

SITE NAME Cullompton		PROFILE NO Pit 7 (ASP 159)	SLOPE AND ASPECT 1° S	LAND USE PGR	Av Rainfall 937 mm	PARENT MATERIAL Lower Marl	
JOB NO 35/96		DATE 13/12/96	GRID REFERENCE ST 0380 0905	DESCRIBED BY PB	ATO 1528 day °C	PSD SAMPLES TAKEN TS 0 25 cm FSL/FSZL (S51 Z35 C14%)	
					FC Days 192		
					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	24	FSL	7 5YR54	0	0	0					MF VF		Clear smooth
2	54	HCL/C	7 5YR53	0	0	0	WCPr	Fr	M	G	CVF		Grad smooth
3	71	SC	7 5YR63	0	CDFO G 7 5YR58 10YR73	0	WVCPr	Fr	P	G	FVF		Grad smooth
4	90+	SC/SCL	5YR54 7 5YR74	0	MDMO G 7 5YR58 10YR72	0	WCAB	Fr	M	P and G	FVF		

Profile Gleyed From	54 cm	Available Water	Wheat	151 mm	Final ALC Grade	2
Depth to Slowly Permeable Horizon	71 cm		Potatoes	112 mm	Main Limiting Factor(s)	We
Wetness Class	II	Moisture Deficit	Wheat	98 mm		
Wetness Grade	2		Potatoes	89mm		
		Moisture Balance	Wheat	+53 mm	Remarks	Water ran into pit, standing at 74 cm
			Potatoes	+23 mm		
		Droughtiness Grade	1	(Calculated to 120 cm)		

SITE NAME		PROFILE NO	SLOPE AND ASPECT		LAND USE		Av Rainfall 937 mm		PARENT MATERIAL			
Cullompton		Pit 8 (Nr ASP 157)	0°		PGR		ATO 1528 day °C		Alluvium			
JOB NO		DATE	GRID REFERENCE		DESCRIBED BY		FC Days 192		PSD SAMPLES TAKEN			
35/96		13/12/96	ST 0355 0919		PB		Climatic Grade 1		H1 3 0 25cm HCL (S39 Z32 C29%)			
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	10	HCL	7 5YR42	0	FFFO 7 5YR58	0					MF VF		Clear smooth
2	20	HCL	7 5YR52	0	MDFO 7 5YR58	0	MMSAB	Fr	G	G	MF VF		Grad smooth
3	40	HCL	7 5YR63	0	MDMO 7 5YR58	0	WCP _r	Fr	M	G	CVF		Clear smooth
4	60	SCL	7 5YR64	0	MDMO 7 5YR58	C	WCP _r	Fr	M	G	CVF		Clear smooth
5	90+	SC	10YR62	0	MDMO 7 5YR58	0	WVCP _r	Fm	P	P	FVF		

Profile Gleyed From	10 cm	Available Water	Wheat	144mm	Final ALC Grade	3b
Depth to Slowly Permeable Horizon	60 cm		Potatoes	114 mm	Main Limiting Factor(s)	We
Wetness Class	III	Moisture Deficit	Wheat	98 mm		
Wetness Grade	3b		Potatoes	89 mm		
		Moisture Balance	Wheat	+46mm	Remarks	Flood
			Potatoes	+25 mm		
		Droughtiness Grade	1	(Calculated to 120 cm)		

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	960 mm	PARENT MATERIAL					
Cullompton		Pit 9 (ASP 514/536)	2°N	Ley	ATO	1455 day °C	Culm Measures					
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	192	PSD SAMPLES TAKEN					
35/96		24 12 96	ST 0281 0632	PB	Climatic Grade	1	TS 0 25 cm MCL/HCL (S31 Z42 C27%)					
					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	28	M/HCL	7 5YR44	5% HR (VIS)	0	0					CF VF		Clear smooth
2	56	C	5YR54	5% HR (VIS)	0	C	MCSAB	Fr	M	G	FVF		Clear smooth
3	80+	C	10YR73 7 5YR74	0	CDF M0 7 5YR58	F	MCP _r	F _m	P	P	FF VF		

Profile Gleyed From 56 cm
 Depth to Slowly Permeable Horizon 56 cm
 Wetness Class III
 Wetness Grade 3a/b

Available Water Wheat 131mm
 Potatoes 109 mm
 Moisture Deficit Wheat 98 mm
 Potatoes 89 mm
 Moisture Balance Wheat +33 mm
 Potatoes +20 mm
 Droughtiness Grade 1 (Calculated to 120 cm)

