

# A12 Chelmsford to A120 widening scheme

TR010060

## 6.3 ENVIRONMENTAL STATEMENT APPENDIX 10.2 AGRICULTURAL LAND CLASSIFICATION SURVEY REPORT – PART 2

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed  
Forms and Procedure) Regulations 2009

Volume 6

August-April 2023

Infrastructure Planning

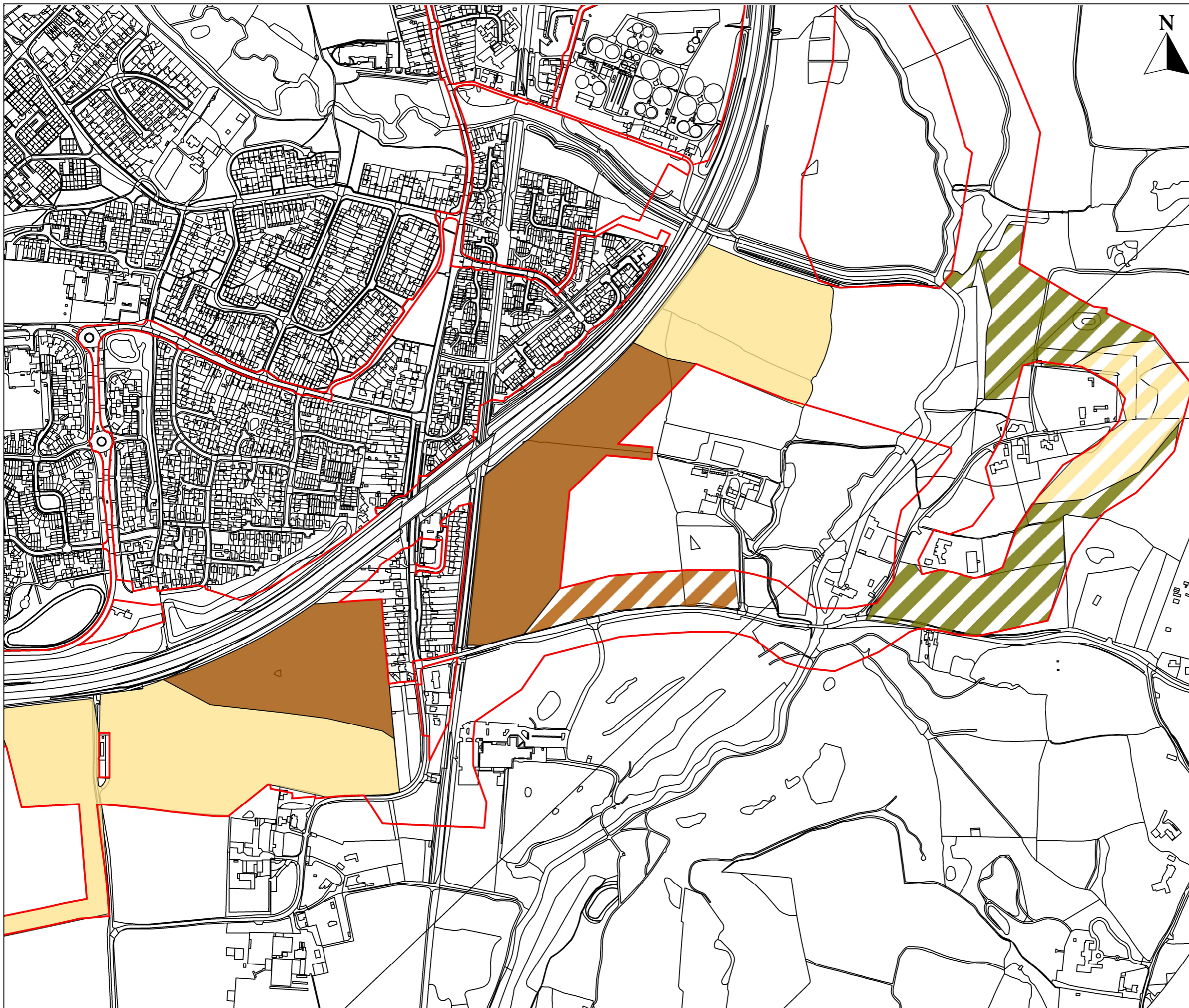
Planning Act 2008

**A12 Chelmsford to A120 widening scheme**  
**Development Consent Order 202[ ]**








**6.3 ENVIRONMENTAL STATEMENT APPENDIX 10.2**  
**AGRICULTURAL LAND CLASSIFICATION SURVEY**  
**REPORT – Part 1**

<b>Regulation Reference</b>	Regulation 5(2)(a)
<b>Planning Inspectorate Scheme Reference</b>	TR010060
<b>Application Document Reference</b>	TR010060/APP/6.2
<b>Author</b>	A12 Project Team & National Highways

<b>Version</b>	<b>Date</b>	<b>Status of Version</b>
Rev 1 ( <u>as 1 document with part1</u> )	August 2022	DCO Application
<u>Rev 2 (as part 2)</u>	<u>April 2023</u>	<u>For Deadline 4</u>



**KEY**

-  Heavy slowly permeable soils
-  Deep permeable soils
-  Medium loams over gravel
-  Estimated heavy slowly permeable soils
-  Estimated deep permeable soils
-  Estimated medium loams over gravel
-  Survey area

Client:



Site:

**A12 Chelmsford**

Map title:

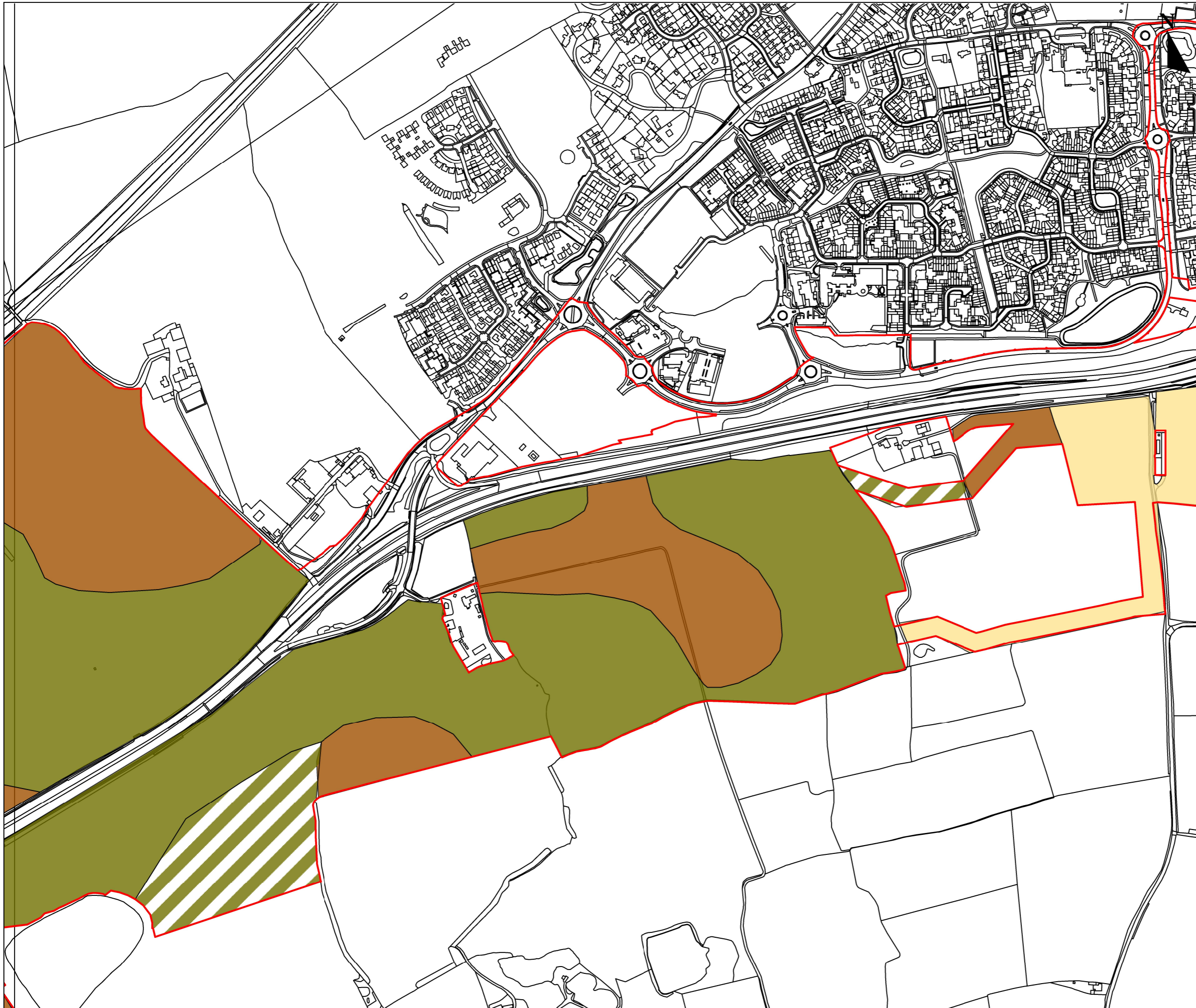
**Map 37  
Soil types**










Land Research Associates  
Lockington Hall  
Lockington  
Derby DE74 2RH  
01509 670570

Scale: 1:6,000

Date: 18/02/2022



**KEY**

-  Heavy slowly permeable soils
-  Deep permeable soils
-  Medium loams over gravel
-  Estimated heavy slowly permeable soils
-  Estimated deep permeable soils
-  Estimated medium loams over gravel
-  Survey area

Client:



Site:

**A12 Chelmsford**

Map title:

**Map 38  
Soil types**










Land Research Associates  
Lockington Hall  
Lockington  
Derby DE74 2RH  
01509 670570

Scale: 1:6,000

Date: 18/02/2022



**KEY**

-  Heavy slowly permeable soils
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-  Estimated heavy slowly permeable soils
-  Estimated deep permeable soils
-  Estimated medium loams over gravel
-  Survey area

Client:



Site:

**A12 Chelmsford**

Map title:

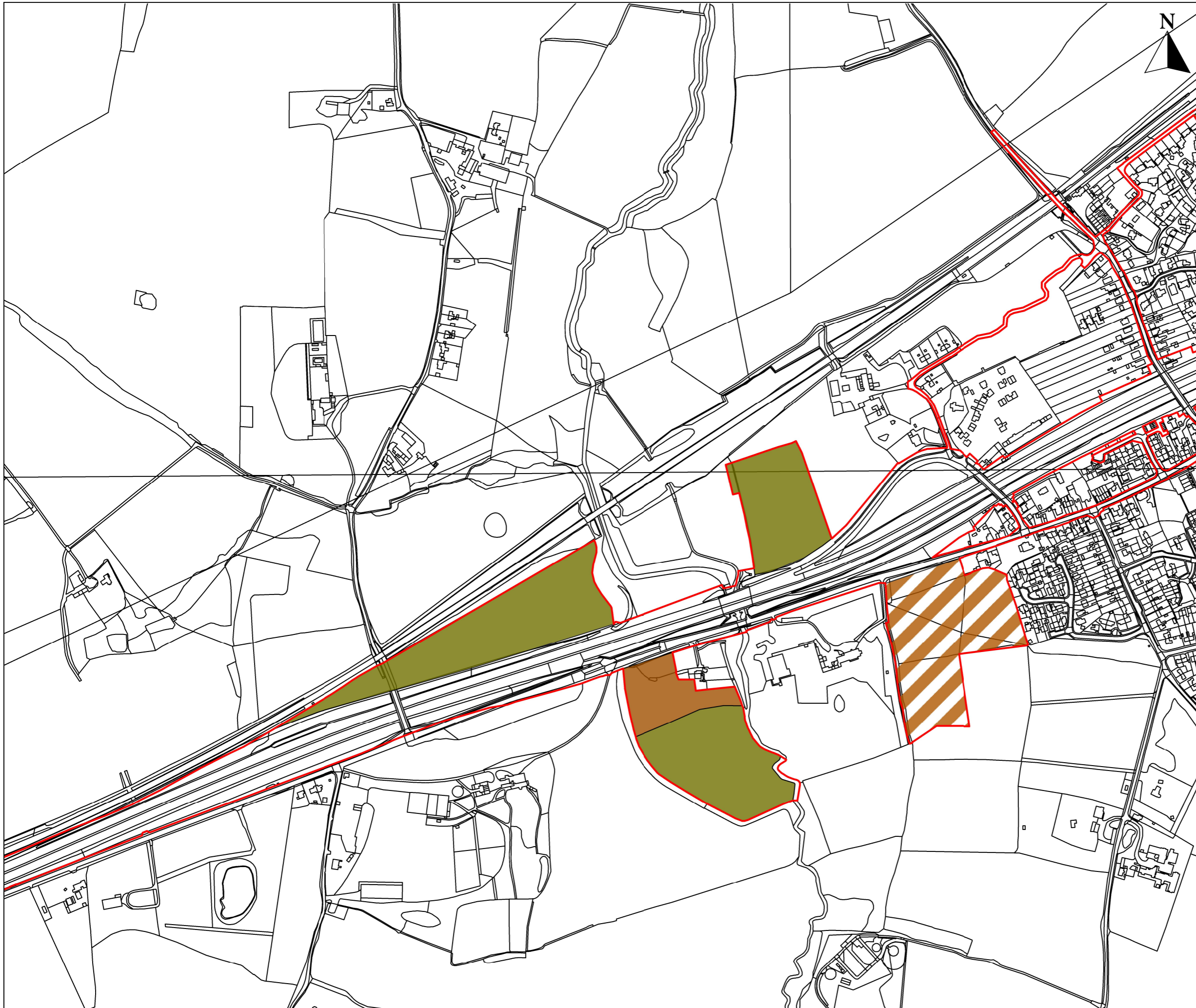
**Map 39  
Soil types**










Land Research Associates  
Lockington Hall  
Lockington  
Derby DE74 2RH  
01509 670570

Scale: 1:6,000

Date: 18/02/2022



**KEY**

-  Heavy slowly permeable soils
-  Deep permeable soils
-  Medium loams over gravel
-  Estimated heavy slowly permeable soils
-  Estimated deep permeable soils
-  Estimated medium loams over gravel
-  Survey area

Client:



Site:

**A12 Chelmsford**

Map title:

**Map 40  
Soil types**










Land Research Associates  
Lockington Hall  
Lockington  
Derby DE74 2RH  
01509 670570

Scale: 1:6,000

Date: 18/02/2022



**KEY**

-  Heavy slowly permeable soils
-  Deep permeable soils
-  Medium loams over gravel
-  Estimated heavy slowly permeable soils
-  Estimated deep permeable soils
-  Estimated medium loams over gravel
-  Survey area

Client:



Site:

**A12 Chelmsford**

Map title:

**Map 41  
Soil types**










Land Research Associates  
Lockington Hall  
Lockington  
Derby DE74 2RH  
01509 670570

Scale: 1:6,000

Date: 18/02/2022



**KEY**

-  Heavy slowly permeable soils
-  Deep permeable soils
-  Medium loams over gravel
-  Estimated heavy slowly permeable soils
-  Estimated deep permeable soils
-  Estimated medium loams over gravel
-  Survey area

Client:



Site:

**A12 Chelmsford**

Map title:

**Map 42  
Soil types**



Land Research Associates  
Lockington Hall  
Lockington  
Derby DE74 2RH  
01509 670570

Scale: 1:6,000

Date: 18/02/2022



Obs No	Topsoil			Upper subsoil			Lower subsoil			Slope (°)	Wetness Class	Agricultural quality	
	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture and stoniness	Mottling	Depth (cm)	Texture and stoniness	Mottling			Grade	Main limitation
W1	0-28	MZCL	<5	28-53	MZCL	xxx	53-81 81+	HZCL Stopped on stones	xxx	0	III	3a	W
W2	0-31	HCL	<5	31-55	HCL	xxx	55-90+	HCL	xxx	0	III/II	3b	W
W3	0-33	HCL	<5	33-56	HCL	xx(x)	56-64 64-100+	HCL C	xxx xxx	0	II	3a	W
W4	0-26	HCL	<5	26-53	HCL	xxx	53-78 78-100+	C Cchky	xxx xxx	0	III/II	3b	W
W5	0-33	MZCL	0	33-55	MZCL	xxx	55-90+	HZCL	xxx	0	III	3a	W
W6	0-25	HZCL	<5	25-54	HZCL	xxx	54-90+	HZCL	xxx	0	III	3b	W
W7	0-35	HCL	<5	35-53	HCL	xxx	53-90+	C	xxx	0	III	3b	W
W8	0-26	C	<5	26-42	C	xxx	42-66 66-90+	C Cchky	xxx xxx	1	III	3b	W
W9	0-28	HCL/C	<5	28-90+	C	xxx				1	III	3b	W
W10	0-30	HCL	<5	30-96+	C sl ca	xxx				0	III	3b	W
W11	0-27	HCL	<5	27-45	C	xx(x)	45-90+	C	xxx	0	II/III	3b	W
W12	0-31	HCL ca	<5	31-100+	C sl ca	xxx				1	III	3a	W
W13	0-30	HCL	<5	30-53	HCL	xx	53-90+	Cchky	xxx	0	III	3b	W
W14	0-29	HCL	<5	29-59+	C ca	xxx	59+	Stopped on stone/flint		1	III	3b	W
W15	0-28	HCL ca	<5	28-65+	C ca	xxx				0	III	3a	W
W16	0-28	HCL	<5	28-50	HCL	xxx	50-90+	C	xxx	0	III	3b	W
W17	0-30	HCL v sl ca	<5	30-41	HCL n ca	xxx	41-95+	Cr sl ca	xxx	0	III	3b/a	W
W18	0-31	HCL ca	<5	31-43	HCL ca	xxx	43-100+	C ca	xxx	1	III	3a	W
W19	0-30	HCLca	<5	30-42	HCL ca	xxx	42-60+	C sl ca	xxx	0	III	3a	W
W20	0-33	HCL	<5	33-38	HCL	xxx	38-85 85-100+	C Cchky	xxx xxx	0	III	3b	W
W21	0-30	HCLv sl ca	<5	30-51	HCL sl ca	xxx	51-100+	C ca	xxx	2	III	3b/a	W
W22	0-29	HCL ca	<5	29-41	HCL ca	xxx	41-65+ 65+	C ca Stopped on flint	xxx	0	III	3a	W
W23	0-32	HZCL sl ca	<5	32-41	HCL	xxx	41-100+	C	xxx	0	III	3b	W
W24	0-30	HCL ca	<5	30-65	C ca	xxx	65-100+	Cchky	xxx	1	III	3a	W
W25	0-31	HCL sl ca	<5	30-68	C sl ca	xx(x)	68-100+	Cchky	xxx	0	III	3a	W
W26	0-30	HCL ca	<5	30-58	C ca	xxx	58-100+	Cchky	xxx	0	III	3a	W
W27	0-31	HCL/C ca	<5	31-100+	C ca	xxx				1	III	3a	W
W28	0-29	HCL	<5	29-50+	C	xxx	50+	Stopped on flint		0	III	3b	W
S1	0-32	C	<5	32-48	C	xxx	48-82 82-90+	C Cchky	xxx xxx	1	III	3b	W
S2	0-31	C	<5	31-52	C	xxx	52-90+	Cchky	xxx	0	III	3b	W
S3	0-31	HCL	<5	31-54	HCL	xxx	54-90+	C	xxx	0	III	3b	W
S4	0-26	HCL	<5	26-46	HCL	xx	46-90+	C	xxx	0	III	3b	W

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture and stoniness	Mottling	Depth (cm)	Texture and stoniness	Mottling	(°)	Class	Grade	Main limitation
S5	0-35	HCL	<5	35-50	HCL	xxx	50-68 68-90+	C HCLca	xxx xxx	0	III	3b	W
S6	0-31	HCL	<5	31-72	C	xxx	72-90+	Cchky	xxx	0	III	3b	W
S7	0-28	HCL	<5	27-35	HCL	xxx	35-69 69-90+	C Cchky	xxx xxx	0	III	3b	W
S8	0-33	Cca	<5	33-90+	Cca	xxx				0	III	3a	W
S9	0-32	HCL	<5	32-52	HCL	xxx	52-90+	C	xxx	0	III	3b	W
S10	0-35	HCLca	<5	35-55	HCLca	xxx	55-90+	Cchky	xxx	1	III/II	3a	W
S11	0-36	HCL	<5	36-54	HCL	xxx	54-74 74+	HCL Stopped on stones	xxx	0	II	3a	W
S12	0-30	HCL	<5	30-51	HCL	xxx	51-90+	C	xxx	1	III	3b	W
S13	0-25	HCL	<5	25-35	HCL	xxx	35-64 64-90+	C Cchky	xxx xxx	1	III	3b	W
S14	0-30	Cslca	<5	30-65	Cslca	xxx	65-80+	Cchky	xxx	1	III	3b	W
S15	0-30	HZCL ca	5-10	30-84	Cr ca	xxx	84+	Stopped on flint		1	III	3a	W
S16	0-30	HCL sl ca	5-10	30-91+	C sl ca	xxx				1	III	3a	W
S17	0-32	HZCL	<5	32-100+	ZC	xxx				0	III	3b	W
S18	0-28	HZCL	10-15	28-100+	C ca	xxx				0	III	3a	W
S19	0-33	H/MZCL	<5	33-60	HCL	xx(x)	60-100+	Cr flinty	xx	0	II	2/3a	W
S20	0-52	Cca(dist)	<5	52-100+	Cchky	xxx				0	III	3a	W
S21	0-25	HCL ca	<5	25-40	C ca	xxx	40-90+	Cchky	xxx	0	III	3a	W
S22	0-35	Cca	<5	35-76	C	xxx	76-90+	Cchky	xxx	0	III	3a	W
S23	0-33	Cca	<5	33-55	C	xxx	55-80+	Cchky	xxx	0	III	3a	W
S24	0-30	C	<5	30-49	C	xxx	49-90+	C	xxx	0	III	3b	W
S25	0-33	C	<5	33-48	Cslca	xxx	48-90+	Cchky	xxx	0	III	3b	W
S26	0-32	HCL	<5	32-90+	C	xxx				0	III	3b	W
S27	0-35	HCL	<5	35-55	Cslca	xxx	55-90+	Cslca	xxx	0	III	3b	W
S28	0-31	C	<5	31-48	C	xxx	48-90+	C	xxx	0	III	3b	W
S29	0-30	Cca	<5	30-52	Cca	xxx	52-90+	Cchky	xxx	0	III	3a	W
S30	0-30	HCLca	<5	30-55	mstHCL	xxx	55-90+	C	xxx	1	III/II	3a	W
S31	0-28	HCL	<5	28-46	HCLca	xxx	48-90+	Cchky	xxx	0	III	3b	W
S32	0-34	HCL	<5	34-40	HCL	xxx	52-90+	C	xxx	1	III	3b	W
S33	0-30	HCL	<5	30-40	mstHCL	xxx	40+	Stopped on stones		1	?	?	?
S34	0-30	HCLslca	<5	30-52	HCLca TS/SS	xxx	46-80+	Cchky	xxx	1	III	3a	W
S35	0-25	SCL	5-10	25-47	slstHCL	xxx	47-90+	SC	xxx	2	III	3a	W
S36	0-32	HCL	<5	32-53	HCL	xxx	53-80+	C	xxx	2	III	3b	W
S37	0-32	HCL	5-10	32-43	HCL	xx	43-60 60-90+	HCL C	xxx xxx	3	II	3a	W
S38	0-25	HCL	<5	25-60+	HCL(dist)	xx				2	-	-	-

