

SITE NAME Sydenham		PROFILE NO. Pit 1 (ASP 105)	SLOPE AND ASPECT 0°	LAND USE CER	Av Rainfall: 735 mm ATO: 1564 day °C FC Days: 159	PARENT MATERIAL Estuarine Alluvium
JOB NO. 91.94		DATE 1.9.94	GRID REFERENCE ST 319364	DESCRIBED BY HLJ/GMS	Climatic Grade: 1 Exposure Grade:	SOIL SAMPLE REFERENCES HLJ 60

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	HZCL	10YR42	<1% HR (Vis)	0	0	-	-	-	Good fissures	CF	0	Clear smooth
2	48	C	10YR52	0	CFMOM (10YR66)	0	MCSAB	Fm	M	Poor	FVF	0 but stones or shells are calcareous	Gradual smooth
3	85+	C	5Y51	0	MDMOM (10YR56)	F		MMPr and MCPPr breaking to CAB	P	Poor	FVF	Y; also calc stones	

Profile Gleyed From: 25 cm

Depth to Slowly Permeable Horizon: 48 cm

Wetness Class: III

Wetness Grade: 3b

Available Water Wheat: 113 mm

Potatoes: 110 mm

Moisture Deficit Wheat: 114 mm

Potatoes: 108 mm

Moisture Balance Wheat: 19 mm

Potatoes: 2 mm

Droughtiness Grade: 2 (Calculated to 120 cm)

Final ALC Grade: 3b

Main Limiting Factor(s): Wetness

Remarks:

SITE NAME Sydenham, Bridgwater		PROFILE NO. Pit 2 (ASP 60)	SLOPE AND ASPECT 0°	LAND USE PGR	Av Rainfall: 735 mm ATO: 1564 day °C FC Days: 159	PARENT MATERIAL Estuarine alluvium	
JOB NO. 91/94		DATE 2/9/94	GRID REFERENCE ST 321380	DESCRIBED BY HLJ/PB	Climatic Grade: 1 Exposure Grade: 1	SOIL SAMPLE REFERENCES RPT/HLJ/62	

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	HZCL	10YR42	.1% HR Total (Vis)	None	None	-	-	-	G	MF+VF	-	Clear smooth
2	42	C	10YR43	0% (Vis)	None	None	MM+CSAB	Fm	G/M	G	CF+VF	-	Gradual smooth
3	50	C	10YR43	0% (Vis)	CFFOM (10YR66)	None	MCSAB	Fm	M	G	CF+VF	-	Clear smooth
4	70	C	10YR53	0% (Vis)	CFMOM (10YR56)	None	MMPr breaking to MCAB	Fm	P	P	FF (on ped faces, in pores)	-	Clear smooth
5	85+	C	10YR62	0% (Vis)	CDMOM (10YR56)	None	MCPPr breaking to MCAB	Fm	P	P	FF (on ped faces)	-	

Profile Gleyed From: 42 cm

Depth to Slowly Permeable Horizon: 50 cm

Wetness Class: III

Wetness Grade: 3b

Available Water Wheat: 130 mm

Potatoes: 107 mm

Moisture Deficit Wheat: 114 mm

Potatoes: 108 mm

Moisture Balance Wheat: +16 mm

Potatoes: -1 mm

Droughtiness Grade: 2 (Calculated to 120 cm)

Final ALC Grade: 3b

Main Limiting Factor(s): Wetness

Remarks:

Depth to spl is borderline WCII (a few centimeters difference).

SITE NAME Sydenham		PROFILE NO. Pit 3 (ASP 75)	SLOPE AND ASPECT 0°	LAND USE PGR	Av Rainfall: 735 mm ATO: 1564 day °C FC Days: 159 Climatic Grade: 1 Exposure Grade: -	PARENT MATERIAL Estuarine alluvium	
JOB NO. 91/94		DATE 2.9.94	GRID REFERENCE ST 321375	DESCRIBED BY PB/HLJ	SOIL SAMPLE REFERENCES PB 160		

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	HZCL	10YR42	<1% HR (Vis)	0	0	-	-	-		CVF	Y	Clear smooth
2	45	C	10YR52	0	0	0	MM+CSAB tending to MPr	Fm	M-G	G	CF, VF	Y	Clear smooth
3	58	C	10YR52	0	CFMOM 10YR58	0	As above	Fm	M-G	G	FVF	Y	Clear smooth
4	77	C	10YR52	0	MFMOM 10YR58	0	MCAB	Fm	P	P	FVF	Y	Ab smooth
5	100+	C	5Y51	0	CDMOM 10YR58	0	MCPPr	Fm	P	P	FVF	Y	

Profile Gleyed From: 45 cm

Depth to Slowly Permeable Horizon: 58 cm

Wetness Class: II (boundary III)