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

Remarks

SITE NAME		PROFILE NO	SLOPE AND ASPECT		LAND USE		Av Rainfall 920 mm		PARENT MATERIAL			
Cullompton		Pit 10 (Nr ASP 496)	3°E		FCD		ATO 1529 day °C		Culm Measures			
JOB NO		DATE	GRID REFERENCE		DESCRIBED BY		FC Days 188		PSD SAMPLES TAKEN			
35/96		24/12/96	ST 0335 0655		PB		Climatic Grade 1		TS 0 25 cm FSL (S56 Z30 C14%)			
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	FSL	7 5YR44	5 1/4 HR (VIS)	0	0					CF VF		Clear smooth
2	40	HCL	5YR54	5% HR (VIS)	0	0	MCSAB	Fr	M	G	CVF		Grad smooth
3	68	SCL	5YR64	5 / HR (VIS)	CDFOM 5YR58	C	WCSAB	Fr	M	G (low)	FVF		Clear smooth
4	90+	SC	2 5YR46 5YR64	2% HR (VIS)	CDMOM 5RYR58	C	WCAB	Fr	M	P (low)	0		

Profile Gleyed From 40 cm
Depth to Slowly Permeable Horizon 68 cm
Wetness Class III / II
Wetness Grade 3a

Available Water Wheat 128 mm
Potatoes 108 mm
Moisture Deficit Wheat 98 mm
Potatoes 89 mm
Moisture Balance Wheat +30 mm
Potatoes +19 mm
Droughtiness Grade 2 (Calculated to 100 cm)

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

Remarks H4 texture variable more sandy between

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	937 mm	PARENT MATERIAL					
Cullompton		Pit 11 (ASP 444)	0°	PGR	ATO	1528 day °C	Alluvium					
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	192	PSD SAMPLES TAKEN					
35/96		24 12 96	ST 0272 0695	PB	Climatic Grade	1	TS 0 25 cm MCL/HCL (S35 Z39 C26%)					
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 5YR44	0	0	0					MF VF		Clear smooth
2	49	C	7 5YR54 64 (7 5YR64)	0	CDFO 7 5YR58	0	MC FSAB	Fr	M	G	CF VF		Grad smooth
3	82+	C	7 5YR64	0	MDMO 7 5YR58	C	WC MSAB	Fr	M	G	CVF		

Profile Gleyed From 24 cm

Depth to Slowly Permeable Horizon

Wetness Class II

Wetness Grade 3a

Available Water Wheat 141 mm

Potatoes 117 mm

Moisture Deficit Wheat 98 mm

Potatoes 89 mm

Moisture Balance Wheat +43 mm

Potatoes +28 mm

Droughtiness Grade 1 (Calculated to 120 cm)

Final ALC Grade 3a

Main Limiting Factor(s) We

Remarks Flood risk in the field although not at this point

SITE NAME		PROFILE NO	SLOPE AND ASPECT		LAND USE		Av Rainfall 920 mm		PARENT MATERIAL			
Cullompton		Pit 12 (Nr ASP 610)	1°N		Cer		ATO 1529 day °C		Lower Marl			
JOB NO		DATE	GRID REFERENCE		DESCRIBED BY		FC Days 192		PSD SAMPLES TAKEN			
35/96		30 12 96	ST 0379 0587		PB		Climatic Grade 1		TS 0 25 cm MCL (S32 Z47 C21%)			
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	75YR42	2%HR (VIS)	0	0					CF VF		Clear wavy
2	34	HCL	75YR53	2 / HR (VIS)	FDFO 75YR58	0	MM, CSAB	FM	G	G	CF VF		Ab wavy
3	58	C	7 5YR73	2% HR (VIS)	CDMO 75YR58	C	WCSAB	FM	P	G (low)	FVF		Grad smooth
4	85+	C	5YR56 (5YR64)	0	MDMO 5YR58	C	WCSAB	FM	P	P (low)	None seen		

Profile Gleyed From 34 cm
Depth to Slowly Permeable Horizon 58 cm
Wetness Class III
Wetness Grade 3a

Available Water Wheat 133 mm
Potatoes 110 mm
Moisture Deficit Wheat 98 mm
Potatoes 89 mm
Moisture Balance Wheat +35 mm
Potatoes +21 mm
Droughtiness Grade 1 (Calculated to 120 cm)