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture and stoniness	Mottling	Depth (cm)	Texture and stoniness	Mottling	(°)	Class	Grade	Main limitation
S39	0-28	MCL	<5	28-58	MCL	o	58+	Stopped on stones		2	I	2	D
S40	0-35	SCL	<5	35-65	HCL	xx(x)	65-90+	C	xxx	2	II	2	W
S41	0-29	HCL	<5	29-45	HCL	xxx	45-80+	C	xxx	2	III	3b	W
S42	0-25	HCL	<5	25-55	HCL	xxx	55-64 64+	C Stopped on stones	xxx	1	III/II	3a/b	W
S43	0-25	C	<5	25-42	Cslca	xxx	42-70+	Cchky	xxx	2	III	3b	W
S44	0-28	HCL	<5	28-43	HCL	xxx	43-67 67-80+	C Cchky	xxx xxx	1	III	3b	W
S45	0-25	HCL	<5	25-56	C	xxx	56-80+	Cchky	xxx	1	III	3b	W
S46	0-34	HCL	<5	34-58	mstHCL	xxx	58-90+	HCL	xxx	1	II	3a	W
S47	0-30	HCL	<5	30-52	HCL	xxx	52-90+	C	xxx	1	III	3b	W
S48	0-26	HCL	<5	26-58	HCL	xxx	58-90+	C	xxx	1	II	3a	W
S49	0-37	Cca	<5	37-100+	C(r)	xxx				1	III	3a	W
S50	0-30	Cca	<5	30-72	Cchky	xxx	72+	Stopped on stones		0	III	3a	W
S51	0-30	HCL	10-15	30-90+	Cr	xxx				0	III	3b	W
S53	0-28	HCL	<5	28-100+	C	xxx				1	III	3b	W
S54	0-34	HCL	<5	34-45	HCL/C	xxx	45-75+	C flinty	xxx	1	III	3b	W
S55	0-30	HCL ca	<5	30-100+	C ca	xxx				1	III	3a	W
S56	0-31	HCL ca	<5	31-91+	C ca	xxx				0	III	3a	W
S57	0-33	HCL	<5	33-51	HCL	xxx	51-90+	C	xxx	0	III	3b	W
S58	0-30	HCL ca	<5	30-48	HCL	xxx	48-90+	C	xxx	0	III	3a	W
S59	0-28	HCL	5-10	28-60+	C					2	III	3b	W
S60	0-27	HCL	<5	27-48	C	xxx	48-70+	Cchky	xxx	2	III	3b	W
S61	0-29	HCL	<5	29-44	HCL	xxx	44-60+	C	xxx	2	III	3b	W
S62	0-27	HCL	<5	27-67	HCL	xxx	67-90+	HCL	xxx	2	II	3a	W
S63	0-29	HCL	<5	29-63	HCL	xxx	63-80+	HCL	xxx	0	II	3a	W
B1	0-26	HCL	0	26-46	HCL	xxx	46-90+	C	xxx	2	III	3b	W
B2	0-30	Cca	<5	30-90+	Cchky	xxx				3	III	3a	W
B3	0-26	CSL	<5	26-66	LCS	xxx	66-90+	C	xxx	3	II	3b	D
B4	0-73	Cca(dist)	<5	73-90+	Cca	xxx				2	-	-	-
B5	0-50+	HCLslca (dist)	<5							3	-	-	-
B6	0-28	Cca	<5	28-56	slstCSL(dist)	-	56-100+	CS	o	4	-	-	-
B7	0-32	Cca	<5	32-42	C	xxx	42-56 56+	Cchky Stopped on stones		3	III	3a	W
B8	0-28	HCLca	<5	28-41	HCL	xxx	41-72 72-90+	C Cchky	xxx xxx	2	III	3a	W
B9	0-38	Cca	<5	38-90+	Cchky	xxx				3	III	3a	W
B10	0-34	SC	<5	34-55	slstSCL	x	55-90+	mstCSL	x	2	I	3a	D

Obs No	Topsoil			Upper subsoil			Lower subsoil			Slope (°)	Wetness Class	Agricultural quality	
	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture and stoniness	Mottling	Depth (cm)	Texture and stoniness	Mottling			Grade	Main limitation
B11	0-30	SCL ca	5-10	30-70	SCL/CSL ca	xxx	70-100+	Cchalky	xxx	1	II	3a	D
B12	0-29	HCL	<5	29-40	HCL	xxx	40-90+	C	xxx	2	III	3b	W
B13	0-30	HCL	<5	30-80	C	xxx				1	III	3b	W
B14	0-32	HCL	<5	32-56	HCL	xxx	56-90+	HCL	xxx	2	II/III	3a/b	W
B15	0-30	HCL ca	5-10	30-54	C ca	xxx	54-90+	C chalky	xxx	1	III	3a	W
B16	0-31	HCL v sl ca	5-10	31-100+	C sl ca	xxx				1	III	3b/a	W
B17	0-31	C	<5	31-38	HCL	xxx	38-90+	C	xxx	1	III	3b	W
B18	0-25	C	<5	25-70	C	xxx	70-90+	SCchky	xxx	3	III	3b	W
B19	0-28	HCL ca	<5	28-91+	C chalky	xxx				2	III	3a	W
B20	0-29	HCL	5-10	29-50+	HCLr	o	50+	Flinty		2	I	3a	D
B21	0-31	Cslca	<5	31-43	Cca	xxx	43-80+	Cchky	xxx	0	III	3b	W
B22	0-32	HCL	<5	32-45	C	xxx	45-90+	C	xxx	0	III	3b	W
B24	0-31	SCL	5-10	31-65	SCLr	o	65-100+	SCL/MSLr	x	1	I	3a	D
B25	0-27	HCL ca	<5	27-85+	C chalky	xxx				2	III	3a	W
B26	0-31	HCL ca	10-15	31-80+	C chalky	xxx				2	III	3a	W/St
B27	0-26	SCL	<5	26-58	SCL	xx	58-100+	LMS	o	1	I	3a	D
B28	0-31	MSL	5-10	31-70+	CSL	xx	70+	Flinty		1	I	3a	D
B29	0-30	HCL/MCL	<5	30-100+	HCLr	o				0	I	2	D
B30	0-30	HCL ca	<5	30-45	HCL ca	xxx	45-80+	C sl ca	xxx	1	III	3a	W
B31	0-25	HCL ca	5-10	25-90+	C chalky	xx				1	III	3a	W
B32	0-29	HCL/SCL ca	<5	29-100+	C chalky	xxx				1	III	3a	W
B33	0-28	HCL sl ca	<5	28-54	HCL sl ca	xxx	54-100+	C chalky	xxx	1	III/II	3a	W
B34	0-30	HCL dist	<5	30-51	HCL	xxx	51-67 67-100+	C HCL	xxx xxx	0	II	3a	W
B35	0-28	SCL	5-10	28-51	SCL	xxx	51-71 71-100+	CSL Cr	xxx xxx	2	II	3a	W
B36	0-32	HCL ca	<5	32-54	C ca	xxx	54-90+	C chalky	xxx	1	III	3a	W
B37	0-28	SCL/HCL	5-10	28-56	HCL	xxx	56+	Flinty		2	II	3a	W
B38	0-32	SCL sl ca	<5	32-58	SCL ca	x	58+	Flinty		1	I	3a	D
B39	0-33	SCL	<5	33-71	SCL	xx	71-100+	HCL	xxx	2	I	2	D
B40	0-27	HCL ca	<5	27-68+	C chalky	xxx				2	III	3a	W
B41	0-30	SCL	<5	30-68	SCL	xxx	68-82 82+	SCL Flinty	xxx	1	II	2	W
B42	0-32	SCL	<5	32-64	SCL	xxx	64-100+	C	xxx	2	II	2	W
B43	0-28	HCL ca	<5	28-91+	C chalky	xxx				2	III	3a	W
B44	0-60+	SCL(dist)	5-10							3	-	-	-
B45	0-37	HCL	<5	30-47	HCL	xxx	47-80+	C	xxx	1	III	3b	W
B46	0-29	MCL	<5	29-56	MCL	xx(x)	56-100+	HCL	xxx	0	I/II	2	W/D

