

SITE NAME Withycombe		PROFILE NO. Pit 1	SLOPE AND ASPECT 1°		LAND USE Permanent grass		Av Rainfall: 809 mm ATO: 1497° FC Days: 169 Climatic Grade: 1			PARENT MATERIAL Littleham Mudstones			
JOB NO. 111/93		DATE Jan 94	GRID REFERENCE ASP 86 SY 022 839		DESCRIBED BY M Mills		RPT/MM 3						
Horizon Number	Lowest Av Depth (cm)	Matrix and Ped Face Colours	Texture	Stoniness: Size, Shape, Type, and Field Method	Mottling Abundance, Contrast, Size and Colour	Structure: Development Size and Shape	Pores and Fissures	Structural Condition	Consistence	Roots: Abundance, Size and Nature	Calcium Carbonate Content	Mangan Concs etc	Horizon Boundary: Distinctness and form
1	20	7.5YR44	HCL	5% HR visual	None	-				Many fine			
2	30	5YR44	HCL	20% HR visual	Common 7.5YR58	W platy	Good	Poor	Firm	Common			
3	60	5YR46	C	5% HR visual	Common 7.5YR58, 71	MMPR	Low	Poor	Very firm	Few			

Profile Gleyed From: 20 cm

Depth to Slowly Permeable Horizon: 35 cm

Wetness Class: IV

Wetness Grade: 3b

Available Water Wheat: 76 mm

Potatoes: 81 mm

Moisture Deficit Wheat: 103 mm

Potatoes: 96 mm

Moisture Balance Wheat: -27 mm

Potatoes: -15 mm

Droughtiness Grade: 3B (to 60 cm)

Final ALC Grade: 3B

Main Limiting Factor(s): Wetness

Remarks:

SITE NAME		PROFILE NO.		SLOPE AND ASPECT		LAND USE		Av Rainfall: 809 mm			PARENT MATERIAL		
Withycombe		Pit 2		0°				ATO: 1497°			Littleham Mudstones		
JOB NO.		DATE		GRID REFERENCE		DESCRIBED BY		FC Days: 169			TOPSOIL SAMPLE		
111/93		19/1/94		ASP 130 SY 033 837		G Clark and P Barnett		Climatic Grade: 1			RPT/PB 45		
Horizon Number	Lowest Av Depth (cm)	Matrix and Ped Face Colours	Texture	Stoniness: Size, Shape, Type, and Field Method	Mottling Abundance, Contrast, Size and Colour	Structure: Development Size and Shape	Pores and Fissures	Structural Condition	Consistence	Roots: Abundance, Size and Nature	Calcium Carbonate Content	Mangan Concs etc	Horizon Boundary: Distinctness and form
1	25	7.5YR53	MCL	7% >2cm 20% >2mm Total 27% HR Sieve/displ	None	-	-	-	-	Many fine and v fine	None	None	Clear/ smooth
2	55	5YR54	C	30% >2cm 21% >2mm Total 51% HR Sieve/displ	7.5YR56	MCSAB	Many	Moderate	Firm	Common fine/v fine	None	None	Clear/ smooth
3	120	5YR56 2.5YR54	C	30% visual HR	7.5YR56	Dominated by stones. MCSAB	Many	Moderate	Firm	None	None	None	-

Profile Gleyed From: 25 cm

Depth to Slowly Permeable Horizon: None

Wetness Class: II

Wetness Grade: 2

Available Water Wheat: 94 mm

Potatoes: 76 mm

Moisture Deficit Wheat: 103 mm

Potatoes: 96 mm

Moisture Balance Wheat: -9 mm

Potatoes: -20 mm

Droughtiness Grade: 3A (to 120 cm)

Final ALC Grade: 3A

Main Limiting Factor(s): Droughtiness

Remarks:

SITE NAME Withycombe		PROFILE NO. Pit 3	SLOPE AND ASPECT 3° W		LAND USE Permanent Grass		Av Rainfall: 809 mm ATO: 1497° FC Days: 169 Climatic Grade: 1			PARENT MATERIAL Littleham Mudstones			
JOB NO. 111/93		DATE 19/1/94	GRID REFERENCE ASP 128 SY 031 837		DESCRIBED BY G Clark and P Barnett		TOPSOIL SAMPLE RPT/PB 46						
Horizon Number	Lowest Av Depth (cm)	Matrix and Ped Face Colours	Texture	Stoniness: Size, Shape, Type, and Field Method	Mottling Abundance, Contrast, Size and Colour	Structure: Development Size and Shape	Pores and Fissures	Structural Condition	Consistence	Roots: Abundance, Size and Nature	Calcium Carbonate Content	Mangan Concs etc	Horizon Boundary: Distinctness and form
1	20	10YR43	MCL	13% >2cm 17% >2mm Total 30% HR Sieved/displ	FFRRM	-	-	-	-	MF, VF	-	-	Clear smooth
2	35	7.5YR53	HCL	60% Total visual	CROM 10YR58 5YR46	Too stony to tell	Many		Firm	MF, VF	-	Common	Clear smooth
3	65	5YR54	C	10% >2cm	MMOM 10YR58	MCSAB/ MMP	< 1/2%	Poor	Firm	Common FVF (ped face only)	-	Common	

Profile Gleyed From: 20 cm

Depth to Slowly Permeable Horizon: 35 cm

Wetness Class: IV

Wetness Grade: 3b

Available Water Wheat: |

Potatoes: |

Moisture Deficit Wheat: |

Potatoes: |

Moisture Balance Wheat: |

Potatoes: |

Droughtiness Grade: |

Final ALC Grade: 3b

Main Limiting Factor(s): Wetness

Remarks:

Pit to 65 cm.

SITE NAME Withycombe		PROFILE NO. Pit 4	SLOPE AND ASPECT 0°			LAND USE Permanent Grass		Av Rainfall: 809 mm ATO: 1497° FC Days: 169 Climatic Grade: 1			PARENT MATERIAL Littleham Mudstones		
JOB NO. 111/93		DATE 19/1/94	GRID REFERENCE ASP 100 SY 016 838			DESCRIBED BY M Mills and G Shaw					RPT/MM2		
Horizon Number	Lowest Av Depth (cm)	Matrix and Ped Face Colours	Texture	Stoniness: Size, Shape, Type, and Field Method	Mottling Abundance, Contrast, Size and Colour	Structure: Development Size and Shape	Pores and Fissures	Structural Condition	Consistence	Roots: Abundance, Size and Nature	Calcium Carbonate Content	Mangan Concs etc	Horizon Boundary: Distinctness and form
1	30	5YR43	HCL	5% HR visual	None					Many fine		None	
2	58	5YR44 Ped face 5YR53	HCL	12% HR visual	None	WFSAB	Good	Good	Friable	Common fine		Common	
3	80	7.5YR64, 68	HCL	20% HR visual	Common ochreous	WCSAB	Poor	Moderate	Friable	Few fine		Few	
4	95+	2.5YR46 Ped face 5YR53	C	10% HR visual	Few	WCSAB adherent	Poor	Moderate	Firm	Few v fine		Few	

Profile Gleyed From: 30 cm

Depth to Slowly Permeable Horizon: 58 cm

Wetness Class: III

Wetness Grade: 3b

Available Water Wheat: 145 mm

Potatoes: 119 mm

Moisture Deficit Wheat: 103 mm

Potatoes: 96 mm

Moisture Balance Wheat: 42 mm

Potatoes: 23 mm

Droughtiness Grade: 1

Final ALC Grade: 3b

Main Limiting Factor(s): Wetness

Remarks:

Horizon 2 ped faces not very clear.

