

SITE NAME Taunton NW		PROFILE NO Pit 1 (ASP 580)	SLOPE AND ASPECT 0°	LAND USE Cereal	Av Rainfall 775 mm	PARENT MATERIAL Alluvium	
JOB NO 8/95		DATE 28/3/95	GRID REFERENCE ST 198 253	DESCRIBED BY NAD/GMS	ATO 1556 day °C	SOIL SAMPLE REFERENCES NAD 214	
					FC Days 170		
					Climatic Grade 1		
					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	27	MCL	10YR44	none (visual)	none	none				Good	MF		Clear smooth
2	75	HCL	7 5YR46	none (visual)	none	few	MDCSAB tending to Prismatic	Friable	Mod	Good	CF		Abrupt smooth
3	90+	HCL	5YR44	40% ZR (visual)	none	none	WMSAB	Friable	Mod	Good	FVF		

Profile Gleyed From Not gleyed

Depth to Slowly Permeable Horizon No SPL

Wetness Class I

Wetness Grade 1

NL3361

Available Water Wheat 146 mm

Potatoes 117 mm

Moisture Deficit Wheat 106 mm

Potatoes 99 mm

Moisture Balance Wheat 40 mm

Potatoes 18 mm

Droughtiness Grade 1 (Calculated to 120 cm)

Final ALC Grade 2

Main Limiting Factor(s) Flood risk

Remarks

H1 PSD MCL/HCL

SITE NAME		PROFILE NO		SLOPE AND ASPECT		LAND USE		Av Rainfall		780 mm		PARENT MATERIAL	
Taunton NW		Pit 2 (ASP 143)		3°S		PGR		ATO		1520 day °C		Mercia Mudstone Group	
JOB NO		DATE		GRID REFERENCE		DESCRIBED BY		FC Days		168		SOIL SAMPLE REFERENCES	
8/95		31/3/95		ST 229 276		PRW/PB		Climatic Grade		1		PB 266	
								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	25	MSL	5YR4/4	1% HR	None	None		Friable	Moderate	Many	Many fine		Gradual wavy
2	50	MSL	2 5YR4/6	1% HR	None	None	Moderate Coarse Subangular Blocky	Friable	Moderate	Many	Common fine and very fine		Gradual wavy
3	85	LMS	2 5YR4/6	None	None	None	Weak Coarse Angular Blocky	Friable	Good	Many	Few very fine		Clear wavy
4	120	LMS	2 5YR4/6	None	None	None	Weak Coarse Angular Blocky	Friable	Good	Many	None		

Profile Gleyed From Not gleyed
Depth to Slowly Permeable Horizon No SPL
Wetness Class 1
Wetness Grade 1

Available Water Wheat 132 mm
Potatoes 101 mm
Moisture Deficit Wheat 104 mm
Potatoes 96 mm
Moisture Balance Wheat + 28 mm
Potatoes + 5 mm
Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 2
Main Limiting Factor(s) Droughtiness

Remarks

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	775 mm	PARENT MATERIAL					
Taunton NW		Pit 3 (ASP 571)	0°	PGR	ATO	1556 day °C	Alluvium					
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	168	SOIL SAMPLE REFERENCES					
8/95		29/3/95	ST 1855 2530	GMS	Climatic Grade	1	GMS 490					
					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	30	MCL	7 5YR42	0% (Visual)	none	none		Friable	Mod	Good	MVF		Clear smooth
2	50	HCL	7 5YR54	0% (Visual)	none	none	MCSAB	Friable	Mod	Good	MVF		Gradual smooth
3	80	C	10YR53	0% (Visual)	CDFO 10YR56	Few	MCSAB tending to prismatic	Friable	Mod	Borderline	MVF		

Profile Gleyed From 50 cm
Depth to Slowly Permeable Horizon No SPL
Wetness Class I
Wetness Grade 1

Available Water Wheat 142 mm
Potatoes 118 mm
Moisture Deficit Wheat 106 mm
Potatoes 99 mm
Moisture Balance Wheat 36 mm
Potatoes 19 mm
Droughness Grade 1 (Calculated to 120 cm)

