10/95

TAUNTON DEANE LOCAL PLAN

AGRICULTURAL LAND CLASSIFICATION 1995

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TAUNTON DEANE LOCAL PLAN

AGRICULTURAL LAND CLASSIFICATION SURVEY

SUMMARY

The survey was conducted by ADAS on behalf of MAFF as part of its statutory role in the preparation of the Taunton Deane Local Plan

New fieldwork was at semi detailed density and was carried out in March and April 1995 This has been combined with the results of previous ALC surveys where relevant and the distribution of grades is shown on the accompanying composite ALC map at a scale of 1 25 000 This information may also be shown at 1 10 000 scale but any further enlargement would be misleading Areas are summarised below

Distribution of ALC grades Taunton 1995 Composite

Grade	Area (ha)	% of Survey Area	% of Agricultural Land (2708 3 ha)
1	251 4	6 9	9 3
2	875 1	24 2	32 3
3a	911 4	25 2	33 7
3b	590 0	16 3	21 8
4	79 1	2 2	2 9
Urban	618 2	17 1	
Non Agricultural	164 4	4 5	
Agricultural Buildings	45 3	1 3	
Open Water	15 6	0 4	
Not surveyed	72 7	2 0	
TOTAL	3623 2		

57% of the agricultural land was found to be best and most versatile with minor and moderate limitations of droughtiness wetness and workability causing downgrading to Grades 2 and 3a More serious moderate and severe limitations of wetness and workability caused downgrading to Subgrade 3b and Grade 4

1 INTRODUCTION

An Agricultural Land Classification (ALC) Survey was carried out by ADAS in March and April 1995 of land around Taunton This was on behalf of MAFF as part of its statutory role in the preparation of the Taunton Deane Local Plan and was intended to fill gaps between previous survey areas to provide comprehensive ALC information on the land surrounding Taunton town

New fieldwork covering approximately 2240 ha of agricultural land was at semi detailed density with approximately one boring per 2 hectares of agricultural land A total of 1116 auger borings were examined and 54 soil profile pits used to assess subsoil conditions

The published provisional one inch to the mile ALC maps of the area (MAFF 1971 and 1974) show ALC grades at a reconnaissance scale as mainly Grade 3 with some Grade 2 to the south and north of the town and a small area of Grade 1 around Cheddon Fitzpaine However it does not show the areas of Grades 1 and 2 found by the latest survey around Silk Mills and Norton Fitzwarren

Previous ALC surveys are shown on the attached location plan Where these had used the Revised Guidelines and Criteria for Grading the Quality of Agricultural Land (MAFF 1988) the results have been included in the composite ALC map with only minor amendments possibly at the edge of a survey area Earlier surveys prior to 1989 have largely been resurveyed and the results of these surveys may have been extensively revised

Although the accompanying map and the relevant summary of areas combine information from previous surveys with the latest survey the remaining text of this report refers mainly to the latest fieldwork Commentary on previous surveys may be obtained by reference to the appropriate report

For operational reasons the survey area was divided into 3 sites North West (8 95) East (9 95) and South West (10 95) and the survey data has been recorded under these numbers as shown on the Sample Point Map for each site However as these site boundaries have little significance for ALC this report treats the new survey area as a whole

2 CLIMATE

The grade of the land is determined by the most limiting factor present The overall climate is considered first because it can have an overriding influence by restricting land to a lower grade despite other favourable conditions

Estimates of climatic variables were interpolated from the published agricultural climate dataset (Meteorological Office 1989) The parameters used for assessing overall climate are *accumulated temperature a measure of the relative warmth of a locality and average annual* rainfall a measure of overall wetness The specimen results shown in Table 1 indicate there is no overall climatic limitation However there is a relevant boundary of 175 Field Capacity Days which runs approximately from Rumwell through Trull to Shoreditch This has been located precisely and has been used in the analysis of survey data to grade each soil observation

Table 1 Climatic Interpolations Taunton ALC 1995

Grid Reference		ST195245	ST230275	ST255237	ST210220
Altitude (m)		35	50	21	50
Accumulated Temperature (day)		1539	1520	1554	1523
Average Annual Rainfall (mm)		791	780	761	848
Overall Climatic Grade		1	1	1	1
Field Capacity Days		170	168	164	180
Moisture deficit (mm)	Wheat	106	104	111	103
	Potatoes	99	96	106	95

Climatic data on Field Capacity Days (FCD) and Moisture Deficits for wheat and potatoes are also shown These data are used in assessing the soil wetness and droughtiness limitations referred to in later sections

3 RELIEF AND LANDCOVER

Altitude ranges from 10 to 70 m AOD Slopes are mainly gentle to moderate with only very small areas which have strong or steeper slopes

Landcover at the time of survey was mainly grass and cereals with small areas of potatoes and fruit Although arable cropping occurs throughout the survey area it is perhaps most commonly found to the north of the town particularly around Cheddon Fitzpaine where much of the land under potatoes is found

Most of the land surveyed was in productive agricultural use with very little evidence of land which is abandoned or under utilised due to urban fringe problems