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

Remarks

SITE NAME		PROFILE NO	SLOPE AND ASPECT		LAND USE		Av Rainfall 937 mm		PARENT MATERIAL			
Cullompton		Pit 13 (ASP 313)	4°NW		PGR		ATO 1528 day °C		Lower Marl			
JOB NO		DATE	GRID REFERENCE		DESCRIBED BY		FC Days 192		PSD SAMPLES TAKEN			
35/96		2 1 97	ST 0382 0806		PB		Climatic Grade 1		TS 0 25 cm MCL/FSZL (S45 Z36 C19%)			
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	7 5YR43	0	0	0					MF VF		Ab wavy
2	58	SCL	7 5YR64	2/4HR (VIS)	CDFO 75YR58	F	WC MAB	Fr	M	G	CVF		Grad smooth
3	80	C	7 5YR72	2/ HR (VIS)	CDMO 75YR58	F	WCSAB	Fm	P	P	FVF		Grad smooth
4	85+	C	5YR54 (5YR64)		MDMO 5YR58	F		Fm	(P)	P	FVF		

Profile Gleyed From	20 cm	Available Water	Wheat	131 mm	Final ALC Grade	3a
Depth to Slowly Permeable Horizon	58 cm		Potatoes	107 mm	Main Limiting Factor(s)	We
Wetness Class	III	Moisture Deficit	Wheat	98 mm		
Wetness Grade	3a		Potatoes	89 mm		
		Moisture Balance	Wheat	+33 mm		
			Potatoes	+18 mm		
		Droughtiness Grade	1	(Calculated to 120 cm)	Remarks	

SITE NAME		PROFILE NO	SLOPE AND ASPECT		LAND USE		Av Rainfall 920 mm		PARENT MATERIAL			
Cullompton		Pit 14 (ASP 433)	1°W		Cer		ATO 1529 day °C		Lower Marl			
JOB NO		DATE	GRID REFERENCE		DESCRIBED BY		FC Days 192		PSD SAMPLES TAKEN			
35/96		2 1 97	ST 0324 0707		PB		Climatic Grade 1		TS 0 25 cm MCL/SCL/FSZL/FSL (S49 Z32 C19%)			
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 5YR43	10% HR (VIS)	0	0					CF VF		Clear smooth
2	37	C	5YR63	2% HR (VIS)	FFFO 5YR58	C	WCPr	Fm	P	G	FVF		Clear smooth
3	75+	C	2 5YR46 (5YR64)	0	MDFO 5YR58	C	WCPr Br to WMAB	VM	P	P	0		

Profile Gleyed From 25 cm
Depth to Slowly Permeable Horizon 37 cm
Wetness Class IV
Wetness Grade 3b

Available Water Wheat 94 mm
Potatoes 99 mm
Moisture Deficit Wheat 98 mm
Potatoes 89 mm
Moisture Balance Wheat -4 mm
Potatoes +10 mm
Droughtiness Grade 3a (Calculated to 80 cm)

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

Remarks

SITE NAME		PROFILE NO	SLOPE AND ASPECT		LAND USE		Av Rainfall		937 mm		PARENT MATERIAL		
Cullompton		Pit 15 (ASP 142)	0°		PGR		ATO		1528 day °C		Alluvium		
JOB NO		DATE	GRID REFERENCE		DESCRIBED BY		FC Days		192		PSD SAMPLES TAKEN		
35/96		14 1 97	ST 0142 0907		PB		Climatic Grade		1		H 1 2 0 25 cm MCL/HCL (S34 Z40 C26%)		
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	M/HCL	7 5YR43	0	FDFO 7 5YR58	0					MF VF		Ab smooth
2	30	C	7 5YR53	0	CDFO 7 5YR58	0	MCP _r	F _m	P	P(low)	CF VF		Clear smooth
3	50	C	7 5YR52	1/ HR (VIS)	CDFO 7 5YR58	0	WVCP _r	F _m	P	P	CVF		Ab smooth
4	69+	C	7 5YR62 63	5% HR (VIS)	CDMO G 7 5YR58 72	0	M	F _m	P	P	CVF		

Profile Gleyed From 20 cm
Depth to Slowly Permeable Horizon 20 cm
Wetness Class IV
Wetness Grade 3b/4

Available Water Wheat 108 mm
Potatoes 100 mm
Moisture Deficit Wheat 98 mm
Potatoes 89 mm
Moisture Balance Wheat +10 mm
Potatoes +11 mm
Droughtiness Grade 2 (Calculated to 100 cm)

