A1 in Northumberland: Morpeth to Ellingham

Scheme Number: TR010041

6.7 Environmental Statement – Appendix 11.3 Agricultural Land Classification

Part A

APFP Regulation 5(2)(a)

Planning Act 2008

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

June 2020

Infrastructure Planning

Planning Act 2008

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

The A1 in Northumberland: Morpeth to Ellingham

Development Consent Order 20[xx]

Environmental Statement - Appendix

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Agricultural Land Classification

A1 in Northumberland: Morpeth to Felton Scheme

Date: July 2019

ADAS

ADAS GENERAL NOTES

Project No.: wsp9001 (5) / 1010324 / ALC

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Title: Agricultural land classification of the A1 in Northumberland: Morpeth to Felton Scheme

Client: WSP, 8 First Street, Manchester, M15 4RP

Date: 1st July 2019

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EXECUTIVE SUMMARY

The Agricultural Land Classification of the proposed road widening scheme on the A1 in Northumberland between Morpeth and Felton (the Scheme) was assessed by ADAS in autumn 2017. The Scheme footprint has subsequently been extended to include additional agricultural land and this was surveyed during November and December 2018. The Scheme is approximately 12.6 km long and affects an area of around 242 ha, of which 171 ha is in agricultural use.

The land is mainly very gently undulating and lies at an altitude of around 60-80 m Above Ordnance Datum (aOD) in the south rising to over 100 m aOD in the centre close to Earsdon.

At the time of the survey the land within the Scheme footprint supported a range of arable crops, grassland and land in non-agricultural use including the existing A1 carriageways, its junctions and slip roads together with numerous farm access roads, woodland, a caravan park and motocross site.

The land is underlain by the bedrock of the Stainmore and Pennine Lower Coal Measure Formations which are covered by deep deposits of unsorted Glacial Till, fluvioglacial sand and gravel together with alluvium.

The resulting soils are predominantly heavy textured and soil drainage is impeded; consequently, the land is of moderate or poor quality along most of the site with the majority, 91.16% of the agricultural land area, classified as a mix of Grades 3b and 4.

Small areas of Grade 2 and Subgrade 3a best and most versatile land account for 8.84% of the agricultural areas of the site and occur intermittently in lighter soils to the north of Morpeth and to the south and west of Felton.

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1 INTRODUCTION

1.1 On behalf of the Applicant, ADAS has undertaken an Agricultural Land Classification (ALC) survey to support the Environmental Impact Assessment for the A1 in Northumberland: Morpeth to Felton Scheme (the Scheme): 12.6 km of dualling of the existing A1 single carriageways, three new junctions and three new bridges, as well as other works (see Section 2: The Project of the Environmental Statement (ES) (A1 in Northumberland: Morpeth to Felton Environmental Statement).

1.2 The ALC system provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. The limitations can operate in one or more of four principal ways and may affect:

- the range of crops which can be grown;
- the level of yield
- the consistency of yield; and
- the cost of producing the crop.

1.3 The ALC system gives considerable weight to flexibility of cropping, whether actual or potential. The ability of some land to produce consistently high yields of a somewhat narrower range of crops is also taken into account.

1.4 The principal physical factors influencing agricultural production are climate, site (including relief) and soil. By assessing these factors, it is possible to assign land into one of five land classification grades, Grade 1 land being the highest quality and Grade 5 the lowest quality land. Grade 3 is sub-divided into Subgrades 3a and 3b, to identify good quality agricultural land from moderate quality land (see Appendix 5 for a description of the grades used in the ALC system). By considering site specific climate, site and soil factors the land can be classified into 1 of 5 agricultural grades or certain non-agricultural grades, the results of which are detailed in Sections 4.4 and 4.5.

1.5 The Government policy within the 'National Planning Policy Framework, (NPPF) 2019, affords more protection to the 'Best and Most Versatile' land, which is defined in the policy as ALC Grades 1-3a (see Appendix 5 for description of grades).

2 METHODOLOGY

2.1 Agricultural Land Classification System

2.1.1 The system published by Ministry of Agriculture Fisheries and Food (MAFF) [now Department of Environment Food and Rural Affairs (Defra)] in 1988[1] was used to assess Agricultural Land Quality. This requires a desk study to review published information followed by fieldwork.

2.2 Desk Study

2.2.1 A desk study of published geological, soils and climatic information for the Scheme was undertaken using reference material held by ADAS and publicly available information from the British Geological Survey (BGS) and the Soil Survey and Land Use Centre (SSLUC) before detailed field work was carried out to study soil and site limitations.

2.3 Field Work

2.3.1 Fieldwork was undertaken between September and November 2017 and in November and December 2018 using a hand held 50 mm diameter "Dutch" auger and/or spade to a maximum depth of 1.20 m. With the “Dutch” auger the boring is made in increments of about 150 mm. The soil extracted by the boring is ‘hand’ textured for an estimate of sand, silt and clay content and the colour described by reference to Munsell colour charts. From this information the depth of topsoil and subsoil horizons (layers) can be determined and how well or poorly drained the soil is from the colour and texture. In addition, soil pits were dug with a spade to a maximum depth of 1m so that the pit sides could be inspected to determine subsoil characteristics, particular soil structure which could not be identified from the auger samples.

2.3.2 The location of auger borings (numbered 1-503) and 13 soil pits (number TP1-TP13) were examined, to determine the quality of the agricultural land. Auger borings were made at 100 metre intervals along the proposed route and boring density of more than 1 auger boring per ha in larger land blocks. This is the normal auger boring intensity for ALC assessment of proposed road routes. The pits were dug at locations representative of different soil types identified by the auger borings. Soil samples were collected from pits and within field and sent to Natural Resource Management (NRM) laboratories for particle size distribution and/or stone content as required. The laboratory particle size distribution analysis is used to confirm the hand texture assessments.

[1] Agricultural Land Classification of England and Wales, Revised guidelines and criteria for grading the quality of agricultural land, MAFF 1988 (now a Defra publication)

2.3.4 Preparation and fieldwork were undertaken in two phases. Phase 1 included a total of 137 auger borings and 9 profile pits (the pits dug so that the sides of the pit can be inspected to describe the subsoil in more detail, particularly for soil structure and stone content, than is possible from auger borings) completed between September and November 2017. Phase 2 was completed during November and December 2018 to include a further 364 soil auger borings and 4 profile pits. Surveys were completed after harvest in moist conditions when the soils were at, or slightly below, field capacity (i.e. any additional water would drain through them).

2.3.5 The soil information gathered for the auger borings and pits along with climatic data was then used to allocate an ALC grade to the auger boring or pit location based on the criteria set out in the publication Agricultural Land Classification of England and Wales, Revised guidelines and criteria for grading the quality of agricultural land, MAFF 1988 (now a Defra publication). For grading for the sections, appendices, tables and figures from this publication used are:

- ALC Climate grade: Section 3, 3.1, Figure 1 Grade according to climate
- ALC Gradient grade: Section 3, 3.2, Gradient Table 1 Grade according to gradient
- ALC Soil depth grade: Section 3, 3.3, Table 4 Grade according to soil depth
- ALC Stone content grade: Section 3, 3.3, Table 5 Grade according to stoniness
- ALC Soil wetness grade: Section 3, 3.4, Table 6 Grade according to wetness – mineral soils, Table 7 Grade according to wetness – organic mineral and peaty soils considering 0-25 cm soil texture and soil wetness class (WC). WC is determined by reference to Figure 7, Figure 8, Table 12 and Table 13 in Appendix 3 of the Defra ALC guidelines using soil structure and colour information determined from the field work and field capacity days (FCD) from the desk study. Soil wetness expresses the extent to which excess water imposes restrictions on crop growth, workability and cultivations.
- ALC Droughtiness grade: Section 3, 3.4, Table 8 with available water capacities (AWC) calculated using the methodology set out in Appendix 4 and data in Table 14 Estimation of available water from texture class, horizon and structural conditions and Table 15 Available water in stones and rocks. The moisture deficits required to use in conjunction with the AWCs to calculate the moisture balances (MBs) which determine the ALC droughtiness grade are part of the climatic data obtained. Soil droughtiness reflects the degree to which a shortage of soil water influences the range of crops that may be grown and the level of yield which may be achieved.
- The overall ALC grade for the location is determined by the most limiting of the above grades.

2.3.6 Two small parcels of land in the centre and south of the survey area were not surveyed because access had not been agreed at the time the fieldwork was undertaken.

3 Baseline geology, soils and land use

3.1 Geology

3.1.1 The 1:50,000 British Geological Survey map[2] shows that the survey area is underlain by a solid geology of the Stainmore Formation, a sedimentary bedrock laid down in swamps, deltas and estuaries approximately 318 – 329 million years ago in the Carboniferous Period. In addition, a small area of Pennine Lower Coal Measure Formation of Carboniferous age occurs to the north of Causey Park and this is bordered by a narrow band of igneous rock to the south.

3.1.2 The solid geology is overlain by a superficial deposit of Glacial Devensian Till, a Diamicton (unsorted) deposit which was laid down around two million years ago in the Quaternary Period. This till includes extensive tracts of boulder clay, outwash, moraine and, locally, fluvio glacial sand and gravel. Narrow bands of alluvium occur in valley bottoms adjacent to watercourses within the survey area.

3.1.3 The superficial drift is generally deep and no bedrock was encountered in any of the auger borings. The resulting soils are generally medium to heavy textured and have impeded drainage. Localised areas of sandy and/or stony drift are present and, where profile drainage improves, provide better quality land.

3.2 Soils – Published information

3.2.1 Soils across the survey have been mapped, by the Soil Survey of England and Wales[3], as Dunkeswick Association with a small area of Wick 1 Association along the River Coquet valley in the north. They are summarised below:

Dunkeswick Soil Association

These soils have developed in clayey Till containing sandstone, assorted hardstones and shale of variable age. The Association typically consists of soils which are either fine loamy over clayey (Dunkeswick Series, accounting for 55% of the Association), deep fine loamy soils (Brickfield Series, accounting for 25% of the Association) or clayey (Hallsworth Series, accounting for 10% of the Association). The soils are slowly permeable and seasonally wet typically falling into Wetness Class (WC) IV, or WC III where good underdrainage schemes are installed. Wetness classes provide an indication of how wet a soil is, WC I is well drained and WC V is poorly drained with WC II, III & IV intermediate in drainage.

[2] http://www.bgs.ac.uk/data/mapViewers/

[3] 1:250,000, Soil Survey of England and Wales, Sheet 1, 1983 Soils of Northern England

Wick 1 Soil Association

These soils have developed in glaciofluvial and river terrace deposits. Soils in this Association typically have coarse loamy and sandy soils occasionally over gravel. They are well drained and fall into WC I unless they are affected by groundwater.

3.3 Soils - Survey Findings

3.3.1 The scheme survey carried out by ADAS identified 3 principal undisturbed soils with a further disturbed variant. They are described in detail below:

Soil Type 1: Medium to heavy textured soils

3.3.2 These soils cover the majority of the scheme. They have a grey brown medium to heavy clay loam topsoil to 200-300 mm depth and overlie a similar yellowish-brown upper subsoil to 350 mm. Below 350 mm a strong brown heavy clay loam to clay subsoil becomes increasingly grey and gleyed with depth. These soils are slightly stony containing few small, medium and rare large assorted stones and coal. Subsoils locally contain, sandy lenses or weathering sandstones leading to locally improved drainage. Profiles are usually gleyed within or immediately below the topsoil, have slowly permeable layers at variable depths below 350mm and are imperfectly to poorly drained (WC III and IV).

Soil Type 2 - Heavy textured soils

3.3.3 These soils occur where boulder clay lies closer to the surface or recent conversion of grassland to arable use has led to shallow clay being ploughed into the topsoil. The soils typically have very slightly stony heavy clay loam to clay topsoil to 250-300 mm overlying slightly stony clay subsoil to depth. These soils are usually gleyed into the topsoil and have slowly permeable layers within 520 mm of the soil surface (WC IV).

Soil Type 3: Light to medium textured soils

3.3.4 These soils are located on the southern edge of the Coquet valley and on the lower slopes of Hebron Hill. Medium sandy loam to sandy clay loam topsoil overlies similar or lighter textured upper subsoils and increasingly sandy lower subsoils. These soils are slightly or occasionally moderately stony containing few or common hard sandstones and assorted gravels. Profiles are either free draining (WC I) or have gleyed subsoils and fall into WC II/III on the transitionary boundaries with soil types 1 and 3.

Soil Type 4: Disturbed soils

3.3.5 These soils occur throughout the survey area. They are found close to the existing A1 where land has been affected by construction of the carriageway; in a number of recreational areas used for shooting or motocross; in field gateways and infilled subsidence hollows to the south of Causey Park. Soil profiles typically consist of medium and heavy clay loam topsoil of variable depth, often with inclusions (>10%) of clay subsoil. Subsoils are typically a poorly structured and compact heavy clay

loam and/or clay, which is poorly drained and slowly permeable within 400 mm (WC IV).

3.4 Current land use

3.4.1 At the time of the survey the agricultural land supported grass and combinable crops of winter cereals and oilseed rape, with small areas of wild bird cover and grass margins. Non-agricultural land placed in the 'other' land use category includes:

- areas of deciduous and coniferous woodland;
- the Coquet valley;
- a caravan park and motocross site at Causey Park;
- numerous farm tracks and minor roads; and
- the existing A1 and its verges together with adjacent farms, houses and gardens.

3.5 Previous Agricultural Land Classification (ALC) surveys

3.5.1 Provisional ALC maps (pre-1988) on the Defra's MAGIC website show the survey area as an area of Grade 3 land[4]. The Provisional maps only give an indication of land quality over larger areas and should not be relied on for site specific assessment of land quality. In addition, they do not classify land into Subgrades 3a and Subgrade 3b to differentiate between better quality (Subgrade 3a) and lower quality (Subgrade 3b) land.

3.5.2 An interrogation of Defra's MAGIC website, indicates that none of the survey area has been surveyed by Natural England using post 1988 ALC guidelines.

[4] magic.defra.gov.uk/

4 Considerations for the allocation of ALC grades

4.1 Climate

4.1.1 The climatic variables have been interpolated from grid point data surrounding locations along the survey area, as follows:

Table 1: Climatic variables

Grid Reference	NZ172992 (north) West of Felton	NZ186943 (Central area) Causey Park Bridge	NZ184903 (South) West of Hebron
Altitude (m)	70	90	110
Accumulated Temperature (day °C)	1269	1248	1226
Average Annual Rainfall (mm)	730	734	760
Overall Climatic Grade	2	2	2
Field Capacity Days	196	192	195
Moisture deficit (mm): Wheat	86	83	81
Moisture deficit (mm): Potatoes	71	66	64

4.1.2 The survey area lies in on the edge of the Northumberland coastal plain and has a cool moist climate. Accumulated Temperature (January–June), a measure of the relative warmth of the area, is 1,226°C in the south rising to 1,269°C in the north and the average annual rainfall is 730 mm in the north rising to 760 mm on the higher ground in the south.

4.1.3 This combination of rainfall and temperature indicates that the area is cool and moist, so the soils need to be well drained to support good crop growth, and a climatic limitation prevents land being graded higher than Grade 2 (interpolated from Figure 1 Grade According to Climate in the Defra ALC guidelines).

4.2 Site limitations

Slope

4.2.1 The land lies at an altitude of around 70 m aOD in the north falling to 38 m aOD in the Coquet valley and rising to 110 m on the highest knolls in the south. The majority of the survey area lies below 100 m. Table 1 in the Defra ALC guidelines gives the 'Grade according to gradient' criteria. Land is only downgraded due to gradient when the gradient is over 7°. Only short slopes (e.g. in the vicinity of auger boring 14) to the valley bottoms were occasionally too steep to be graded higher than Grade 3b, having gradients of 7-11°. The agricultural land mostly has gradients that are less than 7° and mainly less than 3° so gradient is not a factor which would down grade the agricultural land. Small areas of disturbed land occur either side of the A1 at High Highlaws and at Causey Park and Bockenfield Bridge where surface microrelief is a limitation.

Flooding

4.2.2 The majority of the survey area is not affected by flooding from rivers or sea, but the River Coquet near Felton, the Longdike Burn south of the airfield at Eshott, the Earsdon Burn at Causey Park and the River Lyne at Priests Bridge all have a confined floodplain which will limit the use of the adjacent land and tends to moderate ALC grade.

4.3 Soil and interactive limitations

Soil depth

4.3.1 Topsoil (>150 mm) and subsoil depths (>1,200 mm) across the survey area are good and more than adequate for continuous arable or grass production. There are no limitations on ALC grade due to soil depth. Table 4 in the Defra ALC guidelines gives the 'Grade according to soil depth' criteria.

Stone content

4.3.2 Soil profile stone contents are variable and generally low (<5%) in soil types 1, 2 and 4. Soil type 3 has moderately stony topsoil (>5%) that is locally limiting to ALC Grade 2 adjacent to the River Coquet. Table 5 in the Defra ALC guidelines gives the 'Grade according to stoniness' criteria.

Soil texture

4.3.3 Particle size distribution (PSD) by laboratory analysis for selected topsoil and subsoil samples across the survey area confirmed field observations of light to medium loam in soil types 1 and 3 with heavy clay loam and clay in soil types 2 and 4. With the exception of isolated borings of slightly to moderately organic topsoil and very rare peat deposits, all of the survey area is occupied by non-calcareous soil with mineral textures.

Soil erosion

4.3.4 Over the vast majority of the survey area gradients are low and soil textures are medium to heavy indicating that, with reasonably sensitive management, erosion

losses to wind and water are a relatively low risk and machinery can be used without impediment.