SITE NAME		PROFILE NO.		SLOPE AND ASPECT		LAND USE		Av Rainfall: 809 mm			PARENT MATERIAL		
Withycombe		Pit 5		0°		Permanent Grass		ATO: 1497°			Littleham Mudstones		
JOB NO.		DATE		GRID REFERENCE		DESCRIBED BY		FC Days: 169			RPT/MM1		
111/93		19/1/94		ASP 6 SY 020 844		M Mills and G Shaw		Climatic Grade: 1					
Horizon Number	Lowest Av Depth (cm)	Matrix and Ped Face Colours	Texture	Stoniness: Size, Shape, Type, and Field Method	Mottling Abundance, Contrast, Size and Colour	Structure: Development Size and Shape	Pores and Fissures	Structural Condition	Consistence	Roots: Abundance, Size and Nature	Calcium Carbonate Content	Mangan Concs etc	Horizon Boundary: Distinctness and form
1	26	10YR33	MCL	10% HR visual						Common fine		None	
2	45	7.5YR64	HCL	15% HR visual	Common ochreous	WCSAB	Good	Good	Friable	Common fine		None	
3	70+	2.5YR46 Ped face 5YR64	C	5% HR visual	Common ochreous	MCPr	Poor	Poor	Firm	Few fine around peds		None	

Profile Gleyed From: 26 cm
Depth to Slowly Permeable Horizon: 45 cm
Wetness Class: IV
Wetness Grade: 3b

Available Water Wheat: 130 mm
Potatoes: 118 mm
Moisture Deficit Wheat: 103 mm
Potatoes: 96 mm
Moisture Balance Wheat: 27 mm
Potatoes: 12 mm
Droughtiness Grade: 2 (to 120 cm)

Final ALC Grade: 3B
Main Limiting Factor(s): Wetness

Remarks:

SITE NAME		PROFILE NO.		SLOPE AND ASPECT		LAND USE		Av Rainfall: 809 mm			PARENT MATERIAL		
Withycombe		Pit 6		3°		Winter Cereals		ATO: 1497°			Littleham Mudstones		
JOB NO.		DATE		GRID REFERENCE		DESCRIBED BY		FC Days: 169			TOPSOIL SAMPLE		
111/93		20/1/94		ASP 174 SY 037 834		P Barnett and G Shaw		Climatic Grade: 1			RPT/GMS 361		
Horizon Number	Lowest Av Depth (cm)	Matrix and Ped Face Colours	Texture	Stoniness: Size, Shape, Type, and Field Method	Mottling Abundance, Contrast, Size and Colour	Structure: Development Size and Shape	Pores and Fissures	Structural Condition	Consistence	Roots: Abundance, Size and Nature	Calcium Carbonate Content	Mangan Concs etc	Horizon Boundary: Distinctness and form
1	28	7.5YR32	MSZL	6% HR >2cm 25% HR <2cm 31% HR Total Sieved/displ	None					Common fine	None	None	Gradual smooth
2	58	7.5YR56	MSZL	30% HR >2cm 19% HR <2cm 49% HR Total Sieved/displ	None	MCSAB	Good	Moderate	Friable	Few fine	None	None	Gradual smooth
3	90+	7.5YR58	MSL	35% HR >2cm 29% HR <2cm 64% HR Total Sieved/displ	Common feint ochreous mottles	Too stony to assess		Assume moderate		None	None	None	

Profile Gleyed From: Not gleyed

Depth to Slowly Permeable Horizon: No SPL

Wetness Class: I

Wetness Grade: 1

Available Water Wheat: 93 mm

Potatoes: 76 mm

Moisture Deficit Wheat: 103 mm

Potatoes: 96 mm

Moisture Balance Wheat: -10 mm

Potatoes: -20 mm

Droughtiness Grade: 3a (to 120 cm)

Final ALC Grade: 3a

Main Limiting Factor(s): Droughtiness

Remarks:

SITE NAME		PROFILE NO.		SLOPE AND ASPECT		LAND USE		Av Rainfall: 809 mm			PARENT MATERIAL		
Withycombe		Pit 7		2° N		Permanent Grass		ATO: 1497°			Littleham Mudstones		
JOB NO.		DATE		GRID REFERENCE		DESCRIBED BY		FC Days: 169			TOPSOIL SAMPLE		
111/93		21/1/94		ASP 304 SY 035 825		P Barnett and G Shaw		Climatic Grade: 1			RPT/GMS 360		
Horizon Number	Lowest Av Depth (cm)	Matrix and Ped Face Colours	Texture	Stoniness: Size, Shape, Type, and Field Method	Mottling Abundance, Contrast, Size and Colour	Structure: Development Size and Shape	Pores and Fissures	Structural Condition	Consistence	Roots: Abundance, Size and Nature	Calcium Carbonate Content	Mangan Concs etc	Horizon Boundary: Distinctness and form
1	25	7.5YR44	HZCL	c 1% Total HR		-	-	-		MF, VF	-	-	Gradual smooth
2	45	M: 5YR46 Ped: 5YR54 (64)	HCL	0	CFFOM	MF/MP MCSAB	Many	Poor	Firm	CF, VF	-	C	Clear smooth
3	(80+)	M: 5YR56 Ped: 5YR64	C	0	MDMOM	MMPr	< 1/2%	Poor	Firm	FF, VF	-	F	

Profile Gleyed From: 25 cm

Depth to Slowly Permeable Horizon: 45 cm

Wetness Class: IV

Wetness Grade: 3b

Available Water Wheat: 127 mm

Potatoes: 104 mm

Moisture Deficit Wheat: 103 mm

Potatoes: 96 mm

Moisture Balance Wheat: 24 mm

Potatoes: 8 mm

Droughtiness Grade: 2

Final ALC Grade: 3b

Main Limiting Factor(s): Wetness

Remarks:

SITE NAME		PROFILE NO.	SLOPE AND ASPECT		LAND USE		Av Rainfall: 809 mm			PARENT MATERIAL			
Withycombe		Pit 8	3° W		Perm Grass		ATO: 1497°			Littleham Mudstones			
JOB NO.		DATE	GRID REFERENCE		DESCRIBED BY		FC Days: 169			TOPSOIL SAMPLE			
111/93		21.1.94	ASP 237 SY 035 829		P Barnett and G Shaw		Climatic Grade: 1			RPT/GMS 359			
Horizon Number	Lowest Av Depth (cm)	Matrix and Ped Face Colours	Texture	Stoniness: Size, Shape, Type, and Field Method	Mottling Abundance, Contrast, Size and Colour	Structure: Development Size and Shape	Pores and Fissures	Structural Condition	Consistence	Roots: Abundance, Size and Nature	Calcium Carbonate Content	Mangan Concs etc	Horizon Boundary: Distinctness and form
1	25	7.5YR43	HCL	<5% mainly >2mm HR visual	-	-	-	-	-	MFVF	0	0	Gradual smooth
2	40	7.5YR44	HCL	20% HR Total visual	0	WCSAB	Many	M	Friable	CF, VF	0	0	Clear smooth
3	48	7.5YR54	C	70% HR Total visual	CFFOM	Ind - too narrow	Many	M	Friable	FF, VF	0	M	Abrupt wavy
4	70+	Matrix 5YR56 Ped face 5YR64	C		MDMOM mainly at top of SPL	MM-CP	< 1/2%	P	Firm	FF, VF	0	F	

Profile Gleyed From: 40 cm

Depth to Slowly Permeable Horizon: 48 cm

Wetness Class: III

Wetness Grade: 3b

VP336-5

Available Water Wheat: 118 mm

Potatoes: 95 mm

Moisture Deficit Wheat: 103 mm

Potatoes: 96 mm

Moisture Balance Wheat: 15 mm

Potatoes: -1 mm

Droughtiness Grade: 2

Final ALC Grade: 3b

Main Limiting Factor(s): Wetness

Remarks:

SITE NAME		PROFILE NO.		SLOPE AND ASPECT		LAND USE		Av Rainfall: 809 mm			PARENT MATERIAL		
Withycombe		Pit 9		7° W				ATO: 1497°			Littleham Mudstones		
JOB NO.		DATE		GRID REFERENCE		DESCRIBED BY		FC Days: 169			RPT/GMS 362		
111/93		21/1/94		ASP 242 SY 040 829		H Lloyd-Jones and Gill Shaw		Climatic Grade: 1					
Horizon Number	Lowest Av Depth (cm)	Matrix and Ped Face Colours	Texture	Stoniness: Size, Shape, Type, and Field Method	Mottling Abundance, Contrast, Size and Colour	Structure: Development Size and Shape	Pores and Fissures	Structural Condition	Consistence	Roots: Abundance, Size and Nature	Calcium Carbonate Content	Mangan Concs etc	Horizon Boundary: Distinctness and form
1	24	7.5YR44	MCL	5% Total HR visual	None	-	Good	-	-	Common fine and medium	None	None	Abrupt irregular
2	42	05YR34	HCL	5% total HR visual	None	MDCSAB	Good	Moderate	Friable	Common very fine few medium	None	None	Clear wavy
3	64	05YR54	HCL/C	10% Total HR visual	7.5YR58 many	MDMSAB (weak to moderate)	Good	Good	Friable	Common fine and medium	None	Common	Clear wavy
4	115+	7.5YR72	C	15% Total HR visual	10YR68 many	WDMSAB	Good	Good	Friable	Common medium	None	None	

Profile Gleyed From: 42

Depth to Slowly Permeable Horizon: No SPL

Wetness Class: I

Wetness Grade: 1

Available Water Wheat: 174 mm

Potatoes: 122 mm

Moisture Deficit Wheat: 103 mm

Potatoes: 96 mm

Moisture Balance Wheat: 71 mm

Potatoes: 26 mm

Droughtiness Grade: 1 (to 120 cm)

Final ALC Grade: 1

Main Limiting Factor(s): None

Remarks:

SITE NAME		PROFILE NO.		SLOPE AND ASPECT		LAND USE		Av Rainfall: 809 mm			PARENT MATERIAL		
Withycombe		Pit 10		3°		Perm Grass		ATO: 1497°			Littleham Mudstones		
JOB NO.		DATE		GRID REFERENCE		DESCRIBED BY		FC Days: 169			RPT/PB 57		
111/93		21/1/94		ASP 316 SY 028 824		P Barnett and G Shaw		Climatic Grade: 1					
Horizon Number	Lowest Av Depth (cm)	Matrix and Ped Face Colours	Texture	Stoniness: Size, Shape, Type, and Field Method	Mottling Abundance, Contrast, Size and Colour	Structure: Development Size and Shape	Pores and Fissures	Structural Condition	Consistence	Roots: Abundance, Size and Nature	Calcium Carbonate Content	Mangan Concs etc	Horizon Boundary: Distinctness and form
1	20	7.5YR44	HCL/HZCL	2% HR visual	None	-	Good	-	-	Many fine and v fine	None	None	Gradual smooth
2	60+	5YR46, 54 Ped 5YR64, 54	C	None visual	Many feint fine ochreous	MCPr	Low	Poor	Firm	Many fine and v fine within and between	None	Common	

Profile Gleyed From: 20 cm
Depth to Slowly Permeable Horizon: 35 cm
Wetness Class: IV
Wetness Grade: 3b

Available Water Wheat: 81 mm
Potatoes: 87 mm
Moisture Deficit Wheat: 103 mm
Potatoes: 96 mm
Moisture Balance Wheat: -22 mm
Potatoes: -9 mm
Droughtiness Grade: 3B (to 60 cm)

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

Remarks: