



July 2025

University of Reading

**Loddon Garden Village:
Agricultural Land Classification and Soil Resources**

**Beechwood Court,
Long Toll, Woodcote,
RG8 0RR**

**01491 684 233
www.reading-ag.com**

Table of Contents

1 INTRODUCTION.....1

2 SITE AND CLIMATIC CONDITIONS2

3 AGRICULTURAL LAND QUALITY5

APPENDIX 1: LABORATORY DATA8

APPENDIX 2: SOIL PROFILE SUMMARIES AND CALCULATIONS10

APPENDIX 3: PIT DESCRIPTIONS AND PHOTOGRAPHS35

FIGURE RAC/9617/1: OBSERVATIONS49

FIGURE RAC/9617/2: AGRICULTURAL LAND CLASSIFICATION.....50

1 Introduction

- 1.1 Reading Agricultural Consultants Ltd (RAC) is instructed by the University of Reading to investigate the Agricultural Land Classification (ALC) and soil resources of land at Hall Farm to the south of the M4, west of Sindlesham, north of Arborfield and east of Shinfield by means of a detailed survey of soil and site characteristics.
- 1.2 Guidance for assessing the quality of agricultural land in England and Wales using ALC is set out in the Ministry of Agriculture, Fisheries and Food (MAFF) revised guidelines and criteria for grading the quality of agricultural land¹, and summarised in Natural England's Technical Information Note 049² (TIN049).
- 1.3 Agricultural land in England and Wales is graded between 1 and 5, depending on the extent to which physical or chemical characteristics impose long-term limitations on agricultural use. The principal physical factors influencing grading are climate, site conditions and soil which, together with interactions between them, form the basis for classifying land into one of the five grades.
- 1.4 Grade 1 land is excellent quality agricultural land with very minor or no limitations to agricultural use. Grade 2 is very good quality agricultural land, with minor limitations which affect crop yield, cultivations or harvesting. Grade 3 land has moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield, and is subdivided into Subgrade 3a (good quality land) and Subgrade 3b (moderate quality land). Grade 4 land is poor quality agricultural land with severe limitations which significantly restrict the range of crops and/or level of yields. Grade 5 is very poor quality land, with very severe limitations which restrict use to permanent pasture or rough grazing.
- 1.5 Land which is classified as Grades 1, 2 and 3a in the ALC system is defined as best and most versatile (BMV) agricultural land.

¹ **MAFF (1988).** *Agricultural Land Classification of England and Wales. Revised guidelines and criteria for grading the quality of agricultural land.* Agricultural Land Classification of England and Wales: Revised criteria for grading the quality of agricultural land - ALC011

² **Natural England (2012).** *Technical Information Note 049 - Agricultural Land Classification: protecting the best and most versatile agricultural land*, Second Edition. <https://publications.naturalengland.org.uk/file/4424325>

- 1.6 As explained in Natural England's TIN049, the whole of England and Wales was mapped from reconnaissance field surveys in the late 1960s and early 1970s, to provide general strategic guidance on agricultural land quality for planners. This Provisional Series of maps was published on an Ordnance Survey base at a scale of One Inch to One Mile (1:63,360). The Provisional ALC map shows the site as Grade 3 with Grade 4 adjacent to the River Loddon and Barkham Brook. However, TIN049 explains that:

"These maps are not sufficiently accurate for use in assessment of individual fields or development sites, and should not be used other than as general guidance. They show only five grades: their preparation preceded the subdivision of Grade 3 and the refinement of criteria, which occurred after 1976. They have not been updated and are out of print. A 1:250 000 scale map series based on the same information is available. These are more appropriate for the strategic use originally intended ..."

- 1.7 TIN049 goes on to explain that a definitive ALC grading should be obtained by undertaking a detailed survey according to the published ALC guidelines. This survey follows the detailed methodology set out in the ALC guidelines, with an observation density of one boring per two hectares due to the size of the site. An area in the south-west of the site (shown on Figure RAC/9617/1) has been surveyed previously by ADAS on behalf of MAFF³ and classified as Subgrade 3b.

2 Site and climatic conditions

General features, landform and drainage

- 2.1 The site is centred on Hall Farm and surrounded by the M4 to the north, the Thames Valley Science Park to the north-west, the A327 to the south-west and Mole Road to the south-east. The Barkham Brook flows through the eastern part of the site from the south-east to the north-west, and the River Loddon flows through the centre of the site from the south-west to the north-east. The site also includes approximately 7 hectares (ha) to the north of the M4 and south of the B3270.

³ MAFF (1996). Wokingham District Local Plan, Sites SH11, SH13, SH14, SH15 and SH16 - Shinfield, Berkshire. Agricultural Land Classification, Semi-detailed survey, ALC Map and Report Agricultural Land Classification detailed Post 1988 ALC survey, Shinfield (Wokingham Sh11,13,14,15,16 (Additional Work)) - ALCR11796

- 2.2 The site occupies a valley position at 40 m above Ordnance Datum (AOD) east of the River Loddon, rising to approximately 50 m AOD west of the River Loddon.
- 2.3 The land surveyed consists of grassland for silage, hay and grazing, as well as arable land growing wheat and maize at the time of survey.
- 2.4 Land in the Loddon floodplain is mapped within the Environment Agency Flood Zones 2 and 3. A narrow strip of land along the Barkham Brook is also mapped within Flood Zone 3⁴.

Agro-climatic conditions

- 2.5 Agro-climatic data for the site have been interpolated from the Meteorological Office's standard 5 km grid point dataset⁵ at a representative altitude of 46 m AOD. This is given in Table 1. The average annual rainfall is moderate for south-east England and the temperature is warm.
- 2.6 Field Capacity is the maximum amount of water a soil can hold under gravity. Field Capacity Days (FCD) is a measure of the duration of climatic wetness throughout the year and is a key criterion in the assessment of soil wetness and workability. At Field Capacity, soils are considered too wet for cultivation. The number of Field Capacity Days at the site is 138 which is favourable, meaning that there are some opportunities for agricultural field work over winter.
- 2.7 In addition to potential limitations caused by soil wetness, there are also potential limitations due to drought. Moisture deficits are crop-related meteorological variables which represent the balance between rainfall and potential evapotranspiration calculated over a critical period of the growing season. There are large average moisture deficits for wheat and potatoes at the site. However, there is no overriding climatic limitation to agricultural land quality at this site.

Table 1: Local agro-climatic conditions

Parameter	Value
Grid Reference	SU 755 687
Average Annual Rainfall	660 mm
Accumulated Temperatures >0°C	1,471 day°
Field Capacity Days	138 days
Average Moisture Deficit, wheat	116 mm
Average Moisture Deficit, potatoes	111 mm

⁴ **Environment Agency (2025).** *Flood map for planning*. <https://flood-map-for-planning.service.gov.uk/location>

⁵ **Meteorological Office (1989).** *Climatological Data for Agricultural Land Classification (ALC010)*. <https://publications.naturalengland.org.uk/file/4830386468159488>

Soil parent material and soil type

- 2.8 The bedrock geology is mapped by the British Geological Survey⁶ as London Clay to the east of the River Loddon, with superficial river terrace deposits overlying higher ground. Superficial deposits of alluvium are mapped west of the River Loddon, with an area of river terrace deposits mapped in the south-west and an area of brickearth mapped at Rushy Mead to the north-west of the Loddon. Both the river terrace and brickearth deposits are at slightly higher elevations than the alluvium.
- 2.9 The Soil Survey of England and Wales soil association mapping⁷ (1:250,000 scale) indicates the floodplain as part of the Fladbury association. These are grey, clayey, alluvial soils. They are affected by high groundwater and are waterlogged for long periods in winter (Wetness Class (WC) IV). They are commonly slowly permeable within a depth of 40 cm, and have large reserves of available water.
- 2.10 Soils of the Hurst association are mapped on either side of the floodplain, outside the Fladbury soils. These are gravelly and developed in low-level river terrace deposits over Tertiary strata. Jarvis⁸ describes the Hurst soil in the Reading area as non-calcareous, gley soils in loamy drift over River Terrace gravel. Cultivation pans are common, and the upper part of the profile may harden because of moisture loss in the summer. Large seasonal fluctuations in groundwater characterise this series, with much of the profile being saturated in the winter and dry in the summer. Permeable soils in this association with adequate drainage are well drained in WC I.
- 2.11 The south-east of the site is mapped as the Wickham 4 association, which comprises slowly permeable, fine loamy over clayey soils as well as fine silty over clayey soils, which are associated with similar clayey soils, often with brown subsoils. They are typically poorly drained in WC IV but can be improved to WC III with effective underdrainage.

⁶ **British Geological Survey (2025).** *BGS Geology Viewer*, <https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/>

⁷ **Soil Survey of England and Wales (1984).** *Soils of South East England* (1:250,000), Sheet 6, Bulletin 15.

⁸ **Jarvis, R. A. (1968)** *Soils of the Reading District*. Harpenden.

3 Agricultural land quality

Soil survey methods

- 3.1 In total, 144 soil profiles were examined using a Dutch (Edelman) auger where possible at an observation density of approximately one per two hectares, as shown in Figure RAC/9617/1. Fourteen pits were also excavated to a depth of 60 cm to examine soil structures and stone content. At each observation point, the following characteristics were assessed for each soil horizon up to 120 cm or an impenetrable layer:
- soil texture;
 - stone content;
 - colour (including localised mottling);
 - consistency;
 - structural condition;
 - free carbonate; and
 - depth.
- 3.2 Some profiles could not be observed on the river terrace deposits because of particularly dry conditions on stony and hard soils, which meant the profiles were impenetrable to auger. In these instances, an above-ground site inspection was conducted, using information from local, on-site augers and soil pits, along with data from previous surveys^{3,7} to infer profile characteristics.
- 3.3 Fourteen topsoil samples were submitted for laboratory determination of particle size distribution, pH, organic matter content and nutrient contents (P, K, Mg). Results are in Appendix 1.
- 3.4 Stone content was also measured by sieving and drying at Observation 14. Results are in Appendix 1.
- 3.5 Soil Wetness Class (WC) was determined from the matrix colour, presence or absence of, and depth to, greyish and ochreous gley mottling, and slowly permeable subsoil layers at least 15 cm thick, in relation to the number of Field Capacity Days at the location.
- 3.6 Soil droughtiness was investigated by the calculation of moisture balance (MB) equations (values given in Appendix 2). Crop-adjusted Available Profile Water (AP) is estimated from texture,

stoniness and depth, and then compared to a calculated moisture deficit (MD) for the standard crops wheat and potatoes. The MD is a function of potential evapotranspiration and rainfall. Grading of the land can be affected if the AP is insufficient to balance the MD and droughtiness occurs.

- 3.7 Assessment of agricultural land quality has been carried out according to the revised ALC guidelines¹. Soil profiles have been described according to Hodgson⁹ which is the recognised source for describing soil profiles and characteristics according to the revised ALC guidelines.

Agricultural land quality

- 3.8 Soils east of the River Loddon, over the river terrace gravel, have a sandy loam topsoil texture that is dark brown (10YR3/3 in the Munsell soil colour charts¹⁰) or dark greyish brown (10YR3/2). Stone content in the topsoil is typically 15% and consists mainly of flint that is subangular or rounded. The topsoil structure is granular, loose and friable.
- 3.9 The subsoils are either sandy loam or sandy clay loam and are dark yellowish brown (10YR4/4 and 10YR4/6), dark greyish brown (10YR3/2) or brown (10YR4/3) with stone contents ranging from 10% to 20%. The parent material is either sand, sand and gravel or, in some places, London Clay. These soils are limited by droughtiness and are Subgrade 3a.
- 3.10 Soils west of the River Loddon on the grass floodplain have clay topsoils, which are occasionally organic, and are typically very dark grey (10YR3/1) or dark brown (10YR3/3), with very many iron mottles present along root channels and around 2% stone.
- 3.11 The subsoils are clayey, typically grey (2.5Y5/1), greyish brown (10YR5/2) or brown (10YR5/3) with a massive consistency and very many iron mottles present. These soils are limited to Subgrade 3b and Grade 4 due to the high probability of flooding, the slowly permeable layers and locally high groundwater.
- 3.12 Approximately 20 hectares of land in the north-east of the site has a sandy loam topsoil. Within profiles observed in this area, clay content increases with depth. For example, Pit 3 has a dark yellowish brown (10YR3/4) topsoil with fine-sized, loose, granular peds and some well-developed, medium subangular blocky peds as well as approximately 5% hard stone. The subsoil (35 cm – 60 cm) is light yellowish brown (2.5Y6/2) sandy loam with a loose, moderate, fine subangular blocky structure. It contains many iron mottles and approximately 5% hard stone. At

⁹ **Hodgson, J. M. (Ed.) (1997).** *Soil survey field handbook*. Soil Survey Technical Monograph No. 5, Silsoe.

¹⁰ **Munsell Color (2009).** *Munsell Soil Color Book*. Grand Rapids, MI, USA

60 cm - 75 cm, the soil is a light yellowish brown (2.5Y6/2) and yellowish brown (10YR5/8) sandy clay loam. At these depths, there are many iron mottles and manganese nodules and approximately 5% hard stone. At 75 cm – 120 cm, the soil is light yellowish brown (2.5Y6/2) and yellowish brown (10YR5/8) clay with very many iron mottles and approximately 3% hard stones. These soils are limited by wetness and droughtiness to Grade 2.

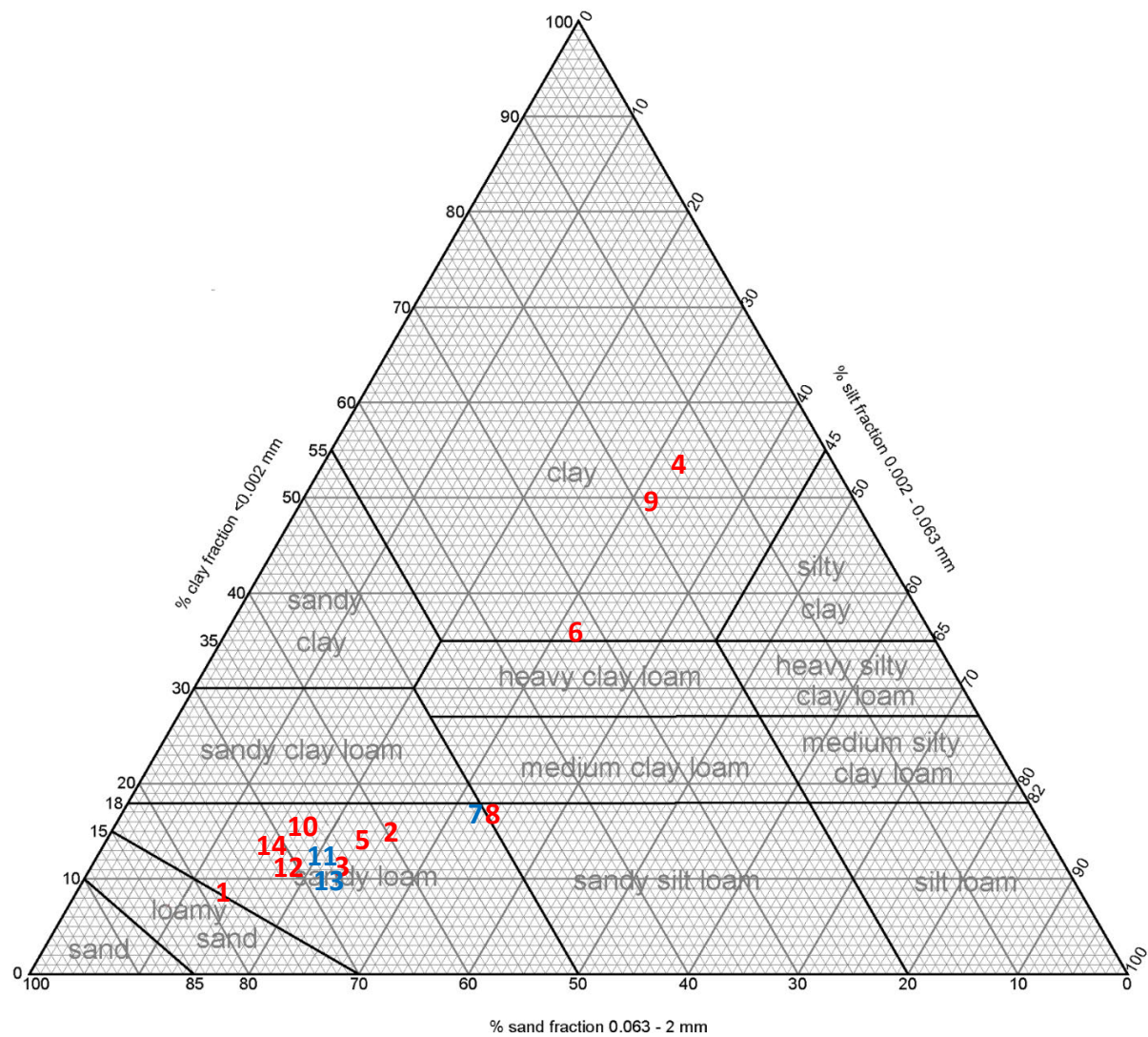
- 3.13 Soil profiles surveyed in proximity to Mole Road commonly have a heavy clay loam topsoil which is dark brown (10YR3/3) or brown (10YR4/3), and contains about 8% hard stone. These profiles contain imperfectly draining clay within the subsoil. The subsoil is typically brown (10YR5/3), greyish brown (10YR5/2) or light brownish grey (2.5Y6/2) with very many mottles, a massive consistency and is relatively stone free. Due to these soil properties, profiles are limited to Subgrade 3b from soil wetness.
- 3.14 The laboratory data in Appendix 1 show that organic matter levels in topsoil are adequate across the site, except at Pit 1, where levels are low, as is typical for a loamy sand (1.7%). Pit 14 has low levels of organic matter (2.9%), although this is adequate for the low clay content (11%). Other pits are in the range 3%-6% except for Pit 9, which has very high soil organic matter (7.9%) and Pits 4 and 6, which are classed as humose (with more than 10% soil organic matter). Pits 4, 6 and 9 correspond to the most flooded sites where organic matter would not decompose as quickly due to waterlogged conditions.
- 3.15 All soils are non-calcareous with pH varying from slightly acidic (pH 5.9) to alkaline (pH 7.8). Phosphorus levels range from adequate to very high; when stockpiled, care must be taken to prevent run-off into watercourses, especially in fields corresponding to Pits 1, 5 and 10-13. Potassium levels vary from low (pits 1, 4 and 6) to very high on pits 11-13 (due to manure over-application). Magnesium levels vary from moderate to high.
- 3.16 The distribution of ALC grades is shown in Table 2 and Figure RAC/9617/2.

Table 2: ALC areas

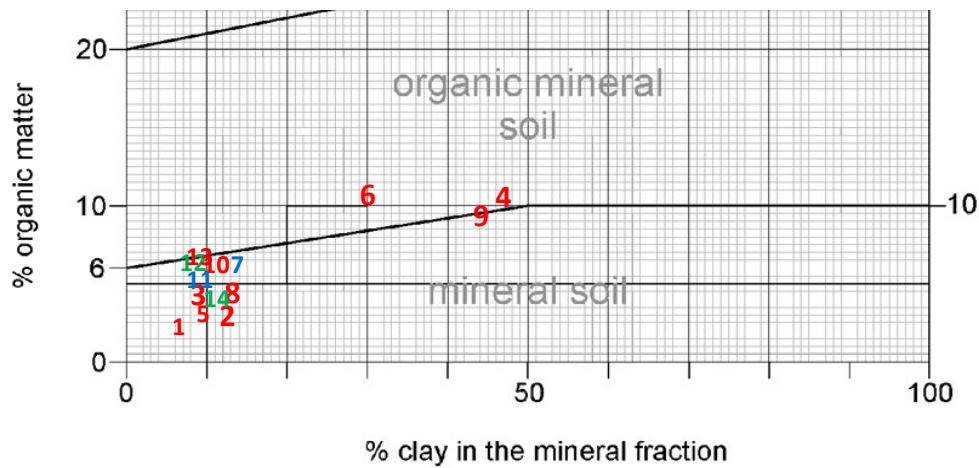
Grade	Description	Area (ha)	%
Grade 2	Very good quality	21.3	5
Subgrade 3a	Good quality	154.9	39
Subgrade 3b	Moderate quality	123.5	31
Grade 4	Poor quality	10.2	3
Non-agricultural		87.5	22
Total		397.4	100

Appendix 1: Laboratory Data

Particle Size Analysis



Organic Matter Class



Laboratory Data: Pits 1-14 (0-25 cm) yellow columns are arable fields, green columns are grass fields

Determinand	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Units
Sand 2-0.063 mm	79	63	67	17	63	35	54	51	22	69	68	71	69	72	% w/w
Silt 0.063-0.002 mm	14	23	23	32	24	31	31	34	31	17	21	19	21	17	% w/w
Clay <0.002 mm	7	14	10	51	13	34	15	15	47	14	11	10	10	11	% w/w
Texture	Loamy sand	Sandy loam	Sandy loam	Organic clay	Sandy loam	Organic heavy clay loam	Sandy loam	Sandy loam	Clay	Sandy loam	Sandy loam	Sandy loam	Sandy loam	Sandy loam	
Soil pH	5.9	6.9	6.1	6.4	7.2	6.3	6.5	7.8	6.1	6.1	6.8	7.1	7.1	6.2	
Phosphorus (P) (ADAS index)	52.2 (4)	34.0 (3)	26.6 (3)	38.0 (3)	84.4 (5)	9.0 (0)	44.2 (3)	38.0 (3)	18.0 (2)	62.0 (4)	93.8 (5)	90.6 (5)	95.8 (5)	28.0 (3)	mg/l (av)
Potassium (K) (ADAS index)	101 (1)	164 (2-)	169 (2-)	111 (1)	230 (2+)	79.8 (1)	177 (2-)	173 (2-)	99.1 (1)	162 (2-)	497 (4)	438 (4)	463 (4)	83.4 (1)	mg/l (av)
Magnesium (Mg) (ADAS index)	74.9 (2)	109 (3)	95.2 (2)	199 (4)	115 (3)	130 (3)	108 (3)	74.5 (2)	334 (5)	119 (3)	193 (4)	178 (4)	184 (4)	104 (3)	mg/l (av)
Organic Matter	1.7	2.8	3.6	10.3	2.9	10.9	5.3	3.6	7.9	5.2	4.5	5.0	5.5	2.9	% w/w
Total Carbon	1.0	1.6	2.1	6.0	1.7	6.3	3.1	2.1	4.6	3.0	2.6	2.9	3.3	1.7	%
Total Nitrogen	0.20	0.19	0.28	0.89	0.20	0.73	0.43	0.32	0.55	0.32	0.28	0.30	0.33	0.19	% w/w
Organic Matter (SOM)	low	mod	mod	v. high	low	v. high	high	mod	v. high	high	high	high	high	low	SSEW ⁴

Particle size by Pipette method, Carbon by Skalar machine. Organic Matter = Total Organic Carbon /0.58. Reported on 30°C dry sample basis

Pit 14: Stone measurement

Location	sample	Gravimetric measurements (oven dry)				Hand	Measured	Measured	Volumetric calculations			Total
	depth	> 6cm	2-6cm	2mm-2cm	moisture	texture	<2mm density	stone density	>6cm	2-6cm	2mm-2cm	Total
	cm	% dry m/m					g / cm ³	g / cm ³	%	%	%	%
Pit	0-10		11.7	19.9	14.6	(o)mSL	0.91	2.39-2.45		5.5	9.4	15

Holes was 20 x 20 x 10cm deep = 4.0 litres

% stone weight is % of oven dry material (soil plus stone), moisture is % of <2mm oven dry soil

Subangular and subrounded siliceous stones, some light organic particles < 5mm

Appendix 2: Soil Profile Summaries and Calculations

Wetness / workability limitations are determined according to the methodology given in Appendix 3 of the ALC guidelines, MAFF 1988

Droughtiness calculations are made according to the methodology given in Appendix 4 of the ALC guidelines, MAFF 1988.

Grades are shown for drought (DR), wetness (WE) and any other soil or site factors which are relevant. The overall Grade is set by the most limiting factor and shown on the right.

Stone types			Climate Data			Wetness Class (WC) Guidelines										Climate	
%	TAv	EAv	MDwheat	116		SPL within 80cm, gleying within 40cm		>65cm		37-65cm		<37cm		1471 D°			
hard	1	0.5	MDpotato	111		SPL within 80cm, gleying at 40-70cm		>47cm		<47cm				Limitation			
N/A			FCD	138		No SPL but gleying within 40cm		coarse subsoil		I		other cases		II			
hard	flint & pebble		AAR	660		Maximum depth of auger penetration is <u>underlined</u>										Grade 1	
46 m																	
Site No.	Depth cm	Texture	CaCO ₃	Colour	Mottle colour	Abundance	Stone% hard	Stone% N/A	Structure	APwheat mm	AP potato mm	Gley	Slowly perm-eable	WC	Wetness grade (WE)	Final Grade	Limiting Factor(s)
1	T	0	30	SL	n	10YR3/3	12		-	45	45	n	n	/	1	3a	DR
		30	80	SCL	n	10YR3/4	15			52	52	n	n				
		<u>80</u>	120	SCL	n		15			34	0	n	n				
									Total	131	97						
									MB	15	-14						
Droughtiness grade (DR)										2	3a	ploughed and harrowed					
2	T	0	32	SL	n	10YR3/4	8		-	50	50	n	n	/	1	2	DR
		32	55	SCL	n	10YR3/6	5			31	33	n	n				
		55	100	SL	n	10YR3/6	3	Fe	many	48	22	n	n				
		<u>100</u>	120	LS	n	2.5Y5/4	2	Fe	many	12	0	y	n				
									Total	141	105						
Droughtiness grade (DR)										2	-6						
Droughtiness grade (DR)										2	2	ploughed and harrowed					
3	T	0	34	SL	n	10YR3/3	10		-	52	52	n	n	/	1	3a	DR
		34	90	SCL	n	10YR3/4	15			55	46	n	n				
		<u>90</u>	120	SCL	n		15			26	0	n	n				
									Total	133	99						
									MB	17	-12						
Droughtiness grade (DR)										2	3a	ploughed and harrowed					

4	T	0	32	SL	n	10YR3/3			15	-	47	47	n	n	/	1	3a	DR
		32	85	SCL	n	10YR3/4			17		52	48	n	n				
		85	120	SCL	n				15		30	0	n	n				
									Total		129	95						
									MB		13	-16						
									Droughtiness grade (DR)		2	3a			ploughed and harrowed			
5	T	0	20	SL	n	10YR3/4			15	-	29	29	n	n	/	1	3a	DR
		20	120	SCL					15		99	65	n	n				
									Total		128	94						
									MB		12	-17						
									Droughtiness grade (DR)		2	3a			wheat			
P10	T	0	25	SL	n	10YR3/3			15	-	37	37	n	n	/	1	3a	DR
		25	55	SL	n	10YR4/4, 10YR4/6			25		33	35	n	n				
		55	120	SC					15		56	19						
									Total		125	90						
									MB		9	-21						
									Droughtiness grade (DR)		2	3a			wheat			
6	T	0	29	mCL	n	10YR3/4, 2.5Y5/1	Fe, gr	v.many	0	-	52	52	y	n	IV	3b	3b	WE GW FL
		29	72	hCL	n	10YR3/6, 2.5Y5/1,	Fe, gr	v.many	2		55	64	y	n				
		72	115	C	n	10YR5/2	Mn, Fe	many	2	poor	30	0	y	y				
		115	120	MSt						poor	3	0		y				
									Total		139	117			WE.wetness due to groundwater grass for silage GW. WC IV (Table 11) FL.Flood Risk			
									MB		23	6						
									Droughtiness grade (DR)		2	2						
7	T	0	40	SL	n	10YR3/4			15	-	58	58	n	n	/	1	3a	DR
		40	120	SCL					15		73	39	n	n				
									Total		131	97						
									MB		15	-14						
									Droughtiness grade (DR)		2	3a			wheat			
8	T	0	40	hCL	n	10YR3/2			10	-	65	65	n	n	I-II	3a	3a	WE
		40	80	SCL	n	10YR5/3	Fe	v.many	10		41	41	y	n				

		<u>80</u>	120	Mst					8	poor	19	0	y				
									Total		125	106					
									MB		9	-5					
									Droughtiness grade (DR)		2	2	wheat				
9	T	0	32	hCL	n	10YR3/2			10	-	52	52	n	n	//	3a	3a WE
		<u>32</u>	120	SC	n		Fe		10		88	52	y	n			
									Total		140	104					
									MB		24	-7					
									Droughtiness grade (DR)		2	2	wheat				
10	T	<u>0</u>								-							
11	T	<u>0</u>								-							
12	T	<u>0</u>								-						3b	FL
13	T	0	21	hCL	n	10YR3/4	Fe, gr	v.many	0	-	38	38	(y)	n	IV	3b	3b WE FL
		21	90	C	n	2.5Y5/1	Fe	v.many	0	poor	66	64	y	y			
		<u>90</u>	120	MSt						poor	15	0	y				
									Total		118	102					
									MB		2	-10					
									Droughtiness grade (DR)		3a	2					
14	T	0	20	SCL	n	10YR3/4			15	-	29	29	n	n	/	2	3a DR
		<u>20</u>	120	SCL					15		99	65	n	n			
									Total		128	94					
									MB		12	-17					
									Droughtiness grade (DR)		2	3a	wheat				
15	T	0	40	SCL	n	10YR3/4			18	-	56	56	n	n	/	2	3a DR
		<u>40</u>	120	SCL					15		73	39	n	n			
									Total		129	95					
									MB		13	-16					
									Droughtiness grade (DR)		2	3a	wheat				
16	T	0	40	SCL	n	10YR3/2			18	-	56	56	n	n	/	2	3a DR

		<u>40</u>	120	SCL					15		73	39	n	n			
										Total	129	95					
										MB	13	-16					
										Droughtiness grade (DR)	2	3a		wheat			
17	T	<u>0</u>								-							
18	T	<u>0</u>								-							
19	T	0	22	hCL	n	10YR3/4	Fe, gr	v.many	0	-	40	40	(y)	n	IV	3b	3b WE FL
			22	70	C	n	2.5Y5/1	Fe	v.many	0	poor	50	62	y	y		
		<u>70</u>	120	MSt						poor	25	0		y			
										Total	115	102					
										MB	-1	-9					
										Droughtiness grade (DR)	3a	2					
20	T	0	35	hCL	n	10YR3/3			4	-	61	61	n	n	IV	3b	3b WE GW FL
			35	60	C	n	10YR3/4, 10YR5/2	Fe	com	5		31	38	y	n		
			60	105	C	n	10YR3/6, 10YR5/2	Fe	many	2	poor	31	13	y	y		
		<u>105</u>	120	C	n				10		11	0	y	n			
										Total	133	112					
										MB	17	1					
										Droughtiness grade (DR)	2	2					
21	T	<u>0</u>								-							
22	T	<u>0</u>								-							
23	T	<u>0</u>								-							
24	T	<u>0</u>								-							
25	T	<u>0</u>								-							
26	T	0	30	SL	n	10YR3/4			3	-	50	50	n	n	IV	3a	3b FL
			30	58	mCL	n	10YR3/4		5		38	43	n	n			
			58	110	hCL	n	10YR5/3	Fe, Mn	com	2	poor	36	14	y	y		
			110	120	hCL	n	10YR5/3	Fe, Mn	com	10		9	0	y	n		

										Total	132	106	WE.wetness due to groundwater					Grass for silage
										MB	16	-5	GW. WC IV (Table 11)					
Droughtiness grade (DR)											2	2	FL.Flood Risk					EAFz3 3b
27	T	0	30	SCL	n	10YR4/2			10	-	46	46	n	n	//	2	3a	DR
		30	120	SC	n		Fe		10		91	54	y	n				
										Total	137	101						
										MB	21	-10						
Droughtiness grade (DR)											2	3a	grass					
28	T	0								-								
29	T	0								-								
30	T	0								-								
31	T	0	30	ohCL	n	10YR3/3			0	-	84	84	n	n	IV	3b	3b	WE GW FL
		30	60	C	n	10YR4/4, 10YR5/2	Fe	com	0		40	48	y	n				
		65	115	C	n	10YR4/6, 10YR5/2	Fe,gr,br	many	0	poor	35	7	y	y				
		115	120	MSt	n					poor	3	0		y				
										Total	162	139	WE.wetness due to groundwater					grass
										MB	46	28	GW. WC IV (Table 11)					
Droughtiness grade (DR)											1	1	FL.Flood Risk					EAFz3 3b
P6	T	0	25	ohCL	n	10YR3/3	Fe	many	0	-	70	70	y	n	IV	3b	3b	WE GW FL
		25	40	C	n	10YR5/2	Fe	v.many	0		24	24	y	n				
		40	60	C	n	10YR6/2	Fe, gr, Mn	v.many	0		24	32	y	n				
		60	120	C	n	2.5Y5/1	Fe, Mn, gr	v.many	0	poor	42	13	y	y				
										Total	160	139	WE.wetness due to groundwater					grass
										MB	44	28	GW. WC IV (Table 11)					
Droughtiness grade (DR)											1	1	FL.Flood Risk					EAFz3 3b
32	T	0	32	SL	n	10YR3/4			3	-	53	53	n	n	IV	3a	3a	WE GW FL
		32	65	hCL	n	10YR3/4, 10YR5/2	Fe,gr, Mn	com	5	m/poor	36	44	y	n				
		65	105	hCL	n	10YR5/2	Fe,gr, Mn	many	7	poor	26	6	y	y				

		<u>105</u>	120	MSt	n					poor	8	0		y				
										Total	123	103						
										MB	7	-8						
										Droughtiness grade (DR)	2	2						
P5	T	0	40	SL	n	10YR3/4			10	-	62	62	n	n	//	1	3a	FL
		40	60	mCL	n	10YR3/4			10		24	29	n	n				
		60	105	mCL	n	10YR5/6			0		45	16	n	n				
		105	120	SCL	n	10YR5/8			8		14	0	n	n				
										Total	144	107						
										MB	28	-4						
										Droughtiness grade (DR)	2	2						
33	T	<u>0</u>								-								
34	T	0	32	mCL	n	10YR3/2	Fe	com	0	-	58	58	(y)	n	IV	3b	3b	WE FL
		32	92	C	n	10YR5/3	Fe, Mn	many	0	poor	53	49	y	y				
		<u>92</u>	120	MSt	n					poor	14	0		y				
										Total	124	107						
										MB	8	-4						
										Droughtiness grade (DR)	2	2						
35	T	<u>0</u>								-								
36	T	<u>0</u>								-								
P11	T	0	25	SL	n	10YR3/3			15	-	37	37	n	n	/	1	3a	DR
		25	60	SCL	n	10YR4/4, 10YR4/6			20		39	43	n	n				
		60	90	SC	n	10YR4/6			20		24	12	n	n				
		<u>90</u>	120	SC					20		24	0	n	n				
										Total	124	91						
										MB	8	-20						
										Droughtiness grade (DR)	2	3a						
37	T	<u>0</u>								-								
38	T	<u>0</u>								-								
39	T	<u>0</u>								-								

40	T	0	31	ohCL	n	10YR3/2			0	-	87	87	n	n	IV	3b	3b	WE GW FL	
		31	52	C	n	10YR4/4, 10YR5/2	Fe,gr	com	0		32	34	y	n					
		52	110	C	n	10YR6/1	Fe,gr,br	many	0	poor	41	23	y	y					
		110	120	MSt	n					poor	5	0		y					
												Total	164	144	WE.wetness due to groundwater grass				
												MB	48	33	GW. WC IV (Table 11)				
	Droughtiness grade (DR)											1	1	FL.Flood Risk		EAFz3	3b		
41	T	0	40	SL	n	10YR3/4			3	-	66	66	n	n	IV	3a	3a	FL GW	
		40	80	hZCL	n	10YR3/4, 10YR5/2	Fe,gr, Mn	com	5		45	49	y	n					
		80	100	hZCL	n	10YR5/2	Fe,gr, Mn	many	6	poor	11	0	y	y					
		100	120	MSt	n					poor	10	0		y					
												Total	132	115	WE.wetness due to groundwater Grass for silage				
												MB	16	4	GW. WC IV (Table 11)				
	Droughtiness grade (DR)											2	2	FL.Flood Risk		EAFz2	3a		
42	T	0	30	oC	n	10YR3/4	Fe	com	0	-	69	69	(y)	n	IV	4	4	WE	
		30	85	C	n	10YR4/3, 10YR4/1	Fe, gr	many	0	poor	51	52	y	y					
		85	120	MSt						poor	18	0		y					
													Total	137	121	Cattle grazing			
												MB	21	10	FL.Flood Risk		EAFz3		
	Droughtiness grade (DR)											2	1						
	P4	T	0	35	oC	n	10YR3/1	Fe	v.many	2	-	79	79	(y)	n	IV	4	4	WE
35			120	C	n	2.5Y4/1	Fe	v.many	2	poor	67	45	y	y					
											Total	146	124	Cattle grazing					
											MB	30	13	FL.Flood Risk		EAFz3			
Droughtiness grade (DR)											1	1							
43		T	0	40	SCL	n	10YR3/2			8	-	63	63	n	n	III	3a	3a	WE FL
			40	105	hSCL	n	10YR5/3	br,Fe,gr	many	8		65	42	y	n				
	105		115	SC	n	10YR5/1	Fe	v.many	15		9	0	y	n					

115	120	MSt								poor	3	0		y				
										Total	139	105			WE.wetness due to groundwater			
										MB	23	-6			GW. WC III (Table 11)-Edge of FZ3 strongly mottled			
										Droughtiness grade (DR)	2	2			FL.Flood Risk	EAFz2	3a	
44	T	0								-								
45	T	0								-								
46	T	0								-								
47	T	0								-								
48	T	0								-								
49	T	0	33	hCL	n	10YR4/3			6	-	56	56	n	n	IV	3b	3b	WE
		33	120	C	n	2.5Y5/4, 2.5Y6/2	Fe,br,gr	v.many	2	poor	70	47	y	y				
										Total	126	103						
										MB	10	-8						
										Droughtiness grade (DR)	2	2			wheat			
50	T	0	40	hCL	n	10YR3/3			3	-	70	70	n	n	III	3b	3b	WE
		40	120	C	n	10YR4/4, 2.5Y6/2	Fe,gr,br	v.many	0	poor	62	39	y	y				
										Total	132	109						
										MB	16	-2						
										Droughtiness grade (DR)	2	2			grass			
51	T	0	24	C	n	10YR3/3			0	-	41	41	n	n	IV	3b	3b	WE GW FL
		24	65	C	n	10YR4/4, 10YR5/2	Fe	com	0		54	66	y	n				
		65	100	C	n	10YR6/1	Fe,gr,br	v.many	0	poor	25	7	y	y				
		100	120	MSt	n					poor	10	0		y				
										Total	129	113			WE.wetness due to groundwater			grass
										MB	13	2			GW. WC IV (Table 11)			
										Droughtiness grade (DR)	2	2			FL.Flood Risk	EAFz3	3b	
52	T	0								-								
53	T	0								-								
54	T	0								-								
55	T	0								-								
56	T	0								-								

57	T	0	45	SCL	n	10YR3/3			3	-	74	74	n	n	///	3a	3a	WE
		45	120	C	n	10YR4/4, 10YR6/2	Fe,gr,br	v.many	2	poor	54	32	y	y				
										Total	129	106						
										MB	13	-5						
										Droughtiness grade (DR)	2	2		wheat				
58	T	0	35	hCL	n	10YR3/3			3	-	61	61	n	n	IV	3b	3b	WE
		35	120	C	n	10YR4/4, 2.5Y6/2	Fe,gr,br	v.many	2	poor	67	45	y	y				
										Total	128	106						
										MB	12	-5						
										Droughtiness grade (DR)	2	2		grass				
59	T	0	31	hCL	n	10YR3/3			5	-	53	53	n	n	///	3b	3b	WE GW FL
		31	60	hCL	n	10YR3/2			5		39	44	n	n				
		60	120	hSCL	n	2.5Y5/4, 2.5Y6/2	Fe,gr, Mn,br	v.many	5	m/poor	51	13	y	n				
										Total	143	111						
										MB	27	0						
60	T	0	16	C	n	10YR3/2			0	-	27	27	n	n	IV	3b	3b	WE GW FL
		16	40	C	n	10YR5/3	Fe	com	2		38	38	y	n				
		40	120	C	n	10YR5/3	Fe,br,Mn	v.many	5	poor	59	37	y	y				
										Total	124	102						
										MB	8	-9						
61	T	0	26	oC	n	10YR2/1			0	-	60	60	(y)	n	IV	4	4	WE GW
		26	55	C	n	10YR3/1, 10YR5/2	Fe	com	0		42	46	y	n				
		55	100	C	n	2.5Y3/1, 10YR5/2	Fe	many	0	poor	32	20	y	y				
		100	120	Mst						poor	10	0		y				
										Total	144	126						
										MB	28	15						
										Droughtiness grade (DR)	2	1						

62	T	0								-							
63	T	0								-							
64	T	0	35	SL	n	10YR3/3		6	-	56	56	n	n	/	1	3a	DR
		35	53	LS	n	10YR3/4		8		14	15	n	n				
		53	120	S	n	10YR5/8		4		32	11	n	n				
									Total	103	83						
									MB	-13	-28						
									Droughtiness grade (DR)	3a	3a		wheat				
P14	T	0	30	SL	n	10YR3/3		8	-	47	47	n	n	/	1	3a	DR
		30	60	SL	n	10YR4/3		8		38	42	n	n				
		60	85	S	n	10YR6/4	Fe	com	2	12	7	y	n				
		85	115	LS	n	10YR6/6, 5YR4/6	Fe	many	0	18	0	n	n				
		115	120	SC	n	2.5Y6/4		0		5	0	n	n				
									Total	120	96						
									MB	4	-15						
									Droughtiness grade (DR)	3a	3a		wheat				
65	T	0	37	SCL	n	10YR3/3		3	-	61	61	n	n	///	3a	3a	WE
		37	120	C	n	10YR4/4, 10YR6/2	Fe,gr,br	v.many	0	poor	66	43	y	y			
									Total	127	104						
									MB	11	-7						
									Droughtiness grade (DR)	2	2		wheat				
66	T	0	20	hCL	n	10YR3/3		5	-	34	34	n	n	//	3a	3a	WE GW
		20	55	hCL	n	10YR3/2		5		51	53	n	n				
		55	120	hSCL	n	2.5Y5/4, 2.5Y6/2	Fe,gr, Mn,br	v.many	5	m/poor	56	20	y	n			
									Total	141	108			Signs of fluctuating GW at depth		Grass	
									MB	25	-3			GW.WCII			
									Droughtiness grade (DR)	2	2						
67	T	0							-								
68	T	0							-								
69	T	0							-								
70	T	0							-								

71	T	0	38	SL	n	10YR3/3			8	-	60	60	n	n	/	1	3a	DR
		38	60	LS	n	10YR3/4			8		16	18	n	n				
		60	120	S	n	10YR5/8			4		29	7	n	n				
										Total	104	85						
										MB	-12	-26						
										Droughtiness grade (DR)	3a	3a		wheat				
72	T	0	42	SL	n	10YR3/3			8	-	66	66	n	n	///	2	3a	DR
		42	100	SC	n	10YR4/2	Fe,Mn	many	8	poor	47	34	y	y				
		100	120	C	n	2.5Y5/4, 2.5Y6/2	gr, br, Fe	v.many	5	poor	13	0	y	y				
										Total	126	100						
										MB	10	-11						
										Droughtiness grade (DR)	2	3a		grass				
73	T	0	22	SZL	n	10YR3/4			5	-	40	40	n	n	/	1	2	DR
		22	80	mCL	n	2.5Y4/2			8		69	71	n	n				
		80	120	mCL	n	2.5Y4/2			15		34	0						
										Total	143	111			Edge of FZ2-no mottling			
										MB	27	0			Grass			
										Droughtiness grade (DR)	2	2						
74	T	0	20	C	n	10YR3/2	Fe, gr	many	2	-	33	33	(y)	n	IV	3b	3b	WE FL
		20	105	C	n	10YR5/2	Mn, Fe	v.many	2	poor	76	64	y	y				
		105	120	Mst	n					poor	8	0		y				
										Total	117	97			grass			
										MB	1	-14			FL.Flood Risk			
										Droughtiness grade (DR)	3a	3a						
75	T									-								
76	T	0								-								
77	T	0								-								
78	T	0								-								
79	T	0	50	SL	n	10YR3/3			8	-	79	79	n	n	///	2	2	WE DR
		50	100	SC	n	10YR4/2	Fe, Mn	many	8	poor	37	24	y	y				

		100	120	C	n	2.5Y5/4, 2.5Y6/2	gr, br, Fe	v.many	5	poor	13	0	y	y						
											Total	129	103							
											MB	13	-8							
Droughtiness grade (DR)											2	2	grass							
80	T	0	30	C	n	10YR4/2	Fe	many	2	-	50	50	y	n	IV	3b	3b	WE FL		
		30	110	C	n	2.5Y4/4, 5Y4/1	Fe,Mn, br,gr	v.many	2	poor	67	51	y	Y						
		110	120	MSt	n						poor	5	0	Y						
													Total	122	101	Rough land				
													MB	6	-10	FL.Flood Risk				EAFz3
Droughtiness grade (DR)											2	2								
81	T	0	32	SL	n	10YR3/3			7	-	51	51	n	n	III	2	2	WE DR		
		30	65	SCL	n	10YR6/3	Mn,Fe,br	com	3		44	51	y	n						
		65	120	C	n	10YR5/3	Fe,gr,br	v.many	0	poor	39	7	y	y						
													Total	133	108					
													MD	17	-3					
Droughtiness grade (DR)											2	2	ploughed							
P7	T	0	25	SL	n	10YR3/4			3	-	41	41	n	n	III	3a	3b	FL		
		25	60	hZCL	n	10YR5/2			10		48	54	n	n						
		60	120	C	n	2.5Y6/2	Fe, gr, Mn	v.many	15		41	14	y	n						
													Total	130	109	WE.wetness due to groundwater				grass
													MB	14	-2	GW. WC III (Table 11)				
Droughtiness grade (DR)											2	2	FL.Flood Risk					EAFz3	3b	
82	T	0	31	SL	n	10YR4/3			0	-	53	53	n	n	IV	3a	3b	FL		
		31	70	hCL	n	10YR5/3	Mn, Fe	com	0		50	62	y	n						
		70	115	C	n	10YR5/2	Fe, Mn	com	0	m/poor	34	0	y	n						
		115	120	MSt							poor	3	0	y						
													Total	139	115	WE.wetness due to groundwater				grass
											MB	23	4	GW. WC IV (Table 11)						
Droughtiness grade (DR)											2	2	FL.Flood Risk					EAFz3	3b	
83	T	0	20	C	n	10YR3/4			0	-	34	34	n	n	IV	3b	3b	WE GW FL		

		20	55	C	n	10YR3/3, 10YR5/2	Fe	many	0		52	56	y	n				
		55	105	C	n	10YR5/2	Fe, gr	v.many	0	poor	35	20	y	y				
		105	120	Mst	n					poor	8	0		y				
											Total	128	110	WE.wetness due to groundwater				grass
											MB	12	-2	GW. WC IV (Table 11)				
Droughtiness grade (DR)											2	2	FL.Flood Risk				EAFz3	3b
84	T	0																-
P12	T	0	10	SL	n	10YR3/2			15	-	15	15	n	n	/	1	3a	DR
	T	10	40	SL	n	10YR3/2			20		41	41	n	n				
		40	120	SCL	n				20		69	37	n	n				
											Total	125	93					
											MB	9	-18					
Droughtiness grade (DR)											2	3a	grass					
85	T	0																-
86	T	0																-
87	T	0																-
88	T	0																-
89	T	0	32	hCL	n	10YR3/3			8	-	53	53	n	n	//	3a	3a	WE GW
		32	50	hCL	n	10YR4/3			8		27	27	n	n				
		50	120	hSCL	n	2.5Y5/4, 2.5Y6/2	Mn,Fe,br	many	5	m/poor	60	27	y	n				
											Total	140	107	Signs of fluctuating GW at depth				grass
											MB	24	-4	GW.WCII				
Droughtiness grade (DR)											2	2						
90	T	0	38	LS	n	10YR3/4			8	-	46	46	n	n	/	1	3b	DR
		30	70	LS	n	10YR5/6			8		28	33	n	n				
		70	120	hSCL	n	10YR5/2	Fe,gr,br	many	5		48	0	y	n				
											Total	121	79					
											MD	5	-32					
Droughtiness grade (DR)											2	3b	ploughed					
91	T	0	31	hCL	n	10YR3/3			8	-	52	52	n	n	/V	3b	3b	WE

		31	120	C	n	2.5Y4/4, 5Y4/1	Fe,Mn, br,gr	v.many	0	poor	74	51	y	y				
										Total	125	102						
										MB	9	-9						
										Droughtiness grade (DR)	2	2		ploughed				
92	T	0	32	hCL	n	10YR3/4			5	-	55	55	n	n	IV	3b	3b	WE
		32	120	C	n	10YR5/4, 10YR6/1	Fe,br,gr	v.many	0	poor	72	49	y	y				
										Total	127	104						
										MB	11	-7						
										Droughtiness grade (DR)	2	2		ploughed				
P1	T	0	40	LS	n	10YR3/2			10	-	47	47	n	n	I	1	3b	DR
		40	60	LS	n	10YR6/6			15		13	16	n	n				
		60	100	S	n	10YR5/8			5		19	7	n	n				
		100	120	S	n						10	0	n	n				
										Total	89	70						
										MB	-27	-42						
										Droughtiness grade (DR)	3b	3b		harrowed				
93	T	0	35	SL	n	10YR3/4			8	-	55	55	n	n	IV	3a	3b	FL
		35	98	SCL	n	10YR3/4, 10YR5/3	Fe,br	v.many	15		61	45	y	n				
		98	120	MSt	n					poor	11	0		y				
										Total	127	100		WE.wetness due to groundwater				
										MB	11	-11		GW. WC IV (Table 11)				
										Droughtiness grade (DR)	2	3a		FL.Flood Risk		EAFz3	3b	
94	T	0	28	SCL	n	10YR4/2			3	-	46	46	n	n	IV	3b	3b	WE FL
		28	110	C	n	2.5Y5/3	Mn,Fe, grey	v.many	3	poor	69	53	y	y				
		110	120	MSt						poor	5	0		y				
										Total	120	99		grass				
										MB	4	-12		FL.Flood Risk				
										Droughtiness grade (DR)	3a	3a						
P9	T	0	25	C	n	7.5YR4/6	Fe	v.many	2	-	42	42	(y)	n	IV	3b	3b	WE FL
		25	110	SC	n	2.5Y5/1	Fe	v.many	2	poor	79	57	y	y				

		110	120	SC	n	10YR5/2	Fe	v.many	2	poor	8	0	y	y					
										Total	129	99	Grass						
										MB	13	-12	FL.Flood Risk				EAFz3	3b	
										Droughtiness grade (DR)		2	3a						
95	T	0	8	oC	n	10YR2/2			0	-	18	18	n	n	IV	4	4	WE	
		8	100	C	n	10YR5/1	Fe,br	v.many	0	poor	90	81	y	y					
		100	120	MSt	n					poor	10	0		y					
										Total	118	99	grass						
										MB	2	-12	FL.Flood Risk				EAFz3		
										Droughtiness grade (DR)		3a	3a						
96	T	0	23	C	n	10YR3/3	Fe	com	0	-	39	39	(y)	n	IV	3b	3b	WE FL	
		23	105	C	n	10YR3/4, 7.5YR4/1	Fe, Mn, gr	v.many	0	poor	74	61	y	y					
		105	120	MSt						poor	8	0		y					
										Total	120	100	Grass						
										MB	4	-11	FL.Flood Risk				EAFz3	3b	
										Droughtiness grade (DR)		3a	3a						
97	T	0																	
98	T	0																	
99	T	0																	
100	T	0																	
101	T	0	30	SCL	n	2.5Y3/3			8	-	47	47	n	n	II	2	3a	DR	
		30	50	SCL	n	2.5Y4/3			8		28	28	n	n					
		50	110	SC	n	10YR5/2	Fe,gr,br	v.many	5	poor	46	25	y	y					
		110	120	MSt	n					poor	5	0		y					
										Total	126	100							
										MD	10	-11							
										Droughtiness grade (DR)		2	3a	ploughed					
102	T	0	36	C	n	2.5Y5/1	Fe	v.many	3	-	59	59	y	n	IV	3b	3b	WE FL	
		36	65	C	n	2.5Y4/3, 2.5Y5/1	Fe,gr	v.many	3	poor	28	37	y	y					

		65	105	C	n	2.5Y5/1	Fe	many	6	m/poor	28	7	y	y						
		105	120	MSt	n					poor	8	0		y						
											Total	123	103	Grass						
											MB	7	-8	FL.Flood Risk					EAFz3	3b
Droughtiness grade (DR)											2	2								
103	T	0	28	hCL	n	10YR3/3	Fe	com	3	-	49	49	y	n	IV	3b	3b	WE GW FL		
		28	55	hCL	n	10YR3/4, 10YR5/2	Fe	com	3		39	42	y	n						
		55	80	hCL	n	10YR3/4, 10YR5/2	Fe	com	10		23	22	y	n						
		80	120	MSt						poor	20	0		y						
											Total	131	113	WE.wetness due to groundwater						
											MB	15	2	GW. WC IV (Table 11)						
Droughtiness grade (DR)											2	2	FL.Flood Risk					EAFz3	3b	
104	T	0																		
P13	T	0	26	SL	n	10YR3/3			10	-	40	40	n	n	/	1	3a	DR		
		26	50	SL	n	10YR4/3			10		33	33	n	n						
		50	90	LS	n	10YR4/6			15		21	16	n	n						
		90	120	SCL					15		26	0								
											Total	119	88							
											MB	3	-23							
Droughtiness grade (DR)											3a	3a	grass for grazing							
105	T	0																		
106	T	0																		
107	T	0	40	LS	n	2.5Y3/3			8	-	48	48	n	n	/	1	3b	DR		
		40	80	S	n	2.5Y4/4			40		14	14	n	n						
		80	120	S	n				50		11	0	n	n						
											Total	73	62							
											MD	-43	-49							
Droughtiness grade (DR)											3b	3b	ploughed							
108	T	0	30	SCL	n	10YR3/4	Fe	com	8	-	47	47	y	n	IV	3b	3b	WE		
		30	120	C	n	10YR5/4, 10YR6/1	Fe,br,gr	v.many	5	poor	72	50	y	y						

										Total	119	97						
										MB	3	-14						
										Droughtiness grade (DR)		3a	3a	ploughed				
109	T	0	32	mCL	n	10YR3/4			2	-	57	57	n	n	IV	3b	3b	WE
		32	58	C	n	10YR4/4, 10YR5/2	gr,Fe,Mn	many	3	poor	28	33	y	y				
		58	90	hCL	n	10YR4/4, 10YR5/2	Fe,gr	many	30		23	14	y	n				
		90	120	MSt	n					poor	15	0		y				
										Total	123	103	To be ploughed					
										MB	7	-8	FL.Flood Risk EAFz2					
										Droughtiness grade (DR)		2	2					
110	T	0	15	C	n	10YR3/2	Fe	many	0	-	26	26	y	n	IV	3b	3b	WE FL
		15	60	C	n	10YR4/3, 2.5Y5/1	Fe,gr	v.many	0	poor	53	59	y	y				
		60	87	C	n	10YR5/2	Fe	many	0		22	16	y	n				
		87	105	SZL	n	10YR5/2			40		12	0	y	n				
		105	120	MSt	n					poor	8	0		y				
										Total	119	100	Grass					
										MB	3	-11	FL.Flood Risk EAFz3 3b					
										Droughtiness grade (DR)		3a	3a					
111	T	0	20	SL	n	10YR3/4			4	-	33	33	n	n	IV	3a	3b	FL
		20	34	mCL	n	10YR5/4			10		20	20	n	n				
		34	61	hCL	n	10YR5/2	Fe	many	10		33	39	y	n				
		61	120	SC		10YR5/2	Fe	many	40		37	8	y	n				
										Total	123	101	WE.wetness due to groundwater					
										MB	7	-10	GW. WC IV (Table 11)					
										Droughtiness grade (DR)		2	3a	FL.Flood Risk EAFz3 3b				
112	T	0	12	oC	n	10YR3/3	Fe,gr	many	0	-	28	28	y	n	IV	4	4	WE
		12	58	C	n	10YR5/3, 10YR5/1	Fe,gr, Mn,br	v.many	0	poor	55	60	y	y				
		58	92	C	n	10YR6/1	Fe,gr, Mn,br	v.many	0	poor	24	16	y	y				

92 120 SCL

28 0 n n

Total 134 103
MB 18 -8

willow tree plantation
FL.Flood Risk EAFz3 3b

Droughtiness grade (DR) 2 2

113 T 0

-

114 T 0

-

115	T	0	30	SL	n	10YR3/2	8	-	47	47	n	n	/	1	3a	DR
		30	50	SL	n	10YR4/3	10		27	27	n	n				
		50	90	LS	n	10YR4/6	15		21	16	n	n				
		90	120	SCL			15		26	0	n	n				

Total 121 90
MB 5 -21

Droughtiness grade (DR) 2 3a grass

116 T 0

-

117	T	0	40	SL	n	10YR3/3	8	-	63	63	n	n	/	1	3a	DR
		40	53	LS	n	2.5Y4/4	5		10	11	n	n				
		53	110	LS	n	2.5Y5/3	8		32	14	n	n				
		110	120	C	n	2.5Y6/2	gr,Fe	v.many	0	poor	7	0	y	y		

Total 112 88
MB -4 -23

Droughtiness grade (DR) 3a 3a ploughed

118	T	0	35	SZL	n	10YR5/4	0	-	67	67	n	n	/	1	2	DR
		35	90	SC	n	10YR4/3	20		51	43	n	n				
		90	110	SC	n	10YR5/8	25		15	0	n	n				
		110	120	SC	n	10YR5/8	25		8	0	n	n				

Total 140 109
MB 24 -2

Droughtiness grade (DR) 2 2

P8	T	0	28	SL	n	10YR3/4	8	-	44	44	n	n	///	2	3a	FL
		28	42	SCL	n	10YR3/4, 10YR5/3	Fe	many	0	21	21	y	n			

		42	60	SCL	n	10YR4/3, 10YR5/3	Fe	v.many	0		22	27	y	n				
		60	85	hSCL	n	10YR4/4, 10YR5/3	Fe	v.many	15		21	13	y	n				
		85	120	hSCL			Fe	v.many	15		30	0	y	n				
										Total	138	105	WE.wetness due to groundwater					
										MB	22	-6	GW. WC III (Table 11)-Edge of functional floodplain					
Droughtiness grade (DR)										2	2	FL.Flood Risk EAFz2 3a						
119	T	0	8	hCL	n	10YR3/2	Fe,gr	v.many	0	-	14	14	(y)	n	IV	3b	3b	WE GW FL
		8	25	hCL	n	2.5Y4/1	gr,Fe	v.many	3		26	26	y	n				
		25	49	hCL	n	2.5Y6/2	gr,Fe	v.many	3		37	37	y	n				
		49	60	SCL	n	2.5Y5/1	gr,Fe	v.many	40		7	10	y	n				
		60	120	SCL			gr,Fe	v.many	40		37	9	n	n				
										Total	122	98	WE.wetness due to groundwater					
										MB	6	-13	GW. WC IV (Table 11)					
Droughtiness grade (DR)										2	3a	FL.Flood Risk EAFz3 3b						
120	T	0	25	mCL	n	10YR3/2			2	-	44	44	n	n	IV	3b	3b	WE GW FL
		25	40	mCL	n	10YR3/4			10		22	22	n	n				
		40	61	hCL	n	10YR5/2	Fe, gr	v.many	10		24	30	y	n				
		61	120	SC			Fe, gr	v.many	40		37	8	y	n				
										Total	127	105	WE.wetness due to groundwater					
										MB	11	-6	GW. WC IV (Table 11)					
Droughtiness grade (DR)										2	2	FL.Flood Risk EAFz3 3b						
121	T	0																
122	T	0	28	SL	n	10YR3/2			5	-	45	45	n	n	/	1	3a	DR
		28	40	SCL	n	10YR4/2			5		17	17	n	n				
		40	90	LS	n	10YR4/6			15		29	23	n	n				
		90	120	SCL					15		26	0	n	n				
										Total	117	86						
										MB	1	-25						
Droughtiness grade (DR)										3a	3a	grass						

123	T	0	32	SL	n	10YR3/3			5	-	52	52	n	n	/	1	2	DR	
		32	78	SL	n	10YR6/6			3		56	55	n	n					
		78	120	C	n	2.5Y6/2	Fe,gr,br	v.many	2	poor	29	0	y	y					
											Total	137	107						
									MB	21	-4								
Droughtiness grade (DR)											2	2	ploughed						
124	T	0	38	SL	n	10YR3/3			3	-	63	63	n	n	/	1	2	DR	
		38	75	SL	n	10YR5/2			10		41	44	n	n					
		75	120	S	n	10YR5/4	Fe	com	3		22	0	n	n					
											Total	126	106						
									MB	10	-5								
Droughtiness grade (DR)											2	2	ploughed						
125	T	0	30	SL	n	10YR3/3			8	-	47	47	n	n	/	1	2	DR	
		30	45	SL	n	10YR3/3			8		21	21	n	n					
		45	60	SCL	n	2.5Y5/4	Fe,br	many	5		17	21	(y)	n					
		60	120	hZCL	n	10YR5/8, 2.5Y6/2	Fe,br	v.many	5	m/poor	46	14	y	n					
									Total	130	103								
									MB	14	-8								
Droughtiness grade (DR)											2	2	ploughed						
126	T	0	32	SL	n	10YR3/3			4	-	52	52	n	n	/	1	2	DR	
		32	110	SCL	n	10YR4/4			5		83	54	n	n					
		110	120	LS	n	10YR3/6			8		6	0	n	n					
											Total	141	107						
									MB	25	-4								
Droughtiness grade (DR)											2	2	grass						
127	T	0	28	C	n	10YR3/3	Fe, gr	many	0	-	48	48	(y)	n	/V	3b	3b	WE GW FL	
		28	55	C	n	10YR3/4, 10YR5/2	Fe, Mn	many	0		39	43	y	n					
		55	105	C	n	10YR3/4, 10YR5/2	Fe, gr	v.many	2	poor	34	19	y	y					
		105	120	MSt						poor	8	0		y					

										Total	129	110	WE.wetness due to groundwater					
										MB	13	-1	GW. WC IV (Table 11)					
										Droughtiness grade (DR)	2	2	FL.Flood Risk		EAFz3	3b		
128	T	0	8	mCL	n	10YR3/2	Fe	com	0	-	14	14	y	n	IV	3b	3b	WE FL
	T	8	35	mCL	n	10YR3/2, 10YR4/1	Fe,gr	v.many	0		49	49	y	n				
		35	80	C	n	10YR3/4, 10YR5/3	Fe,br	v.many	0	poor	41	46	y	y				
		80	120	MSt						poor	20	0	n	y				
										Total	124	109	Rushes in field					
										MB	8	-3	FL.Flood Risk		EAFz3	3b		
										Droughtiness grade (DR)	2	2						
129	T	0	32	SCL	n	10YR3/2			8	-	50	50	n	n	IV	3b	3b	WE GW FL
		32	45	hSCL	n	10YR5/3	Fe, gr	com	8		18	18	y	n				
		45	98	SCL		2.5Y6/2, 10YR4/3	Fe,br,gr	v.many	8	m/poor	46	32	y	n				
		98	105	SC		10YR6/2	Fe,gr	v.many	40		4	0	y	n				
		105	120	SC			Fe,gr	v.many	40		9	0	y	n				
										Total	128	101	WE.wetness due to groundwater					
										MB	12	-10	GW. WC IV (Table 11)					
										Droughtiness grade (DR)	2	3a	FL.Flood Risk		EAFz3	3b		
130	T	0	42	SL	n	10YR3/4			5	-	68	68	n	n	I	1	3a	DR
		42	110	LS	n	10YR5/6			8		40	23	n	n				
		110	120	hSCL	n	10YR5/8, 7.5YR5/8			15		9	0	n	n				
										Total	117	91						
										MB	1	-20						
										Droughtiness grade (DR)	3a	3a	maize					
P3	T	0	35	SL	n	10YR3/4			5	-	57	57	n	n	III	2	2	WE DR
		35	60	SL	n	2.5Y6/2	Fe	many	5		32	36	y	n				
		60	75	SCL	n	2.5Y6/2	Fe,Mn,gr	many	5		14	14	y	n				
		75	120	C	n	2.5Y6/2	Fe	v.many	3	poor	31	0	y	y				
										Total	134	107						

										MB	18	-4								
										Droughtiness grade (DR)		2	2	harrowed						
131	T	0	35	SL	n	10YR3/4			0	-	60	60	n	n	IV	3a	3a	WE		
											Fe,gr,br	v.many	2	poor					67	45
															Total	127			104	
												MB	11	-7						
										Droughtiness grade (DR)		2	2	wheat						
P2	T	0	28	SL	n	10YR3/3			12	-	42	42	n	n	IV	3a	3a	WE DR		
											2.5Y5/4, 10YR5/3	Mn,Fe	v.many	10					poor	33
		28	60	hSCL	n	2.5Y6/2	Fe	v.many	0	poor					42	13				y
										MB	1	-18								
										Droughtiness grade (DR)		3a	3a	harrowed						
132	T	0	32	SL	n	10YR3/3			3	-	53	53	n	n	I	1	3a	DR		
											32	37	SL	n					10YR3/4	Fe
		37	70	LS	n	10YR5/2			5	23					28	n				
											70	120	S	n					10YR5/4	Fe
										Total					107	88				
										MB	-9	-23								
										Droughtiness grade (DR)		3a	3a	ploughed						
133	T	0	28	SZL	n	10YR3/4			4	-	51	51	n	n	I	1	2	DR		
											28	65	mCL	n					10YR4/4	
		65	100	C	n	10YR3/6			4	27					8	n				
											100	120	C	n					10YR3/6	
										Total					142	116	Edge of FZ3. Not mottling in profile			
										MB	26	5								
										Droughtiness grade (DR)		2	2							
134	T	0	22	C	n	10YR3/3	Fe,gr	com	0	-	37	37	(y)	n	IV	3b	3b	WE GW FL		
											22	60	C	n					10YR3/4, 10YR5/2	Fe,Mn
		60	120	C	n	10YR3/4, 10YR5/2	Fe,gr	many	0	poor					42	13				

										MB	16	0	GW. WC IV (Table 11)						
										Droughtiness grade (DR)	2	2	FL.Flood Risk					EAFz3	3b
135	T	0	36	SCL	n	10YR5/2	Mn,Fe,gr	v.many	8	-	57	57	y	n	IV	3b	3b	WE GW FL	
		36	75	hSCL	n	10YR6/1	Fe, gr	v.many	8		43	47	y	n					
		75	80	SCL	n	10YR6/1, 2.5Y5/4	Fe,gr	v.many	25	m/poor	3	0	y	n					
		80	120	Mst					poor	20	0		y						
												Total	123	104	WE.wetness due to groundwater				
										MB	7	-7	GW. WC IV (Table 11)						
										Droughtiness grade (DR)	2	2	FL.Flood Risk					EAFz3	3b
136	T	0	42	SL	n	10YR3/4			5	-	68	68	n	n	/	1	2	DR	
		42	75	SL	n	10YR5/4			8		37	39	n	n					
		75	80	SC	n	10YR5/8			25		4	0	n	n					
		80	120	SC	n	10YR5/8			25		31	0	n	n					
												Total	139	107					
										MB	23	-4							
										Droughtiness grade (DR)	2	2	maize						
137	T	0	40	SL	n	10YR3/3			8	-	63	63	n	n	/	1	2	DR	
		40	65	SL	n	10YR3/4			8		29	35	n	n					
		65	105	SCL	n	10YR3/6			8		37	7	n	n					
		105	120	SC	n	10YR3/4	Fe	v.many	5	poor	11	0	(y)	y					
												Total	140	105					
										MB	24	-6							
										Droughtiness grade (DR)	2	2	ploughed						
138	T	0	42	SL	n	10YR3/4			5	-	68	68	n	n	/	1	3a	DR	
		42	80	LS	n	10YR5/6			8		23	23	n	n					
		80	85	LS	n	10YR5/6			25		2	0	n	n					
		85	120	LS	n	10YR5/6			25		16	0							
												Total	110	91					
										MB	-6	-20							
										Droughtiness grade (DR)	3a	3a	maize						
139	T	0	10	SCL	n	10YR3/3	Fe	com	2	-	17	17	(y)	n	IV	3b	3b	WE GW	

	T	10	38	SCL	n	2.5Y4/2	Fe	com	2		47	47	y	n				
		38	120	SCL	n	2.5Y6/4	Fe,br	v.many	2		86	47	y	n				
											Total	150	110	WE.wetness due to groundwater rushes				
											MB	34	-1	GW. WC IV (Table 11)- Rushes & strong mottling				
Droughtiness grade (DR)											1	2	FL.Flood Risk		EAFz2/3	3a		
140	T	0	32	SL	n	10YR3/4			15	-	47	47	n	n	/	1	3b	DR
		32	90	LS	n	10YR4/6			20		33	28	n	n				
		90	120	S	n	2.5Y6/6			5		14	0	n	n				
											Total	94	75					
											MB	-22	-36					
Droughtiness grade (DR)											3b	3b	grass					
141	T	0	32	SZL	n	10YR3/4			0	-	61	61	n	n	IV	3a	3b	FL
		32	80	hCL	n	10YR5/2	Fe, Mn	com	8		54	56	y	n				
		80	120	hZCL	n	10YR5/2	Fe,gr	v.many	5	poor	23	0	y	y				
											Total	138	117	WE.wetness due to groundwater grass				
											MB	22	6	GW. WC IV (Table 11)				
Droughtiness grade (DR)											2	2	FL.Flood Risk		EAFz3	3b		
142	T	0	20	SL	n	10YR4/3			5	-	32	32	n	n	III	2	3b	FL
		20	70	hCL	n	10YR3/4			10		62	73	n	n				
		70	120	hZCL	n	10YR5/2	Fe,gr	v.many	5	poor	29	0	y	y				
											Total	123	105	WE.wetness due to groundwater grass				
											MB	7	-6	GW. WC III (Table 11)-no shallow mottling				
Droughtiness grade (DR)											2	2	FL.Flood Risk		EAFz3	3b		
143	T	0	15	hCL	n	10YR3/2	Fe	com	2	-	26	26	(y)	n	IV	3b	3b	WE GW FL
		15	40	SCL	n	5Y4/1	Fe	many	2		37	37	y	n				
		40	78	SL	n	2.5Y5/2	Fe	many	2		45	44	y	n				
		40	120	C	n	5Y4/1	Fe	v.many	2	poor	61	0	y	y				
											Total	169	107	WE.wetness due to groundwater rushes				
											MB	53	-4	GW. WC IV (Table 11)				
Droughtiness grade (DR)											1	2	FL.Flood Risk		EAFz3	3b		

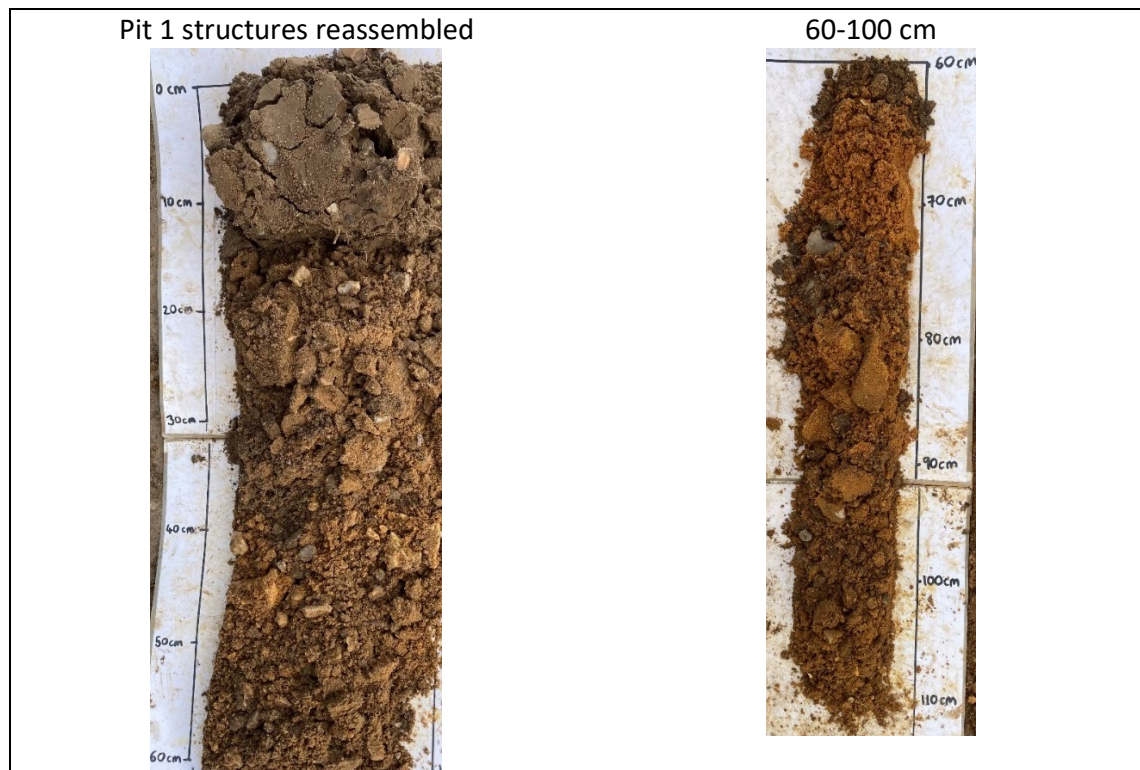
144	T	0	30	C	n	10YR3/4	Fe,gr	v.many	8	-	47	47	(y)	n	IV	3b	3b	WE FL
		30	85	C	n	2.5Y6/1	Fe,br	v.many	15	poor	43	45	y	y				
		85	120	MSt	n					poor	18	0		y				
										Total	108	92						
										MB	-8	-19						
Droughtiness grade (DR)											3a	3a						

Rushes		
FL.Flood Risk	EAFz3	3b

Appendix 3: Pit Descriptions and Photographs

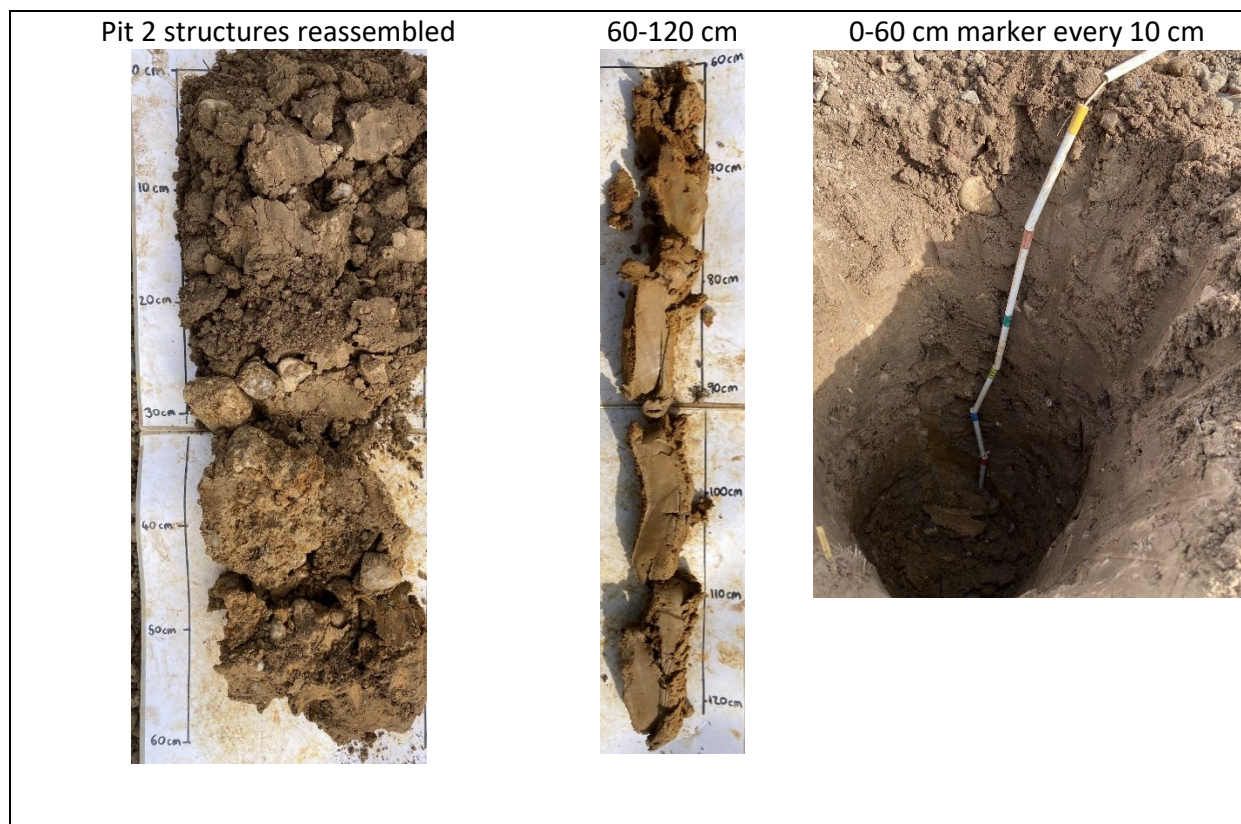
Pit 1	cm	Description (ploughed and harrowed)
Ap	0-20	Very dark greyish brown (10YR3/2) loamy sand, fine sized granulated peds that are loose and moderately developed with organic matter mixed with mineral matter, few roots throughout, non-calcareous, about 10% hard stones.
Bw	20-60	Brownish yellow (10YR6/6) loamy sand, small and medium-coarse subangular blocky structure, weakly developed with loose consistency, about 15% hard stones.
C	60-100	Yellowish brown (10YR5/8) sand, fine peds, weakly developed, loose consistency, about 5% hard stones.

Geology: River Terrace. ALC Subgrade 3b



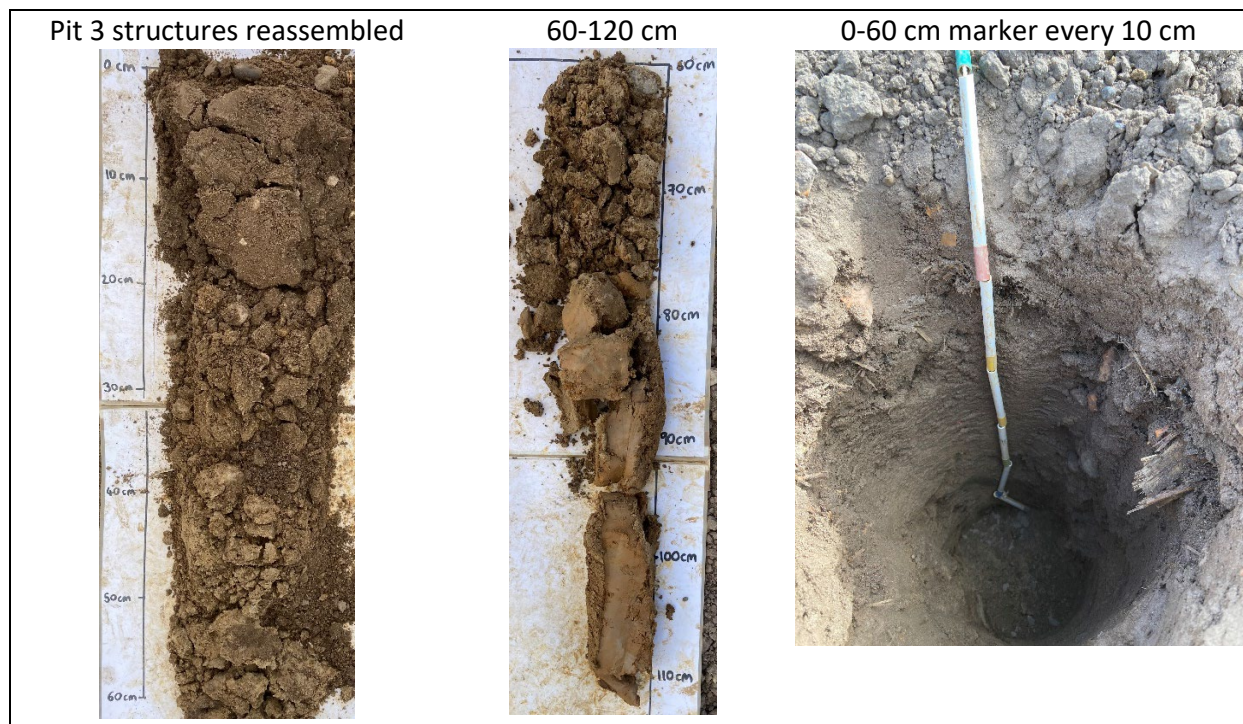
Pit 2	cm	Description (ploughed and harrowed)
Ap	0-28	Dark brown (10YR3/3) sandy loam, fine sized granulated peds and medium subangular peds that are loose and moderately developed; few roots throughout, non-calcareous, about 12% hard stones.
Bg	28-60	Light olive brown (2.5Y5/4) heavy sandy clay loam, iron mottles present that are yellowish brown (10YR5/8), manganese nodules, massive structure with firm consistence; about 10% hard stones.
Cg	60-120	Light brownish grey (2.5Y6/2) and strong brown (7.5YR5/8) clay, very many iron mottles present, massive consistency.

Geology: London Clay. ALC Subgrade 3b



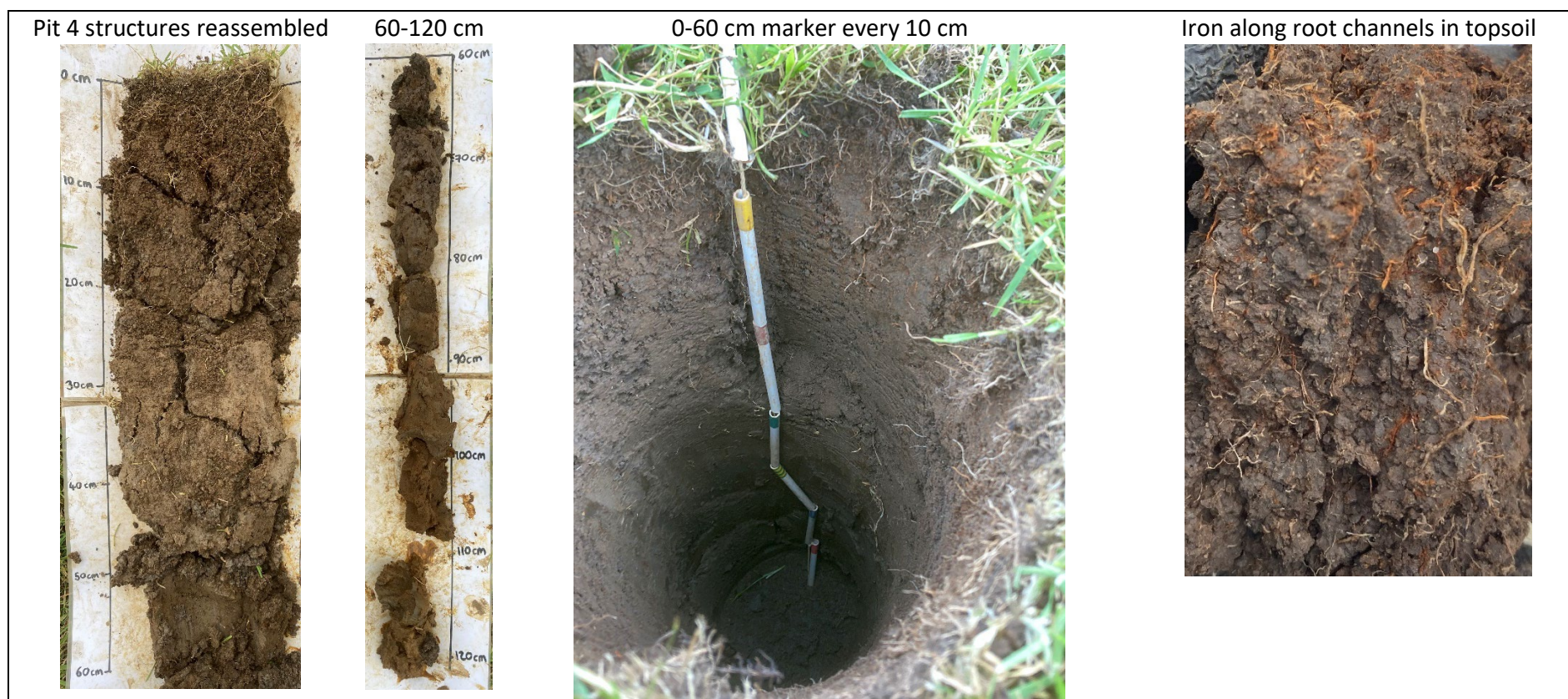
Pit 3	cm	Description (ploughed and harrowed)
Ap	0-35	Dark yellowish Brown (10YR3/4) sandy loam, fine sized granulated peds that are loose and well developed and medium subangular blocky peds; about 5% hard stones.
Bg(i)	35-60	Light yellowish brown (2.5Y6/2) sandy loam, loose moderate fine subangular blocky structure; many iron mottles present, about 5% hard stones.
Bg(ii)	60-75	Light yellowish brown (2.5Y6/2) and yellowish brown (10YR5/8) sandy clay loam, many iron mottles present and manganese nodules about 5% hard stones.
Cg	75-120	Light yellowish brown (2.5Y6/2) and yellowish brown (10YR5/8) clay, very many iron mottles present, about 3% hard stones.

Geology: London Clay ALC Grade 2



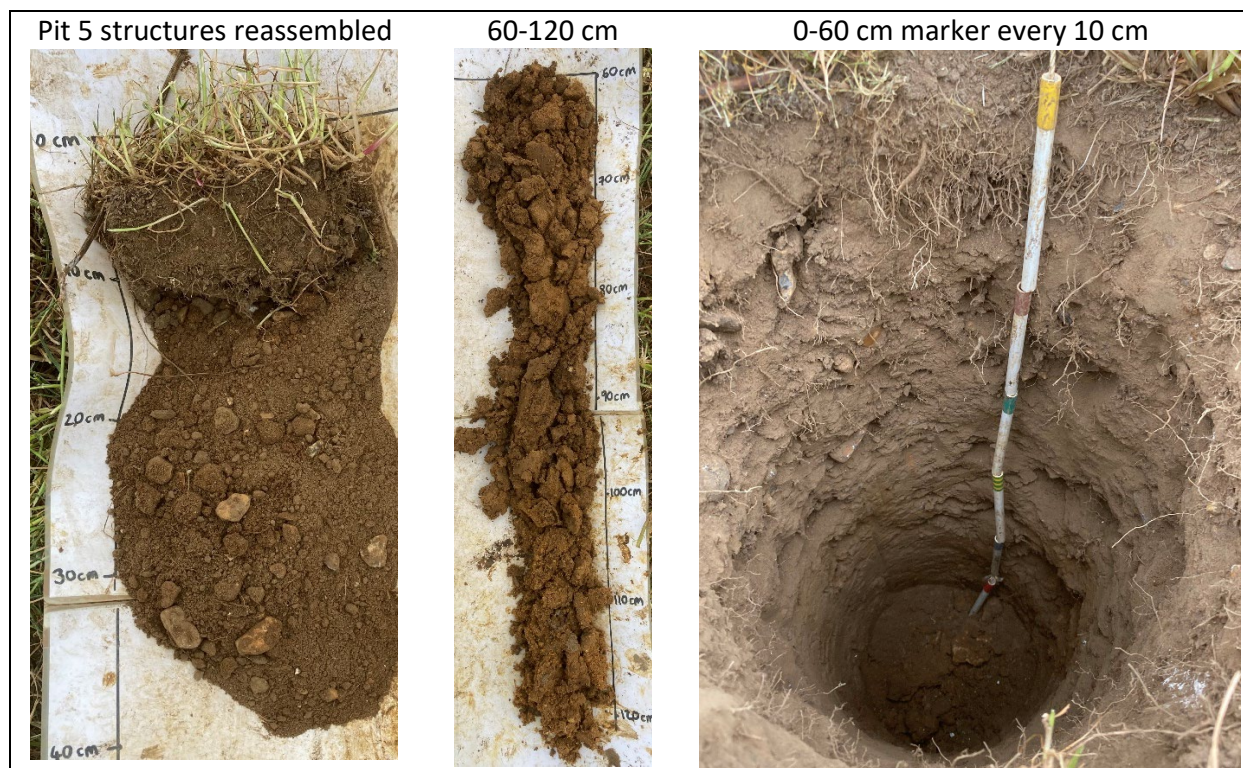
Pit 4	cm	Description (grassland, water at 90 cm)
A	0-35	Very dark grey (10YR3/1) organic clay, fine and medium sized granulated peds and medium subangular peds that are well developed and firm; very many iron mottles present along root channels, many roots throughout, non-calcareous, about 2% hard stones.
BCg	35-120	Dark grey (2.5Y4/1) and strong brown (7.5YR4/6) clay, very many iron mottles present, massive consistency about 2% hard stones.

Geology: London Clay ALC Subgrade 3b



Pit 5	cm	Description (grass for silage)
Ap	0-40	Dark yellowish brown (10YR3/4) sandy loam, fine sized granulated peds that are loose, dense roots in top 10 cm, about 10% hard stones.
Bw(i)	40-60	Dark yellowish brown (10YR3/4) medium clay loam, fine sized granulated peds that are loose, about 10% hard stones.
Bw(ii)	60-105	Strong brown (10YR5/6) medium clay loam.
C	105-120	Strong brown (10YR5/8) sandy clay loam, about 8% hard stones (sand and gravel).

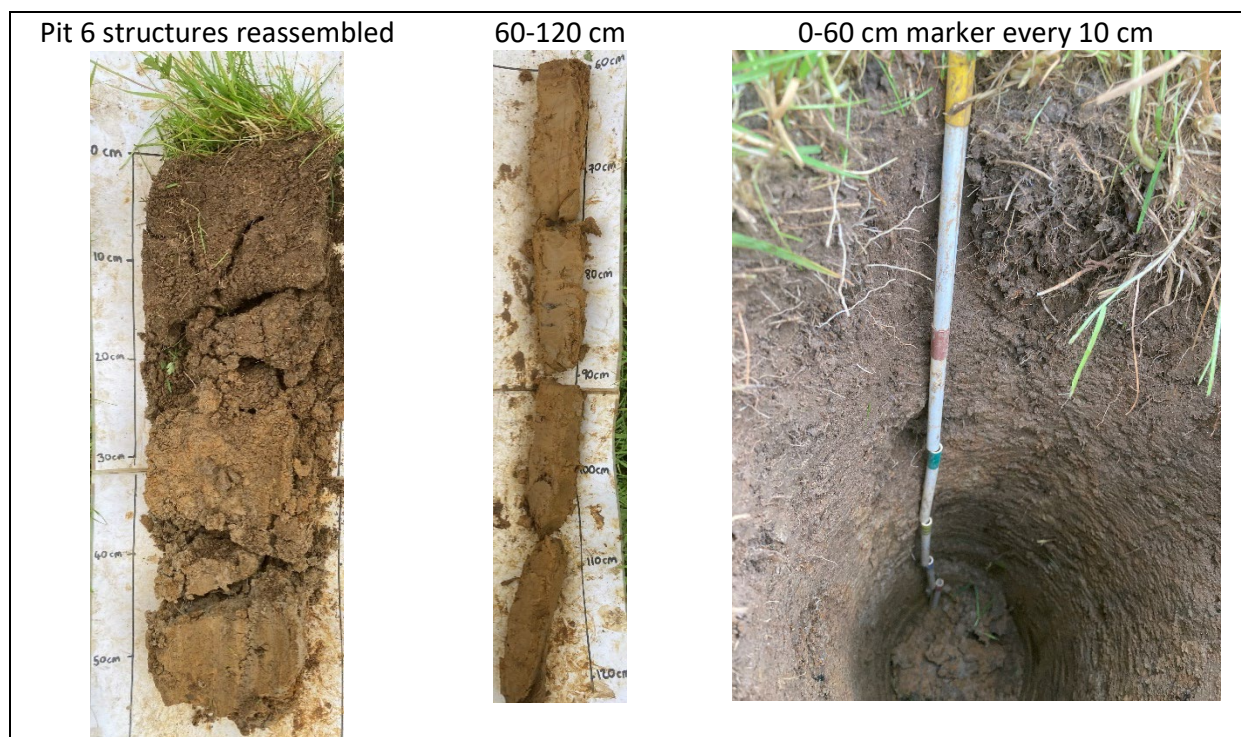
Geology: River Terrace ALC Subgrade 3b (due to flood risk)



Pit 6	cm	Description (grass meadow)
A	0-25	Dark brown (10YR3/3) organic heavy clay loam, fine sized granulated peds and medium subangular peds that are firm and strongly developed; many iron mottles present along roots, many roots throughout, non-calcareous.
Bg(i)	25-40	Yellowish brown (10YR5/8) heavy silty clay loam, medium subangular peds that are firm and strongly developed; very many iron mottles present, few roots throughout, non-calcareous.
Bg(ii)	40-60	Light brownish grey (10YR6/2) and yellowish brown (10YR5/8) clay, very many iron mottles present and manganese nodules, massive consistency.
Cg	60-120	Strong brown (7.5YR5/6) and grey (2.5Y5/1) clay, very many iron mottles present and manganese nodules, massive consistency.

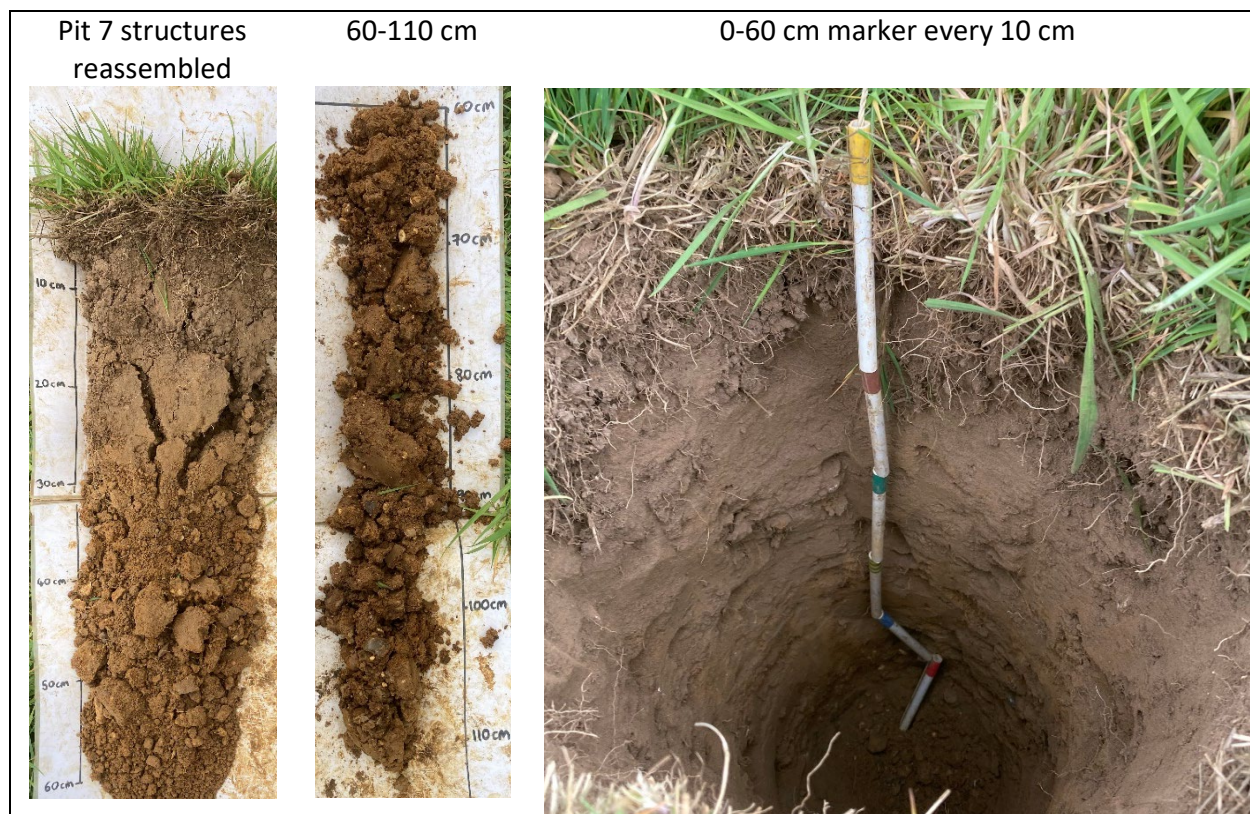
Geology: London Clay

ALC Subgrade 3b



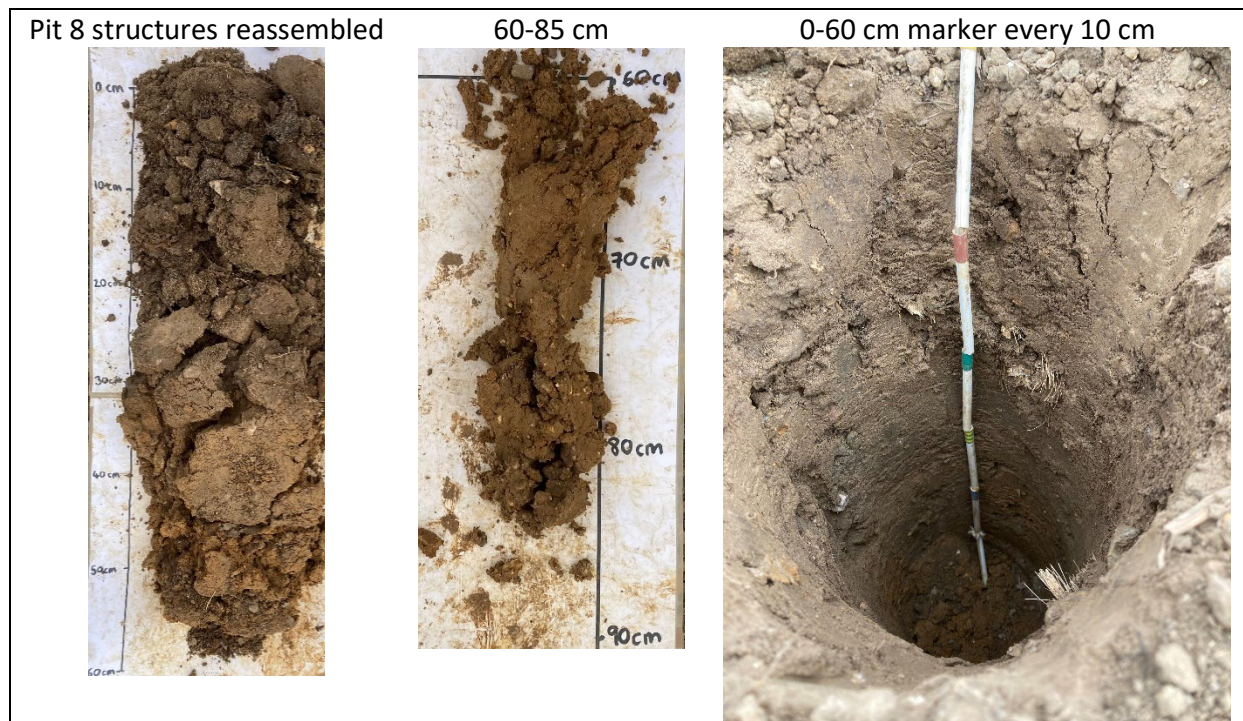
Pit 7	cm	Description (grass next to weather station)
A	0-25	Dark yellowish brown (10YR3/4) sandy loam, fine sized granulated peds are loose and moderately developed; dense thatch/ roots in top 8 cm, non-calcareous, about 3% hard stones.
Bw	25-60	Yellowish brown (10YR5/6) sandy clay loam, medium sized granulated peds are loose and weakly developed; few roots, non-calcareous, about 10% hard stones.
C	60-110	Light olive brown (2.5Y5/6), light brownish grey (2.5Y6/2) and strong brown (7.5YR5/8) heavy sandy clay loam, very many iron mottles present and manganese nodules, about 15% hard stones.

Geology: River Terrace ALC Subgrade 3b (due to flood risk)



Pit 8	cm	Description (ploughed and harrowed)
Ap	0-28	Dark yellowish brown (10YR3/4) sandy loam, small granulated peds and medium sized subangular blocky peds that are firm and moderately developed; non-calcareous, about 8% hard stones.
Bw(i)	28-42	Dark yellowish brown (10YR3/4) and strong brown (10YR5/8) sandy clay loam with many iron mottles.
Bw(ii)	42-60	Brown (10YR4/3) and strong brown (10YR5/8) sandy clay loam with very many iron mottles, coarse subangular blocky peds.
C	60-85	Dark yellowish brown (10YR4/4) and strong brown (7.5YR5/8) heavy sandy clay loam, very many iron mottles present, about 15% gravelly hard stones.

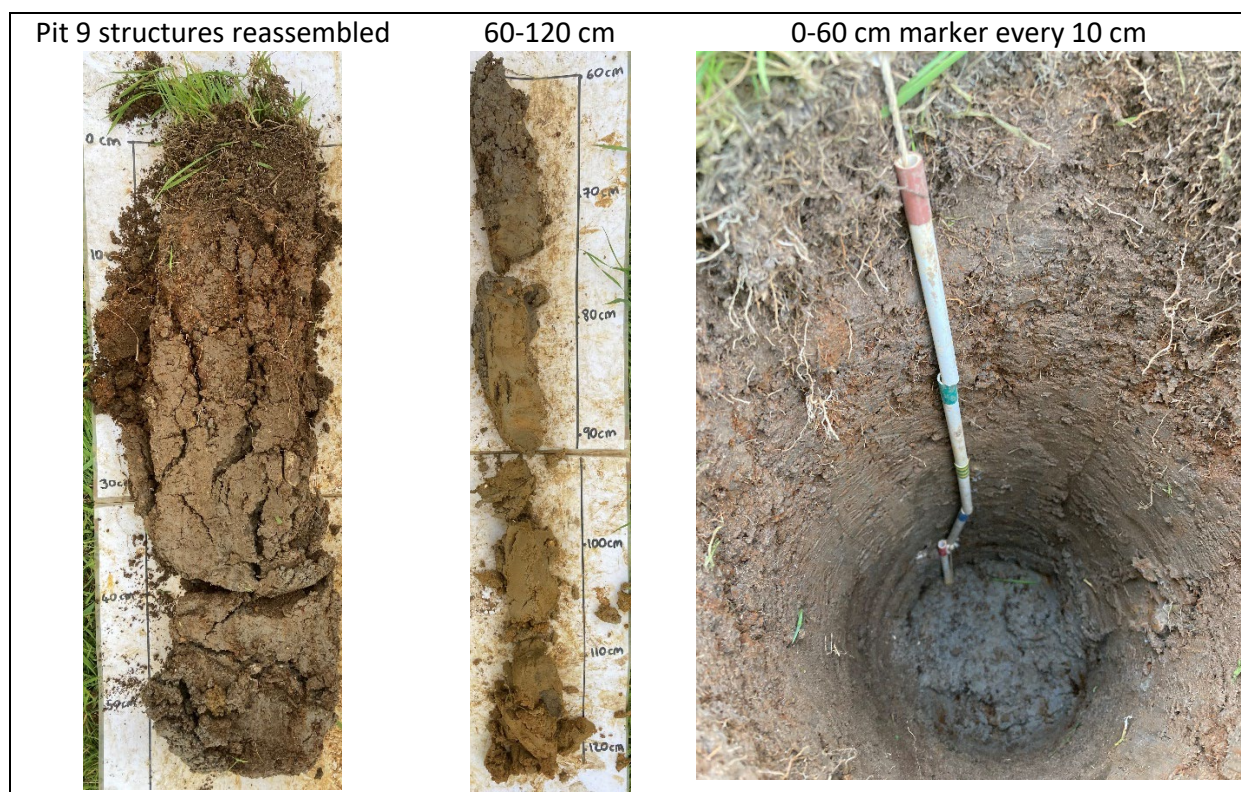
Geology: River Terrace ALC Subgrade 3b



Pit 9	cm	Description (grass field with silt deposits from flooding)
A	0-25	Strong brown (7.5YR4/6) clay, dense/ thatched roots in top 8 cm, many roots 8-25 cm, very many iron mottles on root channels, about 2% hard stones.
Bg	25-110	Grey (2.5Y5/1) and strong brown (7.5YR4/6) clay with very many iron mottles, massive consistency, few roots until about 40 cm, about 2% hard stones.
Cg	110-120	Grey (2.5Y5/1) and strong brown (7.5YR4/6) sandy clay loam with very many iron mottles, massive consistency, about 8% hard stones.

Geology: London Clay

ALC Subgrade 3b



Pit 10	cm	Description (wheat)
Ap	0-35	Dark brown (10YR3/3) sandy loam, friable granular structure, loose consistence, abundant roots, about 15% hard stones.
B	35-55	Dark yellowish brown (10YR4/4 and 10YR4/6) sandy loam, common roots, about 25% hard stones.

Geology: River Terrace ALC Subgrade 3a

Pit 10 soil face 0-55 cm – marker every 10 cm



Pit 10 dense stone layer 35-50 cm



Pit 10 surface and pit spoil



Pit 11	cm	Description (grass)
Ap	0-25	Dark brown (10YR3/3) sandy loam, friable granular structure, loose consistency, many roots, about 15% hard stones.
B	25-60	Dark yellowish brown (10YR4/4 and 10YR4/6) sandy clay loam, about 20% hard stones.
C	60-90	Dark yellowish brown (10YR4/6) sandy loam, about 20% hard stones.

Geology: River Terrace ALC Subgrade 3a

Pit 11 soil face 0-60 cm – marker every 10 cm



60-90 cm



pit spoil



Pit 12	cm	Description (grass)
A	0-10	Dark greyish brown (10YR3/2) sandy loam, friable granular structure, loose consistence, abundant roots, about 15% hard stones.
B	10-40	Dark greyish brown (10YR3/2) sandy loam, friable granular structure, loose consistency, about 20% hard stones.

Geology: River Terrace ALC Subgrade 3a

Pit 12 soil face 0-35 cm



Soil surface beneath turf



pit spoil



Pit 13	Cm	Description (grass)
Ap	0-26	Dark brown (10YR3/3) sandy loam, friable granular structure, loose consistency, many roots, about 10% hard stones.
B	26-50	Brown (10YR4/3) sandy loam, about 10% hard stones.
C	50-90	Dark yellowish brown (10YR4/6) loamy sand, about 15% hard stones.

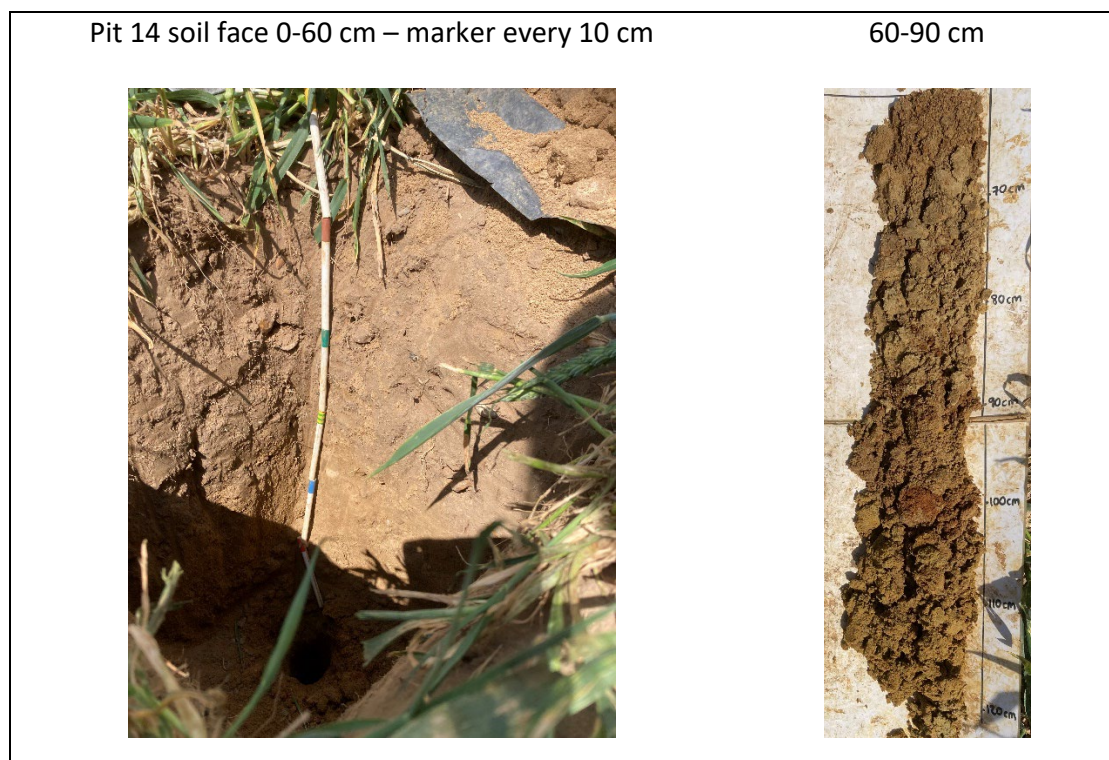
Geology: River Terrace ALC Subgrade 3a

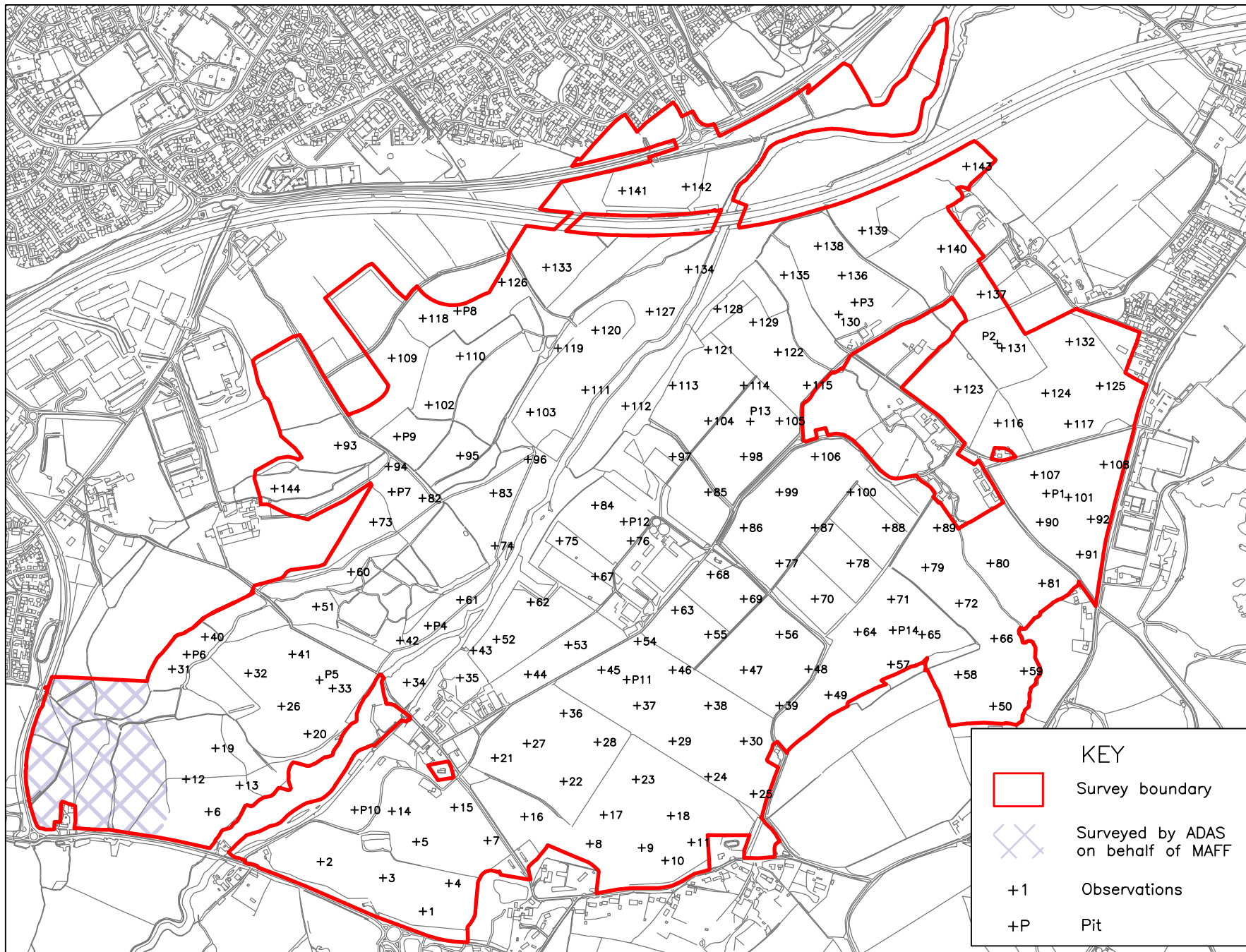
Pit 13 soil face 0-60 cm – marker every 10 cm



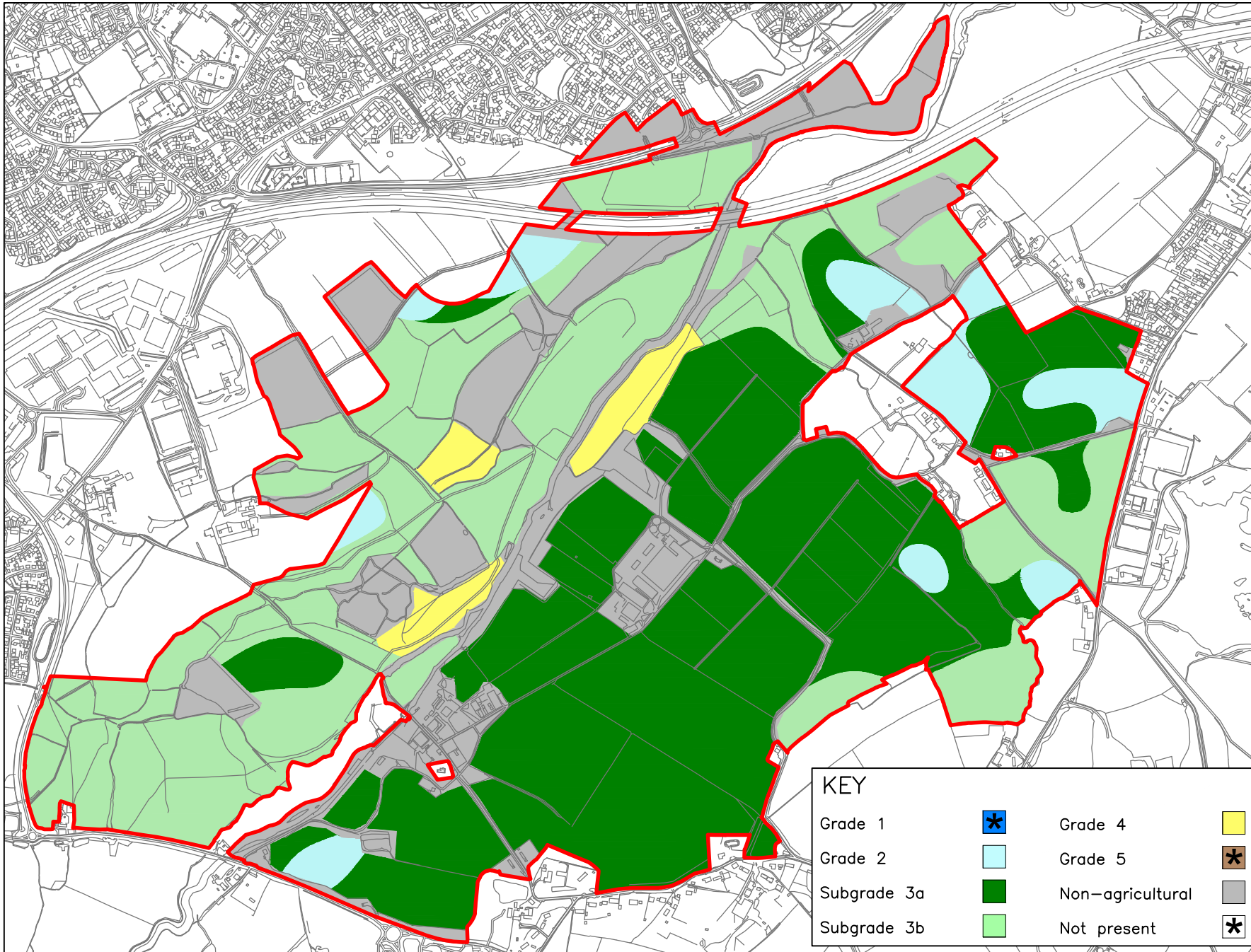
Pit 14	cm	Description (wheat)
Ap	0-30	Dark brown (10YR3/3) sandy loam, friable granular structure, loose consistency, common roots, about 8% hard stones.
B(i)	30-60	Brown (10YR4/3) sandy loam about 8% hard stones.
B(ii)	60-85	Light yellowish brown (10YR6/4) sand with iron mottles common, about 2% hard stones.
B(ii)g	85-115	Brownish yellow (10YR6/6) and yellowish red (5YR4/6) loamy sand, many iron mottles.
C	115-120	Light yellowish brown (2.5Y) sandy clay

Geology: River Terrace ALC Subgrade 3a





Rev.	Comment	Date
Drawing title		
OBSERVATION MAPPING		
Contract		
LODDON GARDEN VILLAGE		
Reading Agricultural Consultants Ltd Gate House Beechwood Court Long Toll Woodcote RG8 0RR 01491 684233 www.reading-ag.com		
 READING AGRICULTURAL CONSULTANTS		
Ref.	Rev.	
RAC/9617/1		
Drawn by AGM	Checked by AIF	
Scales 1:15,000@A4	Date 06/2025	



Rev.	Comment	Date
Drawing title AGRICULTURAL LAND CLASSIFICATION		
Contract LODDON GARDEN VILLAGE		
Reading Agricultural Consultants Ltd Gate House Beechwood Court Long Toll Woodcote RG8 0RR 01491 684233 www.reading-ag.com		
 READING AGRICULTURAL CONSULTANTS		
Ref. RAC/9617/2	Rev.	
Drawn by AGM	Checked by AIF	
Scales 1:15,000@A4	Date 06/2025	