Wetness and workability

4.3.5 Soil wetness is the predominant limiting factor within this survey area due to the clayey soil textures and imperfect to poor drainage (WC III and WC IV). The soils are moderately well structured and permeable in the topsoil but the subsoil is heavier textured and often poorly structured with impeded drainage immediately below the topsoil and into the lower subsoil (WC IV). In the south the soils with a deeper, lighter textured soil are gleyed within 400 mm and slowly permeable at depths below 530 mm and therefore fall into WC III.

Soil droughtiness

4.3.6 Summer moisture deficits with the survey area are 81-86 mm for winter wheat and 64-71 mm for potatoes. With these moisture deficits droughtiness is not a limiting factor across the survey area.

4.4 Summary of Main Limitations on ALC Grading

4.4.1 The main factors affecting land quality in the study area are:

- An over-riding climatic limitation of ALC Grade 2 across the entire study area.
- Depth to a slowly permeable layer coupled with soil texture, which ultimately affects the wetness and workability of the soils.
- Very localised topsoil stone content
- Gradients of more than 7° which locally limit land quality to Subgrade 3b.

4.5 Land Quality

4.5.1 The distribution of agricultural land quality across the survey area is shown in Appendix 1 (plans 1-6). A description of ALC grades and subgrades is shown in Appendix 5.

Grade 1

4.5.2 No land has been placed in this grade.

Grade 2

4.5.3 There are two small areas of Grade 2 land which occupy 2.279 ha, or 1.33 % of the agricultural area within the survey area. These are located to the southeast of the River Coquet and in the south on the foot-slopes of Hebron Hill. This land is occupied by lighter profiles of Soil Type 3 and the land is generally free draining (WC I). The main limitation to ALC grade is imposed by climate and in the north and by topsoil stone contents of more than 5 %.

Subgrade 3a

4.5.4 This Subgrade has been mapped across 12.843 ha, or 7.51% of the agricultural area within the survey area. It includes better drained profiles in soil type 1 and transitionary soil profiles close to soil type 3. The soils have

either:

a medium clay loam or sandy clay loam topsoil and overlie heavy clay loam or clay. The soils are gleyed within 400 mm and have slowly permeable layers at depths between 520/530 mm and 690/700 mm of the surface (WC III).

Or:

a medium sandy loam to sandy clay loam topsoil over lighter textured upper subsoils and variable lower subsoils. These soils fall into WC II and III and contain isolated profiles of Grade 2 where the topsoil is sandy loam.

4.5.5 Subgrade 3a is land of good quality and capable of producing consistently high yields of a narrower range of agricultural crops including cereals, oilseed rape, root crops and/or grass and will be suited to spring cropping. In wetter years the land is likely to be prone to workability and root crop quality issues which may moderate yields and flexibility.

Subgrade 3b

4.5.6 This Subgrade is mapped over 111.491 ha, or 65.15 %, of the agricultural area within the survey area and include the less well drained profiles in soil type 1 and slightly better drained profiles of soil types 2 and 4 which have:

either:

a medium clay loam to sandy clay loam topsoil over similar or heavier subsoils. The profiles are gleyed within 400 mm and are slowly permeable within 520 mm / 530 mm (WC IV).

Or:

a heavy clay loam to clay topsoil over similar or heavier subsoils. The profiles are gleyed within 400 mm; and are slowly permeable at depths below 520/530 mm and so fall into (WC III).

4.5.7 This Subgrade occupies land of moderate quality with limitations imposed by soil wetness and workability. It will be suited to a relatively narrow range of mainly winter sown combinable crops and grassland. In dry years, yields of combinable crops are likely to be good but when wet, cultivations, sowing, maintenance and harvesting are likely to be more variable, increasing costs and decreasing yields.

Grade 4

4.5.8 This grade has been mapped across 44.511 ha, or 26.01%, of the agricultural land within the survey area and includes areas of soil type 2 and locally soil type 4 which have heavy clay loam to clay topsoil over similar or heavier subsoils. The profiles are

gleyed within 400 mm and often gleyed close to the surface. They have a slowly permeable layer which occurs within 520/530 mm (WC IV).

4.5.9 A number of areas of pronounced ridge and furrow landform together with disturbed soils have also been placed into this category due to significant limitations caused by poor surface microrelief, topsoil and subsoil mixing and subsoil compaction.

4.5.10 This land is poor quality with severe limitations imposed by soil wetness and workability due to the heavy topsoil texture, slowly permeable and occasionally disturbed subsoils. The land requires intensive artificial underdrainage schemes to be productive and it will be most suited to winter sown combinable crops of oilseed rape and cereals or to grass used for conservation and grazing. Spring arable cropping is unlikely to be feasible in all but the very driest years.

Grade 5

4.5.11 No land has been placed in this grade.

Non-agricultural land

4.5.12 This grade has been mapped over 69.427 ha, or 28.72%, of the total survey area and includes the existing A1 and its slip roads and junctions; woodlands, Eshott airfield; service roads; farm tracks; woodland; recreational and residential land within the proposed development boundary.

4.6 Summary of ALC grades within the survey area

4.6.1 A summary of the ALC grade distribution for the survey area (includes non-agricultural land) and also for the agricultural land area is shown in Table 2.

4.6.2 A map showing the distribution of ALC grades is shown at Appendix 1, auger borings and profile pit locations are shown on the plans at Appendix 2. Soil profile pits are described at Appendix 3 and individual soil auger details given at Appendix 4. Appendix 5 provides more detail on the ALC system and the results of laboratory analysis for topsoil particle size distribution are shown at Appendix 6.

Table 2: Summary of Agricultural Land Classification grades across the survey area

Grade	Area (ha)	% of Total Area	% of agricultural area
1	-	-	-
2	2.279	0.94	1.33
3a	12.843	5.32	7.51
3b	111.491	46.12	65.15
4	44.511	18.41	26.01

5	-	-	-
Non-agricultural land	69.427	28.72	-
Not surveyed	1.184	0.49	-
Total	**241.735**	**100**	**100**

5 Conclusions

5.1 The 1:250,000 Provisional ALC maps, produced in the 1970s, classified the land over the survey area as Grade 3, however this provisional mapping exercise was indicative only. Therefore, to accompany the Scheme's EIA the Study Area been classified using the current ALC guidelines.

5.2 The detailed surveys undertaken for this report have classified the land as a mix of predominantly poorer quality land but ranging from Grade 2 through Subgrades 3a and 3b to Grade 4 land.

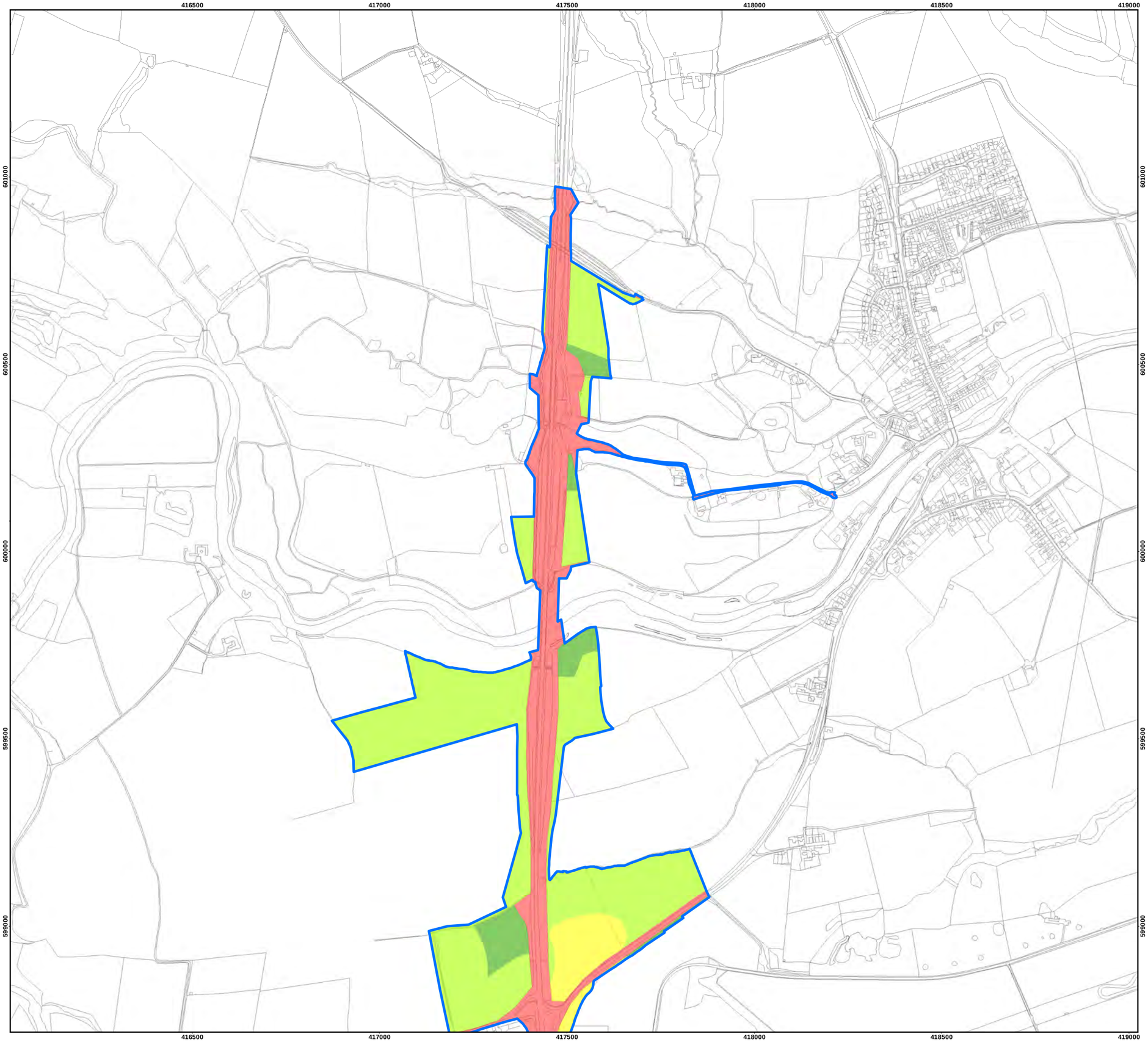
5.3 Moderate quality land ALC Subgrade 3b and poor quality land ALC Grade 4 occupy 156.002 ha, or 91.16 %, of the agricultural land within the survey area. These grades are not included in the 'Best and Most Versatile' (BMV) land category (Grade 1-3a) and are afforded less protection from development under Government policy.

5.4 ALC Grade 2 and Subgrade 3a land occupy 15.122ha, or 8.84 % of the agricultural land within the survey area, and fall within a 'BMV' category. The road scheme will impact on a relatively small proportion of BMV land and potential impacts on better quality soil resources and land quality must be balanced against the wider socio-economic and environmental impacts of the overall scheme.

5.5 A suitable soil handling strategy would be developed to help preserve land quality on the temporary land take areas and to make effective use of better-quality soils from the areas of permanent development. The plan should help to preserve the soil and retain soil functions such as water and carbon storage.

APPENDIX 1 - Distribution of ALC Grades (Plans 1-6)

(See following pages)



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A1 Morpeth to Felton

Appendix 1
Agricultural Land Classification
Part 1 of 6

- Final Red Line Boundary

ALC grade

- 1
- 2
- 3a
- 3b
- 4
- 5
- No access for survey
- Other

This design should be considered in conjunction with Project Documents and other plans and protocols referred to therein. This design does not provide safe working guidance and should be read in conjunction with the relevant detailed construction method statements and risk assessments prepared by the appointed contractor and/or project co-ordinator. Attention is drawn to responsibilities arising from the Construction (Design and Management) Regulations (CDM) 2015.

Drawn by Paul Taylor 27/06/2019, Verified by Rosemary Peel 27/06/2019

N W E S

0 100 200 300 400

Metres

Scale 1:10,000 at A3 size

OS data base map supplied by Land drainage Consultancy Ltd. Driffield, East Yorks. January 2019

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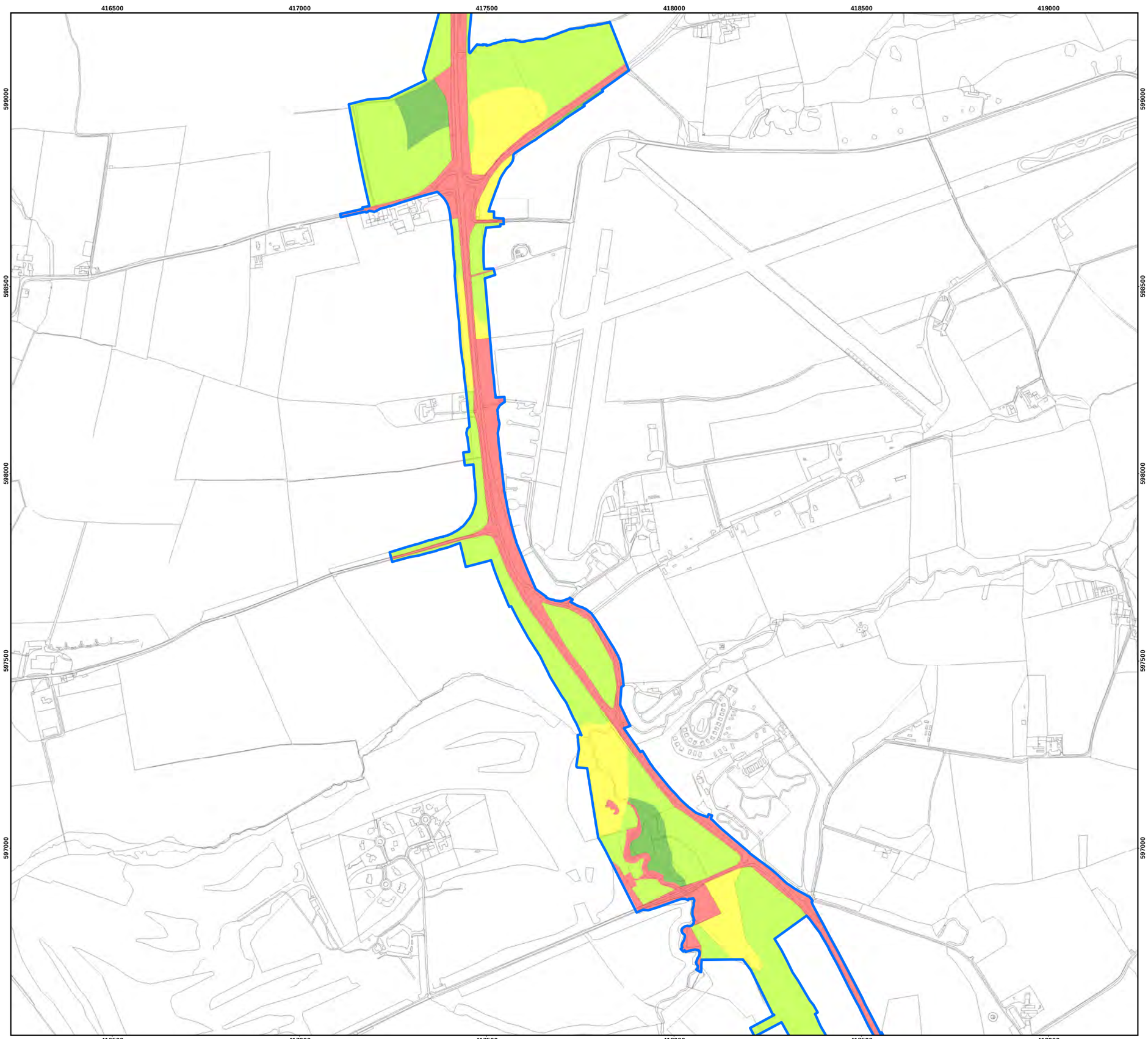

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A1 Morpeth to Felton

Appendix 1
Agricultural Land Classification
Part 2 of 6

- Final Red Line Boundary

ALC grade

- 1
- 2
- 3a
- 3b
- 4
- 5
- No access for survey
- Other

This design should be considered in conjunction with Project Documents and other plans and protocols referred to therein. This design does not provide safe working guidance and should be read in conjunction with the relevant detailed construction method statements and risk assessments prepared by the appointed contractor and/or project co-ordinator. Attention is drawn to responsibilities arising from the Construction (Design and Management) Regulations (CDM) 2015.