4 GEOLOGY AND SOILS

The geology of the area is shown on the published 1 50 000 scale geology maps for Wellington Sheet 311 and for Taunton Sheet 295 published by the British Geological Survey 1976 and 1984 These show the area to be mainly underlain by deposits of the Mercia Mudstone Group (Keuper marl) with variable and scattered deposits of valley gravel or river deposits and with alluvium along the main watercourses The latest ALC survey has shown that significant deposits of valley gravel are perhaps more widespread on the north side of Taunton than would be indicated on the published map

Soils were mapped by the Soil Survey of England and Wales in 1983 at a reconnaissance scale of 1 250 000 This shows much of the area particularly to the south of Taunton as Worcester Association with soils of the Newnham and Whimple 3 Associations to the north of the town and with Fladbury 1 and Compton Associations on the alluvial deposits of the main river flood plains

Worcester Association soils are described as slowly permeable non calcareous and calcareous reddish clayey soils over mudstone shallow on steeper slopes Associated with similar non calcareous fine loamy over clayey soils Slight risk of water erosion

Newnham Association soils are described as well drained reddish coarse and fine loamy soils over gravel locally deep with some similar soils affected by groundwater

Whimple 3 Association is described as reddish fine loamy or fine silty over clayey soils with slowly permeable subsoils and slight seasonal waterlogging Some similar clayey soils on brows Slowly permeable seasonally waterlogged fine loamy and fine silty over clayey soils on lower slopes

Compton Association is described as stoneless mostly reddish clayey soils affected by groundwater Flat land Risk of flooding Fladbury 1 Association is similar but calcareous in places

This distribution was largely borne out by the current survey although this also found extensive areas of the red clay soils typical of the Worcester Association in the north of the survey area where these are not indicated by the published reconnaissance map Where these soils were found in the north they were indistinguishable in ALC terms from those to the south of the town

5 AGRICULTURAL LAND CLASSIFICATION

The distribution of ALC grades is shown on the accompanying ALC map at 1 25 000 scale and is summarised on the table below This information may also be shown at 1 10 000 scale but any further enlargement would be misleading

Table 2 Distribution of ALC grades Taunton 1995 Composite

Grade	Area (ha)	% of Survey Area	% of Agricultural Land (2708 3 ha)
1	251 4	6 9	9 3
2	875 1	24 2	32 3
3a	911 4	25 2	33 7
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4	79 1	2 2	2 9
Urban	618 2	17 1	
Non Agricultural	164 4	4 5	
Agricultural Buildings	45 3	1 3	
Open Water	15 6	0 4	
Not surveyed	72 7	2 0	
TOTAL	3623 2		

Grade 1

The area shown as Grade 1 around Pyrland is marginal with sand or loamy sand in the lower subsoil and a variable stone content which includes both hard and soft rock as gravel so that the droughtiness calculation hovers around or just above the Grade 2 cut off

The areas of Grade 1 shown around Fideoak and to the west of Norton Fitzwarren are typically deep medium clay loams with no significant wetness limitation This area had not been recognised on the provisional 1 ALC published map

Another new and highly marginal area of Grade 1 is found to the south east of Fitzroy (ASP 81 to 230) This area shows signs of wetness and is also marginal on droughtiness with variable significant stone content and includes occasional Grade 2 profiles

Grade 2

The majority of the land shown as Grade 2 occurs in the north of the survey area where it is limited mainly by droughtiness with a variable stone content mainly small stones of both hard rock and shale Stone contents have been assessed by sieving at pit sites and the figures used in the visual assessment at auger borings Occasional profiles are found to have minor limitations due to wetness or workability

A large area of Grade 2 shown in the flood plain of the River Tone around Silk Mills shows minor limitations of workability with heavy clay loam topsoil textures or due to the risk of flooding The flood risk has been assessed in the light of information provided by Taunton Deane Borough Council in respect of the Back Stream and of the Halse Water/Norton Brook and in the light of information provided by the National Rivers Authority in respect of the River Tone This indicates that only flooding from the River Tone is likely to be significant to ALC grading and it is considered that areas shown as liable to flooding on the published Section 24 Map would not be classified higher than Grade 2 because of the likelihood of very short up to 24 hours duration but possibly frequent winter flooding This area contains many soil profiles which would otherwise be Grade 1

The extensive areas shown as Grade 2 on the Provisional 1 ALC map and in the earlier survey of land to the west of Staplehay (Taunton Appeal Sites 1982) has been much reduced by the latest survey under the Revised Guidelines

Subgrade 3a

Most of the area shown as Subgrade 3a has a moderate limitation due to wetness or workability Soils in the area with a red clay subsoil are frequently shown by detailed examination at pit sites to be Wetness Class II or III due to the presence of a slowly permeable layer occurring at variable depths which in combination with typically a medium clay loam topsoil gives a moderate wetness limitation However both lighter and heavier topsoil textures do occur in this subgrade and the presence of wetter climatic conditions as indicated by the higher Field Capacity Days in the extreme south west of the area means that even minor to moderate wetness limitations are additionally significant and lead to a more severe downgrading of land quality In this area it is possible for a Wetness Class I profile to be found with heavy clay loam topsoil which would be Subgrade 3a on workability