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture and stoniness	Mottling	Depth (cm)	Texture and stoniness	Mottling	(°)	Class	Grade	Main limitation
B47	0-30	SCL	<5	30-65	SCL	xxx	65-80 80-100+	Cr SCL	xxx xxx	0	II	2	W/D
B48	0-28	SCL	<5	28-100+	SCL	x				1	I	2	D
B49	0-30	SCL dist	<5	30-58	HCL/C	xxx	58-100+	Cr ca	xxx	3	III	3a	W
B50	0-29	MCL	5-10	29-61	HCLr	o	61+	Flints		0	I	3a	D
B51	0-26	HCLca	<5	26-41	HCL	xx	41-60 60-90+	C Cchky	xxx xxx	2	III	3a	W
B52	0-26	ZC	<5	26-46	ZC	xxx	46-90+	C	xxx	0	III	3b	W
B53	0-30	M/HCL	<5	30-60	SCL	xxx	60-100+	C	xxx	1	II	2	W
B54	0-28	SCL	<5	28-61	SCLr	x	61+	Flinty		0	I	3a	D
B55	0-33	HCL ca	<5	33-65+	C ca	xxx				0	III	3a	W
B56	0-31	SCL	<5	31-54	SCL	xxx	54-100+	Cr	xxx	1	III/II	3a/2	W
B57	0-30	HCL sl ca	<5	30-70+	Cr ca	xx				1	III	3a	W
B58	0-28	HCL ca	5-10	28-50+	C chalky	xxx				0	III	3a	W
B59	0-27	HCL ca	5-10	27-60+	C chalky	xxx				1	III	3a	W
B60	0-28	HCL ca	<5	28-90+	C chalky	xxx				1	III	3a	W
B61	0-30	SCL	5-10	30-64	CSLr	o	64-100+	MSr	o	2	I	3a	D
B62	0-30	SCL	<5	30-50	SCL	50+	Flinty			2	I	3a	D
B63	0-33	HCL	<5	33-56	HCL	xxx	56-100+	HCL	xxx	3	II	3a	W
B64	0-31	HCLslca	<5	31-80+	C	xxx				2	III	3b	W
B65	0-30	Cca	<5	30-90+	Cchky	xxx				2	III	3a	W
B66	0-29	HCL/Cca	<5	29-60+	Cchky	xxx				4	III	3a	W
B67	0-60+	HCL(dist)	5-10							3	-	-	-
B68	0-30	HCL	<5	30-90	HCL dist	xxx				0	II	3a	W
B69	0-60	SCL dist	<5	60-100+	HCL	xx(x)				0	II	-	-
B70	0-75	SCL dist	10-15	75+	Gravel					3	I	-	-
B71	0-30	MCL	<5	30-56	MCL topsoil	o	56-100+	SCL	xx	2	I	-	-
B72	0-31	SCL	5-10	30-43	SCL mod st	o	43+	Gravel		2	I	3a	D
J1	0-35	SCL	10-15	35+	Gravel					2	I?	3b	D
J2	0-31	SCL	5-10	31-69	slstSCL	xxx	69+	Gravel	-	1	II	3a	D
J3	0-35	SCL	5-10	35-68	CSL/Gravel	xxx	68+	Gravel	-	0	I	3a	D
J4	0-34	SCL	5-10	34-52	slstSCL	o	52+	Gravel	-	0	I	3a	D
J5	0-35	SCL	5-10	35-51	mstSCL	xx	51+	Gravel	-	1	I	3a	D
J6	0-29	H/SCL ca	5-10	29-44	HCL	xxx	44-70+ 70+	Cr Flinty	xxx	2	III	3a	W
J7	0-30	HZCL ca	5-10	30-63	HZCL ca	xx(x)	63-91+	HZCL chalky	xxx	2	II	2	W
BR1	0-30	SCL	5-10	30-43	mstSCL	o	43+	Gravel		2	I?	3b	D
BR2	0-31	HCL	5-10	31-50+	HCL	xx	50-100+	mstC	xxx	2	III	3b	W

Obs No	Topsoil			Upper subsoil			Lower subsoil			Slope (°)	Wetness Class	Agricultural quality	
	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture and stoniness	Mottling	Depth (cm)	Texture and stoniness	Mottling			Grade	Main limitation
BR3	0-31	MCL	<5	31-78	MCL	xx	78-100+	slstSCL	xx	1	I	2	D
BR4	0-35	mstSCL	5-10	35-46	mstSCL	xxx	46-61 61-68 68+	C SCL Gravel	xxx xxx -	1	III	3a	W
BR5	0-30	C/HCL ca	5-10	30-60	Cca	xxx	60-90+	C	xxx	2	III	3a	W
BR6	0-30	SCL ca	5-10	30+	Flinty					2	-		
BR7	0-28	C ca	<5	28-90+	C ch	xxx				1	III	3a	W
BR8	0-32	HCL ca	<5	32-55	HCLr ca	xxx	55-91+	Cr ca	xxx	2	III/II	3a/2	W
BR9	0-30	HCL ca	5-10	30-53	Cr ca	xxx	53-91+	HZCL ca	xxx	3	III	3a	W
SI1	0-29	HCL ca	<5	29-35	Cchky	xxx	35-70+	Cchky	xxx	2	III	3a	W
SI2	0-35	HCL/SC	<5	35-90+	SC	xxx				2	II	3a	W
SI3	0-28	HCL	5-10	28-54	SC	xx	54-80+	SC	xxx	2	II	3a	D
SI4	0-41	HCLca	<5	41-90+	Cchky	xxx				2	III	3a	W
SI5	0-35	HCLca	<5	35-65	Cchky	xxx	65-80+	HZCLbrashy	o	2	III	3a	W
SI6	Non agr- wood												
SI7	0-35	HCLca	<5	35-55	HCLca	xxx	55-90+			1	III	3a	W
SI8	0-39	HCLvslca	<5	39-82	HCLbrashy	o	82-90+	C	xxx	2	I	2	D
SI9	0-30	HZCL ca	<5	30-95	HZCL ca	xxx				2	II	2	W/D
SI10	0-31	HZCL	<5	31-90+	HZCL	xxx				1	II	3a	W
SI11	0-17	MZCL	<5	17-66	HZCLr	xx	61-100+	HZCLr	xx	0	I	2	W/D
SI12	0-28	MCL	5-10	28-40	SCL	xx(x)	40+	Flinty		2	I/II	3a	D
SI13	0-20	SCL	5-10	20+	Flinty					1	-	-	-
SI14	0-31	HCL	<5	31-82	HCL	xx	82-100+	HCL	xxx	1	I	2	D
SI15	0-32	HCL	<5	32-66	HCL	xxx	66-90+	HCL	xxx	1	II	3a	W
SI16	0-35	HCL	<5	35-62	HCL	xxx	62-90+	HCL	xxx	2	II	3a	W
SI17	0-32	SCL	5-10	32+	Gravel	-				1	I	3b	D
BU1	0-30	MZCL	<5	30-60	HZCL	xxx	60-100+	SCLr	xxx	0	II	2	W
BU2	0-29	MZCL	5-10	29-81	MZCL	xxx	81-100+	HZCLr	xxx	0	II	2	W
BU3	0-29	HZCL	<5	29-56	HZCL	xxx	56-95	SCLr	xxx	0	II	3a	W
BU4	0-31	HZCL	<5	31-70	HZCLr	xxx	70-100+	Cr	xxx	0	II	3a	W
P1	0-30	M/SCL	5-10	30-50	SCL	xxx	30+	Flinty		0	II	2	W
P2	0-30	SCL	5-10	30-40	SCL	xx(x)	40+	Flinty		0	II	2	W
U1	0-30	C	<5	30-55	C	xxx	55-90+	Cchky	xxx	1	III	3b	W
U2	0-29	C	<5	29-44	C	xxx	44-80+	Cchky	xxx	1	III	3b	W
U3	0-30	HCL	<5	30-45	C	xxx	45-80+	Cchky	xxx	1	III	3b	W
U4	0-31	Cca	<5	31-62	Cca	xxx	62-80+	Cchky	xxx	4	III	3a	W
U5	0-26	Cca	<5	26-53	C	xx	53-100+	Cchky	xxx	2	II	3a	W
U6	0-35	MZCL	0	35-70	MZCL	xx	70-120	HZCL	xx	2	I	2	D
U7	0-30	MZCL	0	30-100+	MZCL	x				1	I	2	D