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0 100 200 300 400
Metres

Scale 1:10,000 at A3 size

OS data base map supplied by Land drainage Consultancy Ltd. Driffield, East Yorks. January 2019

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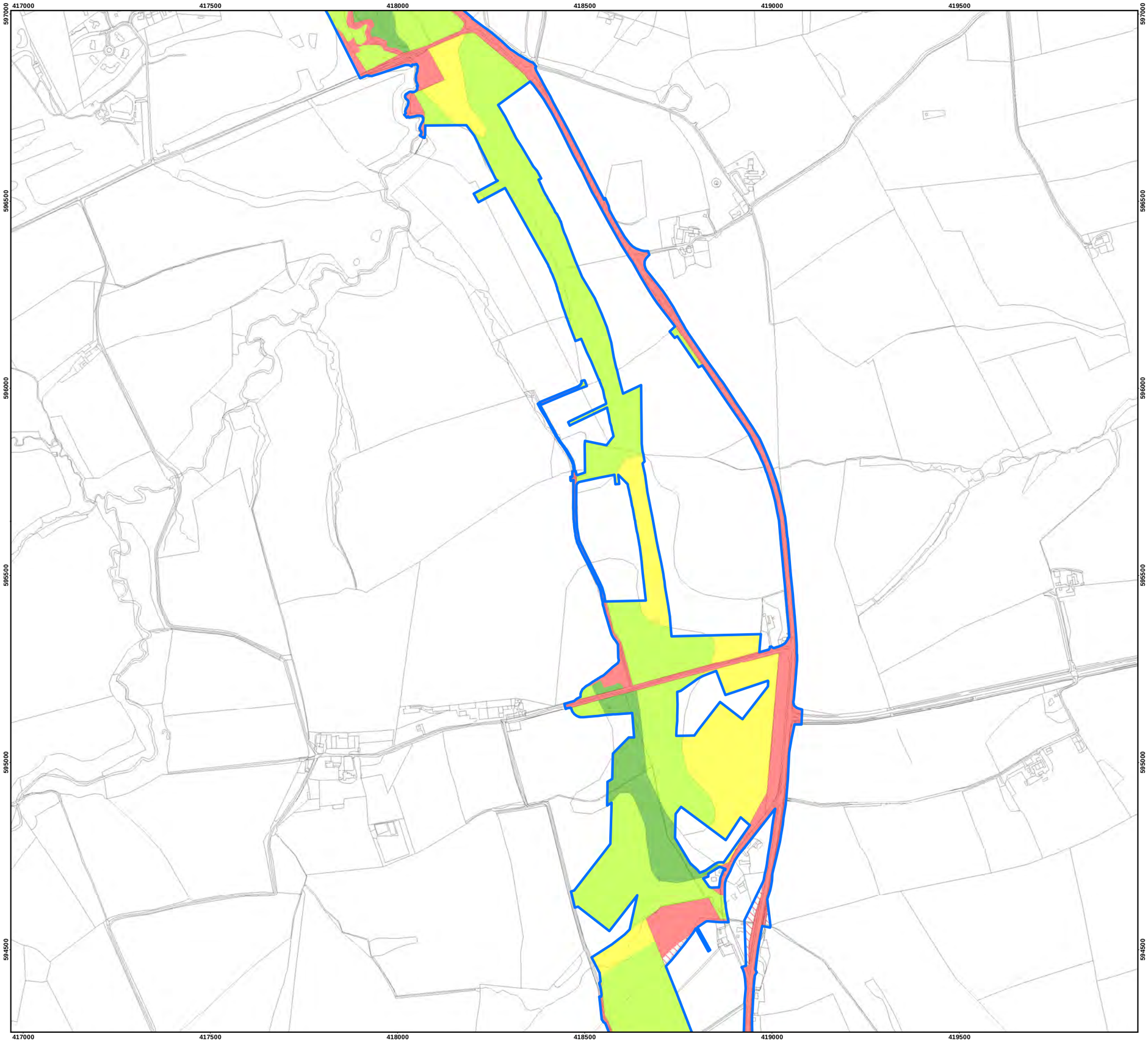

WSP Ltd

A1 Morpeth to Felton

Appendix 1
Agricultural Land Classification
Part 3 of 6

Final Red Line Boundary

ALC grade

- 1
- 2
- 3a
- 3b
- 4
- 5
- No access for survey
- Other

This design should be considered in conjunction with Project Documents and other plans and protocols referred to therein. This design does not provide safe working guidance and should be read in conjunction with the relevant detailed construction method statements and risk assessments prepared by the appointed contractor and/or project co-ordinator.
Attention is drawn to responsibilities arising from the Construction (Design and Management) Regulations (CDM) 2015.

Drawn by Paul Taylor 27/06/2019, Verified by Rosemary Peel 27/06/2019

N
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0 100 200 300 400
Metres

Scale 1:10,000 at A3 size

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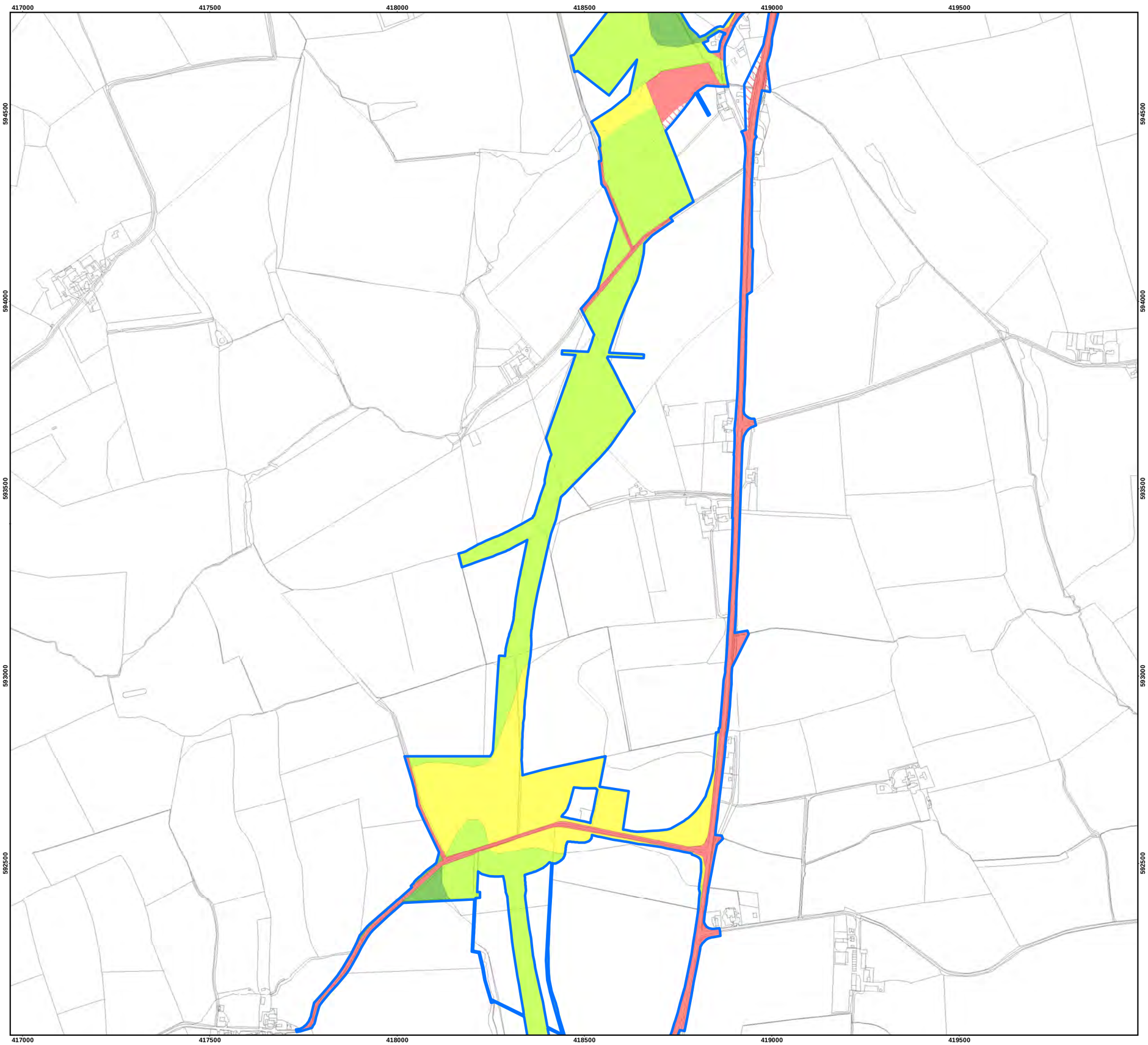

WSP Ltd

A1 Morpeth to Felton

Appendix 1
Agricultural Land Classification
Part 4 of 6

- Final Red Line Boundary

ALC grade

- 1
- 2
- 3a
- 3b
- 4
- 5
- No access for survey
- Other

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N W E S

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Metres

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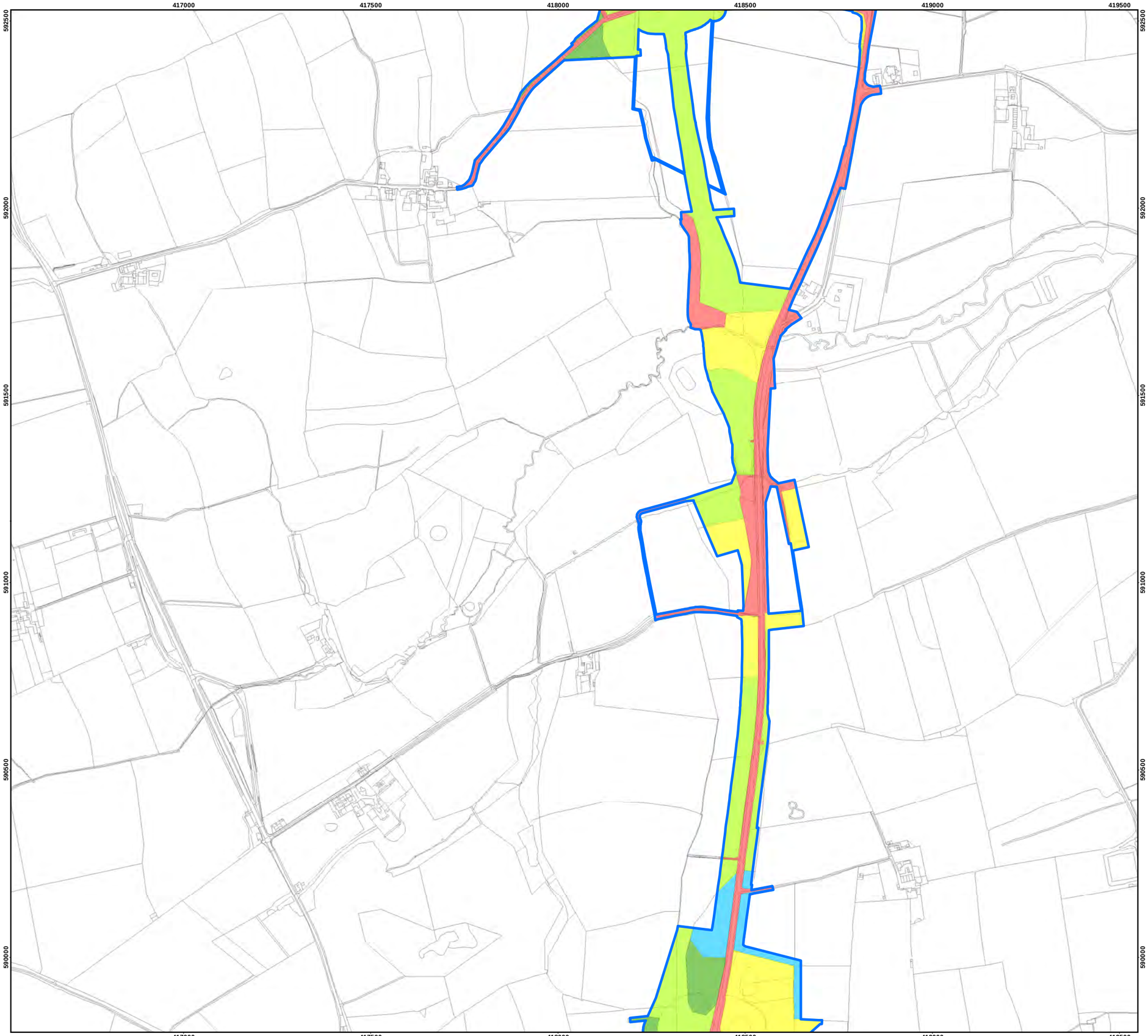

WSP Ltd

A1 Morpeth to Felton

Appendix 1
Agricultural Land Classification
Part 5 of 6

- Final Red Line Boundary

ALC grade

- 1
- 2
- 3a
- 3b
- 4
- 5
- No access for survey
- Other

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S

0 100 200 300 400
Metres

Scale 1:10,000 at A3 size

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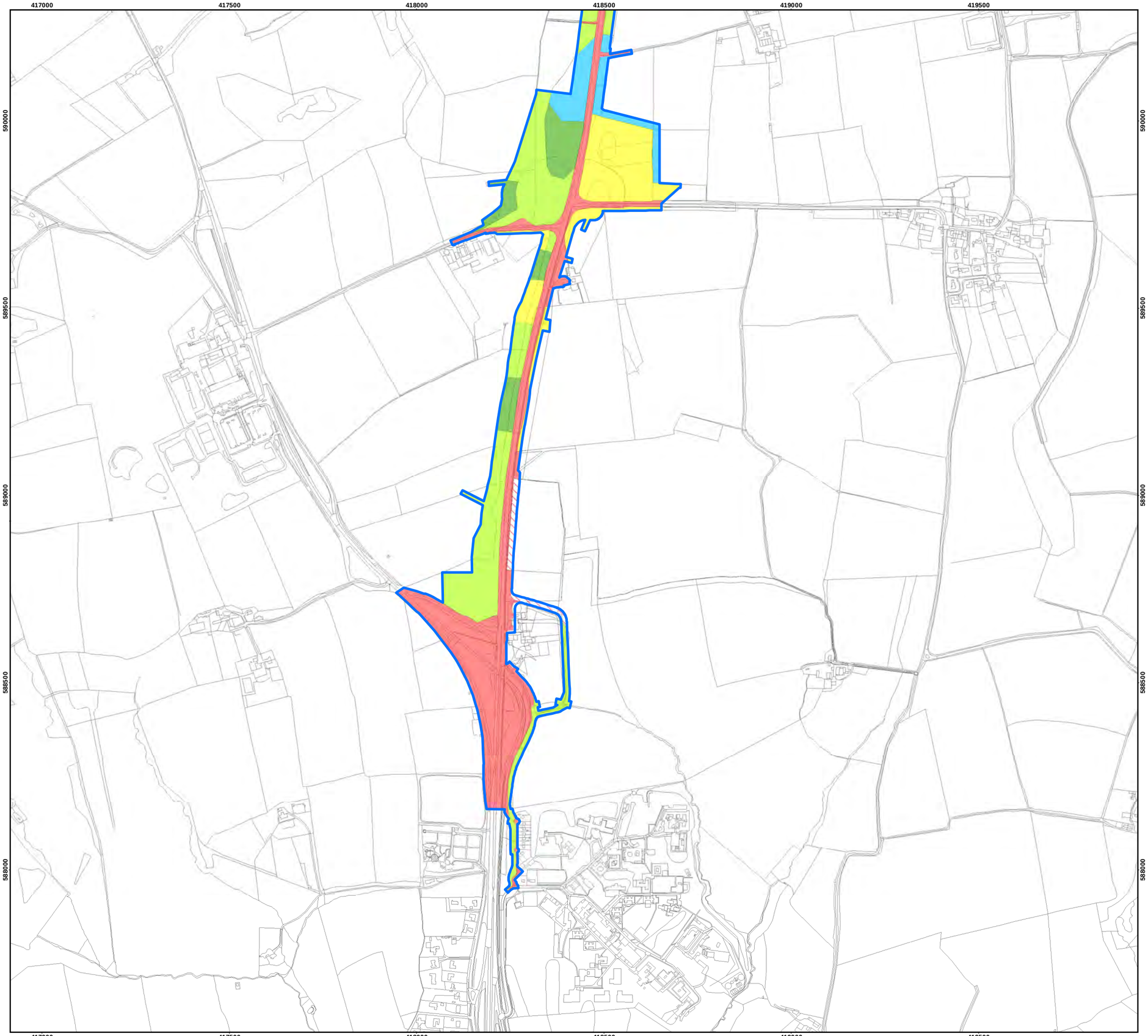

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A1 Morpeth to Felton

Appendix 1
Agricultural Land Classification
Part 6 of 6

Final Red Line Boundary

ALC grade

- 1
- 2
- 3a
- 3b
- 4
- 5
- No access for survey
- Other

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Appendix 2 - Location of soil auger borings and soil profile pits

Plans 1-6

(See following pages)

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A1 Morpeth to Felton

Appendix 2
Location of Soil Auger Borings and Soil Profile Pits
Part 1 of 6

Site boundary

Auger boring

Soil profile pit

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Metres

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WSP Ltd

A1 Morpeth to Felton

Appendix 2
Location of Soil Auger Borings and Soil Profile Pits
Part 2 of 6

Site boundary

Auger boring

Soil profile pit

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A1 Morpeth to Felton

Appendix 2
Location of Soil Auger Borings and Soil Profile Pits
Part 3 of 6

Site boundary

Auger boring

Soil profile pit

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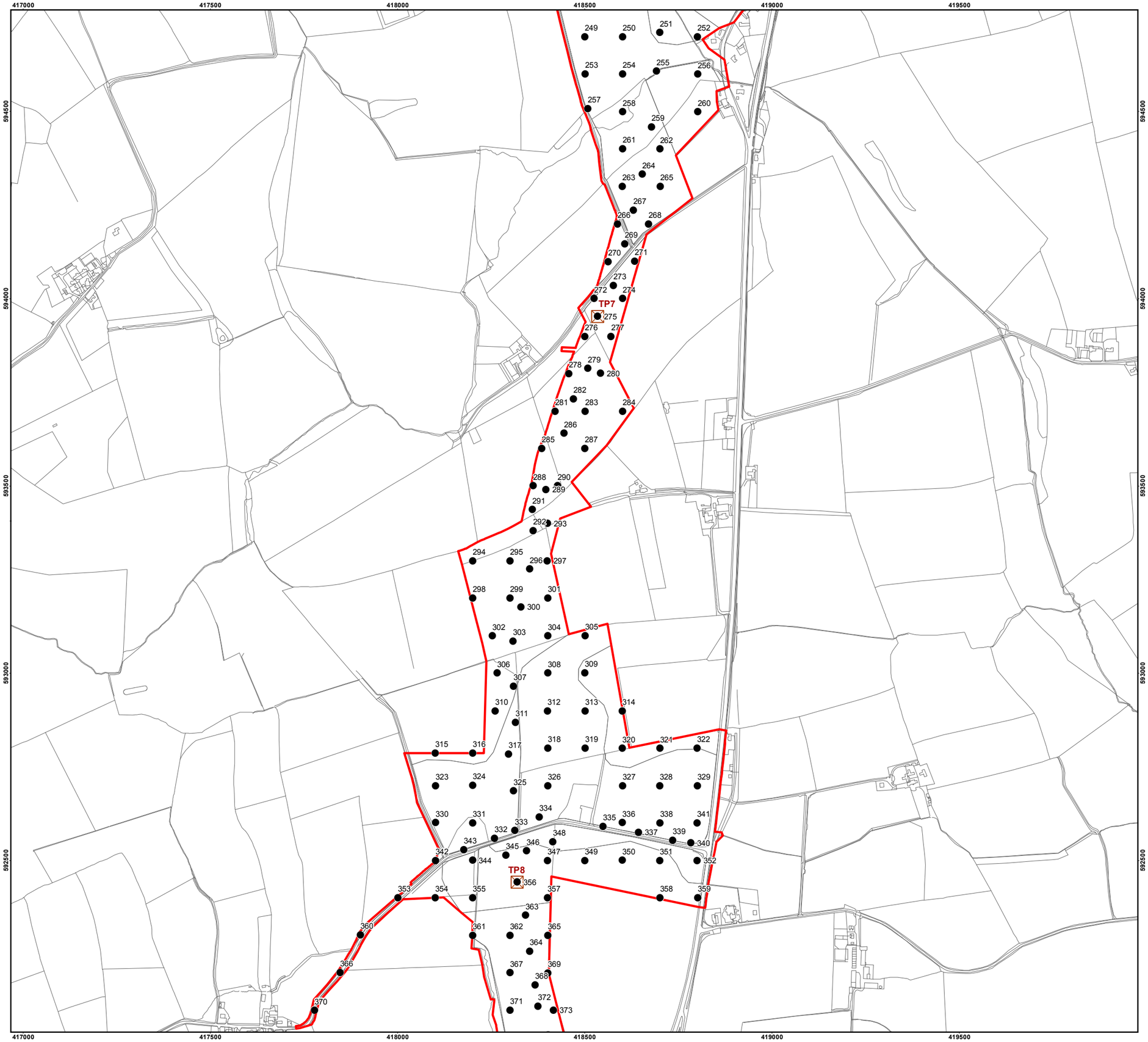
A1 Morpeth to Felton