Final ALC Grade 3b/4
Main Limiting Factor(s) We

Remarks

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	953 mm	PARENT MATERIAL	
Cullompton		Pit 16 (ASP 187)	4°SW	Cereal stubble	ATO	1488 day °C	Lower sandstone	
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	194	PSD SAMPLES TAKEN	
35/96		14/1/97	ST 0159 0875	PB/GMS	Climatic Grade	1	TS 0 25 cm MSL/MSZL (S51 Z34 C 15%)	
					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	5YR43	<1/ HR (S) >2cm 9% HR >2mm (S+D) 10% HR Total	None	None					CF VF		Clear smooth
2	45	HCL	5YR54	1 1/2 HR > 2cm (S) 14% HR > 2mm (S+D) 15% HR Total	None	None	MCSAB	Friable	Mod	Good	CVF		Gradual smooth
3	58	C with SCL pockets	2 5YR46 (5YR64)	7 1/4 HR (VIS)	CFFO 5YR58	Common	WCSAB	Friable	Mod	Good	CVF		Gradual smooth
4	71	C	2 5YR46 (2 5YR64)	1/ HR (VIS)	None	Common	WCP _r	Firm	Poor	Good	FVF		Gradual smooth
5	120	C	2 5YR46 (2 5YR64)	1 1/4 HR (VIS)	None	Common	WCP _r	Firm	Poor	Low but some earth worm channels	FVF		

Profile Gleyed From 45 cm
Depth to Slowly Permeable Horizon 71 cm
Wetness Class II
Wetness Grade 2

Available Water Wheat 123 mm
Potatoes 101 mm
Moisture Deficit Wheat 98 mm
Potatoes 89 mm
Moisture Balance Wheat 25 mm
Potatoes 12 mm
Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 2
Main Limiting Factor(s) Wetness

Remarks Pit dug to 90 cm, augered to 120 cm

SITE NAME		PROFILE NO	SLOPE AND ASPECT		LAND USE		Av Rainfall		953 mm	PARENT MATERIAL		
Cullompton		Pit 17 (ASP 188)	4°N		Cer		ATO		1488 day °C	Breccia		
JOB NO		DATE	GRID REFERENCE		DESCRIBED BY		FC Days		192	PSD SAMPLES TAKEN		
35/96		14 1 97	ST 0173 0874		GMS/PB		Climatic Grade		1	TS 0 25 cm MCL/MSZL (S48 Z34 C18%)		
Exposure Grade								1				

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stoniness Size Type and Field Method	Motting 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/MSZL	5YR44	1 ¼ HR > 2cm (S) 18% HR > 2mm (S+D) 19% HR Total	None	None					CVF		Clear smooth
2	65	HCL	5YR44	30% HR Total (S+D)	None	None	MM/FSAB	Friable	Good	Good	FVF		Gradual
3	100+	C	2 5YR44	10% HR > 2cm (S) 32% HR > 2mm (S+D) 42 ¼ HR Total	None	None	Too stony	Friable	Assume moderate	Good	FVF		

Profile Gleyed From	Not gleyed	Available Water	Wheat	116 mm	Final ALC Grade	2
Depth to Slowly Permeable Horizon	No SPL		Potatoes	102 mm	Main Limiting Factor(s)	Droughtiness workability
Wetness Class	I	Moisture Deficit	Wheat	98 mm		
Wetness Grade	2/1		Potatoes	89 mm		
		Moisture Balance	Wheat	18 mm	Remarks	H2 stone 3+ 26 and 5+30 averaged
			Potatoes	13 mm		
		Droughtiness Grade	2	(Calculated to 120 cm)		

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	953 mm	PARENT MATERIAL					
Cullompton		Pit 18 (ASP 205)	2°E	Cereal stubble	ATO	1488 day °C	Breccia					
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	194	PSD SAMPLES TAKEN					
35/96		14 1 97	ST 1012 0862	PB/GMS	Climatic Grade	1	TS 0 25 cm MSL/SCL (S55 Z28 C17%)					
					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	MSL/SCL	5YR44	2 ¼ HR > 2cm (S) 14 ¼ HR > 2mm (S+D) 16 ¼ HR Total	None	None					CF VF		Clear smooth
2	65	HCL	2 5YR43	5% HR > 2cm (S) 22% HR > 2mm (S+D) 27% HR Total	None	None	WC MSAB	Frable	Mod	Good	CVF		Gradual smooth
3	105	SCL (mix of SC +SL+LS)	2 5YR46 (2 5YR54 64)	1 ¼ HR > 2cm (S) 23 ¼ HR > 2mm (S+D) 24% HR Total	None	Common	WCSAB	Frable	Mod	Good	FVF		
4	120	C	2 5YR 46 (2 5YR54)	None (VIS)	None	Common							