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture and stoniness	Mottling	Depth (cm)	Texture and stoniness	Mottling	(°)	Class	Grade	Main limitation
U8	0-35	MZCL	0	35-65	MZCL	o	65-100+	HZCL	o	1	I	2	D
U9	0-30	MZCL	0	36-70	MZCL	xxx	70-100+	HZCL	xxx	0	II	2	D
U10	0-33	MZCL	0	33-68	MZCL	xxx	68-100+	HZCL	xxx	0	II	2	D
U11	0-28	Cca	<5	28-43	Cca	xxx	43-50+	Cchky	xxx	0	III	3a	W
U12	0-35	MZCL	<5	35-62	HCL	xxx	62-100+	HCL	xxx	1	II	2	W/D
WO 1	0-28	HCL	5-10	28-47	S/MCL	xx(x)	47+	Stopped on stone		0	I/II	2/3a	D
WO 2	0-32	HCL	<5	32-61	HCLr	x	61-90+	HCLr	xxx	1	I	2	D
WO 3	0-31	HCL ca	5-10	31-68	HCL ca	xxx	68-100+	C ca	xxx	0	II	2	W
WO 4	0-26	SCL	<5	26-72	SCL	x	72-84 84+	mstSCL Stopped on stones	x	0	I	2	D
WO 5	0-31	SCL	<5	31-66	SCL	o	66-76 76+	mstSCL Stopped on stones	o	0	I	3a	D
WO 6	0-29	SCL	5-10	29-51	SCL pebbly	xx	51+	Stopped on stone		0	I	3a	D
WO 7	0-30	M/SCL	5-10	30-70	SCLr	x	70+	Stopped on stone		0	I	2	D
WO 8	0-30	HCL	<5	30-51	HCL	xxx	51+	Stopped on stone		0	II	3a	W
WO 9	0-25	SCL	<5	25-53	SCL	o	53+	Stopped on stones		1	I	3a	D
WO 10	0-35	HCL	<5	35-66	HCL	xxx	66+	Stopped on stones		1	II	2	D
WO 11	0-30	SCL	<5	30-59	mstSCL	o	59+	Stopped on stones		0	I	3a	D
WO 12	0-30	MCL	<5	30-46	MCL	xx	46+	Stopped on stones		0	I	3a	D
WO 13	0-33	Cca	<5	33-51	Cca	xxx	51-80+	Cchky	xxx	I	III	3a	W
WO 14	0-32	HCLvsIca	<5	32-51	HCLsIca	xxx	51-73 73-90+	C Cchky	xxx xxx	I	III	3b	W
WO 15	0-26	C ca	<5	26-38	C ca	Xxx	38-120+	C ch	xxx	1	III	3a	W
WO 16	0-30	HCL	<5	30-91+	HZCLr	xxx				0	II	3a	W
WO 17	0-30	HCL	<5	40-100+	C ca	xxx				0	III	3a	W

Obs No	Topsoil			Upper subsoil			Lower subsoil			Slope (°)	Wetness Class	Agricultural quality	
	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture and stoniness	Mottling	Depth (cm)	Texture and stoniness	Mottling			Grade	Main limitation
WO 18	0-32	MZCL	0	32-48	MZCL	o	48+	Stopped on stones		0	I	2/3a	D
WO 19	0-31	HCL	<5	31-46	HCL	xxx	46-60 60-90+	HCL C	xxx xxx	1	III/II	3a/b	W
WO 20	0-30	SCL	<5	30-48	SCL	o	48+	Stopped on stones		1	I?	2/3a	D
WO 21	0-31	HZCL	<5	31-100+	HZCL	xxx				0	III	3a	W
WO 22	0-30	HCL ca	<5	30-50	HCL ca	xxx	50-63 63-100+	C ca C chalky	xxx xxx	0	III	3a	W
CO1	0-34	Cslca	<5	34-50	Cslca	xxx	50-90+	Cvsica	xxx	0	III	3b	W
CO2	0-28	HCL	<5	28-65	HZCL	xxx	65-100+	C	xxx	0	II	3a	W
CR1	0-30	HCL	<5	30-44	HCL	xxx	44-90+	C	xxx	1	III	3b	W
FR1	0-32	SCL	5	32-48	slstSCL	o	48-100+	SCL/Gravel	o	0	I	3a	D
R1	0-25	MZCL	<5	25-100+	HZCL	o				1		2	D
R2	0-25	C	0	25-56	C	xxx	56+	Stopped on stones		0	III	3b	W
R3	0-30	HZCL	0	30-44	HZCL	xxx	44-60 60-100+	HZCL MZCL	xxx xxx	0	III	3b	W
RA1	0-26	MZCL	0	26-60	MZCL	o	60-100+	MZCL	o	2	I	2	D
RA2	0-29	MZCL	0	29-100	MZCL	o				1	I	2	D
RA3	0-34	MZCL	0	43-71	MZCL	xx	71-100+	MZCL	xxx	2	I	2	D
RA4	0-35	HCLca	<5	35-52	HCL	xx	52-90+	C	xxx	1	III	3a	W
RA5	0-28	MZCL	0	28-58	MZCL	o	58-100+	HZCL(r)	o	1	I	2	D
RA6	0-31	MZCL	0	31-62	MZCL	xx	62-100+	MZCL	xxx	1	I	2	D
RA7	0-29	HCLca	<5	29-90+	Cchky	xxx				1	III	3a	W
RA8	0-34	Cvsica	<5	34-45	Cca	xxx	45-80+	Cchky	xxx	1	III	3b	W
RA9	0-33	HCL	<5	33-80+	C	xxx				1	III	3b	W
RA10	0-32	MZCL	0	32-100+	MZCL	xx				1	I	2	D
RA11	0-34	HZCL	<5	34-64	HZCL	xx	64-90+	HZCL	xxx	1	II	3a	W
RA12	0-32	HCLvsica	<5	32-49	C	xxx	49-80+	Cchky	xxx	1	III	3b	W
RA13	0-32	HCLca	<5	32-42	HCLca	xx	42-80+	Cchky	xxx	1	II	3a	W
RA14	0-32	Cca	<5	32-90+	Cchky	xxx				1	III	3a	W
RA15	0-24	HCLca	<5	24-34	HCL	xx	34-90+	C	xxx	1	III	3a	W



Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture and stoniness	Mottling	Depth (cm)	Texture and stoniness	Mottling	(°)	Class	Grade	Main limitation
RA 16	0-32	HCLca	<5	32-48	HCLca	xx	<u>48-80+</u>	Cchky	xxx	1	III	3a	W
RA 17	0-33	HCL	<5	33-54	HZCL	xxx	<u>54-90+</u>	HZCL	xxx	1	II	3a	W
RA 18	0-32	Cca	<5	32-49	Cchky	xxx	<u>49-80+</u>	Cchky	xxx	1	III	3a	W
RA 19	0-30	Cca	<5	<u>30-90+</u>	Cchky	xxx				2	III	3a	W
RA 20	0-31	Cca	<5	<u>31-68</u>	C	xxx	<u>68-80+</u>	Cchky	xxx	1	III	3a	W
RA 21	0-28	HCLslca	<5	<u>28-44</u>	Cchky	xxx	<u>44-80+</u>	Cchky	xxx	2	III	3b	W
RA 22	0-32	HCLslca	<5	32-46	HCL	xxx	<u>46-80+</u>	C	xxx	1	III	3b	W
RA 23	0-32	MZCL	0	32-44	MZCL	o	44-100+	HZCL	o	1	I	2	D
RA 25	0-31	Cca	<5	<u>31-41</u>	Cslca	xxx	<u>41-90+</u>	Cchky	xxx	2	III	3a	W
RA 26	0-25	Cslca	<5	<u>25-35</u>	Cca	xxx	<u>35-90+</u>	Cchky	xxx	0	III	3b	W
RA 27	0-27	Cca	<5	<u>27-80+</u>	Cchky	xxx				0	III	3a	W
RA 28	0-28	C	0	<u>28-90+</u>	C	xxx				1	III	3b	W
RA 29	0-25	MZCL	0	25-60	MZCL	o	60-100+	HZCL	o	1	I	2	D
RA 31	0-32	HCL	<5	32-48	HCL	xx	<u>48-80+</u>	HCL	xxx	5	III	3b	W
RA 32	0-25	MZCL	<5	<u>25-80+</u>	ZC	xxx				4	III	3a	W
RA 33	0-30	HCLslca	<5	30-46	HCL	xxx	<u>46+</u>	Stopped on stones		2	?	?	?
RA 34	0-31	MZCL	0	31-71	MZCL	o				1	I	2	D
RA 35	0-31	HZCL	0	31-100+	HZCL	o				1	I	2	W/D
RA 36	0-31	C	<5	<u>31-71</u>	C	xxx	<u>71-80+</u>	Cchky	xxx	1	III	3b	W
RA 37	0-31	HZCL	<5	31-58	HZCL	xx	<u>58-90+</u>	C	xxx	0	II	3a	W