Appendix 2
Location of Soil Auger Borings and Soil Profile Pits
Part 4 of 6



Site boundary

Auger boring

Soil profile pit

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A1 Morpeth to Felton

Appendix 2
Location of Soil Auger Borings and Soil Profile Pits
Part 5 of 6

Site boundary

Auger boring

Soil profile pit

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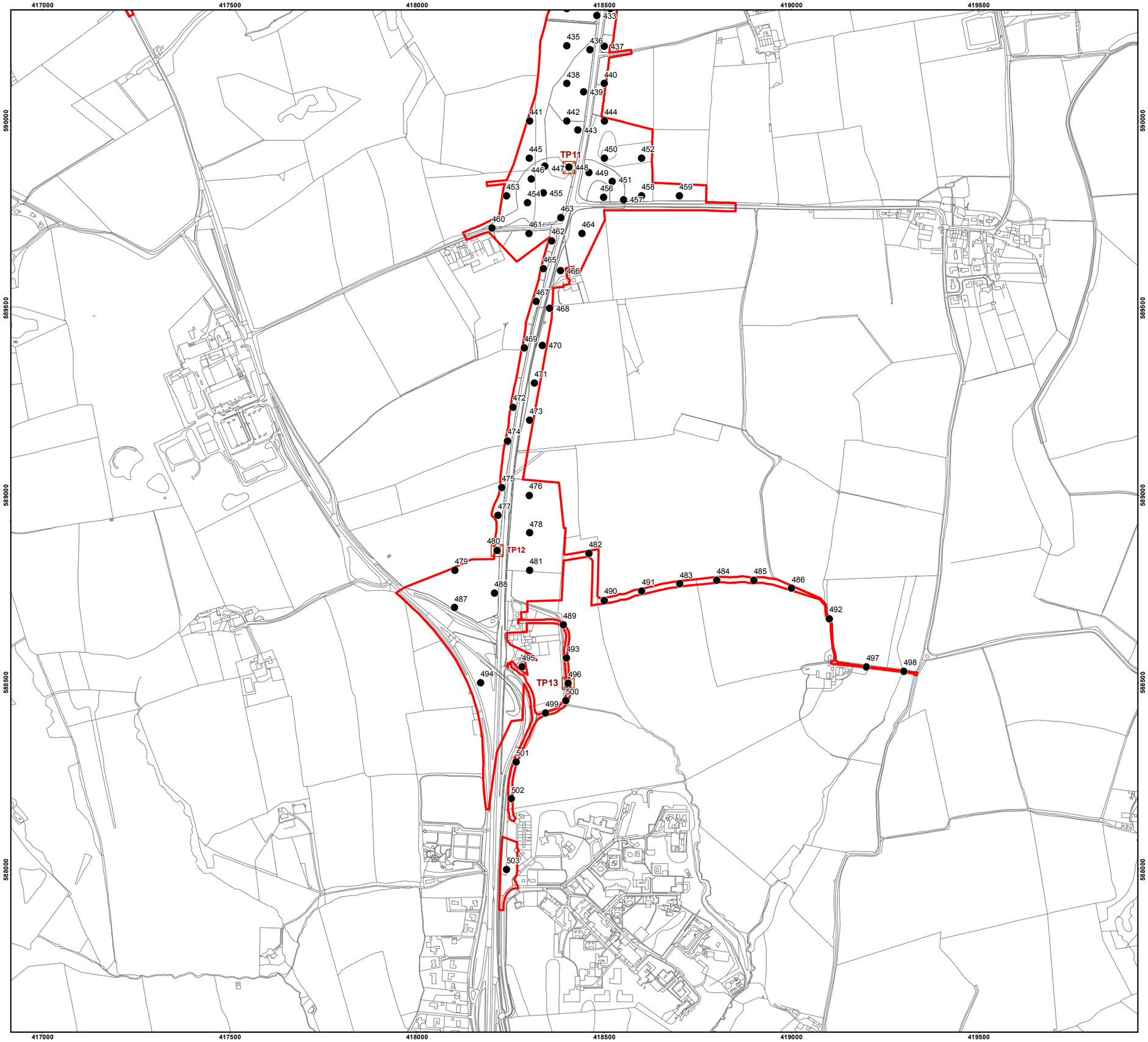

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A1 Morpeth to Felton

Appendix 2
Location of Soil Auger Borings and Soil Profile Pits
Part 6 of 6

Site boundary

Auger boring

Soil profile pit

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Appendix 3 - Description of soil profile pits

Soil Profile Pits - Key to Abbreviations

(See following pages)

Appendix 3
A1 Morpeth to Felton
Soil Profile Pits - Key to Abbreviations

Topsoil and subsoil texture			Soil colour/mottles		
zc	-	silty clay	bl	-	black
c	-	clay	br	-	brown
hcl	-	heavy clay loam	fe	-	Iron concretions
hzcl	-	heavy silty clay loam	g	-	grey
mcl	-	medium clay loam	lt	-	light
mzcl	-	medium silty clay loam	mn	-	manganese concretions
scl	-	sandy clay loam	o	-	ochrous
msl	-	medium sandy loam	ol	-	olive
mszl	-	medium sandy silt loam	p	-	pale
scl	-	sandy clay loam	pg	-	pale grey
csl	-	coarse sandy loam	r	-	red
msl	-	medium sandy loam	y	-	yellow
mszl	-	medium sandy silt loam	**Structure**		
fsl	-	fine sandy loam	W	-	weak
fszl	-	fine sandy silt loam	M	-	moderate
zl	-	silt loam	W	-	well
lcs	-	loamy coarse sand	Wk (v)	-	Weak (very)
lms	-	loamy medium sand	AB	-	angular blocky
lfs	-	loamy fine sand	SAB	-	sub angular blocky
cs	-	coarse sand	Mv	-	Massive
ms	-	medium sand	Pr	-	prismatic
fs	-	fine sand	SG	-	single grain
o	-	prefix 'o' = organic	F	-	fine
pl	-	peaty loam	M	-	medium
p	-	peat	C	-	coarse
Cropping/Land Use			**Abundance (Mottles and Stones)**		
A	-	arable (unspecified)	r	-	rare
CULT	-	cultivated (awaiting drilling)	f	-	few
F	-	fallow	c	-	common
GC	-	game cover	m	-	many
NA	-	non agricultural	ab	-	abundant
PLO	-	ploughed	**Stone type**		
PGR	-	permananent grassland	br	-	brick
PP	-	perananent pasture	chk	-	chalk
RGR		rough grassland	c	-	coal
R + F	-	ridge and furrow landform	fl	-	flint
WB	-	winter barley	frg	-	fragments
WC	-	winter cereals	grvl	-	gravel
WOSR	-	winter oilseed rape	hsst	-	hard sandstones
WW	-	winter wheat	hr	-	hard rock
Limitations			inerts	-	inert wastes
DR	-	drought	p	-	pottery
GR	-	gradient	ssst	-	softer sandstones
We	-	wetness	slt	-	siltstone
MR	-	microrelief	slst	-	soft limestone
CL	-	climate	q	-	quartzite pebbles
TX	-	texture	t	-	tile fragments
Gradient			Other		
AL	-	almost level	Impen	-	impenetrable to auger
VGS	-	very gentle slope <3°	pok	-	pockets
GS	-	gentle slope 3-7°	occ	-	occasional
NS	-	moderate slope 7-11°	OB	-	overburden
SS	-	steep slope >11°	OM	-	organic matter
VSS	-	very steep slope >18°	SPL	-	slowly permeable layer

A1 Morpeth to Felton
Soil Profile Pit Descriptions

Pit	Depth (mm)	Colour	Texture/	Structure	Drainage/ Porosity (0.5% pores)	Total Stone %
1 (AB27)	290	10YR3/2 V Dk gr br	sl organic MCL	WFMSAB	m o >0.5%	<2% c + sst
Pasture	650	10 YR 4/4 Dk y br	HCL	MM/CP	Och ab + c Mn cons >0.5%	3-5% c + sst
	1000	As above	HCL/C	MCP	Och ab + Mn cons / <0.5%	3-5% c + sst
	Gleyed in topsoil < 20cm	SPL at: 290	Wetness class: 4	Wetness grade: **3b**	Comments:	
		MB wheat: MB pot:	DR Grade:	Main limitation. **We**		ALC grade **3b**

A1 Morpeth to Felton
Soil Profile Pit Descriptions

Pit	Depth (mm)	Colour	Texture/	Structure	Drainage/ Porosity (0.5% pores)	Total Stone %
2 (AB 36)	320	10YR3/3 V Dk gr br	sl organic FSL (see psd)	WFMSAB		3-5 grvl + sst
Pasture	550	10 YR 5/3 Dk y br	MSL	MM/CP	Och rare <0.5%	5-10 grvl + sst
	1000	10 YR6/6 Y br	LMS	MCP	Free draining	40-50 grvl
	Not gleyed	No SPL	Wetness class: 1	Wetness grade: **NA**	Comments:	
		MB wheat: 29 MB pot: 31	DR Grade: 2/1	Main limitation. Climate + Stone content		ALC grade **2**

A1 Morpeth to Felton
Soil Profile Pit Descriptions

Pit	Depth (mm)	Colour	Texture	Structure	Drainage /Porosity (0.5% pores)	Total Stone %
3 (AB 81) Perm pasture AL	160	10YR32 V dk gr br	HCL, sl org (psd)	M,M&F SAB	- Occ rrm	<2% Coal fragments incorporated.
	400	10YR42 dk gr br	HCL	MMAB, firm	Och few / >0.5%	<2%
	650+	10YR41 Dk gr, v gr ped faces	HCL	MCAB, firm, becoming more prismatic with depth	Och many /<0.5%	<2%
	Gleyed at: 160	SPL at: 400	Wetness class: 4	Wetness grade: **4**	Comments: Concrete plinth close by	
		MB wheat: MB pot:	DR Grade:	Main limitation. **We**		ALC grade **4**

A1 Morpeth to Felton
Soil Profile Pit Descriptions

Pit	Depth (mm)	Colour	Texture/	Structure	Drainage/ Porosity (0.5% pores)	Total Stone %
4 (AB 140) VGS above GS	230	10YR42 Dk gr br	HCL (psd)	WCAB, firm. Platy to 50mm.	- /< 0.5%	<2%
	340	7.5YR52 Br, gr ped faces	HCL	MCPr, very firm	Och ab + Mn cons / <0.5%	<2%
	550	7.5YR42 Br	C	SCPr, very firm	Och ab + Mn cons / <0.5%	<2%
	800	10YR52 Gr br	HCL	Augured below 550	Och many	
	Gleyed at: 230	SPL at: 230	Wetness class: 4	Wetness grade: **4**	Comments:	
		MB wheat: MB pot:	DR Grade:	Main limitation. **We**		ALC grade **4**

A1 Morpeth to Felton
Soil Profile Pit Descriptions

Pit	Depth (mm)	Colour	Texture/	Structure	Drainage/ Porosity (0.5% pores)	Total Stone %
5 (AB 142) WW GS	260	10YR3/2 V dk gr br	SCL (Fine)	MFMSAB	< 0.5%	<2% hdsst c
	700	7.5YR5/2 Br & dk y b	C	WCAB to CPr hard	Och gr ab + Mn cons / <0.5%	<2%
	1000	7.5YR4/2 Br + y br gr at depth	C	WCPr – Augered below 700. V firm and coarser at depth	Och gr ab + Mn cons / <0.5%	<2% hdsst + weathered sst frg
	Gleyed at: <30cm	SPL at: 350	Wetness class: 4	Wetness grade: **3b**	Comments:	
		MB wheat: MB pot:	DR Grade:	Main limitation. **We**		ALC grade **3b**

A1 Morpeth to Felton
Soil Profile Pit Descriptions

Pit	Depth (mm)	Colour	Texture/	Structure	Drainage/ Porosity (0.5% pores)	Total Stone %
6 (AB 233)	150	10YR42 Dk gr br	HCL (psd to 250mm)	WCAB, firm.	-	<2%
Grass ley	240	10YR42 Dk gr br	HCL	MMSAB	-	
	350	10YR53 Br (pl) Gr ped faces	HCL	M,C&M, Pr, fm, sl compact layer	Och many / <0.5%	<2%
	530	10YR63 Pl br, more gr with depth	HCL	MCPr	Och ab + Mn cons / >0.5%	<2%
	850	10YR52 Gr br	HCL	MCPr, firm Augured below 570	Och many / <0.5%	
	Gleyed at: 240	SPL at:530	Wetness class: 3	Wetness grade: **3b**	Comments:	
		MB wheat: MB pot:	DR Grade:	Main limitation. **We**		ALC grade 3b

A1 Morpeth to Felton
Soil Profile Pit Descriptions

Pit	Depth (mm)	Colour	Texture/	Structure	Drainage /Porosity (0.5% pores)	Total Stone %
7 (AB 275)	240	10YR43 Dk br	MCL, litter layer at 240. (psd)	MMSAB, cultivated layer	-	
VGS, Winter cereals	320	10YR42 Dk gr br, gr ped faces	MCL	WkCPr, firm compact	Och many / <0.5%	<2%
	550	10YR62 Lt br gr	HCL, sy ped faces; occ pok SCL	MCPr, firm	Och ab + Mn cons / <0.5%	<2%
	1000	Gr br	ZC + LMS poks	Augured below 550	Och many	Sst frags com
	Gleyed at: 240	SPL at:240	Wetness class: 4	Wetness grade: **3b**	Comments:	
		MB wheat: MB pot:	DR Grade:	Main limitation. **We**		ALC grade **3b**

A1 Morpeth to Felton
Soil Profile Pit Descriptions

Pit	Depth (mm)	Colour	Texture/	Structure	Drainage /Porosity (0.5% pores)	Total Stone %
8 (AB 356)	250	10YR43 br	C	MMSAB to 200 WkCPR to 250	- Och few	
VGS, winter cereals	360	75YR56 53 ped faces	C	MCPR to MCAB	Och ab / <	
	580+	75YR56 + 52 ped faces	C	StCPr	Och ab + Mn cons /<	
	580+	Augered	C		Och com	Sst frags
	Gleyed at: 250	SPL at:250	Wetness class: 4	Wetness grade: **4**	Comments:	
		MB wheat: MB pot:	DR Grade:	Main limitation. **We**		ALC grade **4**

A1 Morpeth to Felton
Soil Profile Pit Descriptions

Pit	Depth (mm)	Colour	Texture/	Structure	Drainage /Porosity (0.5% pores)	Total Stone %
9 (AB 306-401)	260	10YR3/2 V dk gr br	HCL	WCAB	- Och few	3-5% hdsst asstd stones
GS	500	YR 5/6 Str br	C	MC AB/Pr v firm	Och ab / <	3-5% hd + ssst
Winter Wheat	1000+	10 YR4/4 5/2 Dk y br + gr	C	Augered below 700	Och ab + Mn cons /<	3-5% hd + sst
	Gleyed at: 260	SPL at:350	Wetness class: 4	Wetness grade: **4**	Comments:	
		MB wheat: MB pot:	DR Grade:	Main limitation. **We**		ALC grade **4**

Subsoil structure and gleying

A1 Morpeth to Felton
Soil Profile Pit Descriptions

Pit	Depth (mm)	Colour	Texture/	Structure	Drainage /Porosity (0.5% pores)	Total Stone %
10 (AB 421)	150	7.5YR42 br /	MCL/SCL (psd) litter layer at 150	WkCSAB,	-	<2
	280	75YR52 br	MCL/SCL	Massive, firm, sl anaerobic	Och many / <	
	380	7.5YR54, br	SCL + LMS	WkCSAB	Och many + cons / <	Sst frags
	580+	7.5YR56, st br grey ped faces	C	WkVCPr, firm	Och + gr many / <	
	Gleyed at: 150	SPL at: 380	Wetness class: 4	Wetness grade: **3b**	Comments:	
		MB wheat: MB pot:	DR Grade:	Main limitation. **We**		ALC grade **3b**

A1 Morpeth to Felton
Soil Profile Pit Descriptions

Pit	Depth (mm)	Colour	Texture/	Structure	Drainage /Porosity (0.5% pores)	Total Stone %
11 (AB 448) pasture	**280**	7.5YR42 dk br	**SCL**	MMSAB	Rrm +och few	<2
	330	7.5YR42 dk br (gr)	**SCL**	WkCSAB, firm	Och many/ <	<2
	500	7.5YR64, lt br	**SCL**	MCPR to MCAB, fm	Och many / >	<2
	800+	5YR56, yl rd	**HCL**	StCPr, fm augered below 550mm	Och Many + Mn cons /<	<2
	Gleyed at: 280	SPL at: 500	Wetness class: 4	Wetness grade: **3b**	Comments:	
		MB wheat: MB pot:	DR Grade:	Main limitation.		ALC grade **3b**

A1 Morpeth to Felton
Soil Profile Pit Descriptions

Pit	Depth (mm)	Colour	Texture/	Structure	Drainage /Porosity (0.5% pores)	Total Stone %
12 (AB 480) Recently cultivated	230	7.5YR32, dk br	HCL, litter layer at base of horizon	M to Wk, F to C, SAB – ploughed layer	>	<2%
	600+	7.5YR52, br (pl)	HCL	CPR breaking to M,M,PR, some C,SAB	Och many / > to 550	<2%
	Gleyed at: 230	SPL at: 550	Wetness class: 3	Wetness grade: **3b**	Comments: large worm channels to base of pit. Close to edge of buried track.	
		MB wheat: MB pot:	DR Grade:	Main limitation. **We**		ALC grade **3b**

Pit 8 Occasional ash roots across pit.