The Subgrade 3a mapping unit to the west of Staplehay shown by previous survey to be Grade 2 now includes several Grade 2 profiles although these do not form a substantiated and contiguous unit

Small areas particularly in the north of the site have a moderate limitation of droughtiness due to higher contents of small stones

Subgrade 3b

Land shown as Subgrade 3b has a more serious moderate limitation mainly due to wetness with a combination of Wetness Class due to a slowly permeable layer in the clay subsoil in combination with a heavier topsoil texture This subgrade is found mainly on soils of the Worcester Association where native Keuper Marl is found in the absence of superficial river gravel deposits or occasionally in areas of clay flood plain alluvium

Grade 4

Apart from minor areas assessed as Grade 4 due to moderately steep slopes which are indeed rare much of the Grade 4 occurs in the extreme south west of the area where under the published Guidelines Wetness Class IV in combination with heavy clay loam topsoil texture leads to assessment as ALC Grade 4 which implies a severe limitation due to wetness This grade occurs mainly at the tops of hills throughout the south of the area where raw clay soils are assessed as described However in many cases there is little or no evidence of actual wetness such as when a red clay soil with SPL is assessed by reference to Figure 7 and this is widely felt to indicate a limitation more serious than would be felt in farming practice and that these areas are not comparable with other areas classed as Grade 4

Other Land

Urban land includes areas developed since the base map was published and the Vivary Park Golf Course with extensive bunkers It also includes retail garden centres

Non agricultural land includes urban open space and sports fields where the topsoil is believed to be intact and small areas of woodland

Areas not surveyed include the Ministry of Defence land at Norton Camp and one area at Courtlands Farm where access was refused

Resource Planning Team
Taunton Statutory Unit
May 1995

APPENDIX 1

REFERENCES

BRITISH GEOLOGICAL SURVEY (1976 and 1984) Sheet 295 Taunton (Solid and Drift) Sheet 311 Wellington (Drift edition) 1 50 000 scale

MAFF (1971 and 1974) Agricultural Land Classification Map Sheets 164 and 177 Provisional 1 63 360 scale

MAFF (1988) Agricultural Land Classification of England and Wales Revised Guidelines and Criteria for Grading the Quality of Agricultural Land Alnwick

METEOROLOGICAL OFFICE (1989) Climatological Data for Agricultural Land Classification

SOIL SURVEY OF ENGLAND AND WALES (1983) Sheet 5 Soils of South West England 1 250 000 scale

NATIONAL RIVERS AUTHORITY Wessex Division Land Drainage Survey Report Somerset Local Land Drainage District Water Act 1973 Section 24(5)

ADAS Resource Planning Group ADAS Bristol Reports of survey for the following areas

In preparation Taunton Deane Local Plan Objector sites currently under survey

12 95 Land west of Bishops Hull Road
11 95 Long Run Farm Bishops Hull

August 1994 Taunton Deane Local Plan ALC

78 94 Staplegrove
77 94 Creech St Michael
76 94 Sherford
74 94 Ruishton
74 94 Maidenbrook Farm

May 1994 Taunton Deane Local Plan ALC

41 94 Trull various sites
61 94 Pyrland

February 1994 Taunton Deane Local Plan ALC

17 94 Creech Heathfield
16 94 Monkton Heathfield
15 94 Comeytrowe

Unpublished Reports of Survey and maps for the following areas

138 89 Hankridge Farm
13 89 Comeytrowe Manor
Norton Fitzwarren
Pool Farm
Priorswood
Staplegrove
13 87 Taunton Local Plan sites
51 Taunton and West Somerset Road Routes
52 Taunton Appeal Sites
Bishops Hull
Staplegrove
Staplehay

APPENDIX 2

DESCRIPTION OF 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 include 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 and horticultural crops can usually be grown but on some land in 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 Where 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 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 most 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

Descriptions of other land categories used on ALC maps

Urban

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

Non-agricultural

Soft uses where most of the land could be returned relatively easily to agriculture including private park land 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

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 landcover types eg buildings in large grounds and where may be shown separately Otherwise the most extensive cover type will usually be shown

Source MAFF (1988) Agricultural Land Classification of England and Wales (Revised Guidelines and Criteria for Grading the Quality of Agricultural Land) Alnwick

APPENDIX 3

DEFINITION OF SOIL WETNESS CLASSES

Wetness Class I

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

Wetness Class 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 not wet within 40 cm depth for more than 30 days in most years

Wetness Class 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 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 and 90 days in most years

Wetness Class IV

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

Wetness Class V

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

Wetness Class VI

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

Notes The number of days specified is not necessarily a continuous period In most years is defined as more than 10 out of 20 years

Source Hodgson J M (in preparation) Soil Survey Field Handbook (revised edition)

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE		PARENT MATERIAL
Taunton SW	Pit 11 (ASP 44)	3° N	PGR	Av Rainfall 791 mm ATO 1539 day °C FC Days 170 Climatic Grade 1 Exposure Grade 1	Keuper Marl
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY		SOIL SAMPLE REFERENCES
10 95	23/3/95	ST198244	PB/GMS		PB 260