Obs No	Topsoil			Upper subsoil			Lower subsoil			Slope (°)	Wetness Class	Agricultural quality	
	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture and stoniness	Mottling	Depth (cm)	Texture and stoniness	Mottling			Grade	Main limitation
RA 38	0-15	C	<5	15-50+	C(dist)	-				2	IV	3b	W
RA 39	0-27	mstSCL/HCL	5-10	27-44	mstHCL	xxx	44-80+	C	xxx	5	III	3b	W
BO1	0-30	MCL	10-15	30-40	M/SCL v st	o	40-60+	SCL	x	1	I	2	D
BO 2	0-32	HCL	5-10	32-48	HCL	xxx	48+	Stopped on stones		2	II	3a	W
BO 3	0-30	M/HCL	<5	30-51	HCL	xx	51-100+	HCL	xxx	5	I	2	D
BO 4	0-26	M/HCL	5-10	26-47	HCL	xxx	47+	Stopped on stones		1	II	2/3a	D
BO 5	0-31	HCL ca	<5	31-90+	C xca	xxx				0	III	3a	W
BO 6	0-30	MCL	5-19	30-56	MCL	xx	56-90+	HCL	xx	1	I	2	D
BO 7	0-30	MCL ca	<5	30-70	HCL ca	xxx	74-90+	HCL ca	xxx	1	II	2	W
BO 8	0-31	HCL	<5	31-51	HCL	xxx	51-90+	HCL	xxx	0	III	3b	W
BO 9	0-34	HCLca	<5	34-55	HCL	xxx	55-65 65+	HCL/C Stopped on stones	xxx	1	II/III	2/3a	W
BO 10	0-29	HCL	<5	29-55	HCL	xxx	55-72 72+	HCL Stopped on stones	xxx	1	II	3a	W
BO 11	0-33	MZCL	<5	33-62	HZCL	xxx	62-90±	C	xxx	1	II	2	W/D
BO 12	0-32	HZCL	<5	32-100+	HZCL	xxx				1	II	3a	W
BO 13	0-31	MZCL	<5	31-100+	MZCL ca	xxx				0	II	2	D
BO 14	0-31	HZCL	<5	31-55	HZCL	xxx	55-75 75-90+	HZCL HZCL ca	xxx xxx	0	II/III	3a/b	W
BO 15	0-28	MCL ca	5-10	28-55	HCL ca	xxx	55-90+	C ca	xxx	1	II/III	2/3a	W
BO 16	0-32	HCL ca	<5	32-90+	C ca	xxx				0	IV	3a	W
BO 17	0-3	HCL	<5	30-56	HCL	xxx	56-80 80-100+	C SCL	xxx xxx	1	II/III	3a/b	W
V1	0-32	MCL ca	<5	32-66	HCL ca	xxx	66+	Stopped on stone		1	II	2	W/D

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture and stoniness	Mottling	Depth (cm)	Texture and stoniness	Mottling	(°)	Class	Grade	Main limitation
V2	0-33	HCL ca	<5	33-90+	C chalky	xxx				1	III	3a	W
V3	0-32	MCL	<5	32-68	MCL	x	68-90+	MCL	xx	3	I	2	D
V4	0-31	MCL	<5	31-58	MCL	xx	58-90+	MCL	xx(x)	2	I	2	D
V5	0-31	HCL ca	<5	31-80+	C ca	xxx				1	III	3a	W
V6	0-30	HCL ca	<5	31-59	C ca	xxx	59-100+	C chalky	xxx	0	III	3a	W
V7	0-35	HCLca	<5	35-61	HCLvsica	xxx	61-90+	C	xxx	3	II	2	W
V8	0-34	HCLca	<5	34-58	HCLchky	xx	58-90+	HCLchky	xx(x)	3	II	2	W
V9	0-29	HCLslca	<5	29-45	HCL	xxx	45-90+	C	xxx	1	III	3b	W
V10	0-28	HCLca	<5	28-53	HCLslca	xxx	53-80+	Cchky	xxx	2	III	3a	W
V11	0-30	HCL ca	<5	30-60 ca	HCL ca	x	60-75 75-100+	HCL ca C ca	xxx xxx	1	II	2	W/D
V12	0-31	HCL ca	<5	31-90+	C ca	xxx				1	III	3a	W
V13	0-28	HCLslca	<5	28-36	HCL	xx	36-70+	C	xxx	3	III	3b	W
V14	0-50+	HCLca(dist)	<5							3	-	-	-
V15	0-33	MCL	<5	28-57	HCL	xx	57-90+	HCL	xxx	3	II	2	W
V16	0-32	MCL	<5	32-100+	MCL	o				2	I	2	D
V17	0-30	HCL	<5	30-58	HCL	xxx	58-100+	C	xxx	0	II	3a	W
V18	0-31	HCL ca	<5	31-60	Cr ca	xxx	60+	Stopped on stone		0	III	3a	W
CW 1	0-33	SCL	<5	33-67	SCL	o	67-90+	SCL	xx	1	I/II	2	D
CW 2	0-30	SCL	<5	30-59	SCL/MSL	o	59-100+	MS	o	1	I	3a	D
CW 3	0-29	SCL	<5	29-53	LCS	o	53-90+	CS	o	2	I	3b	D

Obs	Topsoil			Upper subsoil			Lower subsoil			Slope	Wetness	Agricultural quality	
No	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture and stoniness	Mottling	Depth (cm)	Texture and stoniness	Mottling	(°)	Class	Grade	Main limitation
CW 4	0-31	SCL	<5	31-64	SCL	x	<del>64</del> -90+	SCL	xx	1	I/II	2	D
CW 5	0-32	SCL	<5	32-51	SCL	xxx	<del>51</del> -81 81-90+	SC C	xxx xxx	2	III	3a	W
CW 6	0-31	HCL ca	<5	<del>31</del> -95+	HCL/C ca	xxx				1	II	2/3a	W
CW 7	0-33	SCL	<5	33-80	SCL	xx	80-100+	mstSCL	xxx	3	I	2	D
CW 8	0-30	HCL	<5	30-66	HCL	xxx	<del>66</del> -100+	C	xxx	2	II	3a	W
CW 9	0-28	HCL	<5	28-70	HCL	xxx	<del>70</del> -100+	HCL	xxx	2	II	3a	W
CW 10	0-33	HCL	<5	33-50	HCL	xxx	<del>50</del> -100+	HCL	xxx	3	III	3b	W
CW 11	0-34	SCL	<5	34-54	SCL	o	54-81 81+	mstSCL Stopped on stones	o	3	I	2	D
CW 12	0-30	SCL	<5	30-62	SCLr	x	62+	Stopped on stone		2	I	2	D

## Survey log key

### *Gley indicators*<sup>1</sup>

o	unmottled
x	1-2% ochreous mottles and brownish matrix (or a few to common root mottles (topsoils)) <sup>3</sup>
xx	>2% ochreous mottles and brownish matrix and/or dull structure faces (slightly gleyed horizon)
xxx	>2% ochreous mottles and greyish or pale matrix (gleyed horizon) or reddish matrix and >2% greyish, brownish or ochreous mottles and pale ped faces
xxxx	mottles or f-m concentrations (gleyed horizon) dominantly blueish matrix
	often with some ochreous mottles (gleyed horizon)

### *Slowly permeable layers*<sup>4</sup>

a depth underlined (e.g. 50) indicates the top of a slowly permeable layer  
A wavy underline (e.g. 50) indicates the top of a layer borderline to slowly permeable

### *Texture*<sup>2</sup>

C	- clay
ZC	- silty clay
SC	- sandy clay
CL	- clay loam (H-heavy, M-medium)
ZCL	- silty clay loam (H-heavy, M-medium)
SZL	- sandy silt loam (F-fine, M-medium, C-coarse)
LS	- loamy sand (F-fine, M-medium, C-coarse)
SL	- sandy loam (F-fine, M-medium, C-coarse)
S	- sand (F-fine, M-medium, C-coarse)
SCL	- sandy clay loam
P	- peat (H-humified, SF-semi-fibrous, F-fibrous)
LP	- loamy peat; PL - peaty loam