A1 Morpeth to Felton
Soil Profile Pit Descriptions

Pit	Depth (mm)	Colour	Texture/	Structure	Drainage /Porosity (0.5% pores)	Total Stone %
13 (AB496)	250	10YR42, dk gr br	MCL	M, M to C, SAB	>	<1%
	400	10YR52, Gr br	MCL/SCL	M,C,SAB, fri	Och com / < to 300, >300+	<1%
	500+	10YR53, br gr ped faces	HCL	M C Pr firm	Och many+ Mn com / <	<2%
	Gleyed at: 250	SPL at: 400	Wetness class: 4	Wetness grade: **3b**	Comments:	
		MB wheat: MB pot:	DR Grade:	Main limitation. **We**		ALC grade **3b**

Appendix 4 - Description of individual soil auger borings

(See following pages)

A1 Morpeth to Felton
Description of Individual Soil Auger Borings

Appendix 4

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
1	NA											Woodland/Recent plantation
2	PGR	0-24	scl	o	f	3-5	hdsst	<40	40	IV	3b	Sl organic topsoil. Grazed. 1-2° - undulating - mature/ancient oak/ask trees nearby. Increasing clay with depth
		24-40	mcl	o g mn	f	3-5	hdsst					
		40-80	hcl/c	o g	ab	3-5	hdsst					
3	WB	0-27	mcl	-	-	1-2	hdsst	<40	35	IV	3b	
		27-35	mcl	o g	c	1-2	hdsst					
		35-45	hcl	o g	ab	1-2	hdsst					
		45-100	c	o g	ab	3-5	ssst					
4	WW	0-24	mcl			1-2	hdsst c	<40	35	IV	3b	
		24-35	hcl	o g	m	1-2	hdsst c					
		35-100	hcl/c	g o	ab	3-5	hdsst c					
5	PGR	0-28	omcl	o	r>20	1-2	scl	<40	45	IV	3b	Grazed. 1-2 °. Slightly organic topsoil. Localised undulations
		28-45	mcl/scl	o g	c	1-2	hdsst zst					
		45-80	hcl/c	o g	ab	3-5	hdsst					
6	PGR	0-21	mcl			1-2	hdsst	<40	47	IV	3b	Nettles/weeds
		21-47	mcl	o	m	1-2	hdsst					
		47-70	hcl	o g		1-2	hdsst					
		70-150	c	o g mn	ab	1-2	hdsst					
7	NA	0-10	pl	bk				<40	35	IV	NA	New plantation
		10-30	mcl	-		1-2	hdsst					
		30-45	mcl	o g	c	1-2	hdsst					
		45-100	c	o g	ab	1-2	hdsst					
8	PGR	0-28	omzcl	o	r>20	1-2	hdsst	<40	35	IV	3b	Gazed. V gently undulated, gently undulating C increases with depth
		28-40	mcl/hcl	o g mn	c	1-2	hdsst					
		40-80	c	o g	ab	3-5	hdsst					
9	PGR	0-25	scl			1-2	hdsst	<40	40	IV	3b	Grazed
		25-38	mcl	o	c	1-2	hdsst					
		38-60	hcl	o g	m	3-5	ssst					
		60-100	c	o g mn	ab	3-5	hdsst					
10	NA	0-29	mcl	o	r	1-2	hdsst	<40	35	IV	NA	Woodland. 4-7° locally 7-11 ° microrelief and deep ditches
		29-40	mcl/hcl	o g	c	1-2	hdsst					
		40-100	hcl	o g	ab	1-2	hdsst					
11	NA	0-20	omzcl	b				<40	>70?	IV/V	NA	Woodland. 7-11 ° and micro relief. Deep peat. Saturated > 70cm
		20-100	p	b								

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
12	PGR	0-32	scl			1-2	hdsst	<40	No SPL	I/II	3a	Grazed. Sand at depth, improved drainage.
		32-60	scl	o	c	1-2	hdsst					
		60-75	scl	o g	c	1-2	hdsst					
		75-100	ms	o	c/m							
13	NA	0-29	scl	o	r	0-1	grvl hdsst	<70	No SPL	I/II	2	Mature conifers. Alluvial - low lying at bottom of steep embankment. Bands of scl + msl in subsoil.
		29-100	scl	o	r							
14	PGR	0-26	scl	o	r	1-2	hdsst	<40	No SPL	IV	3b	Steep gradient 7-11 ^{0} - valley very dry at surface
		26-44	scl	o g	f	1-2	hdsst					
		44-100	c	o g	ab	3-5	hdsst q					
15	NA										NA	Bale and equipment storage, rough ground, prob disturbed by previous road construction
16	NA										NA	Woodland
17	NA										NA	Woodland
18	NA										NA	Woodland
19	NA										NA	Woodland
20	PGR	0-26	fscl	o	r	1-2	hdsst c	<30	35	IV	3b	Grazed. Topsoil sl organic, sl gleyed. Flat
		26-100	c	o g	ab	3-5	ssst					
21	PGR	0-30	scl	o g	f	1-2	hdsst q grvl	<40	65	III	3a	Grazed. 1-2 ^{0} coarser sand >40
		30-65	msl	o g	c	1-2	hdsst q grvl					
		65-100	hcl	o g	ab	3-5	hdsst					
22	NA										NA	
23	NA										NA	
24	NA										NA	
25	NA										NA	
26	PGR	0-26	mcl	o	f	1-2	hdsst c q	<40	38	IV	3b	
		26-38	hcl	o g	ab	3-5	hdsst c q					
		38-100	c	o g	ab	3-5	hdsst c q					
27 (TP1)	PGR	0-29	scl	o	f	1-2	sh	<40	40	IV	3b	Grazed - sheep. Flat
		29-40	mcl	o g	c	1-2	sh					
		40-80	c	o g	ab	1-2	hdsst					
28	PGR	0-26	scl	o	r	1-2	hdsst c hdlst	<40	42	IV	3b	Track to east along field boundary
		26-42	hcl	o g	m	3-5	hdsst c q					
		42-100	c	o g mn	ab	3-5	hdsst c					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
29	PGR	0-24	mcl	o	m	1-2	hdsst c	<40	38	IV	3b	Gleyed topsoil Locally wet in lee of river
		24-38	mcl/hcl	o g	m	3-5	hdsst q					
		38-100	hcl	o g	ab	3-5	hdsst q					
30	PGR	0-40	scl			3-5	hdsst grvl	< 70	No SPL	I	2	Flat - gently undulating
		40-80	fscl/fsl	o g	c	5-10	hdsst grvl					
31	NA	0-40	ofsl			15-20	hdsst grvl				NA	Green lane. River terrace. Impenetrable > 40
		40+	Impen									
32	WW	0-29	mcl	o	r	1-2	hdsst	<40	38	IV	3b/4	4-7 ^{0} - micrclimate shading from trees. Moss on surface
		29-40	scl	o g	c	1-2	hdsst					
		40-100	c	o g	ab	3-5	hdsst ssst					
33	PGR	0-27	scl			1-2	hdsst	<70	No SPL	II/III	3a	Tightly grazed. 1-3 ^{0} - close to A1. Very compact >60. Very pale/white at depth - Disturbed?
		27-40	scl	o	f	3-5	hdsst					
		40-60	scl	o g mn	c	5-10	hdsst					
		60-100	scl	o g	c	5-10	hdsst ssst					
34	PGR	0-28	mcl			1-2	hdsst	<40	40	IV	3b	Tightly grazed. 1-3 ^{0} undulating
		28-40	hcl	o	c	3-5	hdsst					
		40-75	hcl	o g	ab	3-5	ssst c					
		75-100	c	o g mn	ab	3-5	ssst c					
35	PGR	0-20	sl o fsl			1-2	grvl	<70	No SPL	II	3a/2	Tightly grazed. 1-3 ^{0} gentle undulation. Small gravels in profile
		20-55	fsl/scl			3-5	grvl					
		55-100	scl	o g	c	1-2	grvl					
36 (TP2)	WW	0-25	scl			3-5	grvl	<70	No SPL	I/II	2	Gravelly at depth
		25-45	scl			3-5	grvl					
		45-60	msl	o	c	3-5	grvl					
		60-100	msl	o	c	5-10	grvl					
37	PGR	0-40	ofsl			3-5	grvl	>70	No SPL	II	2	Horse and cattle. Fine/small grvl in profile
		40-100	fsl	o	f	1-2	grvl					
38	PGR	0-25	scl			3-5	ssst c	<40	50	IV	3b/4	Slightly improved upper subsoil drainage. Edge of non ag
		25-50	scl	o mn	c	3-5	ssst c					
		50-100	hcl	o mn g	ab	5-10	ssst c					
39	WW	0-28	mcl	o	f	1-2	hdsst q	<40	35	IV	3b	1-3 ^{0} edge of headland
		28-100	hcl/c	o g	ab	3-5	hdsst ssst					
40	WW	0-24	mcl			1-2	hdsst ssst	<40	35	IV	3b	Rare sandy concretions in subsoil
		27-60	c	g o	ab	3-5	hdsst ssst					
		60-100	c	g o mn	ab	3-5	hdsst ssst					
41	WW	0-26	mcl	o	r	1-2	hdsst	<40	35	IV	3b	1-3 ^{0}
		26-35	hcl	o g	c	1-2	hdsst ssst					
		35-100	c	o g	ab	3-5	hdsst ssst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
42	PGR	0-25	scl	o	c	1-2	hdsst grvl	<40	38	IV	3b	
		25-38	hcl	o mn	m	1-2	hdsst grvl					
		38-100	c	o g mn	ab	1-2	hdsst grvl					
43	PGR	0-25	scl	o	c	3-5	hdsst	<40	40	IV	3b/4	Disturbed adjacent to hedge. Infill/occs, grey OB at depth
		25-40	mcl	o g	mixed	3-5	ssst					
		40-60	hcl	o	mixed	5-10	sh					
		60-100	hzcl	g	mixed	5-10	sh					
44	PGR	0-28	scl	o	f	1-2	hdsst c	<40	40	IV	3b	Grazed - sheep. Heavier to south of field
		28-40	hcl	o mn	m	3-5	hdsst c					
		40-100	hcl/c	o g mn	ab	3-5	hdsst c					
45	WW	0-28	mcl	o	r	1-2	hdsst	<40	35	IV	3b	4-7 ^{0}
		28-35	hcl	o g	c	1-2	hdsst					
		35-100	c	o g	ab	3-5	hdsst ssst					
46	WW	0-28	mcl	o	r	1-2	hdsst	<40	35	IV	3b	1-3 ^{0}
		28-100	c	o g	ab	1-2	ssst					
47	WW	0-24	scl			1-2	hdsst grvl	<40	50	IV	3b	Coarser drift on upslope scl + msl pockets in subsoil
		24-40	scl	o	m	3-5	hdsst grvl					
		40-70	hcl + scl	g o	ab	3-5	hdsst grvl					
		70-100	hcl	g o	ab	3-5	grvl hdsst					
48	WW	0-28	mcl			1-2	hdsst	<40	40	IV	3b	1-3 ^{0}. A2 horizon Locally scl in subsoil due to lenses of weathering sst
		28-40	mcl	o	r	1-2	hdsst					
		40-70	hcl	o g	ab	3-5	hdsst ssst					
		70-100	c	o g	ab	3-5	hdsst					
49	PGR	0-28	scl	o	f	1-2	ssst	<40	45	IV	3b	Grazed
		28-45	hcl	o mn		1-2	hdsst sh					
		45-100	hcl	o mn g	ab	1-2	hdsst sh					
50	WW	0-27	mcl			1-2	hdsst q	<40	45	IV	3b	
		27-45	scl + hcl	o mn	ab	3-5	hdsst q					
		45-100	c	g o mn	ab	3-5	hdsst q					
51	PGR	0-27	scl	o	c	1-2	hdsst sh	<40	40	IV	3b	Grazed
		27-35	mcl	o mn	c/m	1-2	hdsst sh					
		35-50	hcl	o g mn	m	1-2	hdsst sh					
		50-100	hcl	g o	ab	1-2	hdsst sh					
52	WW	0-27	mcl			1-2	hdsst	<40	35	IV	3b	1-3 ^{0} top of gradient Headland close to A1 Mixed subsoils - disturbed
		27-35	hcl	o g	c	3-5	hdsst					
		35-100	hcl	o g	ab	5-10	hdsst ssst					
53	PGR	0-24	mcl			1-2	hdsst	<40	45	IV	3b	Grazed - sheep. 4-7 ^{0} Subsoil is increasingly stony v dry and mod compact
		24-80	mcl/scl	o g, mn	ab	3-5	hdsst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
54	WOSR	0-25	mcl			1-2	hdsst c	<70	75	II	3a	Stonier drift on upslope with improved drainage.
		25-45	mcl	o	c	3-5	hdsst grvl					
		45-75	msl	o g	c/m	3-5	hdsst grvl					
		75-100	scl	o g	ab	5-10	grvl hdsst					
55	WW	0-29	mcl			1-2	hdsst q	<40	40	IV	3b	1-3 ^{0} - headland next to A1 gritty hdsst > 70
		29-70	hcl	o g	ab	5-10	ssst hdsst					
56	PGR	0-28	mcl			1-2	hdsst	<30	35	IV	3b	1-3 ^{0}.gently undulating. Increasingly stony at depth
		28-100	hcl/c	o g	ab	3-5	ssst					
57	WOSR	0-22	mcl/hcl			0-1	hdsst c	<40	35	IV	3b/4	Slight offset into field 6m Note shallow topsoil. Heavy to north Grey clay >60
		22-60	c	g o	ab	0-1	hdsst c					
		60-100	hcl/c	g	ab	5-10	hdsst c					
58	WOSR	0-24	mcl			1-2	hdsst c q	<35	40	IV	3b	
		24-35	hcl	o mn	m	1-2	hdsst c					
		35-100	c	o g mn	ab	1-2	hdsst c					
59	WW	0-32	mcl			1-2	hdsst c	<40	47	IV	3b	Boring offset due to gateway - disturbed in access with imported stone
		32-47	scl	o mn	ab	3-5	hdsst c					
		47-100	c	g o	ab	3-5	hdsst c					
60	WOSR	0-27	mcl			1-2	hdsst	<40	35	IV	3b	1-2 ^{0}
		27-100	c	o g	ab	5-10	ssst					
61	WOSR	0-24	mcl			1-2	hdsst c q	<40	55	III	3a	Slightly improved upper subsoil drainage
		24-38	mcl/hcl	o mn	c	1-2	hdsst grvl					
		38-55	hcl	o g	m	1-2	hdsst grvl					
		55-100	hcl	g o	m	1-2	hdsst grvl c					
62	WOSR	0-26	mcl			1-2	hdsst c	<40	38	IV	3b	
		26-38	mcl	o mn	c	1-2	hdsst c					
		38-50	hcl	o g mn	m	1-2	hdsst c					
		50-100	c	o g mn	ab	1-2	hdsst c					
63	WOSR	0-26	mcl			1-2	hdsst c q	<40	38	IV	3b	
		26-38	mcl/hcl	o mn	c	1-2	hdsst c					
		38-100	c	o g mn	ab	1-2	hdsst c					
64	WOSR	0-27	mcl			1-2	hdsst c q	<40	65	III	3a	Improved drainage on upslope. Confirm extent of land take as may not be required
		27-40	scl	o g	f/c	1-2	hdsst c					
		40-65	mcl	o mn	c	1-2	hdsst					
		65-100	hcl	o g mn	m	1-2	hdsst					
65	WW	0-28	mcl/hcl			1-2	hdsst c	<40	35	IV	3b/4	Marginally heavy topsoil in lower area against road. Lighter within field. Likely 3b
		28-50	c	o g mn	ab	1-2	hdsst c					
		50-100	c	g o	ab	1-2	hdsst q					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
66	WW	0-27	hcl	o g	c	1-2	ssst	<70	80	II/I	3a	1-3 ^{0} Mixed TS/SS sandy material boulder clay drift>80
		27-80	msl (mixed)	o	f	1-2	hdsst ssst					
		80-100	c	o g	ab	3-5	ssst					
67	NA										NA	Corner adjacent A1
68	WOSR	0-29	hcl			1-2	hdsst	<30	35	IV	4	1-2 ^{0} Very mixed SS.
		29-100	c	o g	ab	5-10	ssst					
69	WOSR	0-28	hcl			1-2	ssst	<30	35	IV	4	Sl gleyed topsoil. 1-2 ^{0} Very mixed SS
		28-100	hcl/c	o g	ab	5-10	ssst c					
70	WOSR	0-45	mcl	mixed		1-2	hdsst q	<40	60	III	3a	Headland - next to road Disturbed/increased TS depth. Sandy lenses in subsoil - SPL?
		45-100	hcl	o g	ab	5-10	ssst hdsst					
71	WW	0-28	mcl			1-2	hdsst grvl	<40	35	IV	3b	
		28-50	c	o g mn	ab	1-2	hdsst grvl					
		50-100	c	g o	ab	1-2	hdsst grvl					
72	WW	0-32	mcl			1-2	hdsst q	<40	No SPL	II	3a	1-3 ^{0}. Bands of c/hcl interspersed with lms in subsoil.
		32-60	scl	o g	f/c	3-5	ssst					
		60-85	lms + hcl	o g	c	0-1	hdsst					
		85-100	hcl/c	o g	ab	3-5	hdsst ssst					
73	WC	0-35	mcl			1-2		<40	<50	IV	3b	
		35-45	scl	o	f	1-2						
		45-85	c	o	m	1-2						
74	WC	0-25	mcl			1-2		<40	<50	Iv	3b	
		25-35	hcl	o	m	1-2						
		35-72+	hcl	o mn	c	3-5	sst fr					
75	WOSR	0-28	hcl	o>20	f	1-2	hdsst q	<40	35	IV	4	V gently undulated
		28-100	c	o g	ab	1-2	ssst					
76		0-27	m/hcl			1-2		<40	<50	iV	3b/4	
		27-40	hcl	o	m	1-2						
		40-72+	zc/c	o mn	c	3-5	sst fr					
77	WW	0-24	m/hcl			1-2	hdsst	<40	35	IV	3b/4	Marginally heavy ts texture likely mcl
		24-50	hcl	o g mn	ab	3-5	hdsst					
		50-100	c	g o	ab	3-5	hdsst					
78	WW	0-31	mcl			1-2	hdsst q	<40	40	IV	3b	Sl gleyed TS. 1-3 ^{0} undulated
		31-60	hcl	o g	ab	3-5	hdsst ssst					
		60-100	c	o g	ab	3-5	hdsst ssst					
79	WC	0-26	hcl			1-2		<40	<50	iV	4	
		26-42	hzcl	o	m	1-2						
		42-85+	zc/c	o mn	ab	1-2	sst fr					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
80	WC	0-26	hcl			1-2		<40	<50	Iv	4	Wet corner of field
		26-40	hcl	o	m	1-2						
		40-72+	zc/c	o mn	m	3-5	sst fr					
81 (TP3)	PGR	0-15	ohcl			1-2		<40	<36	IV	4	
		15-36	hcl	o	f	1-2						
		36-65+	hcl	o mn	m	1-2						
82	NA										NA	Woodland
83	PGR	0-25	sl o hcl			1-2		<40	<50	IV	4	
		25-55	hcl	o	f	1-2						
		55-70	hcl	o	ab	1-2						
84	WC	0-24	mcl			1-2		<40	~<50	IV	3b	
		24-38	hcl	o	m	1-2						
		38-720+	hcl/c	o mn	m	1-2						
85	PGR	0-5	pl	dk br	f	-		<40	35	IV	4	Fibrous peat adjacent concrete pad - disturbed at surface Original TS> 15. Poor micro-relief - R+F
		5-15	b csl									
		15-30	mcl									
		30-100	c	o g	ab	3-5	hdsst q					
86	WW	0-45	hcl	gleyed>20		1-2	hdsst	<40	45	IV	3b/4	<1 ^{0} near flat headland TS depth prob affected by A1 build
		45-100	c	o g	ab	3-5	hdsst ssst					
87	WC	0-19	mcl			1-2		<40	<35	IV	3b	
		19-85+	hcl	o g	ab	1-2						
88	WW	0-28	hcl	o	f>20	1-2	hdsst	<40	35	IV	4	<1 ^{0} near flat Headland adj A1
		28-100	c	o g	ab	1-2	ssst					
89		0-20	mcl			1-2		<40	<50	IV	3b	
		20-44	mcl	o	m	1-2						
		44-80+	o mn	hcl	m	3-5	ssst					
90	WW	0-30	hcl			1-2	hdsst	<40	35	IV	4	<1 ^{0} near flat headland Increased TS depth prob due to A1 build
		30-100	hcl/c	o g	ab	3-5	hdsst ssst					
91	WC	0-22	hcl			1-2		<40	<38	IV	4	
		22-38	hcl/c	o	m	1-2						
		38-55+	hcl	o mn	m	1-2	sst fr					
92	WW	0-26	hcl			1-2	hdsst	<40	35	IV	4	<1 ^{0} near flat headland
		26-100	c	o g	ab	1-2	hdsst ssst					
93	WOSR	0-27	mcl			1-2	ssst hdsst	<40	40	IV	3b	Bordering hcl TS
		27-40	hcl	o mn	m	3-5	ssst hdsst					
		40-100	c	g o mn	ab	3-5	ssst hdsst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
94	WOSR	0-27	mcl			1-2	hdsst c	<40	40	IV	3b	Gley<40? Improved USS drainage
		27-40	mcl/hcl	o mn	c	3-5	hdsst c					
		40-10	hcl	g o mn	ab	3-5	hdsst c					
95	WOSR	0-28	mcl			1-2	hdsst c	<70	80	I/II	3a/2	Improved USS drainage Sandier at depth
		28-50	mcl	o mn	f	3-5	hdsst c					
		50-70	mcl	o	c	3-5	hdsst c					
		70-100	scl	g o	m							
96	WOSR	0-26	mcl/hcl			1-2	hdsst c p	<40	38	IV	3b/4	Heavier in dip towards road
		26-38	hcl	o	c	1-2	hdsst c					
		38-100	c	g mn o	ab	1-2	hdsst ssst					
97	WW	0-25	mcl			1-2	hdsst ssst	<30	35	IV	3b	
		25-35	hcl	o mn	c	1-2	hdsst ssst					
		35-1000	c	g o mn	ab	1-2	hdsst ssst					
98	WW	0-28	mcl			1-2	hdsst c	<35	35	IV	3b	
		28-35	hcl	o g	m	0-1	ssst c					
		35-60	c	g o mn	ab	0-1	ssst c					
		60-100	hcl	g o	ab	3-5	hdsst ssst					
99	WW	0-29	mcl	o (faint)	<20 f	1-2	hdsst	<35	35	IV	3b	Sandy lenses locally due to weathering sst
		29-50	hcl	o g	ab	5-10	ssst					
		50-100	c	o g	ab	1-2	ssst					
100	WW	0-27	hcl	o	f	1-2	ssst	<35	35	IV	4	Flat Sandy lenses locally due to weathering
		27-100	hcl	o g mn	c	3-5	ssst					
101	WW	0-27	mcl			1-2	hdsst sh	<40	40	IV	3b	Flat - v gently undulated
		27-40	scl	o g	ab	0-1	hdsst sh					
		40-100	hcl/c	o g mn	ab	0-1	hdsst sh					
102	WW	0-31	mcl			1-2	hdsst	<35	35	IV	3b	Flat - v gently undulated
		31-65	hcl	o g	ab	0-1	hdsst					
		65-100	c	o g	ab	0-1	hdsst					
103	WC	0-25	mcl					<40	<50	IV	3b	
		25-45	mcl	o	c							
		45-60+	hcl/c	o	ab	1-2	sst fr					
104	WW	0-27	mcl			1-2	hdsst	<40	40	IV	3b	Flat - v gently undulated
		27-40	hcl	o g	ab	3-5	ssst					
		40-100	c	o g	ab	3-5	ssst					
105	WW	0-28	mcl			0-1	hdsst	<40	40	IV	3b	Flat - v gently undulated
		28-60	hcl	o g mn	c	1-2	hdsst ssst					
		60-100	hcl	o g	ab	3-5	ssst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
106	WW	0-31	mcl			1-2	hdsst	<70	40	IV	3a	
		31-55	mcl	o	mixed	1-2	hdsst					
		55-100	hcl	o g	c	3-5	hdsst					
107	WW	0-27	mcl			1-2	hdsst t	<30	35	IV	3b	
		27-60	c	o g	ab	3-5	hdsst c					
		60-100	c	g o	ab	3-5	hdsst c					
108	ST	0-29	mcl	o >20cm	f	1-2	hdsst q	<30	35	IV	3b	1-3 ^{0} adj road
		29-100	hcl	o g	ab	3-5	hdsst zst					
109		0-28	mcl	o	o	f		<40	<50	iv	3b	Impenetrable > 55 due to stones - likely hcl + scl to depth
		28-40	mcl	o mn	m							
		40-58	hcl + scl	o	m	1-2	ssst					
		58+	impen	o	m	3-5	hdsst ssst fr					
110	WOSR	0-30	mcl			0-1	hdsst c	<40	45	IV	3b	Flat - v gently undulated
		30-45	hcl	o g	c	0-1	hdsst c					
		45+	c	o mn	ab	3-5	ssst					
111	WW	0-29	mcl			1-2	hdsst q	<30	35	IV	3b	1-3 ^{0}
		29+	c	o g mn	ab	0-1	hdsst q					
112	WW	0-28	mcl			1-2	ssst	>70	No SPL	I/II	2/3a	4-7 ^{0}. Bands of lms and sand in subsoil. Pond at bottom of hill
		28-35	hcl	o g	c	0-1	hdsst					
		35-100	lms + ms									
113	WW	0-28	mcl			1-2	hdsst grvl	<70	50	III	3a	
		28-50	mcl	o	f	1-2	hdsst c					
		50-100	hcl	g o	ab	3-5	hdsst ssst					
114		0-20	mcl			1-2	hdsst c q	<40	35	IV	3b	Improved drainage at depth
		20-27	hcl	o g	m	1-2	hdsst c q					
		27-70	c	o g	ab	1-2	hdsst c q					
		70-100	mzcl	o	c	1-2	hdsst c q					
115	WC	0-27	mcl	o	r			<40	65	III	3a	
		27-45	mcl	o	c	3-5	sst fr					
		45-65	scl	o	m	3-5	sst fr					
		65-801+	hzcl	o	ab							
116	WOSR	0-24	mzcl			1-2	hdsst c	<30	35	IV	3b	
		24-50	hcl	o g	ab	1-2	ssst c					
		50-100	c	g o mn	ab	1-2	hdsst ssst					
117	ST	0-30	mcl	o	f >20cm	1-2	hdsst	<40	40	IV	3b	1-3 ^{0}. Very stony subsoil
		30-100	hcl + scl	o g mixed	m	15-20	hdsst ssst zst					
118	WC	0-28	mcl	o	f	1-2		<40	<50	IV	3b	
		28-45	hcl	o	c	1-2						
		45-60+	hcl	o	ab	1-2						