Final ALC Grade 1
Main Limiting Factor(s) None

Remarks
Structure in Horizon 3 becomes more weakly developed by 80 cm Possibly SPL structure at depth. Borderline WCII→2

NL3361

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	775 mm	PARENT MATERIAL					
Taunton NW		Pit 4	0°	Fodder	ATO	1556 day °C	Alluvium					
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	168	SOIL SAMPLE REFERENCES					
8/95		29/3/95	ASP 615 ST 2105 2520	GMS	Climatic Grade	1	GMS 491					
					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	25	MCL	7 5YR34	2% HR (Visual)	none	none		Friable	Mod	Good	FVF		Clear smooth
2	70	HCL	5YR43	none	none	Common	MCSAB	Friable	Mod	Good	CVF		Clear smooth
3	90+	HCL	5YR54	none	CDFO 7 5YR56	Few	MCSAB	Friable	Mod	Good	CVF		

Profile Gleyed From	Not gleyed	Available Water	Wheat	154 mm	Final ALC Grade	2
Depth to Slowly Permeable Horizon	No SPL		Potatoes	116 mm	Main Limiting Factor(s)	Flood risk
Wetness Class	I	Moisture Deficit	Wheat	106 mm		
Wetness Grade	1		Potatoes	99 mm		
		Moisture Balance	Wheat	48 mm		
			Potatoes	17 mm		
NL3361		Droughtiness Grade		1 (Calculated to 120 cm)	Remarks	

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	780 mm	PARENT MATERIAL	
Taunton NW		Pit 5 (ASP 104)	2°	PGR	ATO	1520 day °C	MMG/Valley gravel	
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	168	SOIL SAMPLE REFERENCES	
8/95		31/3/95	ST 224 277	PRW/PB	Climatic Grade	1	PB 267	
					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	15	MSZL	7 5YR43	0	0	0				G	MF, VF		Ab smooth
2	60	MCL	7 5YR46	0	0	0	MCSAB	Fr	M	G	FF, VF		Ab smooth
3	110	HCL	7 5YR54	33% ZR (S)	0	0	WCSAB	Fr	M	G	FVF		

Profile Gleyed From Not gleyed

Depth to Slowly Permeable Horizon No SPL

Wetness Class I

Wetness Grade 1

NL3361

Available Water Wheat 145 mm

Potatoes 114 mm

Moisture Deficit Wheat 104 mm

Potatoes 96 mm

Moisture Balance Wheat +41 mm

Potatoes +18 mm

Droughtiness Grade 1 (Calculated to 120 cm)

Final ALC Grade 1

Main Limiting Factor(s)

Remarks

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	775 mm	PARENT MATERIAL	
Taunton NW		Pit 6 (ASP 575)	0°	Cereals	ATO	1556 day °C	Alluvium	
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	170	SOIL SAMPLE REFERENCES	
8/95		28/3/95	ST 191 253	N A Done	Climatic Grade	1	NAD 216 217	
					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	27	HCL	75YR43	neg						G	Many fine		Clear smooth
2	70	HCL	75YR46	neg		Few	MDCSAB	Friable	M	G	Common fine		Gradual/ smooth
3	120	MCL	05YR54	neg	FFOM 75Y68	Common	MDCSAB	Friable	M	G	Few fine		

Profile Gleyed From	Depth to Slowly Permeable Horizon	Wetness Class 1	Wetness Grade 2	Available Water	Wheat	155 mm	Final ALC Grade	2
					Potatoes	117 mm		
Moisture Deficit	Moisture Balance	Wheat	106 mm	Main Limiting Factor(s)	Wk			
		Potatoes	99 mm					
Droughtiness Grade	1 (Calculated to 120 cm)	Wheat	+49 mm	Remarks				
		Potatoes	+18mm					