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	22	MCL	05YR43	2% HR (Vis)	None	None		Friable	Mod	Good	MF MVF		Abrupt Smooth
2	38	HCL	05YR44	10% HR (Vis)	None	None	MCSAB	Friable	Mod	Good	MF MVF		Gradual Smooth
3	50	C	2 5YR46	Decreasing	None	Common	MCSAB	Friable	Mod	Poor	CVF		Gradual Smooth
4	100	C	2 5YR46	None	None	Common	MCAB becoming WMAB by 100 cm	Friable	Mod	Poor	CVF		

Profile Gleyed From Not gleyed

Depth to Slowly Permeable Horizon 50 cm

Wetness Class III

Wetness Grade 3a

Available Water	Wheat	136 mm
	Potatoes	112 mm
Moisture Deficit	Wheat	104 mm
	Potatoes	98 mm
Moisture Balance	Wheat	+32 mm
	Potatoes	+14 mm
Droughtiness Grade		1 (Calculated to 120 cm)

Final ALC Grade 3a

Main Limiting Factor(s) Wetness

Remarks

H1 PSD MCL/HCL

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE		PARENT MATERIAL
Taunton SW	Pit 1 (ASP 423)	3° W	Cereals	Av Rainfall 845 mm ATO 1523 day °C FC Days 179 Climatic Grade 1 Exposure Grade 1	Valley Gravel
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY		SOIL SAMPLE REFERENCES
10 95	15 3 95	ST220218	GMS/PB		PB255

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	25	MCL	05YR43	5% HR (Vis)	None	None		Friable	Mod	Good	CF		Abrupt Smooth
2	70	HCL	05YR44	35% HR (Vis)	None	None	Too stony	Friable	Mod	Good	FVF		Gradual Wavy
3	90+	C	2 5YR46	None	Few at top of horizon	CMn	MCAB	Friable	Mod	Low	FVF between peds		

Profile Gleyed From Not gleyed

Depth to Slowly Permeable Horizon 70 cm

Wetness Class II

Wetness Grade 3a

Available Water	Wheat	123 mm
	Potatoes	91 mm
Moisture Deficit	Wheat	104 mm
	Potatoes	98 mm
Moisture Balance	Wheat	+19 mm
	Potatoes	7 mm

Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 3a

Main Limiting Factor(s) Wetness

Remarks

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE		PARENT MATERIAL
Taunton SW	Pit 2	4° W	Ploughed	Av Rainfall 831 mm ATO 1528 day °C FC Days 176 Climatic Grade 1 Exposure Grade 1	Keuper Marl
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY		SOIL SAMPLE REFERENCES
10 95	15 3 95	ST221224 ASP 324	GMS/PB		GMS 485

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	24	ZL	05YR42	2% HR (Vis)	None	None		Friable	Mod	Good	FVF		Clear Smooth
2	55	HCL	05YR54	5% HR (Vis)	None	Few	MCAB	Friable	Mod	Good	FVF		Clear Smooth
3	100+	C	2 5YR34	0% (Vis)	None	Common	MCAB	Friable	Mod	Low	FVF		

Profile Gleyed From Not gleyed

Depth to Slowly Permeable Horizon 55 cm

Wetness Class III

Wetness Grade 3a

Available Water	Wheat	139 mm
	Potatoes	114 mm
Moisture Deficit	Wheat	104 mm
	Potatoes	98 mm
Moisture Balance	Wheat	+35 mm
	Potatoes	+16 mm
Droughtiness Grade		1 (Calculated to 120 cm)

Final ALC Grade 3a

Main Limiting Factor(s) Wetness

Remarks

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE		PARENT MATERIAL
Taunton SW	Pit 3 (ASP 387)	0°	Ley	Av Rainfall 831 mm ATO 1528 day °C FC Days 174 Climatic Grade 1 Exposure Grade 1	Keuper Marl
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY		SOIL SAMPLE REFERENCES
10 95	17 3 95	ST230221	GMS		GMS 487

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	28	HZCL	05YR43	None (Vis)	None	None							Clear Smooth
2	60	HCL	05YR54	None (Vis)	None	None	MM+CSAB	Friable	Mod to good	Good	CVF		Gradual Smooth
3	80+	HCL	05YR54	None (Vis)	None	None	WMSAB	Friable	Good	Good	FVF		

Profile Gleyed From: Not gleyed

Depth to Slowly Permeable Horizon: No SPL

Wetness Class: I

Wetness Grade: 3a

Available Water	Wheat	180 mm
	Potatoes	123 mm
Moisture Deficit	Wheat	104 mm
	Potatoes	98 mm
Moisture Balance	Wheat	76 mm
	Potatoes	25 mm
Droughtiness Grade		1 (Calculated to 120 cm)

Final ALC Grade: 3a

Main Limiting Factor(s): Wetness

Remarks

HI PSD HZCL/ZC

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE		PARENT MATERIAL
Taunton SW	Pit 4 (ASP 540)	4° W	PGR	Av Rainfall 884 mm ATO 1501 day °C FC Days 186 Climatic Grade 1 Exposure Grade 1	Keuper Marl
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY		SOIL SAMPLE REFERENCES
10 95	20 3 95	ST203207	GMS		GMS 484