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
119	WC	0-28	mcl	mn	f			<40	<50	IV	3b	
		28-35	mcl	o	f							
		35-54	hcl/c	o mn	m							
		54-92+	c	o	m	3-5	ssst					
120	WC	0-28	mcl	o	f			<40	<50	IV	3b	
		28-35	mcl	o	f							
		35-62	mcl	o	m							
		62-80+	hcl	o	m							
121	PGR	0-15	ohcl	o	c	1-2		<20	35	IV	4	
		15-28	hzcl	o	m	1-2						
		28-720+	hcl	o mn	m	3-5	sst fr					
122	RGR/NA	0-15	fszl					<40	No SPL	II/I	4/5	Alluvial soil. Very poor microrelief. Disturbed upslope
		15-55	scl	g	c							
		55-100	fsl	o g	m							
123	RGR	0-20	mcl	o	c	1-2		<70	>50	III	3a	Disturbed by A1
		20-70	mcl	o	c	1-2						
		70-85+	msl	o	f	1-2	sst fr					
124	PGR/RGR	0-30	sl o mcl	o	r	1-2		<40	<50	IV	3b	
		30-35	mcl	o	c	1-2						
		35-60+	c	o mn	m	3-5	sst fr					
125	RGR	0-15	pl	o	m	1-2	hdsst	<40	35	IV	4	Disturbed by pond excavation - peaty to 1m+ Anaerobic at depth
		15-70	omcl	o g	ab							
		70-100	hcl	ol g o	ab							
126	RGR	0-35	scl	o	r	0-1	hdsst grvl	<40	35	IV	3b	Flat, alluvial floodplain ab mn mottles - soft and non compact. High GW
		35-80	mzcl	o g	f	1-2	hdsst					
		80-100	hcl	o g mn	ab	1-2	hdsst					
127	PGR/RGR	0-25	sl o mcl	o	r	1-2		<40	<50	IV	3b	
		25-34	mcl	o	c	1-2						
		34-60+	c	o mn		3-5	sst fr					
128	RGR	0-35	scl	o	f	0-1	hdsst grvl	<40	35	IV	3b Non-ag	Flat, alluvial floodplain Bands of fsl + lfs increasingly sandy with depth. High GW
		35-55	scl	o	f	15-20	hdsst grvl					
		55-100	scl	o g	f							
129	RGR	0-22	mcl	o	f	1-2	hdsst	<40	40	IV	3b	1-3 ^{0} undulating
		22-100	c	o g mn	ab	3-5	hdsst ssst					
130	PGR	0-27	mcl			1-2		<40	<50	IV	3b	
		27-80+	hcl	o	c	3-5	sst fr					
131	NA	0-25	mcl	o	c>15	1-2	hdsst	<40	40	IV	3b	Flat - undulating
		25-40	hcl	o g	c	3-5	hdsst ssst					
		40-100	c	o g	ab	3-5	hdsst ssst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
132	PGR/RGR	0-27	mcl			1-2	hdsst q ssst	<40	35	IV	3b	Boring offset
		27-35	hcl	g o mn	ab	1-2	hdsst q ssst					
		35-100	c	g o mn	ab	1-2	hdsst q ssst					
133	RGR	0-35	mzcl	o	r	0-1	hdsst	>100	No SPL	I	2/3a	Unmanaged, flat, alluvial, floodplain. Lms > 70 GW > 70cm
		35-60	scl	o g	r	0-1	hdsst					
		60-100	msl	o g	c	0-1	hdsst					
134	PGR	0-5	ohcl			1-2		<40	>50	III/IV	3b/4	
		5-35	hcl	o	f	1-2						
		35-70~+	hcl	o mn	ab	1-2						
135	WW	0-22	mcl			3-5	hdsst q	<40	45	IV	3b	Very dry to 45cm 5% subsoil ploughed out
		22-45	hcl	o mn	m	5-10	hdsst q ssst					
		45-100	c	o g mn	ab	3-5	hdsst q ssst					
136	PGR	0-24	m/hcl			1-2		<40	45	IV	3b/4	
		24-45	hcl	o	m	1-2						
		45-65+	zc	o mn	m	3-5	sst fr					
137	WW	0-35	mzcl	o	r	0-1	hdsst q	<70	70	II	3a	Field margin. 1-3 ^{0} - near flat, river terrace/floodplain Alluvial upper layers with bands of scl
		35-70	mzcl + scl	o	f/c	1-2	hdsst					
		70-100	hcl	o g	ab	1-2	hdsst					
138	WC	0-25	hcl	mn	c	1-2		<40	35	IV	4	
		25-85+	hcl	o mn	ab	1-2						
139	WW	0-24	mcl			1-2	hdsst c q	<40	35	IV	3b	5% subsoil ploughed out Dry to 70cm
		24-50	hcl	o mn	m	3-5	hdsst ssst c q					
		50-100	c	o g mn	ab	3-5	hdsst q					
140 (TP4)	WW	0-22	mcl			1-2	ssst t	<40	40	IV	3b	5% subsoil ploughed into topsoil. Rare tile fragments in topsoil. V dry to depth
		22-40	hcl	o mn	m	3-5	hdsst ssst					
		40-100	hcl	o g mn	ab	5-10	hdsst ssst					
141	WOSR	0-20	mcl	mixed		1-2	hdsst	<40	35	IV	3b	Direct drilled. 4-7 ^{0} - edge of grass margin - slope down to stream
		20-100	hcl	o g	ab	3-5	hdsst ssst					
142 (TP5)	WC	0-23	hcl			1-2		<40	35	IV	4	
		23-34	hcl	o mn	ab	3-5	sst fr					
		34-55	c	o	ab	3-5	sst fr					
		55-80+	hcl	o mn	ab	1-2						
143	WC	0-25	hcl	o	f	1-2		<40	35	IV	4	
		25-53	hcl	o mn	ab	1-2						
		53-87+	c	o mn	ab	1-2						
144	WB	0-27	mcl	slt gleyed	>15	1-2	hdsst	<40	35	IV	3b	1-3 ^{0}
		27-100	c	o g mn	ab	3-5	hdsst ssst					
145	WB	0-28	mcl	slt gleyed	>20	1-2	hdsst	<40	35	IV	3b	1-3 ^{0}. Topsoil slt org with com large earthworms
		28-100	hcl/c	o g mn	ab	3-5	hdsst ssst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
146	WOSR	0-26	mcl			1-2	hdsst q	<40	35	IV	3b	1-3 ^{0} - thin crop min fall
		26-100	hcl/c	o g	ab	3-5	ssst					
147	WC	0-22	m/hcl			1-2		<40	35	IV	3b/4	
		22-35	hcl	o	ab	1-2						
		35-55+	hcl	o mn	ab	3-5	sst fr					
148	WB	0-29	mcl	slt gleyed	>20	1-2	hdsst	<40	40	IV	3b	1-3 ^{0} Very mixed, locally lighter subsoil due to weathering sst
		29-100	hcl + scl	o g	ab	15-20	hdsst ssst					
149	WB	0-28	mcl	gleyed	>20	1-2	hdsst	<40	35	IV	3b	1-3 ^{0}. Larger cobbles in subsoil Very mixed with com sandy lenses + pockets
		28-100	hcl	o	ab	5-10	hdsst ssst					
150	WOSR	0-31	mcl	slt gleyed	>20	1-2	hdsst	<40	35	IV	3b	1-3 ^{0}. Larger cobbles in subsoil Very mixed with com sandy lenses + pockets
		31-100	c	o g	ab	5-10	hdsst ssst					
151	WC	0-26	mcl	o	f	1-2		<40	37	IV	3b	
		26+-37	mcl	o mn	m	1-2						
		37-80+	hcl	o mn	ab	1-2						
152	WB	0-28	mcl	slt gleyed	>20	1-2	hdsst	<40	35	IV	3b	1-3 ^{0} - large concrete frags in TS. Weathered ssst - lighter textured at depth
		28-100	hcl/c	o	ab	3-5	hdsst ssst					
153	WB	0-25	hcl	gleyed	>10	1-2	hdsst	<40	35	IV	4	1-3 ^{0}. TS noticeably more cloddy SS as 126
		25-100	hcl/c	o g mn	ab	5-10	hdsst ssst					
154	WOSR	0-27	mcl	slt gleyed	>20	1-2	hdsst	<40	35	IV	3b	1-3 ^{0} evidence of GW o. Common plastics/synthetics in TS - compost
		27-100	c	o g mn	ab	1-2	ssst					
155	WC	0-27	mzcl			1-2		<40	35	IV	3b	
		27-33	mcl	o	c	1-2						
		33-70	hcl	o mn	ab	3-5	sst fr					
156	WB	0-28	mcl	slt gleyed	>20	1-2	hdsst	<40	40	IV	3b	1-3. Increasingly stony at depth with common lenses of fscl
		28-100	hcl + scl	o g	ab	3-5	hdsst ssst					
157		0-27	mcl	o mn	f	1-2		<40	35	IV	3b	
		27-73	hcl	o	m	1-2						
		73-80+	hcl	o mn	m	1-2						
158	WOSR	0-25	scl			1-2	hdsst	<40	35	IV	3b	
		25-35	hcl	o g mn	ab	3-5	hdsst c					
		35-80	c	g o	ab	3-5	hdsst c					
159	WW	0-27	scl			1-2	hdsst	<40	75	III	3a	4-7 ^{0} High levels of soft weathered sst
		27-75	scl	o	c	3-5	hdsst ssst					
		75-100	hcl/c	o g	ab	3-5	hdsst ssst					
160	WW	0-27	mcl	gleyed	>20	1-2	hdsst	<40	35	IV	3b	4-7 ^{0} Locally hcl/sc/scl due to soft weathered sst
		27-100	hcl/c	o g	ab	5-10	ssst c q					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
161	WC	0-33	scl			1-2		<40	65	III	3a	
		33-45	scl	o	m	1-2						
		45-65	mcl	o	m	1-2						
		65-80+	zc	o mn	m	3-5	sst fr					
162	SAS	0-22	mcl	o	m	1-2	hdsst c q	<40	35	IV	3b	Game cover
		22-60	hcl/c	o g mn	ab	1-2	hdsst c q					
		60-100	c	g o	ab	1-2	hdsst c q					
163		0-28	mcl			1-2		<40	50	IV	3b	
		28-50	hcl	o	c	1-2						
		50-80	zc/c	o mn	m	1-2						
		80-100	zc/c	o mn	m	3-5	sst fr					
164	WW	0-26	mcl	slt gleyed		1-2	hdsst	<40	35	IV	3b	1-3 ^{0} top of small hill feature
		26-35	hcl	o g	c	3-5	hdsst					
		35-100	c	o g	ab	3-5	hdsst ssst					
165	WW	0-28	mcl/mzcl			3-5	hdsst c q	<40	38	IV	3b	Lighter topsoil on upslope
		28-38	hcl	o	c	1-2	hdsst c q					
		38-60	c	o g mn	ab	1-2	hdsst c q					
		60-100	c	g o mn	ab	1-2	hdsst c q					
166	WB	0-28	m/hcl			1-2		<40	35	IV	3b/4	
		28-85+	c	o mn	ab	3-5	sst fr					
167	WW	0-26	mcl	o	f >20cm	1-2	hdsst	<40	35	IV	3b	1-3 ^{0}
		26-100	c	o g mn	ab	3-5	hdsst					
168	WW	0-25	mcl			1-2	hdsst c q	<40	37	IV	3b	FYM applied
		25-37	hcl	g o	m	1-2	hdsst c q					
		37-100	c	g o mn	ab	1-2	hdsst c q					
169	WOSR	0-27	mcl/scl			1-2		<40	35	IV	3b	
		27-68	hcl + scl	o	m	1-2						
		68-80+	hcl	o mn	m	3-5	sst fr					
170	WW	0-27	mcl	gleyed	>20	1-2	hdsst	<40	45	IV	3b	<1 ^{0} Very mixed thin bands or lenses of fsl + hcl/c in subsoil
		27-45	scl/hcl	o g mn	ab	1-2	hdsst					
		45-100	hcl + fsl	o g	ab	1-2	hdsst ssst					
171	WW	0-20	hcl/mcl			1-2	hdsst c q	<40	35	IV	4/3b	FYM applied Sl heavier topsoil
		20-90	c	o g mn	ab	3-5	hdsst ssst c					
172	WW	0-20	mcl			1-2	hdsst c q	<40	35	IV	3b	FYM applied
		20-45	hcl/c	o g mn	ab	3-5	hdsst c q					
		45-100	c	g o mn	ab	3-5	hdsst c q					
173	WOSR	0-25	mcl			1-2		<40	35	IV	3b	
		25-36	hcl	o	m	1-2						
		36-55+	zc	o mn	ab	3-5	sst fr					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
174	WW	0-32	mcl	slt gleyed	>20	1-2	hdsst	<40	70	III	3a	1-3 ^{o} gentle undulating Sandy USS
		32-70	fsl	o g	c	0-1	q grvl					
		70-100	c	o g	ab	1-2	ssst					
175	WW	0-19	mcl			1-2	hdsst c q	<40	35	IV	3b	FYM applied
		19-70	c	o g mn	ab	1-2	hdsst c q					
		70-100	c	g o mn	ab	1-2	hdsst c q					
176	WW	0-20	mcl/hcl			1-2	hdsst c q	<40	35	IV	3b/4	Slightly heavier topsoil
		20-65	c	o g mn	ab	1-2	hdsst c q					
		65-100	c	g o mn	ab	1-2	hdsst c q					
177	SAS	0-22	mcl/hcl			1-2	hdsst	<40	50	IV	3b/4	Disturbed upper subsoil (stony). Poss affected by A1
		22-50	hcl	o g	mixed	3-5	hdsst ssst q					
		50-100	c	g o	ab	3-5	hdsst ssst q					
178	WW	0-28	mcl	sev gleyed	>20	3-5	hdsst	<40	35	IV	3b	Min till. 1-3 ^{o} USS - locally s due to weathered sst
		28-100	c	o mn	ab	3-5	ssst					
179	WC	0-27	hcl			1-2		<40	35	IV	4	
		27-50	hcl	o	m	1-2						
		50-70+	zc	o	ab	3-5	sst fr					
180	WW	0-26	mcl	o	c/m	1-2	hdsst c q	<40	35	IV	3b	FYM applied - gleyed topsoil
		26-45	c	o g	ab	1-2	hdsst c q					
		45-100	c	o g mn	ab	1-2	hdsst c q					
181	WW	0-23	mcl			1-2	hdsst c q	<40	35	IV	3b	FYM applied
		23-45	hcl	o g mn	ab	1-2	hdsst c q					
		45-100	c	g o mn	ab	1-2	hdsst c q					
182	SAS	0-18	hcl	o	m	0-1	hdsst c q	<40	35	IV	4	Wet area in field corner. Heavy topsoil.
		18-55	c	g o mn	ab	0-1	hdsst c q					
		55-100	c	g o mn	ab	0-1	hdsst c q					
183	NA	0-22	hcl	o	f	1-2	hdsst	<40	35	IV	4/Non-ag	Game cover. Mostly reed-vegetation. Suggests seasonally waterlogged
		22-100	hcl/c	o g mn	ab	3-5	ssst					
184	WW	0-27	hcl	gleyed		1-2	hdsst	<40	35	IV	4	Min till. 1-3 ^{o}
		27-100	c	o g mn	ab	3-5	hdsst ssst					
185		0-25	hcl					<40	35	IV	4	
		25-65	hcl	o mn	ab							
		65-80+	hcl	o mn	ab							
186	WW	0-26	mcl			1-2	hdsst c q	<40	35	IV	3b	Photos taken
		26-40	c	o mn	ab	1-2	hdsst c q					
		40-100	c	g o mn	ab	1-2	hdsst c q					
187	WW	0-23	mcl/hcl	o	f	1-2	hdsst c q	<40	35	IV	3b/4	Slightly heavier topsoil FYM applied
		23-45	c	o g	ab	1-2	hdsst c q					
		45-100	c	g o mn	ab	1-2	hdsst c q					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
188	WW	0-22	mcl			1-2	hdsst c q	<40	35	IV	3b	Drier at depth >60cm
		22-50	c	o	ab	1-2	hdsst c q					
		50-100	c	g o mn	ab	1-2	hdsst c q					
189	WW	0-22	mcl			1-2	hdsst c q	<40	35	IV	3b	
		22-45	c	o g mn	ab	1-2	hdsst c q					
		45-100	hcl	g o mn	ab	1-2	hdsst c q					
190	NA	0-18	hcl	o	c	1-2	hdsst	<40	35	IV	4	Game cover. 1-3 ^{o}
		18-100	c	o g	ab	3-5	ssst + b					
191	WW	0-29	hcl	gleyed		3-5	hdsst	<40	35	IV	4	Min till. 1-3 ^{o} Clay tile at 70
		29-35	hcl	o g	c	3-5	hdsst					
		35-100	c	o g	ab	3-5	ssst					
192		0-24	hcl			1-2		<40	43	IV	4	
		24-43	hcl	o	ab	1-2						
		43-65+	hzcl	o mn	ab	3-5	sst fr					
193	WW	0-25	mcl			1-2	hdsst c q	<40	35	IV	3b	
		25-33	hcl (A2)	o	c	1-2	hdsst c q					
		33-60	c	g o	ab	1-2	hdsst c q					
		60-100	c	g o mn	ab	1-2	hdsst c q					
194	WW	0-23	mcl/hcl			1-2	hdsst c q	<40	35	IV	3b	FYM applied Marginally heavy topsoil texture
		23-60	c	o g mn	ab	1-2	hdsst c q					
		60-100	c	o g mn	ab	1-2	hdsst c q					
195	WW	0-24	mcl			1-2	hdsst c q	<40	35	IV	3b	
		24-100	c	g o mn	ab	3-5	hdsst c q					
196	WW	0-18	mcl			1-2	hdsst c q	<40	35	IV	3b	FYM applied
		18-60	c	o g	ab	1-2	hdsst c q					
		60-100	c	g o mn	ab	1-2	hdsst c q					
197	NA										NA	Non-Ag - existing motor cycle track. TS stripped
198	WW	0-25	mcl	slt gleyed		1-2	hdsst	<40	35	IV	3b	Min till. 1-3 ^{o} slope
		25-35	hcl	o g mn	c	1-2	hdsst					
		35-100	c	o g	ab	1-2	ssst					
199	WC	0-24	mcl			1-2		<40	45	IV	3b	
		24-45	mcl + scl	o	m	1-2	sst fr					
		45-65+	zc	o mn	ab	3-5	sst fr					
200	WW	0-18	mcl/hcl			1-2	hdsst c	<40	35	IV	3b/4	FYM applied Subsidence hollows to south of boring. Shallow topsoil
		18-60	c	o g mn	ab	0-1	hdsst c q					
		60-100	c	g o mn	ab	0-1	hdsst c					
201	WW	0-20	mcl			1-2	hdsst c q	<40	35	IV	3b	
		20-60	c	o g mn	ab	1-2	hdsst c q					
		60-100	c	g o mn	ab	1-2	hdsst c q					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
202	WW	0-21	mcl			1-2	hdsst c q	<40	35	IV	3b	FYM applied
		21-40	c	o g	ab	1-2	hdsst c					
		40-100	c	o g mn	ab	1-2	hdsst c					
203	WW	0-19	mcl	o	f	0-1	hdsst c q	<40	35	IV	3b	FYM applied
		19-50	c	o g mn	ab	0-1	hdsst c q					
		50-100	c	g o mn	ab	0-1	hdsst c q					
204	NA										NA	Non-Ag - existing motor cycle track. TS stripped
205	WW	0-26	mcl	slt gleyed		3-5	hdsst	<40	35	IV	3b	4-7 ^{0} almost hcl TS Locally sc due to soft sst
		26-100	c	o g mn	ab	5-10	hdsst ssst					
206	WC	0-20	hcl	o mn	f	1-2		<40	35	IV	4	
		20-48	hcl	o	ab	1-2	sst fr					
		48-80+	hcl	o mn	ab	3-5	sst fr					
207	WW	0-22	hcl			1-2	hdsst q c	<40	35	IV	4	
		22-60	c	g o mn	ab	1-2	hdsst q c					
		60-100	c	g o mn	ab	1-2	hdsst q c					
208	WW	0-17	hcl			0-1	hdsst c	<40	35	IV	4	Note: Shallow topsoil. Locallised infilling - subsistence hollows.
		17-55	c	o g mn	ab	0-1	hdsst c					
		55-100	c	o g	ab	0-1	hdsst c					
209	NA										Non-Ag/Disturbed	Non-Ag - existing motor cycle track TS stripped
210	WW	0-26	mcl	o g	f	3-5	hdsst	<40	35	IV	4	Old drift mine in field. 4-7 ^{0} Headland, min till Significant SS mixing in TS
		26-100	c	o g	ab	5-10	ssst					
211	WC	0-24	mcl			1-2		<40	45	IV	3b	
		24-45	mcl+scl	o	m	1-2	sst fr					
		45-65+	hzcl/zc	o mn	m	3-5	sst fr					
212	WW	0-20	mcl/fscl	gleyed		1-2	hdsst	<40	35	IV	3b/4	Min till.1-2 ^{0} TS - sev gleyed
		20-100	c	o g mn	ab	1-2	hdsst ssst					
213	WW	0-18	hcl			0-1	hdsst c	<40	35	IV	4	FYM applied
		18-100	c	o g	ab	0-1	hdsst c					
214	NA										NA	Non-Ag - Outside race track area so soils less disturbed
215	WC	0-27	scl		f	1-2		<40	60	III/II	3a	Very dry and stony 65+ - impenetrable to auger. Valley bottom
		27-55	scl	o	c	1-2	sst fr					
		55-65	msl	o mn	m	3-5	sst fr					
		65+	Impen									