NL3361

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	780 mm	PARENT MATERIAL					
Taunton NW		Pit 7 (ASP 135)	1° S	PGR	ATO	1520 day °C	Keuper marl					
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	168	SOIL SAMPLE REFERENCES					
8/95		31/3/95	ST 218 275	PRW/PB	Climatic Grade	1	PB 268					
					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	23	MZCL	7 5YR54	1% HR (Vis)	RRC only	0				G	MF, VF		Ab smooth
2	58	HCL	10YR64	20% HR (Vis)	CDMOM (10YR58)	C	WCSAB	Fr		P in ped G ex ped	FVF		Ab smooth
3	120	C	2 5YR5/6	40% <2 cm ZR (S)	0	M	WCSAB	Fr		G	0		

Profile Gleyed From 23 cm
Depth to Slowly Permeable Horizon 23 cm
Wetness Class IV
Wetness Grade 3b

Available Water Wheat 125 mm
Potatoes 102 mm
Moisture Deficit Wheat 106 mm
Potatoes 99 mm
Moisture Balance Wheat +19 mm
Potatoes +3 mm
Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 3b
Main Limiting Factor(s) We

Remarks
H2 a borderline SPL profile graded 3b but included in a 3a mapping unit

NL3361

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	798 mm	PARENT MATERIAL					
Taunton NW		Pit 8 (ASP 411)	4° West	Cereals	ATO	1533 day °C	Keuper marl					
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	170	SOIL SAMPLE REFERENCES					
8/95		6 April 1995	ST 193 262	GJC/GMS	Climatic Grade	1	GMS 492					
					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	33	MZCL	05YR44	5% HR Total (Visual)	none	none					CVF FF		Abrupt smooth
2	80+	C	2 5YR36 patches of 2 5Y62 and 5YR54 increasing with depth	0% HR (Visual)	FFFO 5YR46	Common	Red clay MCAB other MCSAB	Frable Frable	Mod Mod	Low Low/ borderline	FVF CVF		

Profile Gleyed From Not gleyed
Depth to Slowly Permeable Horizon 33 cm
Wetness Class III
Wetness Grade 3a

NL3361

Available Water Wheat 140 mm
Potatoes 116 mm
Moisture Deficit Wheat 106 mm
Potatoes 99 mm
Moisture Balance Wheat +34 mm
Potatoes +17 mm
Droughtiness Grade 1 (Calculated to 120 cm)

Final ALC Grade 3a
Main Limiting Factor(s) We

Remarks
Red clay increasingly gives way to grey material and thus SPL fades away
H1 PSD MZCL/HZCL

SITE NAME		PROFILE NO		SLOPE AND ASPECT		LAND USE		Av Rainfall mm		PARENT MATERIAL			
Taunton NW		Pit 9 (ASP 351)		Flat		Cereals		ATO day °C		Keuper marl			
JOB NO		DATE		GRID REFERENCE		DESCRIBED BY		FC Days 170		SOIL SAMPLE REFERENCES			
8/95		6/3/95		ST 191 266		GJC/GMS		Climatic Grade		GMS 493			
								Exposure Grade					

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	30	C	10YR43	2% HR Total (Visual)	none	none					CVF		Clear smooth
2	40	C	7 5YR54	0% (Visual)	FDFO 7 5YR56	none	Too narrow				CVF		Clear smooth
3	65	C	2 5Y52	0% (Visual)	CDFO 10YR68	Common	MCAB	Firm	Poor	Low	CVF		

Profile Gleyed From 40 cm
Depth to Slowly Permeable Horizon 40 cm
Wetness Class III/IV
Wetness Grade 3b/3b

Available Water Wheat 128 mm
Potatoes 105 mm
Moisture Deficit Wheat 106 mm
Potatoes 99 mm
Moisture Balance Wheat +22 mm
Potatoes +6 mm
Droughtness Grade 2 (Calculated to 120 cm)