### *Wetness Class*<sup>5</sup>

I (freely drained) to VI (very poorly drained)

### *Limitations:*

W	- wetness/workability
D	- droughtiness
De	- depth
F	- flooding
St	- stoniness
Sl	- slope
T	- topography/microrelief

### *Suffixes & prefixes:*

r	- reddish, gn – greenish
o	- organic
(m, v, x)st	- (moderately, very, extremely)

(vsl, sl, m, v, x)(very slightly, slightly, moderately very, extremely) calcareous

### *Other abbreviations*

fmn	- ferri-manganiferous concentrations
dist	- disturbed soil layer;
R	- bedrock (CH – chalk, SST – sandstone)
LST	- limestone, MST – Mudstone)

<sup>1</sup>Gley indicators in accordance with Hodgson, J.M., 1997. Soil Survey Field Handbook (third edition). Soil survey technical monograph No. 5

<sup>2</sup>Texture in accordance with particle size classes in Hodgson (1997)

<sup>3</sup> Occasionally recorded in the texture box

<sup>4</sup> Permeability is estimated for auger borings and must be confirmed by full pit observations in accordance with the definitions in: Revised Guidelines for grading the quality of Agricultural Land (Maff 1988)

<sup>5</sup> Soil Wetness Classes are defined in Hodgson (1997)

<sup>6</sup> stoniness classes as defined in Hodgson (1997)

<sup>7</sup> calcareous classes as defined in Hodgson (1997)

## A12 pit logs

### Pit S23 (see Map 3)

0-29 cm	Dark greyish brown (10YR 4/2) heavy clay loam; very slightly stony (small subangular flints); moderately developed very coarse sub-angular blocky structure; firm; few fine fibrous roots; calcareous; smooth clear boundary to:
29-44 cm	Light yellowish brown (2.5Y 6/4) heavy clay loam with 5% distinct fine yellowish brown (10YR 5/6) mottles; very slightly stony; moderately developed medium and coarse sub-angular blocky structure; friable; many fine fissures; medium packing density; few fine fibrous roots; smooth gradual boundary to:
44-65 cm	Light brownish grey (2.5Y 6/2) clay with 10% distinct fine yellowish brown (10YR 5/6) mottles and fine very dark grey (7.5YR 3/1) ferri-manganiferous concentrations; very slightly stony; moderately developed very coarse angular blocky structure; very firm; porous; no roots or macropores (high packing density); very slightly calcareous; smooth diffuse boundary to:
65-120 cm	Light brownish grey (2.5Y 6/2) clay with 20% distinct fine olive yellow (2.5Y 6/8) mottles; moderately stony (small soft chalk); weakly developed very coarse angular blocky structure to structureless (massive); very firm; no roots or macropores (high packing density); calcareous.

### Pit BR1 (see Map 7)

0-35 cm	Dark greyish brown (10YR 4/2) sandy clay loam; very stony (40 to 50% small and medium quartz gravel); weakly developed fine sub-angular blocky structure; very friable; non calcareous; common fine fibrous roots; smooth gradual boundary to:
35-40 cm	Quartz gravel (80% stones); few fine fibrous roots; structureless (single grain).
40 cm+	Impenetrable.

### Pit WO15 (see Map 10)

0-26 cm	Dark greyish brown (10YR 4/2) clay; slightly stony (small and medium subangular flints); moderately developed very coarse sub-angular blocky structure; very firm; calcareous; smooth clear boundary to:
26-38 cm	Light yellowish brown (2.5Y 6/4) clay with 10% faint fine light olive brown (2.5Y 6/8) mottles and 2-3% very dark grey (10YR 3/1) ferri-manganiferous concentrations; slightly stony; moderately developed very coarse sub-angular blocky structure; firm; porous; medium packing density; calcareous; smooth gradual boundary to:
38-120 cm	Pale brown (2.5Y 7/4) clay with 25% distinct fine light olive brown (2.5Y 6/8) mottles; moderately stony (small soft chalk); weakly developed very coarse angular blocky structure to structureless (massive); very firm; porous; no roots or macropores (high packing density); calcareous.

### **Pit U6 (see Map 11)**

0-35 cm	Dark greyish brown (10YR 4/2) medium silty clay loam; stoneless; moderately developed coarse sub-angular blocky structure; friable; smooth clear boundary to:
35-70 cm	Brown (7.5Y 5/4) medium silty clay loam with paler brown (7.5Y 5/3) ped faces and 10% faint fine light brown (7.5YR 6/3) mottles; stoneless; weakly developed coarse sub-angular blocky structure; friable; porous; low packing density; calcareous; smooth diffuse boundary to:
70-120 cm	Brown (7.5Y 5/4) heavy silty clay loam with 3-4% fine very dark grey (10YR 3/1) ferri-manganiferous concentrations stoneless; moderately developed very coarse sub-angular blocky structure; firm; porous; no macropores; medium packing density.

### **Pit FR1 (see Map 6)**

0-32 cm	Dark greyish brown (10YR 4/2) sandy clay loam; 10% small and medium quartz pebbles and subangular flints; moderately developed medium sub-angular blocky structure; friable; common fine fibrous roots; smooth gradual boundary to:
32-48 cm	Brown (7.5Y 5/4) sandy clay loam; 10-15% stones; moderately developed coarse sub-angular blocky structure; friable; few fine fibrous roots; low packing density; smooth diffuse boundary to:
48-100 cm+	Strong brown (7.5Y 4/6) sandy clay loam; 50-60% coarse gravel; weakly developed fine sub-angular blocky structure; loose; no roots; low packing density.

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0-30 cm	Dark greyish brown (10YR 4/2) sandy clay loam; 10-15% medium subangular flints; moderately developed medium sub-angular blocky structure; friable; common fine fibrous roots; smooth gradual boundary to:
30-100 cm	Light yellowish brown (10YR 6/4) heavy clay loam; moderately stony (small soft chalk) weakly developed medium sub-angular blocky structure; friable; calcareous.

### **Pit WO9 (see Map 9)**

0-30 cm	Brown (7.5YR 4/2) medium clay loam; 5% small and medium quartz pebbles and subangular flints; moderately developed medium sub-angular blocky structure; friable; non calcareous; common fine fibrous roots; smooth clear boundary to:
30-41 cm	Brown (7.5Y 5/2) medium clay loam with 20% diffuse medium reddish yellow (7.5Y 6/6) ; moderately stony; weakly developed medium angular blocky structure; friable; few very fine fibrous roots; medium packing density; 1% macropores; smooth gradual boundary to:
41-100 cm	Light brown (7.5Y 6/2) sandy clay loam with 10% medium diffuse reddish yellow (7.5Y 6/6) mottles; moderately stony; weakly developed medium angular blocky structure; 1% fissures; medium packing density; very slightly calcareous; smooth gradual boundary to:
100-120 cm	Light brown (7.5Y 6/2) sandy clay loam with 10% medium diffuse reddish yellow (7.5Y 6/6) mottles moderately stony; weakly developed coarse prismatic structure; very firm; no roots; high packing density.

### **Pit BO2 (see Map 13)**

0-32 cm	Dark greyish brown (10YR 4/2) medium clay loam; 10-15% small and medium quartz pebbles and subangular flints (5-10% >20 mm); moderately developed coarse and very coarse sub-angular blocky structure; firm; few medium fibrous roots; smooth clear boundary to:
32-39 cm	Pale brown (10YR 6/3) medium clay loam with 20% distinct fine and medium reddish yellow (7.5YR 6/8) mottles; 15-20% stones; moderately developed coarse sub-angular blocky structure; firm (dry); few fibrous roots; medium packing density; smooth gradual boundary to:
39-62 cm	Brown (7.5Y 5/3) coarse sandy loam with 15% yellowish brown (10YR 5/6) mottles; 50-60% s and quartz small and medium flints and quartz pebbles; weakly developed fine sub-angular blocky structure; very friable; no roots; low packing density; smooth diffuse boundary to:
48-100 cm+	Greyish brown (10YR 5/2) loamy coarse sand; 60% coarse gravel; single grain; loose; no roots; low packing density.