Profile Gleyed From Not gleyed

Depth to Slowly Permeable Horizon No SPL

Wetness Class I

Wetness Grade 1/2

Available Water Wheat 120 mm

Potatoes 89 mm

Moisture Deficit Wheat 98 mm

Potatoes 89 mm

Moisture Balance Wheat +22 mm

Potatoes +0 mm

Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 2

Main Limiting Factor(s) Droughtiness workability

Remarks Pit dug to 105cm, augered to 120 cm
H3 secondary ped face colour is pale but not sufficient for gleying

SITE NAME		PROFILE NO		SLOPE AND ASPECT		LAND USE		Av Rainfall		949 mm		PARENT MATERIAL	
Cullompton		Pit 19 (ASP 228)		7°S		CER		ATO		1489 day °C		Breccia	
JOB NO		DATE		GRID REFERENCE		DESCRIBED BY		FC Days		192		PSD SAMPLES TAKEN	
35/96		14 1 97		ST 0112 0850		PB		Chmatic Grade		1		TS 0 25 cm MSL/SCL (S52 Z31 C17%)	
Exposure Grade								1					

Horizon No	Lowest Av Depth (cm)	Texture	Matrix (Ped Face) Colours	Stonness 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	MSL/SCL	5YR44	2 % HR > 2cm (S) 14 % HR > 2mm (S+D) 16 % HR Total	None	None					CF VF		Abrupt smooth
2	70	HCL	5YR46	2% HR > 2 cm(S) 23 / HR > 2mm (S+D) 25% HR Total	None	None	WC /FSAB	Friable	Mod	Good	CVF		Gradual smooth
3	100	SCL	5YR54	5 % HR > 2cm (S) 26 % HR > 2mm (S+D) 31 / HR Total	FFFG 5YR64	None	WC /MSAB	Friable	Mod	Good	FVF		
4	105+	SCL	5YR54	60% HR (VIS)					Mod				

Profile Gleyed From Not gleyed

Depth to Slowly Permeable Horizon No SPL

Wetness Class I

Wetness Grade 1/2

Available Water Wheat 111 mm

Potatoes 90 mm

Moisture Deficit Wheat 98 mm

Potatoes 89 mm

Moisture Balance Wheat 13 mm

Potatoes 1 mm

Droughtiness Grade 12 (Calculated to 120 cm)

Final ALC Grade 2

Main Limiting Factor(s) Droughtiness workability

Remarks

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	949 mm	PARENT MATERIAL					
Cullompton		Pit 20 (ASP 272)	1°S	PGR	ATO	1489 day °C	Alluvium					
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	194	PSD SAMPLES TAKEN					
35/96		14 1 97	ST 0113 0823	PB/GMS	Climatic Grade	1	TS 0 25 cm MCL (S38 Z39 C23%)					
					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	10	MCL	10YR52	None	CDFO 5YR58	None					MF VF		Clear smooth
2	20	HCL	10YR62	None	CDFO 7 5YR58	None	WCPr	Friable	Mod	Poor	CVF		Gradual smooth
3	42	C	10YR72	None	MDMO 10YR56	None	WCPr	Firm	Poor	Poor	CVF		Clear smooth
4	65	SCL	5YR64 7 5YR63	20% HR (VIS)	CDMOG 10YR56 72	None	Massive WMSAB	Friable	Poor/Mod	Good (low)	FVF		

Profile Gleyed From Surface
Depth to Slowly Permeable Horizon 10-42 cm
Wetness Class II
Wetness Grade 3a

Available Water Wheat 113 mm
Potatoes 97 mm
Moisture Deficit Wheat 98 mm
Potatoes 89 mm
Moisture Balance Wheat 15 mm
Potatoes 8 mm
Droughtiness Grade 2 (Calculated to 100 cm)

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

Remarks Profile wetter than grade indicates
The shallow SPL must have a profound effect

SITE NAME		PROFILE NO		SLOPE AND ASPECT		LAND USE		Av Rainfall		920 mm		PARENT MATERIAL	
Cullompton		Pit 21 (ASP 541)		0°		Ley		ATO		1529 day °C		Lower Marl	
JOB NO		DATE		GRID REFERENCE		DESCRIBED BY		FC Days		192		PSD SAMPLES TAKEN	
35/96		15 1 97		ST 0352 0625		PB		Climatic Grade		1		TS 0 25 cm MCL (S45 Z32 C23%)	
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	21	MCL	7 5YR53	0	FDFO 7 5YR58	0					MF VF		Ab smooth
2	34	C	10YR63	0	CDFO G 10YR58 72	0	MCPPr	Fm	P	G (low)	CVF		Clear smooth
3	52	C	10YR72	1% HR (VIS)	MDMO 10YR58	0	WCPr	Fm	P	P (low)	CVF		Clear/wavy *
4	70+	C	2 5YR46 (5YR64)	0	CDMO G 5YR58 7 5YR73	C	MCPPr	Fm	P	P	FVF		

Profile Gleyed From	21 cm	Available Water	Wheat	110 mm	Final ALC Grade	3b
Depth to Slowly Permeable Horizon	34 cm		Potatoes	101 mm	Main Limiting Factor(s)	We
Wetness Class	IV	Moisture Deficit	Wheat	98 mm		
Wetness Grade	3b		Potatoes	89 mm		
		Moisture Balance	Wheat	+12 mm	Remarks	Boundary H3/H4 ranges up to 34 cm at one point in pit
			Potatoes	+12 mm		
		Droughtiness Grade	2	(Calculated to 100 cm)		

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	958 mm	PARENT MATERIAL					
Cullompton		Pit 22 (ASP 623/645)	1°E	Cereal stubble	ATO	1455 day °C	Sandstone					
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	194	PSD SAMPLES TAKEN					
35/96		15/1/97	ST 0258 0504	PB/GMS	Climatic Grade	1	TS 0 25 cm MCL (S34 Z41 C25%)					
					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	19	MCL	7 5YR44	1% > 2cm MSST (S) 9% > 2mm MSST (S+D) 10% MSST Total	None	None					MF VF		Clear smooth
2	26	C	7 5YR46	40% MSST (VIS)	None	None	MM,FSAB	Frable	Good	Good	CF VF		Clear wavy
3	44	C	7 5YR54	60% > 2 cm MSST (S) 11 / > 2mm MSST(S+D) 71 % MSST Total	None	None	No structure to soil		Assume mod	Good between stone	CF VF		Gradual smooth
4	120	C	7 5YR54	Fractured stone 90% MSST (VIS)	None	None			Assume mod	Good between stones	FF VF		

Profile Gleyed From Not gleyed

Depth to Slowly Permeable Horizon No SPL

Wetness Class I

Wetness Grade 2

Available Water Wheat 63 mm

Potatoes 55 mm

Moisture Deficit Wheat 98 mm

Potatoes 89 mm

Moisture Balance Wheat 35 mm

Potatoes 34 mm

Droughtiness Grade 3b (Calculated to 120 cm)

Final ALC Grade 3b

Main Limiting Factor(s) Droughtiness

Remarks

SITE NAME		PROFILE NO	SLOPE AND ASPECT		LAND USE		Av Rainfall		958 mm		PARENT MATERIAL		
Cullompton		Pit 23 (ASP 638)	5°E		Maize		ATO		1455 day °C		Sandstone conglomerate		
JOB NO		DATE	GRID REFERENCE		DESCRIBED BY		FC Days		192		PSD SAMPLES TAKEN		
35/96		15 1 97	ST 0154 0555		GMS/PB		Climatic Grade		1		TS 0 25 cm MCL/MSZL (S48 Z34 C18%)		
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	20	MCL	5YR5/6	4% HR > 2 cm(S) 16% HR > 2mm (S+D) 20% HR Total	None	None					MF VF		Gradual smooth
2	34	HCL	2 5YR4/6	18% HR > 2cm (S) 22% HR > 2 mm (S+D) 40% HR Total	None	None	MC/MSAB	Friable	Mod	Good	CF VF		Clear wavy
3	105+	C	2 5YR4/4	46% HR Total (S+D)	None	None	WCSAB	Friable	Mod	Good	FF		

Profile Gleyed From

Depth to Slowly Permeable Horizon

Wetness Class I

Wetness Grade 2

Available Water Wheat 90 mm

Potatoes 76 mm

Moisture Deficit Wheat 98 mm

Potatoes 89 mm

Moisture Balance Wheat 8 mm

Potatoes 13 mm

Droughtiness Grade 3a (Calculated to 120 cm)

Final ALC Grade 3a

Main Limiting Factor(s) Droughtiness

Remarks H3 stone content average of 20+26 and 15+30

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	937 mm	PARENT MATERIAL					
Cullompton		Pit 24 (ASP 354)	1°S	Ley	ATO	1528 day °C	Lower Marl/ Valley Gravel					
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	192	PSD SAMPLES TAKEN					
35/96		15 1 97	ST 0381 0778	PB	Climatic Grade	1	TS 0 25 cm MSL (S57 Z29 C14%)					
					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	21	MSL	7 5YR54	1/6 > 2cm 5/ < 2cm 6/ HR (S+D)	0	0					MF VF		Clear smooth
2	43	SCL	7 5YR54	3/6 > 2cm 5/6 < 2cm 8% HR (S+D)	FDFO 7 5YR58	0	WC FSAB	Fr	M	G	CVF		Grad smooth
3	74	SCL	5YR54 (5YR64)	15% > 2cm 21% < 2cm 36% HR (S+D)	CDFO 7 5YR58	M	WMSAB	Fr	G	G	FVF		Clear smooth
4	103+	C	2 5YR46 (7 5YR74)	0/ (VIS)	FDMO 5YR58	C	M	Fr	P	P (low)	FVF		

Profile Gleyed From 43 cm
Depth to Slowly Permeable Horizon 74 cm
Wetness Class II
Wetness Grade 2

Available Water Wheat 127 mm
Potatoes 98 mm
Moisture Deficit Wheat 98 mm
Potatoes 89 mm
Moisture Balance Wheat +29 mm
Potatoes +9 mm
Droughtness Grade 2 (Calculated to 120 cm)

Final ALC Grade 2
Main Limiting Factor(s) We Dr

Remarks

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	937 mm	PARENT MATERIAL	
Cullompton		Pit 25 (ASP 334)	2°N	Ley	ATO	1528 day °C	Alluvium	
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	192	PSD SAMPLES TAKEN	
35/96		15 1 97	ST 0338 0775	PB	Climatic Grade	1	TS 0 25 cm SCL (S53 Z24 C23%)	
					Exposure Grade	1	SS 30 50cm SCL/FSL (S60 Z22 C18%)	

Horizon No	Lowest Av Depth (cm)	Texture	Matrx (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	21	SCL	7 5YR43	1% HR (VIS)	0	0					MF VF		Ab smooth
2	33	SCL	7 5YR54	5/ HR (VIS)	FDFO 7 5YR58	0	WMSAB	Fr	G	G	CF VF		Clear smooth
3	90	SCL	7 5YR63	5% HR (VIS)	CFFO 7 5YR58	C	WCSAB	Fr	M	G	FVF		Grad smooth
4	110	LMS	7 5YR72	5/ HR (VIS)	CFFO 7 5YR58	0		V Fr	(M)				

Profile Gleyed From 33 cm

Depth to Slowly Permeable Horizon

Wetness Class II

Wetness Grade 3a

Available Water Wheat 135 mm

Potatoes 111 mm

Moisture Deficit Wheat 98 mm

Potatoes 89 mm

Moisture Balance Wheat +37 mm

Potatoes +22 mm

Droughtiness Grade 1 (Calculated to 120 cm)

Final ALC Grade 3a --

Main Limiting Factor(s) We

Remarks Pit dug to 90 cm Augered to 110 cm

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	917 mm	PARENT MATERIAL	
Cullompton		Pit 26 (ASP 487)	0°	PGR	ATO	1535 day °C	Alluvium	
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	188	PSD SAMPLES TAKEN	
35/96		16 1 97	ST 0125 0655	PB/GMS	Climatic Grade	1	H1 0 13 cm MCL (S45 Z33 C22%)	
					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	13	MCL	7 5YR42	None (VIS)	FFFO	None					MF VF		Clear wavy
2	23	MCL	7 5YR53	None (VIS)	CFFOG 7 5YR58 10YR62	None	MMSAB	Frable	Good	Good	MF VF		Clear smooth
3	50	SC	10YR72	None (VIS)	MDFO 10YR56	Common	WCPr	Frable	Mod	Good	CVF		Gradual smooth
4	80+	SCL	5YR64 10YR73	10% HR (VIS)	MDMO 10YR58	Few	WCSAB	Frable	Mod	Good	CVF		

Profile Gleyed From 13 cm
Depth to Slowly Permeable Horizon No SPL
Wetness Class II
Wetness Grade 3a