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	26	ZL	10YR42	0% Vis	None	None							Abrupt Smooth
2	>5	C	05Y52	0% Vis	CDFO 10YR56	None	Patches of MCAB rest of WMAB	Friable	Mod	Good	MVF		Clear Smooth
3	80+	C	05Y61	Weathered parent material in patches	CDFO 10YR56	None	WM+FAB except parent material	Friable	Mod	Good	CVF		

Profile Gleyed From 26 cm

Depth to Slowly Permeable Horizon No SPL

Wetness Class II

Wetness Grade 3a

Available Water	Wheat	141 mm
	Potatoes	117 mm
Moisture Deficit	Wheat	104 mm
	Potatoes	98 mm
Moisture Balance	Wheat	37 mm
	Potatoes	19 mm
Droughtiness Grade		1 (Calculated to 120 cm)

Final ALC Grade 3a

Main Limiting Factor(s) Wetness

Remarks

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE		PARENT MATERIAL
Taunton SW	Pit 5 (ASP 397)	2° W	Ley	Av Rainfall 848 mm ATO 1523 day °C FC Days 180 Climatic Grade 1 Exposure Grade 1	Keuper Marl
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY		SOIL SAMPLE REFERENCES
10 95	21 3 95	ST210219	N A Done		NAD 217

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	27	HCL	7.5YR43	1% HR Vis Est							Many Fine		Gradual Smooth
2	55	MCL	7.5YR44	1% HR Vis Est		Few	MDCP	Friable	M	Good	Common Fine		Gradual Smooth
3	85+	HCL	05YR46	1% HR Vis Est		Few	MDCSAB	Friable	M	Good	Common Fine		

Profile Gleyed From

Depth to Slowly Permeable Horizon

Wetness Class I

Wetness Grade 3a

Available Water Wheat 154 mm

Potatoes 116 mm

Moisture Deficit Wheat 104 mm

Potatoes 98 mm

Moisture Balance Wheat +50 mm

Potatoes +18 mm

Droughtiness Grade 1 (Calculated to 120 cm)

Final ALC Grade 3a

Main Limiting Factor(s) Workability

Remarks

H1 hand textured as MCL PSD analysis as clay was not thought to be a true representation of topsoil texture so finally recorded as HCL

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE		PARENT MATERIAL
Taunton SW	Pit 6 (ASP 414)	0°	Ley	Av Rainfall 848 mm ATO 1523 day °C	Keuper Marl
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY	FC Days 180 Climatic Grade 1 Exposure Grade 1	SOIL SAMPLE REFERENCES
20/95	21 3 95	ST204218	N A Done		NAD 214

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	23	MSZL	10YR43	2% HR Vis Est							Common Fine		Abrupt Smooth
2	55	HCL	75YR43	3% HR Vis Est			MDCSAB	Friable	M	Good	Common Fine		Clear Smooth
3	85+	C	5YR46 (5YR54)	1% HR	fdpm (75YR53)	Common	MDM+CAB	Friable	M	Good	Few		

Profile Gleyed From 55

Depth to Slowly Permeable Horizon 55

Wetness Class III

Wetness Grade 3a

Available Water Wheat 139 mm

Potatoes 114 mm

Moisture Deficit Wheat 104 mm

Potatoes 98 mm

Moisture Balance Wheat +35 mm

Potatoes +16 mm

Droughtiness Grade 1 (Calculated to 120 cm)

Final ALC Grade 3a

Main Limiting Factor(s) Wetness

Remarks

Structure of H3 contains some weakly developed adherent coarse subangular block peds

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE		PARENT MATERIAL
Taunton SW	Pit 7 (ASP 465)	2° E	Maize	Av Rainfall 884 mm ATO 1501 day °C FC Days 186 Climatic Grade 1 Exposure Grade 1	Keuper Marl
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY		SOIL SAMPLE REFERENCES
10 95	21 3 95	ST201215	GMS/NAD		GMS 483

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	24	ZL	10YR44	2% >2cm 3% <2cm 5% HR						G	Common V Fine		Clear Smooth
2	73	C	5YR44 (5YR54)	10% HR	cdfom 7.5YR58	Few	MDCAB in predominantly WDCSAB	Firm	P	P	Common V fine		Gradual Smooth
3	120	C	5YR46	None		None	WDMSAB	Firm	M	P	Few V fine		

Profile Gleyed From 24

Depth to Slowly Permeable Horizon 24 73

Wetness Class IV

Wetness Grade 3b

Available Water Wheat 126 mm

Potatoes 98 mm

Moisture Deficit Wheat 104 mm

Potatoes 98 mm

Moisture Balance Wheat +22 mm

Potatoes 0 mm

Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 3b

Main Limiting Factor(s) Wetness

Remarks

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE		PARENT MATERIAL
Taunton SW	Pit 8	0°	PGR	Av Rainfall 884 mm ATO 1501 day °C FC Days 186 Climatic Grade 1 Exposure Grade 1	Keuper Marl
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY		SOIL SAMPLE REFERENCES
10 95	21 3 95	ST205210 ASP 516	NAD/GMS		NAD 215

