	**MR**	Microrelief
FL	Flood Risk	**TX**	Topsoil Texture	**DP**	Soil Depth
CH	Chemical	**WE**	Wetness	**WK**	Workability
DR	Drought	**ER**	Erosion Risk	**WD**	Soil Wetness/Droughtiness
ST	Topsoil Stoniness				

Soil Pits and Auger Borings

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

S	Sand	**LS**	Loamy Sand	**SL**	Sandy Loam
SZL	Sandy Silt Loam	**CL**	Clay Loam	**ZCL**	Silty Clay Loam
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	**SLST**	soft oolitic or dolimitic limestone
CH	chalk	**FSST**	soft fine grained sandstone
ZR	soft argillaceous or silty rocks	**GH**	gravel with non-porous (hard) stones
MSST	soft medium grained sandston	**GS**	gravel with porous (soft) stones
SI	soft weathered igneous/metamorphic rock		

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

8 **STRUCT** the degree of development size and shape of soil peds are described using the following notation

degree of development	**WK** weakly developed	**MD** moderately developed
	ST strongly developed	
ped size	**F** fine	**M** medium
	C coarse	**VC** very coarse
ped shape	**S** single grain	**M** massive
	GR granular	**AB** angular blocky
	SAB sub angular blocky	**PR** prismatic
	PL platy	

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

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

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 SWALE BOROUGH LP FAV 1 Pit Number 1P

Grid Reference TQ99506150 Average Annual Rainfall 648 mm
Accumulated Temperature 1476 degree days
Field Capacity Level 130 days
Land Use Wheat
Slope and Aspect 01 degrees NW

HORIZON	TEXTURE	COLOUR	STONES >2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 25	ZL	75YR44 00	3	4	HR					
25- 45	ZL	75YR55 45	0	5	HR		WKCSAB	FR	M	
45- 65	FSL	10YR54 00	0	7	HR		MASSIV	VM	P	

Wetness Grade 3A Wetness Class III
Gleying cm
SPL 045 cm

Drought Grade 3A APW 121mm MBW 1 mm
APP 129mm MBP 12 mm

FINAL ALC GRADE 3A
MAIN LIMITATION Soil Wetness/Droughtiness

SOIL PIT DESCRIPTION

Site Name SWALE BOROUGH LP FAV 1 Pit Number 2P

Grid Reference TQ99306170

Average Annual Rainfall	648 mm
Accumulated Temperature	1476 degree days
Field Capacity Level	130 days
Land Use	Wheat
Slope and Aspect	04 degrees SW

HORIZON	TEXTURE	COLOUR	STONES >2	TOT STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 30	FSL	10YR43 00	4	7	HR					
30- 65	FSL	10YR55 00	0	10	HR		MDCSB	FR	M	
65-120	SCL	75YR54 56	0	20	HR		WVCSB		M	

Wetness Grade 1

Wetness Class	I
Gleying	cm
SPL	No SPL

Drought Grade 2

APW	145mm	MBW	25 mm
APP	114mm	MBP	-3 mm

FINAL ALC GRADE 2
MAIN LIMITATION Droughtiness

SAMPLE NO	GRID REF	USE	ASPECT	GRDNT	GLEY	SPL	--WETNESS-- CLASS	GRADE	-WHEAT- AP	MB	-POTS- AP	MB	M REL DRT	FLOOD	EROSN EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS
1	TQ99206180	LIN	S	02	030	055	3	2	167	47	112	-5	2				WD	2	
1P	TQ99506150	WHT	NW	01		045	3	3A	121	1	129	12	3A			Y Y	WD	3A	RestoredFrosty
2	TQ99206170	LIN	S	02	050	080	2	1	146	26	118	1	2				DR	2	
2P	TQ99306170	WHT	SW	04			1	1	145	25	114	-3	2				DR	2	
3	TQ99306170	WHT	SW	04			1	1	82	-38	82	-35	3B				DR	3A	Imp50 flints
4	TQ99406170	WHT	SE	04			1	1	158	38	121	4	2				DR	2	
5	TQ99606170	WHT				034	3	3A	94	-26	94	-23	3B			Y Y	WD	3A	Restored seeIP
6	TQ99706170	WHT	NW	03	085		1	1	146	26	110	-7	2			Y Y	DR	3A	Restored seeIP
7	TQ99206160	LIN	S	03			1	1	94	-26	101	-16	3B				DR	2	Imp60 flints
8	TQ99306160	WHT	S	06			1	1	149	29	112	-5	2			Y	DR	2	
9	TQ99406160	WHT	SE	10			1	1	170	50	115	-2	2				GR	3B	Slope 3B
10	TQ99506160	WHT	E	02			1	1	165	45	128	11	1			Y Y	FR	2	Restored
11	TQ99606160	WHT	NW	01			1	1	132	12	115	-2	2				DR	3A	See Pit 1
12	TQ99706160	WHT	NW	07			1	1	202	82	146	29	1				GR	3B	
13	TQ99406150	WHT	E	02			1	1	168	48	133	16	1			Y Y	FR	2	Buried topsoil
14	TQ99506150	WHT	W	01		050	3	3A	110	-10	120	3	3A			Y Y	WD	3A	RestoredFrosty
15	TQ99606150	WHT	NW	05			1	1	134	14	135	18	2				DR	2	
16	TQ99556140	WHT	NW	06			1	1	182	62	139	22	1					1	