Final ALC Grade 3b
Main Limiting Factor(s) Wetness

Remarks
Red clay below horizon 3

NL3361

SITE NAME		PROFILE NO		SLOPE AND ASPECT		LAND USE		Av Rainfall		798 mm		PARENT MATERIAL	
Taunton NW		Pit 10 (ASP 458)		Flat		Cereals		ATO		1533 day °C		Keuper marl	
JOB NO		DATE		GRID REFERENCE		DESCRIBED BY		FC Days		170		SOIL SAMPLE REFERENCES	
8/95		6/4/95		ST 181 260		GJC/GMS		Climatic Grade		1		GMS 494	
								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 Cones	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	MSZL	7 5YR46	4% HR (Visual)	none	none					CF VF		Abrupt smooth
2	66	MCL	7 5YR54	0% HR (Visual)	none	Few	MCSAB	Friable	Mod	Good	FVF		Gradual smooth
3	100	MCL	5YR54 44 64	0% HR (Visual)	FDFO 7 5YR56	Few	MCSAB	Friable	Mod	Low	FVF		

Profile Gleyed From Not gleyed
Depth to Slowly Permeable Horizon Not SPL
Wetness Class I
Wetness Grade 1

Available Water Wheat 156 mm
Potatoes 118 mm
Moisture Deficit Wheat 106 mm
Potatoes 99 mm
Moisture Balance Wheat +50 mm
Potatoes +19 mm
Droughtiness Grade 1 (Calculated to 120 cm)

Final ALC Grade 1
Main Limiting Factor(s) none

Remarks

NL3361

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	798 mm	PARENT MATERIAL	
Taunton NW		Pit 11 (ASP 502)	2° NE	Cereals	ATO	1533 day °C	Kueper marl	
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	170	SOIL SAMPLE REFERENCES	
8/95		6/4/95	ST 187 258	GJC/GMS	Climate Grade	1	GMS 495	
					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	25	MCL	10YR43	1% HR							Common F+VF		Clear/ smooth
2	85	MCL	7 5YR55/44	1% HR		F	MDCSAB	Friable	M	G	Common F+VF		Clear/ smooth
3	120	C	5YR54 2 5YR34	1% HR	FFOM 7 5YR58	C	MDCSAB	Friable	M	P	Few F+VF		

Profile Gleyed From

Depth to Slowly Permeable Horizon

Wetness Class 1

Wetness Grade 1

NL3361

Available Water Wheat 147 mm

Potatoes 116 mm

Moisture Deficit Wheat 106 mm

Potatoes 99 mm

Moisture Balance Wheat +41 mm

Potatoes +17 mm

Droughtiness Grade 1 (Calculated to 20 cm)

Final ALC Grade 1

Main Limiting Factor(s)

Remarks

Pit dug to 90 cm

SITE NAME Taunton NW		PROFILE NO Pit 12	SLOPE AND ASPECT 0	LAND USE Ley	Av Rainfall 798 mm	PARENT MATERIAL River Gravels	
JOB NO 8/95		DATE 7 April 1995	GRID REFERENCE ST 185 277	DESCRIBED BY N A Done	ATO 1533 day °C	SOIL SAMPLE REFERENCES PB 269	
					FC Days 172		
					Climatic Grade 1		
					Exposure Grade 1		

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Motiling 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	MCL	10YR44	3% HR						G	Many fine		Clear smooth
2	45	MCL	10YR54	14% HR >2cm 27% <2cm 41%		few	WDCSAB	Friable	M	G	Common fine		Grad smooth
3	80+	MCL	10YR53	41% HR	CDOM 10YR58	Common	NDCSAB	Friable	M	G	Few		

Pockets of redish sandy lens below 70 cm

Profile Gleyed From	45	Available Water	Wheat	113 mm	Final ALC Grade	2
Depth to Slowly Permeable Horizon			Potatoes	90 mm	Main Limiting Factor(s)	Dr
Wetness Class	1	Moisture Deficit	Wheat	106 mm	Remarks	
Wetness Grade	1		Potatoes	99 mm		
		Moisture Balance	Wheat	+7 mm	Structure mainly developed around stones H1 PSD MCL/MSZL	
			Potatoes	9 mm		
NL3361		Droughtiness Grade		2 (Calculated to 120 cm)		