Available Water Wheat 148 mm
Potatoes 112 mm
Moisture Deficit Wheat 98 mm
Potatoes 89 mm
Moisture Balance Wheat 50 mm
Potatoes 23 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	Av Rainfall	949 mm	PARENT MATERIAL					
Cullompton		Pit 27 (ASP 356)	3°S	Ley	ATO	1489 day °C	Valley gravel					
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	194	PSD SAMPLES TAKEN					
35/96		16/1/97	ST 0060 0766	PB/GMS	Climatic Grade	1	TS 0 25 cm MSZL/MSL (S49 Z35 C16%)					
					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	7 5YR44	2 ¼ HR > 2cm (S) 18% HR > 2mm (S+D) 20% HR Total	None	None					MF VF		Gradual smooth
2	41	HCL	5YR46	32 ¼ HR Total (VIS)	None	None	MF/CSAB	Frable	Mod	Good	MF VF		Clear wavy
3	74	HCL	5YR64 2 5YR54	2 ¼ HR > 2 cm (S) 30% HR > 2mm (S+D) 32% HR Total	None	None	WCSAB	Frable	Mod	Good	FVF		Clear wavy
4	100+	C	2 5YR46 (5YR64)	2 ¼ HR > 2 cm (VIS) 36% HR > 2mm (S+D) 38% HR Total	CDMO 5YR58	Few	Massive	Firm	Poor	Poor	FVF		

Profile Gleyed From 74 cm
Depth to Slowly Permeable Horizon 74 cm
Wetness Class II
Wetness Grade 2

Available Water Wheat 104 mm
Potatoes 91 mm
Moisture Deficit Wheat 98 mm
Potatoes 89 mm
Moisture Balance Wheat +6 mm
Potatoes 0 mm
Droughtiness Grade 2 (Calculated to 120 cm)

Final ALC Grade 2
Main Limiting Factor(s) Droughtiness Wetness

Remarks Stone is hard sandstone H3 appeared to be pale as a result of wetness but not gleyed

SITE NAME		PROFILE NO	SLOPE AND ASPECT		LAND USE		Av Rainfall		937 mm		PARENT MATERIAL		
Cullompton		Pit 28 (ASP 264)	0°		PGR		ATO		1528 day °C		Alluvium		
JOB NO		DATE	GRID REFERENCE		DESCRIBED BY		FC Days		192		PSD SAMPLES TAKEN		
35/96		16/1/97	ST 0310 0837		PB/GMS		Climatic Grade		1		TS 0 25 cm FSZL (S48 Z36 C16%)		
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	21	FSZL	10YR42	None (VIS)	FDFO	None					MF VF		Gradual smooth
2	39	HCL	10YR42	None (VIS)	CDFO 10YR56	None	WC/ FSAB	Friable	Mod	Good	FVF		Gradual smooth
3	54	SCL	10YR72	None	MDMO 10YR56	None	WCAB	Friable	Mod	Good	FVF		Clear smooth
4	76	SC	10YR74	None	ADMOG 10YR58 72	None	WCSAB	Friable	Mod	Good	FVF		Clear smooth
5	80+	SCL	10YR72	40% HR + (VIS)	ADMO 7 5YR58	None			(M)				

Profile Gleyed From 21 cm
Depth to Slowly Permeable Horizon No SPL
Wetness Class II
Wetness Grade 2

Available Water Wheat 144 mm
Potatoes 121 mm
Moisture Deficit Wheat 98 mm
Potatoes 89 mm
Moisture Balance Wheat +46 mm
Potatoes +32 mm
Droughtiness Grade 1 (Calculated to 120 cm)

Final ALC Grade 2
Main Limiting Factor(s) Wetness

Remarks Water standing in pit at 62 cm

SITE NAME		PROFILE NO	SLOPE AND ASPECT	LAND USE	Av Rainfall	953 mm	PARENT MATERIAL	
Cullompton		Pit 29 (ASP 163/185)	2°N	Cereals	ATO	1488 day °C	Breccia	
JOB NO		DATE	GRID REFERENCE	DESCRIBED BY	FC Days	194	PSD SAMPLES TAKEN	
35/96		22 1 97	ST 0128 0883	PB	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	22	SCL	5YR44	3 % > 2cm (S) 26 % < 2cm (S+D) 29% HR Total	0	0					CF VF		Clear smooth
2	34	SCL	2 5YR43	2% > 2cm (S) 26 % < 2 cm (S+D) 28 % HR Total	0	0	MFSAB	Fr	G	G	CF VF		Ab smooth
3	103+	SCL (variable)	2 5YR44	4% > 2cm (S) 44% < 2cm (S+D) 48% HR Total	0	F	Too stony	Fr	(M)	(G)	None seen		

Profile Gleyed From

Depth to Slowly Permeable Horizon

Wetness Class I

Wetness Grade 2

Available Water Wheat 95 mm

Potatoes 74 mm

Moisture Deficit Wheat 98 mm

Potatoes 89 mm

Moisture Balance Wheat 3 mm

Potatoes 15 mm

Droughtiness Grade 3a (Calculated to 120 cm)*

Final ALC Grade 3a

Main Limiting Factor(s) Dr

Remarks AW calculation to 120cm questionable when no roots seen in H3