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
216		0-25	mcl			1-2		<40	<50	IV	3b	Impenetrable > 50cm due to stone - likely heavy drift to depth
		25-50	mcl + scl	o	c	1-2	sst fr					
		50+	Impen			5-10	sst fr					
217	WC	0-28	mcl	o mn	f	1-2		<40	35	IV	3b	
		28-45	hcl	o mn	m	1-2						
		45-80+	hcl	o mn	ab	1-2						
218	PGR	0-25	hcl	o	c	1-2	c hdsst	<25	35	IV	4	
		25-100	c	o g	ab	1-2	c hdsst ssst					
219	PGR	0-25	hcl	o	f	1-2	hdsst	<30	35	IV	4	1-3 ^{0} - gentle undulations
		25-100	c	o g	ab	3-5	ssst					
220	PGR	0-23	hcl	o	f	1-2	hdsst q	<30	35	IV	4	1-3 ^{0} gently undulating
		23-100	c	o g	ab	3-5	hdsst q					
221	WW	0-28	mcl			1-2	hdsst q	<40	40	IV	3b	
		28-40	hcl	o g mn	m	1-2	hdsst q					
		40-60	hcl	g o mn	ab	1-2	hdsst q					
		60-100	c	g o mn	ab	1-2	hdsst q					
222	WW	0-24	mcl			1-2	hdsst	<40	35	IV	3b	Slope 3-4 ^{0} E 5% subsoil in topsoil after ploughing
		24-35	hcl	o mn	m	1-2	hdsst					
		35-100	c	o g mn	ab	1-2	hdsst					
223	WW	0-29	mcl	slt gleyed		1-2	hdsst	<40	40	IV	3b	Bottom of shallow valley - possibly alluvial. 5-10% subsoil in topsoil. 4-7 ^{0} slope
		29-40	hcl/sc	o g	ab	1-2	hdsst					
		40-70	scl	o g	c	3-5	hdsst ssst					
224	PGR	0-20	mcl			1-2		<40	35	IV	3b	
		20-55	m/hcl	o mn	ab	3-5	sst fr					
		55-80+	hcl	o mn	ab	3-5	sst fr					
225	PGR	0-24	hcl			1-2	hdsst ssst	<30	35	IV	4	
		24-45	c	o g	m	3-5	hdsst ssst					
		45-100	c	o g mn	ab	3-5	hdsst ssst					
226	PGR	0-25	hcl	o	f	1-2	hdsst ssst sh	<30	35	IV	4	1-3 ^{0} undulating shallow
		25-100	c	o g	ab	3-5	ssst hdsst					
227	PGR	0-30	mcl	o	f	1-2	hdsst	<35	35	IV	3b	Field margin - microrelief Wheeling's - TS disturbed
		30-100	c	o g	ab	3-5	ssst					
228	NA										NA	Farm track
229	WW	0-25	mcl			1-2	hdsst c q	<40	35	IV	3b	Rare glass and pottery in TS Slope 2-3 ^{0} SE
		25-35	hcl	o mn	m	1-2	hdsst c q					
		35-70	hcl	o g mn	ab	1-2	hdsst c q					
		70-100	c	g o mn	ab	1-2	hdsst c q					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
230	WW	0-18	mcl/hcl			1-2	hdsst c p	<40	35	IV	3b/4	Shallow TS 5-10 ^{0} subsoil ploughed out
		18-30	hcl	o g mn	c/m	1-2	hdsst c p					
		30-100	c	g o mn	ab	1-2	hdsst c p					
231	WW	0-29	scl	slt gleyed		1-2	hdsst	< 40	35	IV	3b	1-3 ^{0} USS very dry and compact - gritty. Lower subsoil gleyed but loose and moist
		29-45	hcl	o g	c	1-2	hdsst					
		45-100	scl	o g	ab	1-2	hdsst					
232	PGR	0-25	hcl	o	c	1-2	hdsst c slst	<30	35	IV	4	Sandy lenses/alluvium>80cm
		25-40	hcl	o g mn	ab	3-5	hdsst c slst					
		40-70	hcl	o g mn	ab	1-2	hdsst slst					
		70-100	hcl + msl	g o	ab	1-2	hdsst slst					
233 (TP6)	PGR	0-15	hcl			1-2		<40	60	III	3b	
		15-25	hcl	o	m	1-2						
		25-35	mcl	o	m	1-2	sst fr					
		35-50	hcl	o	ab	1-2	sst fr					
		50+	hzcl	0	m	1-2						
234	PGR	0-25	hcl			1-2	hdsst c slst	<35	35	IV	4	
		25-35	hcl	o g mn	ab	3-5	hdsst c slst					
		35-100	c	g o mn	ab	3-5	hdsst c slst					
235	PGR	0-32	hcl	o	f	1-2	hdsst sh	<35	35	IV	4	Grazed - cattle. Undulating 1-3 ^{0}
		32-100	c	o g	ab	3-5	ssst c sh					
236	NA										NA	Woodland
237	PGR	0-23	mcl	o	c	1-2	hdsst grvl	<40	35	IV	3b	1-2 ^{0} E. Slight variable relief Boring offset 20 from non-ag
		23-35	hcl	o g mn	m	1-2	hdsst grvl					
		35-100	c	g o mn	ab	1-2	hdsst grvl					
238	WW	0-25	scl			3-5	grvl hdsst	<40	No SPL	II	3a	Boring offset 5m N Sand and gravel Likely SPL>80
		25-40	scl	o	c	5-10	grvl hdsst					
		40-70	scl	o	c	10-15	grvl hdsst					
		Impenetrable >70cm due to gravel										
239	PGR	0-26	mcl	o	f>20	1-2	hdsst	<35	35	IV	3b	Grazed - sheep. 1-3 ^{0} Just above lower lying flood plain
		26-100	hcl/c	o g mn	ab	3-5	hdsst ssst					
240	PGR	0-26	mcl			1-2		<40	35	IV	3b	
		26-80+	hcl	o mn	ab	1-2						
241	PGR	0-25	mcl	o	f	1-3	hdsst grvl	<30	35	IV	3b	
		25-40	hcl	o mn	m	3-5	hdsst grvl					
		40-100	c	o g mn	ab	5-10	hdsst grvl					
242	PGR	0-27	hcl	o	f	1-2	ssst	<30	35	IV	4	1-3 ^{0} undulating
		27-100	c	o g	ab	3-5	hdsst ssst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
243	NA	0-26	mcl	o	f	1-3	hdsst grvl	<30	35	IV	NA	Recent plantation
		26-40	hcl	o mn	m	3-5	hdsst grvl					
		40-100	c	o g mn	ab	5-10	hdsst grvl					
244	PGR	0-26	mcl	o	f	1-2	hdsst grvl	<40	35	IV	3b	2-3 ^{0} ENE
		29-40	hcl	o mn	m	3-5	hdsst grvl					
		40-100	c	o g mn	ab	5-10	hdsst grvl					
245	PGR	0-25	hcl	o	r	1-2	hdsst	<30	35	IV	4	4-7 ^{0}
		25-100	c	o g mn	ab	3-5	hdsst ssst					
246	PGR	0-12	mcl			1-2		<40	80	III	3a	Alluvial influence in valley
		12-35	mcl	o mn	c	1-2						
		35-53	scl	o mn	m	1-2						
		53-80+	scl	o mn	m	1-2						
247	PGR	0-25	hcl	o	c	1-2	hdsst c	<40	35	IV	4	
		25-35	mcl	o	f/c	1-2	hdsst c					
		35-100	c	p mn	ab	1-2	hdsst c					
248	PGR	0-29	hcl	o	f	1-2	hdsst	<35	35	IV	4	1-3 ^{0} gentle undulations
		29-100	c	o g	ab	3-5	ssst hdsst sh					
249	PGR	0-27	mcl	o	f	1-2	hdsst grvl	<30	40	IV	3b	
		27-40	hcl	o mn	c/m	1-2	hdsst grvl					
		40-100	c	g o mn	ab	1-2	hdsst grvl					
250	PGR	0-26	hcl	o	r	1-2	hdsst	<35	40	IV	4	Grazed - sheep. 1-3 ^{0} SS very mixed - disturbed?
		26-45	hcl	o g	c	1-2	hdsst					
		45-100	c	o g mn	ab	3-5	hdsst					
251	CULT	0-27	scl			3-5	grv	<40	>70	III	3a	Impenetrable to auger > 55cm due to very dry stony lower subsoil. Alluvial influence
		27-35	scl	o	c	3-5	hdsst					
		35-45	msl	o mn	c	10-15	grvl ssst fr					
		45-55	lms	o	f	10-15	grvl ssst fr					
		55+	Impen									
252	PGR	0-30	mcl	o	c	1-2	grvl hdsst	<25	65	III	3a	Alluvial influence in valley
		30-65	mcl	o mn	m	3-5	grvl hdsst					
		65-100	mcl	o g mn	ab	3-5	grvl hdsst					
253	PGR	0-22	mcl			1-2	hdsst grvl	<35	35	IV	3b	
		22-30	mcl (A2)	o g	c	1-2	hdsst grvl					
		30-100	c	g o mn	ab	3-5	hdsst grvl					
254	PGR	0-28	mcl			1-2	hdsst	<40	35	IV	3b	Grazed - sheep. 1-3 ^{0}. Hcl bands > 60
		28-60	hcl	o g	ab	3-5	hdsst ssst					
		60-100	scl	o g mn	ab	5-10	hdsst ssst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
255	PGR	0-23	mcl			1-2		<40	35	IV	3b	
		23-35	hcl	o	c	1-2						
		35-50+	hcl	o mn	m	1-2						
256	Not surveyed						No access					
257	NA						No access				NA	
258	PGR	0-26	omzcl	o	f	1-2	hdsst	<35	40	IV	3b	Grazed - sheep. 1-3 ^{0}. SI organic topsoil Brought in to grade road
		26-40	scl	o g mn	c	1-2	hdsst					
		40-100	c	o g	ab	3-5	hdsst ssst					
259	PGR	0-27	mcl	o	f	1-2		<40	37	IV	3b	Rigg and furrow landform
		24-37	mcl	o	m	1-2	sst fr					
		37-80+	hzcl/c	o mn	c	3-5	sst fr					
260	No access											
261	PGR	0-26	omcl			0-1	hdsst	<35	35	IV	3b	Extensive grassland. 1-3 ^{0} Poor microrelief Possible relic r+f
		26-35	hcl	o g	c	1-2	ssst					
		35-100	c	o g	ab	3-5	ssst					
262	WW	0-20	mcl			1-2	hdsst grvl	<30	35	IV	3b	Shallow TS 2-5% subsoil in topsoil
		20-30	hcl	o mn	c/m	1-2	hdsst ssst					
		30-100	c	g o mn	ab	1-2	hdsst ssst					
263	WW	0-26	mcl			1-2	hdsst	<30	35	IV	3b	1-3 ^{0}
		26-100	hcl/c	o g mn	ab	3-5	hdsst ssst					
264	WC	0-18	hcl	0	f	1-2		<40	35	IV	4	
		18-85+	hcl	o mn	ab	3-5	sst fr					
265	WW	0-23	mcl			1-2	hdsst grvl	<30	35	IV	3b	2-5% subsoil in topsoil
		23-30	hcl	o g mn	m	3-5	hdsst grvl					
		30-100	c	g o mn	ab	3-5	hdsst grvl					
266	WW	0-27	omzcl			1-2	hdsst q	<30	35	IV	3b	1-3 ^{0}. SI organic topsoil Field headland
		27-100	c	o g mn	ab	3-5	ssst hdsst					
267		0-29	hcl			1-2		<40	37	IV	4	
		29-37	hcl	o	ab	1-2						
		37-60+	hcl/c	o mn	ab	3-5	sst fr					
268	WW	0-24	mcl			1-2	hdsst grvl p	<30	50	IV	3b	Sandy lenses in USS Rare pottery and tile in TS
		24-35	hcl	o mn	m	3-5	hdsst grvl p					
		35-50	mszl	o mn	ab	3-5	hdsst grvl p					
		50-10	c	g o mn	ab	3-5	hdsst grvl p					
269	WC	0-32	mcl			1-2		<40	35	IV	3b	
		32-80+	hcl	o mn	ab	1-2						
270	WW	0-26	mzcl			1-2	hdsst	<30	35	IV	3b	<1 ^{0} - near flat
		26-100	c	o g mn	ab	3-5	hdsst ssst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
271	PGR	0-23	mcl			1-2	hdsst grvl p	<30	35	IV	3b	
		23-55	c	o mn g	ab	1-2	hdsst grvl					
		55-100	c	g o mn	ab	3-5	hdsst ssst					
272	PGR	0-29	omzcl			1-2	hdsst	<30	40	IV	3b	Recent reseed. 1-3 ^{0} - field headland. Sl organic topsoil
		29-50	hcl	o g	ab	3-5	hdsst ssst					
		50-100	c	o g	ab	3-5	hdsst ssst					
273	WC	0-32	mcl			1-2		<40	48	IV	3b	
		32-48	mcl+scl	o	m	1-2	sst fr					
		48-65+	hcl	o mn	m	3-5	sst fr					
274	PGR	0-23	mcl			1-2	grvl hdsst	<30	40	IV	3b	Slightly improved upper subsoil drainage
		23-80	hcl	o mn	m	3-5	hdsst ssst					
		80-100	hcl	o g mn	ab	3-5	hdsst ssst					
275 (TP7)	WC	0-24	mcl			1-2		<40	40	IV	3b	
		24-32	mcl	o	c	1-2						
		32-55	m/hcl	o	m	1-2	sst fr					
		55-100	hcl + lms	o mn	m	3-5	sst fr					
276	NA										NA	Recent plantation
277	PGR	0-26	mcl			1-2	hdsst	<30	35	IV	3b	Recent reseed. 1-3 ^{0}
		26-100	c	o g	ab	5-10	hdsst ssst					
278	WW	0-25	mcl			1-2	grvl hdsst	<40	70	III	3a	Sandy lenses in subsoil
		25-45	hcl	o g mn	m	3-5	grvl hdsst					
		45-60	msl	o	m	3-5	grvl hdsst					
		60-100	scl	o g	m	3-5	grvl hdsst					
279	WOSR	0-24	mcl			1-2		<40	40	IV	3b	
		24-60	m/hcl	o mn	ab	3-5	sst fr					
		60-94+	hcl	o	ab	1-2						
280	WW	0-19	mcl			1-2	hdsst p	<40	45	IV	3b	Shallow topsoil Lenses of sand in USS
		19-45	hcl + mszl	o g mn	ab	1-2	hdsst					
		45-100	c	g o mn	ab	3-5	hdsst ssst					
281	WW	0-27	mcl			1-2	hdsst	<30	35	IV	3b	1-3 ^{0} FYM applied
		27-100	c	o g mn	ab	3-5	ssst hdsst					
282	WOSR	0-27	mcl			1-2		<30	35	IV	3b	
		27-80+	hcl	o mn g	m	1-2						
283	WW	0-24	mcl			1-2	hdsst p	<40	35	IV	3b	
		24-50	hcl	o g mn	ab	3-5	hdsst					
		50-100	hcl/c	g o mn	ab	3-5	hdsst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
284	WW	0-23	mcl			1-2	hdsst grvl	<40	35	IV	3b	Sandy inclusions in SS Less heavy at depth
		23-40	hcl	g o mn	ab	3-5	hdsst grvl					
		40-70	hcl	o g	f/c	3-5	hdsst grvl					
		70-100	hcl	o g	m	3-5	hdsst grvl					
285	WW	0-28	mcl	o	r	1-2	hdsst q grvl	<30	35	IV	3b	1-3 ^{0}
		28-100	c	o g mn	ab	3-5	hdsst ssst					
286	WOSR	0-23	mcl			1-2		<40	48/	IV	3b	
		23-48	mcl+scl	o	m	1-2	sst fr					
		48-65+	hcl	o mn	m	3-5	sst fr					
287	WW	0-26	mcl			1-2	hdsst	<30	35	IV	3b	1-3 ^{0}. Increasingly stony > 60 FYM applied
		26-100	c	o g mn>60	ab	3-5	ssst hdsst					
288	WW	0-28	mcl	o	r	1-2	hdsst q	<30	35	IV	3b	1-3 ^{0} minimum till
		28-45	hcl	o g	c	3-5	hdsst					
		45-100	c	o g	ab	5-10	ssst c					
289	WOSR	0-28	mcl			1-2		<40	50	IV	3b	
		28-36	hcl	o mn	m	1-2						
		36-50	hcl	o mn	m	1-2						
		50-850+	hcl	o mn	ab	1-2						
290	WW	0-24	mcl			1-2	hdsst c	<30	35	IV	3b	
		24-40	hcl	g mn o	ab	3-5	hdsst c					
		40-100	c	g o	ab	3-5	hdsst c					
291	WOSR	0-30	mcl			1-2		<40	35	IV	3b	
		30-65	hcl	o mn	m	3-5	sst fr					
292	PGR	0-30	mcl			1-2		<40	47	IV	3b	
		30-47	mcl	o	m	1-2						
		47-65+	hcl	o mn fe	m	3-5	sst fr					
293	RGR	0-20	omzcl	o	c	1-2	hdsst	<40	35	IV	3b	Unmanaged. 1-3 ^{0} Boring offset due to access
		20-50	mcl	o g	f	1-2	hdsst					
		50-100	hcl	o g	ab	1-2	ssst hdsst					
294	Cult	0-15	mcl			0-1	hdsst grvl q	<25	48	IV	3b	Mixed TS and SS on headland to 20cm. Sandy lenses in SS
		15-48	scl	o	ab	1-2	ssst hdsst					
		48-100	hcl	o mn	ab	1-2	hdsst grvl					
295	Cult	0-24	mcl			0-1	hdsst slst	<30	35	IV	3b	Slightly lighter TS on hilltop
		24-40	c	o g mn	ab	1-2	hdsst c					
		40-100	c	g o	ab	1-2	hdsst c					
296	WC	0-27	mcl			1-2		<40	40	IV	3b	
		27-40	mcl	o	m	1-2						
		40-70+	hcl/hzcl	o mn fe	ab	1-2						