SITE NAME		PROFILE NO	SLOPE AND ASPECT		LAND USE		Av Rainfall 780 mm		PARENT MATERIAL			
Taunton NW		Pit 13 (ASP 371)	0°		PGR		ATO 1520 day °C		Valley Gravel			
JOB NO		DATE	GRID REFERENCE		DESCRIBED BY		FC Days 168		SOIL SAMPLE REFERENCES			
8/95		6/4/95	ST 219 266		HLJ/PB		Climatic Grade 1		PB 270			
							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	20	MCL	10YR44	1% HR >2cm (Vis) 8% HR >2cm (S+D) 10% HR Total	none	none				Good	MF+VF		Abrupt smooth
2	46	MCL	7 5YR54	0% HR >2cm (Vis) 9% HR <2cm (S+D) 9% HR Total	none	Few	MCSAB	Frable	Mod	Good	FVF		Gradual smooth
3	100	HCL	05YR46	0% ZR >2cm (Vis) 9% ZR <2cm (S+D) 9% HR Total	FFFG (10YR63)	none	MCSAB	Frable	Mod	Good	None		Gradual smooth
4	120	C	05YR63	9% ZR Total (Vis)	CDCG+O (7 5YR58) (05YR64)	Common			Mod	Good	None		

Profile Gleyed From 100 cm

Depth to Slowly Permeable Horizon 100 cm

Wetness Class I

Wetness Grade 1

NL3361

Available Water Wheat 140 mm

Potatoes 107 mm

Moisture Deficit Wheat 106 mm

Potatoes 99 mm

Moisture Balance Wheat 34 mm

Potatoes 8 mm

Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 2

Main Limiting Factor(s) Drought

Remarks

Patchy shale in H3 H4
H1 PSD MCL/MSZL

SITE NAME Taunton NW		PROFILE NO Pit 14 (ASP 133)	SLOPE AND ASPECT 2° SW	LAND USE Ley	Av Rainfall 780 mm	PARENT MATERIAL Keuper marl	
JOB NO 8/95		DATE 6/4/95	GRID REFERENCE ST 215 276	DESCRIBED BY HLJ/PB	ATO 1520 day °C	SOIL SAMPLE REFERENCES PB 271	
					FC Days 168		
					Climatic Grade 1		
					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	23	MCL	7 5YR42	13% HR <2cm (S+D)	none	none				Good	MF+VF		Clear smooth
2	38	MCL	7 5YR44	0% >2cm 45% ZR (S+D) Total	none	none	WC+MSAB	Frable	Moderate	Good	CF+VF		Clear wavy
3	75	HCL	7 5YR54	0% >2cm 50% ZR (S+D) Total	FFFG (7 5YR62)	None	WCSAB	Frable	Moderate	Good	FVF		Gradual wavy
4	120	C	2 5YR46	0% >2cm 36% ZR (S+D) Total	CDMO (7 5Y64)	Common	Too stony		Mod (assumed)	Poor (compact)			

Profile Gleyed From 75 cm
 Depth to Slowly Permeable Horizon No SPL
 Wetness Class I
 Wetness Grade 1

NL3361

Available Water Wheat 119 mm
 Potatoes 93 mm
 Moisture Deficit Wheat 106 mm
 Potatoes 99 mm
 Moisture Balance Wheat 13 mm
 Potatoes -6 mm
 Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 2
 Main Limiting Factor(s) Drought

Remarks
 Pit dug to 100 cm, augered to 120 cm Mottles in H4 have banded distribution
 H1 PSD MCL/MSZL

SITE NAME		PROFILE NO		SLOPE AND ASPECT		LAND USE		Av Rainfall		780 mm		PARENT MATERIAL	
Taunton NW		Pit 15 (ASP 131)		1° West		PGR		ATO		1520 day °C		Keuper marl	
JOB NO		DATE		GRID REFERENCE		DESCRIBED BY		FC Days		168		SOIL SAMPLE REFERENCES	
8/95		6/4/95		ST 212 276		HLJ/PB		Climatic Grade		1		PB 272	
								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	MSZL	7 5YR44	1% HR (Vis)	None	None				Good	MF+VF		Abrupt smooth
2	58	HCL	7 5YR34	1% HR (Vis)	None	None	MCSAB	Friable	Mod	Good	CF+VF		Clear irregular
3	80	C	2 5YR44 (2 5YR54)	<1% HR (Vis)	None	Common	MCPR (breaking to WCSAB)	Firm	Poor	Poor	FF+VF (ex pedal)		Gradual smooth
4	110+	C	2 5YR44 (2 5YR54)	<1% HR (Vis)	None	Few	WCSAB (some AB)	Firm	Poor	Poor	FF+VF (ex pedal)		

Profile Gleyed From Not gleyed

Depth to Slowly Permeable Horizon 58 cm

Wetness Class III

Wetness Grade 2

NL3361

Available Water Wheat 136 mm

Potatoes 113 mm

Moisture Deficit Wheat 106 mm

Potatoes 99 mm

Moisture Balance Wheat + 30 mm

Potatoes + 14 mm

Droughtiness Grade 1 (Calculated to 120 cm)

Final ALC Grade 2

Main Limiting Factor(s) Wetness

Remarks

SITE NAME		PROFILE NO		SLOPE AND ASPECT		LAND USE		Av Rainfall 780 mm		PARENT MATERIAL			
Taunton NW		Pit 16 (ASP 61)		2° West		OSR		ATO 1520 day °C		Keuper Marl			
JOB NO		DATE		GRID REFERENCE		DESCRIBED BY		FC Days 168		SOIL SAMPLE REFERENCES			
8/95		6/4/95		ST 214 278		HLJ/PB		Climatic Grade 1		PB 273			
								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	20	HZCL	7 5YR44	5% Total (Vis)	None	Few				Good	CVF		Clear smooth
2	28	HCL	7 5YR54	5% ZR Total (Vis)	FFFO (7 5YR56)	Common	WCSAB	Very Firm	Poor	Poor + Compact	FVF		Abrupt smooth
3	50	C	05YR54 (05YR54)	0% Total (Vis)	CFFG (05YR63)	Common	MCSAB	Firm	M	Poor	FVF (ex pedal)		Gradual smooth
4	110+	C	25YR46	0% Total (Vis)	None	Few (in patches)	WCSAB + (MCAB)	Firm	Poor	Poor	None		

Profile Gleyed From 28 cm to 50 cm

Depth to Slowly Permeable Horizon 50 cm

Wetness Class III

Wetness Grade 3b

NL3361

Available Water Wheat 131 mm

Potatoes 106 mm

Moisture Deficit Wheat 106 mm

Potatoes 99 mm

Moisture Balance Wheat +25 mm

Potatoes +7 mm

Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 3b

Main Limiting Factor(s) Wetness

Remarks

H4 not gleyed

SITE NAME		PROFILE NO		SLOPE AND ASPECT		LAND USE		Av Rainfall		780 mm		PARENT MATERIAL	
Taunton NW		Pit 17 (ASP 303)		0°		Ley		ATO		1520 day °C		Alluvium	
JOB NO		DATE		GRID REFERENCE		DESCRIBED BY		FC Days		168		SOIL SAMPLE REFERENCES	
8/95		7/4/95		ST 206 268		PB/HLJ		Climatic Grade		1		PB 274	
								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	15	ZC	7 5YR44	<1% Total (Vis)	(FDMO) 7 5YR58 RRC	None				Good	MF+VF		Gradual smooth
2	28	C	0 5YR53	<1% Total (Vis)	CDMO (7 5YR56)	Common	WCPr breaking to MMSAB	Friable	Moderate	Good	CF+VF		Gradual smooth
3	80+	C	10YR62	<1% Total (Vis)	MDFO (7 5YR58)	Common	WCPr breaking to WCAB	Firm	Poor	Poor	CVF		

Profile Gleyed From 15cm
Depth to Slowly Permeable Horizon 28cm
Wetness Class IV
Wetness Grade 3b

NL3361

Available Water Wheat 120 mm
Potatoes 97 mm
Moisture Deficit Wheat 106 mm
Potatoes 99 mm
Moisture Balance Wheat +14 mm
Potatoes 2 mm
Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 3b
Main Limiting Factor(s) Wetness