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	26	FSZL	10YR43	0% (Vis)	Few RR	None					MF MVF		Gradual Smooth
2	43	FSZL	7 5YR53	Neg	FFFO	None	MDCSAB	Friable	Mod	Good	MVF		Abrupt Smooth
3	51	HCL	7 5YR63	0%	CDFO	Common	WACSAB to 75	Friable	Mod	Low	MVF		Clear Wavy
4	90+	C	2 5Y50 5YR53	0%	None	None	MDMAB from 75 cm	Friable	Mod	Low	MVF		

Profile Gleyed From 43

Depth to Slowly Permeable Horizon 43

Wetness Class III

Wetness Grade 3

Available Water Wheat 160 mm

Potatoes 136 mm

Moisture Deficit Wheat 104 mm

Potatoes 98 mm

Moisture Balance Wheat +56 mm

Potatoes +38 mm

Droughtiness Grade 1 (Calculated to 120 cm)

Final ALC Grade 3a

Main Limiting Factor(s) Wetness

Remarks

Horizons 3 and 4 merge and top of Horizon 4 has similar structure to Horizon 3 therefore at least 15 cm of SPL

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE		PARENT MATERIAL
Taunton SW	Pit 9 (ASP 85)	1° N	Cereals	Av Rainfall 791 mm ATO 1539 day °C	Keuper Marl
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY	FC Days 170 Climatic Grade 1	SOIL SAMPLE REFERENCES
10 95	22 3 95	ST190238	PB/PRW	Exposure Grade 1	PB 258

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	23	MZCL	7 5YR4/2	None	None	None		Friable	Moderate	Many	Common Fine		Clear Smooth
2	60	HCL	10YR5/3	None	Common Faint Fine Ochreous 10YR5/6	None	Weak Coarse Subangular Blocky	Friable	Moderate	Many	Few Fine		Gradual Smooth
3	90	C	5YR4/4	None	Common Distinct Coarse Grey 5YR7/1	None	Mod coarse Angular Blocky	Firm	Moderate	Poor	Few Fine		

Profile Gleyed From 23

Depth to Slowly Permeable Horizon 60

Wetness Class III

Wetness Grade 3a

Available Water Wheat 143 mm

Potatoes 117 mm

Moisture Deficit Wheat 104 mm

Potatoes 98 mm

Moisture Balance Wheat 39 mm

Potatoes 19 mm

Droughtiness Grade 1 (Calculated to 120 cm)

Final ALC Grade 3a

Main Limiting Factor(s) Wetness

Remarks

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE			PARENT MATERIAL
Taunton SW	Pit 10 (ASP 33)	2° N	PGR	Av Rainfall	791 mm	Keuper Marl
				ATO	1539 day °C	
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY	FC Days	170	SOIL SAMPLE REFERENCES
10 95	23 3 95	ST196246	GMS/PB	Climatic Grade	1	PB 259
				Exposure Grade	1	

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	24	MCL	75YR43	2% HR (Vis)	0	0					MVF		Clear Smooth
2	74	HCL	75YR44	2% HR (Vis)	0	0	MCSAB	Fr	M	G	CVF		Clear Smooth
3	85	C	75YR46	0	0	C	MMAB	Fm	M	P	CVF		

Profile Gleyed From Not gleyed

Depth to Slowly Permeable Horizon No spl within 80 cm

Wetness Class I

Wetness Grade 1

Available Water	Wheat	116 mm
	Potatoes	115 mm
Moisture Deficit	Wheat	104 mm
	Potatoes	98 mm
Moisture Balance	Wheat	+12 mm
	Potatoes	+17 mm
Droughtiness Grade		2 (Calculated to 85 cm)

Final ALC Grade 1

Main Limiting Factor(s)

Remarks

H3 structure likely to deteriorate becoming SPL below 85 cm but not within 80 cm Free water held in pit

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE		PARENT MATERIAL
Taunton SW	Pit 12 (ASP 128)	2° N	Ley	Av Rainfall 800 mm ATO 1501 day °C	Keuper Marl
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY	FC Days 172 Climatic Grade 1 Exposure Grade 1	SOIL SAMPLE REFERENCES
10 95	23 3 95	ST196233	GMS/PB		PB 261

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	24	MCL	10YR43	2% HR (Vis)	CFFOM (75YR56)	0				G	MF VF		Clear Smooth
2	35	HCL	75YR43	2% HR (Vis)	CDFOM (75YR56)	0	MCSAB	Fr	M	G	CVF		Gradual Smooth
3	70	C	75YR63	5% HR (Vis)	MDFOM (75YR56)	C	WMSAB	Fr		P	FVF		Gradual Smooth
4	90	C	5YR44	0	0	C	WCSAB	Fm		P	FVF		

Profile Gleyed From 35 cm

Depth to Slowly Permeable Horizon 70 cm

Wetness Class III

Wetness Grade 3a

Available Water	Wheat	158 mm
	Potatoes	130 mm
Moisture Deficit	Wheat	104 mm
	Potatoes	98 mm
Moisture Balance	Wheat	+54 mm
	Potatoes	+32 mm
Droughtiness Grade		1 (Calculated to 120 cm)

Final ALC Grade 3a

Main Limiting Factor(s) Wetness

Remarks

H1 PSD MCL/HCL

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE		PARENT MATERIAL
Taunton SW	Pit 13 (ASP 520)	0°	Fodder	Av Rainfall 884 mm ATO 1501 day °C FC Days 186 Climatic Grade 1 Exposure Grade 1	Keuper Marl
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY		SOIL SAMPLE REFERENCES
10 95	23 3 95	ST212210	GMS/PB		PB 262

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	25	MZCL	7 5YR42	5% HR (Vis)	None	None				Good	FVF		Abrupt Smooth
2	45	C	05YR54 (05YR53)	2% HR (Vis)	CDFO 7 5YR56	Few	MCSAB	Friable	Mod	Low	FVF		Clear Smooth
3	65	C	05YR43	2% HR (Vis)	CDFO 7 5YR56	Common	WCSAB	Firm	Poor	Low	FVF		Clear Wavy
4	80+	C	2 5YR34	2% HR (Vis)	CDFO 7 5YR56	Common	MCAB	Friable	Mod	Low	FVF		

Profile Gleyed From 25 cm

Depth to Slowly Permeable Horizon 45 cm

Wetness Class IV

Wetness Grade 3b

Available Water Wheat 134 mm

Potatoes 108 mm

Moisture Deficit Wheat 104 mm

Potatoes 98 mm

Moisture Balance Wheat 30 mm

Potatoes 10 mm

Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 3b

Main Limiting Factor(s) Wetness

Remarks

H1 PSD MZCL/MCL

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE			PARENT MATERIAL
Taunton SW	Pit 14 (ASP 194)	2° N	Ley	Av Rainfall	800 mm	Keuper Marl
				ATO	1501 day °C	
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY	FC Days	172	SOIL SAMPLE REFERENCES
10 95	31 3 95	ST201229	PRW/PB	Climatic Grade	1	PB 263
				Exposure Grade	1	

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	18	ZC	10YR4/2	None	None	Few					Common Fine		Abrupt Smooth
2	25	C	10YR4/3	None	None	Few	Weak Coarse Subangular Blocky	Firm	P	<0 5% biopores	Few/ common Fine		Clear Smooth
3	65+	C	>GY6/1	1% HR (Vis)	None	None	Weak Medium Angular Blocky (with possible coarse weak prismatic?)	Firm	P	<0 5% biopores	Few fine and very fine exped	Yes	

Profile Gleyed From	Not gleyed	Available Water	Wheat	120 mm	Final ALC Grade 3b
Depth to Slowly Permeable Horizon	25 cm		Potatoes	98 mm	Main Limiting Factor(s) Wetness
Wetness Class	IV	Moisture Deficit	Wheat	104 mm	
Wetness Grade	3b		Potatoes	98 mm	
		Moisture Balance	Wheat	+16 mm	
			Potatoes	0 mm	
		Droughtiness Grade		2 (Calculated to 120 cm)	

Remarks

3rd Horizon has SPL structure and porosity 2nd Horizon has few Mn concretions being evidence of wetness above the SPL Roots in SPL are exped
Convex site

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE		PARENT MATERIAL
Taunton SW	Pit 15 (ASP 203)	4° W	Cereals	Av Rainfall 800 mm ATO 1501 day °C FC Days 172 Climatic Grade 1 Exposure Grade 1	Keuper Marl
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY		SOIL SAMPLE REFERENCES
10 95	24 3 95	ST216229	GMS/PB		PB 264

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	25	MCL	5YR43	2% HR (Vis)	0	0				G	MVF		Clear Smooth
2	73	HCL	5YR46	5% HR (Vis)	0	0	MCSAB	Fr	M	G	CVF		Gradual Smooth
3	85	HCL (SC from 110)	5YR54	8% HR (Vis)	CFMGM (75YR64)	0 (C from 100)	WCSAB	Fr	M	G	FVF		

Profile Gleyed From Not gleyed

Depth to Slowly Permeable Horizon No SPL

Wetness Class I

Wetness Grade 1

Available Water Wheat 148 mm

Potatoes 113 mm

Moisture Deficit Wheat 104 mm

Potatoes 98 mm

Moisture Balance Wheat +44 mm

Potatoes +15 mm

Droughtiness Grade 1 (Calculated to 120 cm)

Final ALC Grade 1

Main Limiting Factor(s) Workability

Remarks

H1 PSD MCL/HCL
Pit dug to 85 augered to 120 cm

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE			PARENT MATERIAL
Taunton SW	Pit 16 (ASP 523)	0°	Cereal	Av Rainfall	884 mm	Valley Gravel
				ATO	1501 day °C	
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY	FC Days	186	SOIL SAMPLE REFERENCES
10/95	24 3 95	ST216210	GMS/PB	Climatic Grade	1	PB 265
				Exposure Grade	1	

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	24	MCL	7 5YR42	1% HR >2cm (Sieved)	None	None				Good	MF VF		Clear Smooth
2	40	HCL	7 5YR54	5% HR >2cm (Sieved)	None	None	MCSAB	Friable	Mod	Good	CF VF		Gradual Wavy
3	55	C	5YR43 (5YR54 53)	15% HR >2cm (Sieved) 20% HR Total	CDFO 5YR56 MDMG	Common	WCSAB	Friable	Mod	Good	FVF		Gradual Wavy
4	95+	C	2 5YR46 (5YR55)	5% HR (Vis)	CDFO 5YR54 44	Many	WCSAB	Firm	Poor	Low	FVF		

Profile Gleyed From 40 cm

Depth to Slowly Permeable Horizon 55 cm

Wetness Class III

Wetness Grade 3a

Available Water	Wheat	127 mm
	Potatoes	105 mm
Moisture Deficit	Wheat	104 mm
	Potatoes	98 mm
Moisture Balance	Wheat	+23 mm
	Potatoes	+7 mm
Droughtiness Grade		2 (Calculated to 120 cm)

Final ALC Grade 3a

Main Limiting Factor(s) Wetness

Remarks

H1 PSD MCL/HCL
Gleying of Horizon 3 not convincing due to ped face colour

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE		PARENT MATERIAL
Taunton SW	Pit 17 (ASP 294)	0°	Ploughed	Av Rainfall 831 mm ATO 1528 day °C FC Days 176 Climatic Grade 1 Exposure Grade 1	Keuper Marl
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY		SOIL SAMPLE REFERENCES
10 95	29 3 95	ST 2245 2250	GMS		GMS 488

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	35	ZC	05YR43	None (Vis)	None	None		Friable	Mod	Good	CVF		Clear Smooth
2	55	C	05YR54	None	None	Few	MCSAB	Friable	Mod	Good	FVF		
3	110+	C	2 5YR34 patches of 5Y52 to 70 cm (2 5YR54)	None	None	Few	MCAB	Friable	Mod	Poor	FVF		

Profile Gleyed From Not gleyed

Depth to Slowly Permeable Horizon 55 cm

Wetness Class III

Wetness Grade 4

Available Water	Wheat	140 mm
	Potatoes	116 mm
Moisture Deficit	Wheat	104 mm
	Potatoes	98 mm
Moisture Balance	Wheat	+36 mm
	Potatoes	+18 mm
Droughtiness Grade		1 (Calculated to 120 cm)

Final ALC Grade 4

Main Limiting Factor(s) Wetness

Remarks

Structure checked at 90 100 cm

SITE NAME	PROFILE NO	SLOPE AND ASPECT	LAND USE		PARENT MATERIAL
Taunton SW	Pit 18 (ASP 90)	0°	Ploughed	Av Rainfall 791 mm ATO 1539 day °C FC Days 170 Climatic Grade 1 Exposure Grade 1	Keuper Marl
JOB NO	DATE	GRID REFERENCE	DESCRIBED BY		SOIL SAMPLE REFERENCES
10 95	29 3 95	ST 1975 2380	GMS		GMS 489

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Mottling Abundance Contrast Size and Colour	Mangan Concs	Structure Ped Development Size and Shape	Consistence	Structural Condition	Pores (Fissures)	Roots Abundance and Size	Calcium Carbonate Content	Horizon Boundary Distinctness and form
1	32	HCL	7 5YR42	None (Vis)	None	None		Friable	Mod	Good	FVF		Gradual Wavy
2	50	HCL	7 5YR54 and 05YR54 (05YR53)	5% HR (Vis)	CDOG 7 5YR56 10YR63	Few	MCSAB	Friable	Mod	Good	FVF		Gradual Wavy
3	100+	C	05YR43 (slightly paler)	0% HR	FDOG 7 5YR56 10YR63	Few	MCAB	Friable	Mod	Poor	FVF		

Profile Gleyed From 32 cm

Depth to Slowly Permeable Horizon 50 cm

Wetness Class III

Wetness Grade 3b

Available Water	Wheat	141 mm
	Potatoes	117 mm
Moisture Deficit	Wheat	104 mm
	Potatoes	98 mm
Moisture Balance	Wheat	37 mm
	Potatoes	19 mm
Droughtiness Grade		1 (Calculated to 120 cm)

Final ALC Grade 3b

Main Limiting Factor(s) Wetness

Remarks

SOIL PLASTICITY RECORDING SHEET

ANNEX 2

SITE DATA

Grid Ref	ST 12SE 22SW	Site Name	Taunton South West			LPA	Taunton Deane Borough Council
AAR	845	ATO	1523	FCD	172 186	MD (wheat)	104	MD (potatoes)	98

SOIL PIT DATA

	PIT ONE ST 196246 SOIL SERIES Worcester			PIT TWO ST 198244 SOIL SERIES Worcester			PIT THREE ST 196233 SOIL SERIES Worcester		
DEPTH	TEXTURE	PLASTIC Y/N	COMMENTS	TEXTURE	PLASTIC Y/N	COMMENTS	TEXTURE	PLASTIC Y/N	COMMENTS
10 cm	MCL	N	Ball no worm	MCL	N	No ball	HCL	Y	Worm
20 cm	MCL	Y	Worm	MCL	N	No ball	"	N	Crumbly worm
30 cm	HCL	Y	"	HCL	Y	Good worm	"	Y	Worm
40 cm	HCL	Y		C	Y			Y	
50 cm	HCL	Y	"	C	Y	"	"	Y	
60 cm	HCL	Y	"	C	Y	Cracking worm	"	Y	"

IVP569