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC	
1	0-30	fsl	10YR43 00						2	0	HR	3							
	30-55	lfs	05Y 64 00	10YR68 00	C			Y	0	0		0		M					
	55-75	scl	75YR56 00	00MN00 00	F				0	0		0		M			Y		Q gleying
	75-120	lfs	05Y 74 00	10YR68 00	C			Y	0	0		0		M					
1P	0-25	zl	75YR44 00						3	0	HR	4							
	25-45	zl	75YR55 45						0	0	HR	5	WKCSAB	FR M					No roots 65+ cm
	45-65	fsl	10YR54 00						0	0	HR	7	MASSIV	VM P	Y		Y		V compact
2	0-32	fsl	10YR43 00						2	0	HR	2							
	32-50	fsl	10YR54 64						0	0	HR	4		M					Border lfs
	50-80	scl	25Y 64 00	10YR68 00	C			Y	0	0		0		M					
	80-120	hcl	10YR54 00	10YR56 00	C			S	0	0		0		P			Y		Sl gleyed
2P	0-30	fsl	10YR43 00						4	0	HR	7							
	30-65	fsl	10YR55 00						0	0	HR	10	MDCSB	FR M					
	65-120	scl	75YR54 56						0	0	HR	20	WVCSB	M					Dry and hard
3	0-28	fsl	10YR43 00						5	0	HR	8							
	28-50	fsl	10YR55 00						0	0	HR	12		M					Imp50 flints
4	0-26	fsl	10YR44 54						1	0	HR	2							
	26-55	fsl	10YR56 00						0	0	HR	5		M					
	55-120	mzcl	25Y 64 00	10YR66 00	F				0	0		0		M					
5	0-34	zl	10YR43 00						3	0	HR	3							
	34-50	mzcl	10YR54 00	10YR58 00	F				0	0	HR	5		P			Y		V compact Imp50
6	0-26	zl	10YR43 00						2	0	HR	2							
	26-85	mzcl	75YR56 00						0	0	HR	2		P					Compact layer
	85-120	fsl	25Y 64 00	10YR56 00	C			Y	0	0		0		P					Compact layer
7	0-26	fsl	10YR54 00						2	0	HR	3							
	26-60	mzcl	75YR55 00						0	0	HR	4		M					Imp60 flints
8	0-30	fsl	10YR44 54						3	0	HR	5							
	30-120	mcl	10YR55 00						0	0	HR	5		M					
9	0-26	fsl	10YR43 00						6	0	HR	8							
	26-50	scl	10YR66 00						0	0		0		M					
	50-120	fsl	10YR76 00						0	0		0		M					
10	0-28	zl	10YR43 00						3	0	HR	4						Y	
	28-120	mcl	10YR55 00						0	0	HR	2		M				Y	
11	0-30	zl	10YR43 00						2	0	HR	2							
	30-50	mzcl	10YR53 00	10YR56 00	F				0	0	HR	2		P					Compact layer
	50-120	mzcl	75YR54 00						0	0	HR	2		P					Compact layer

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	POR	IMP	SPL	CALC	
12	0-27	zl	10YR44 00						1	0	HR	1							
	27-50	zl	10YR54 00						0	0	HR	1		M					
	50-70	mzcl	10YR64 00						0	0		0		M					
	70-120	zl	10YR64 00						0	0		0		M					
13	0-32	mzcl	10YR43 00						3	0	HR	4							
	32-50	mzcl	10YR55 00						0	0	HR	1		M			Y		
	50-75	zl	10YR64 00						0	0		0		M			Y		
	75-120	mzcl	10YR44 00						0	0	HR	2		M					
14	0-25	zl	75YR44 00						3	0	HR	4							
	25-50	mzcl	75YR55 00						0	0	HR	3		M					
	50-70	mcl	10YR54 00						0	0	HR	4		P		Y		V	Compact Imp70
15	0-30	zl	75YR44 00						1	0	HR	1							
	30-50	mzcl	10YR45 00						0	0	HR	2		M					
	50-70	mzcl	10YR66 00						0	0	HR	3		M					
	70-90	ch	10YR81 00						0	0	HR	5		P			Y		
16	0-30	zl	75YR44 00						2	0	HR	3							
	30-80	fsl	10YR65 00						0	0		0		M					
	80-120	mzcl	75YR55 00						0	0		0		M					