Remarks

SITE NAME Taunton NW		PROFILE NO Pit 18 (ASP 268)	SLOPE AND ASPECT 1° E		LAND USE PGR		Av Rainfall 780 mm ATO 1520 day °C FC Days 168 Climatic Grade 1 Exposure Grade 1		PARENT MATERIAL Alluvium			
JOB NO 8/95		DATE 7/4/95	GRID REFERENCE ST 203 270		DESCRIBED BY HLJ/PB		SOIL SAMPLE REFERENCES PB 275					

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	MCL	7 5YR43	1% HR (S+D)	0	0				G	MF VF		Clear smooth
2	70	HCL	7 5YR54	2^ >2cm 25% <2cm 28% ZR (S+D)	FFFOM (7 5YR56)	F	WCSAB Det by stones	Fr	M	P	FVF		Gradual smooth
3	120	C	05YR54	4% >2cm 40% <2cm 44% HR + ZR (S + D)	FFFOM (7 5YR56)	F	Det by stones		P (assumed)	G (not biopores)	0		

Profile Gleyed From Not gleyed
Depth to Slowly Permeable Horizon No SPL
Wetness Class I
Wetness Grade 1

Available Water Wheat 128 mm
Potatoes 108 mm
Moisture Deficit Wheat 106 mm
Potatoes 99 mm
Moisture Balance Wheat +22 mm
Potatoes +9 mm
Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 2
Main Limiting Factor(s) Dr

Remarks
H3 Colour variation due to weathering stones not gleyed Pit filled with water to 80 cm

NL3361

SITE NAME		PROFILE NO		SLOPE AND ASPECT		LAND USE		Av Rainfall 780 mm		PARENT MATERIAL			
Taunton NW		Pit 19 (ASP 82)		3° E		Maize		ATO 1520 day °C		Alluvium			
JOB NO		DATE		GRID REFERENCE		DESCRIBED BY		FC Days 168		SOIL SAMPLE REFERENCES			
8/95		7/4/95		ST 193 277		HLJ/PB		Climatic Grade 1		PB 276			
								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	25	MSZL	10YR43	2% HR (Vis)	FFFOM	0				G	CF VF		Gradual smooth
2	65	HCL	7 5YR62	10% HR (Vis)	CDMOM (7 5YR58) CDFGM (7 5YR63)	C	WCSAB	Fr	M	G	FVF		Clear smooth
3	95	C	7 5YR52	24% HR <2cm S+D	CDMOM (7 5YR58)	M	Weak too stony		M	P	O		Clear smooth
4	120	C	2 5YR54	15% HR (Vis)	MDFGM (7 5YR63) MDFOM (7 5YR58)	C		Fm	P	P	O		

Profile Gleyed From 25cm
Depth to Slowly Permeable Horizon 95cm
Wetness Class II
Wetness Grade 1

Available Water Wheat 130 mm
Potatoes 110 mm
Moisture Deficit Wheat 106 mm
Potatoes 99 mm
Moisture Balance Wheat +24 mm
Potatoes 11 mm
Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 2
Main Limiting Factor(s) Dr

Remarks
Pit dug to 95 cm, filled with water to 75 cm
H2 c10% Mn nodules on 2cm wet sieve

NL3361

SITE NAME Taunton NW		PROFILE NO Pit 20 (ASP 15)	SLOPE AND ASPECT 0	LAND USE Maize	Av Rainfall 780 mm ATO 1520 day °C	PARENT MATERIAL Keuper marl	
JOB NO 8/95		DATE 11/4/95	GRID REFERENCE ST 201 279	DESCRIBED BY HLJ/PB	FC Days 168 Climatic Grade 1 Exposure Grade 1	SOIL SAMPLE REFERENCES PB 279	