Wetness Grade: 3a

Available Water Wheat: 134 mm

Potatoes: 113 mm

Moisture Deficit Wheat: 114 mm

Potatoes: 108 mm

Moisture Balance Wheat: +20 mm

Potatoes: +5 mm

Droughtiness Grade: 2 (Calculated to 120 cm)

Final ALC Grade: 3a

Main Limiting Factor(s): Wetness

Remarks:

SITE NAME Sydenham, Bridgwater		PROFILE NO. Pit 4 (ASP 128)	SLOPE AND ASPECT 0°	LAND USE CER	Av Rainfall: 735 mm ATO: 1564 day °C FC Days: 159	PARENT MATERIAL Estuarine alluvium
JOB NO. 91/94		DATE 2/9/94	GRID REFERENCE ST 317360	DESCRIBED BY HLJ/PB	Climatic Grade: 1 Exposure Grade: 1	SOIL SAMPLE REFERENCES RPT/HLJ/63

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	HZCL	10YR43	0% (Vis)	None	None	-	-	-	G	CF+VF	N	Abrupt smooth
2	45	HZCL	10YR54	0% (Vis)	None	None	MCSAB	Fm	M	G	CF+VF	Y	Clear wavy
3	75	HZCL	10YR64	0% (Vis)	CDMOM (10YR68)	None	MCSAB	Fm	M	G	FF	Y	Gradual smooth
4	95+	FSZL	10YR53/73	0% (Vis)	MDMOM (75YR58)	None	WCPL	Fr	M	G	FF	Y	-

Profile Gleyed From: 45 cm

Depth to Slowly Permeable Horizon: N/A

Wetness Class: I

Wetness Grade: 2

Available Water Wheat: 178 mm

Potatoes: 120 mm

Moisture Deficit Wheat: 114 mm

Potatoes: 108 mm

Moisture Balance Wheat: +64 mm

Potatoes: +12 mm

Droughtiness Grade: 1 (Calculated to 120 cm)

Final ALC Grade: 2

Main Limiting Factor(s): Workability

Remarks:

SITE NAME Sydenham		PROFILE NO. Pit 5 (ASP 10)	SLOPE AND ASPECT 0°	LAND USE PGR	Av Rainfall: 735 mm ATO: 1564 day °C FC Days: 159	PARENT MATERIAL Estuarine alluvium
JOB NO. 91.94		DATE 7.9.94	GRID REFERENCE St 311389	DESCRIBED BY PW/PB	Climatic Grade: 1 Exposure Grade: -	SOIL SAMPLE REFERENCES PB 162

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	12	MZCL	10YR42	0	0	0	-	-	-	G	MF, VF		Ab smooth
2	60	C	10YR53	0	0	0	MCSAB	Fm	M	G	CF		Cl smooth
3	100+	MZCL	10YR63	0	MFFOM 10YR58	0	WCPL	Fm	P	G	CVF		

Profile Gleyed From: 60 cm

Depth to Slowly Permeable Horizon: -

Wetness Class: 1

Wetness Grade: 2

Available Water Wheat: 126 mm
Potatoes: 110 mm
Moisture Deficit Wheat: 114 mm
Potatoes: 108 mm
Moisture Balance Wheat: +12 mm
Potatoes: +2 mm
Droughtiness Grade: 2 (Calculated to 120 cm)

Final ALC Grade: 2
Main Limiting Factor(s): Workability

Remarks:
TS to 25 cm taken as HZCL.

SOIL PLASTICITY RECORDING SHEET

ANNEX 2

SITE DATA

<u>Job No.</u> 91.94	<u>Site Name</u> Sydenham	<u>LPA</u> Sedgemoor
<u>AAR</u> 735 mm	<u>ATO</u> 1564°	<u>FCD</u> 159
	<u>MD (wheat)</u> 114	<u>MD (potatoes)</u> 108

SOIL PIT DATA

<u>PIT ONE</u> ST 319364 SOIL SERIES Newchurch				<u>PIT TWO</u> ST 321380 SOIL SERIES Newchurch			<u>PIT THREE</u> ST 321375 SOIL SERIES Newchurch		
DEPTH	TEXTURE	PLASTIC Y/N	COMMENTS	TEXTURE	PLASTIC Y/N	COMMENTS	TEXTURE	PLASTIC Y/N	COMMENTS
10 cm	HCL	N	Ball, no worm	C	N	No ball	HCL	N	No ball, no worm
20 cm	HCL	N	No ball	C	N	“	HCL	N	“
30 cm	C	N	“	C	N	“	C	N	“
40 cm	C	N	“	C	N	“	C	N	“
50 cm	C	N	“	C	N	“	C	N	“
60 cm	C	N	“	C	N	“	C	N	“