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	10YR44	2% HR TOTAL (Vis)	None	None				Good	FF+F		Gradual Smooth
2	52	HCL	75YR53	5% HR TOTAL (Vis)	CDMG CDMO (10YR72 66)	Few	MCSAB	Friable	M	Good	FF		Gradual Smooth
3	100+	C	2 5YR44	1%HR>2cm (Vis) 55%HR<2cm (S+D) 56% HR TOTAL	None	Common	Weak (Too stony)		P (assumed)	Very compact horizontal shale in clay matrix	None		

Profile Gleyed From 24 cm
Depth to Slowly Permeable Horizon 52 cm
Wetness Class III
Wetness Grade 3a

Available Water Wheat 107 mm
Potatoes 96 mm
Moisture Deficit Wheat 106 mm
Potatoes 99 mm
Moisture Balance Wheat +1 mm
Potatoes 3 mm
Droughtiness Grade 3a (Calculated to 120 cm)

Final ALC Grade 3a
Main Limiting Factor(s) Wetness and Draughtiness

Remarks H3 is impeding drainage due to compaction and horizontal stone alignment Shown by mottles in H2
If the site had any gradient then wetness would decrease

SITE NAME		PROFILE NO		SLOPE AND ASPECT		LAND USE		Av Rainfall		798 mm		PARENT MATERIAL	
Taunton NW		Pit 21 (ASP 230)		0		Ley		ATO		1533 day °C		Keuper marl	
JOB NO		DATE		GRID REFERENCE		DESCRIBED BY		FC Days		172		SOIL SAMPLE REFERENCES	
8/95		11/4/95		ST 199 271		HLJ/PB		Climatic Grade		1		HLJ 150	
								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	FSL	10YR43	1% HR TOTAL (Vis)	None	None				Good	MF+VF		Abrupt Smooth
2	54	MCL	10YR54	1%HR TOTAL (Vis)	FFFO (10YR66)	Few	WCSAB	FRIABLE	M	Good	FF+VF		Gradual Smooth
3	80	HCL	7 5YR54	1%HR TOTAL (Vis)	CDFO CDFG (7 5YR63)	Common	WCSAB	FRIABLE	M	Good	FVF		
4	105+	HCL	7 5YR44	1% HR TOTAL (Vis)	FFFO (7 5YR58)	Common	WCP breaking to WCSAB	FIRM	P	Poor (Just)	None		

Profile Gleyed From 54

Depth to Slowly Permeable Horizon 80

Wetness Class II/I

Wetness Grade 1

NL3361

Available Water Wheat 141 mm

Potatoes 116 mm

Moisture Deficit Wheat 106 mm

Potatoes 99| mm

Moisture Balance Wheat +35 mm

Potatoes +17 mm

Droughtiness Grade 1 (Calculated to 120 cm)

Final ALC Grade 1

Main Limiting Factor(s)

Remarks

One or two large worm channels in H4 Other pores in H4 are less than 0.5 mm

SOIL PLASTICITY RECORDING SHEET

ANNEX 2

SITE DATA

<u>Grnd Ref</u> ST 12 NE 22 NW	<u>Site Name</u> Taunton NW	<u>LPA</u> TDBC
<u>AAR</u> 775 mm	<u>ATO</u> 1556 day °	<u>FCD</u> 170
	<u>MD (wheat)</u> 106	<u>MD (potatoes)</u> 99

SOIL PIT DATA

Pit 5 (ASP 104)			Pit 7 (ASP 135)			Pit 13 (ASP 371)			
SOIL SERIES Whimple 3			SOIL SERIES Newnham			SOIL SERIES Newnham			
DEPTH	TEXTURE	PLASTIC Y/N	COMMENTS	TEXTURE	PLASTIC Y/N	COMMENTS	TEXTURE	PLASTIC Y/N	COMMENTS
10 cm	MCL	N	No worm	HCL	N	No worm	MCL	N	No ball no worm
20 cm	"	N	"	HCL	N	"	MCL	N	"
30 cm	"	N	"	HCL	N	"	MCL	N	Ball cracking worm
40 cm	"	N	"	HCL	N	"	MCL	Y	Ball + worm
50 cm	"	N	"	HCL	N	"	HCL	Y	"
60 cm	HCL	N	"	C	Y	Just a worm	HCL	Y	