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
297	Cult	0-26	mcl	o	r	1-2	hdsst q	<40	40	IV	3b	1-3 ^{0} undulating. Stonier at depth
		26-35	hcl	o g	c	3-5	hdsst ssst					
		35-100	c	o g	ab	3-5	ssst					
298	PGR	0-27	mcl/hcl			1-2	hdsst c q	<30	35	IV	3b/4	Cult. 3-4 ^{0} undulating W Gley clay - strongly gleyed
		27-60	c	o g mn	ab	1-2	hdsst c q					
		60-100	c	g o	ab							
299	Cult	0-24	mcl			1-2	hdsst grvl	<25	35	IV	3b	
		24-35	hcl	o g	ab	3-5	hdsst grvl					
		35-100	c	o g mn	ab	3-5	hdsst grvl					
300	WC	0-28	mcl			1-2		<40	35	IV	3b	
		28-62	hcl	o mn	m	1-2						
		62-85-	hcl	o mn	ab	3-5	sst fr					
301	Cult	0-24	mcl	o	r	1-2	hdsst	<25	35	IV	3b	1-3 ^{0}
		24-100	c	o g	ab	1-2	hdsst ssst					
302	Cult	0-28	mcl			1-2	hdsst c slst	<30	50	IV	3b	Lighter TS Slightly stony SS Soft weathered sandstone
		28-50	mcl/hcl	o mn g	ab	3-5	hdsst c slst					
		50-100	c	g o mn	ab	3-5	hdsst c slst					
303	WC	0-26	mcl			1-2		<40	62	III	3a	
		26-40	mcl	o	f	1-2						
		40-62	mcl	o mn	c	1-2						
		62-85+	hcl	o mn	n	3-5	sst fr					
304	Cult	0-28	mcl	o	r	1-2	hdsst	<40	55	IV	3b	1-3 ^{0} undulating High ssst content locally scl texture
		28-40	hcl	o g	f	3-5	hdsst					
		40-55	hcl + scl	o g	c	15-20	hdsst ssst					
		55-100	c	o g	ab	1-2	ssst sh					
305	Cult	0-27	hcl	o	r	1-2	hdsst	<30	35	IV	4	1-3 ^{0} headland. 5-10% subsoil in topsoil
		27-100	c	o g	ab	1-2	ssst c					
306	PLO	0-26	mcl			1-2	hdsst q	<40	35	IV	3b	Sandy lenses in subsoil
		26-50	c	g	ab	3-5	hdsst q					
		50-100	c	o g mn	ab	3-5	hdsst q					
307	F	0-26	hcl			1-2		<40	35	IV	4	
		26-56	hcl	o mn	ab	1-2						
		56-85+	msl	o mn	ab	12-						
308	Cult	0-22	hcl			1-2	hdsst c q	<25	35	IV	4	
		22-40	c	o g mn	ab	1-2	hdsst c q					
		40-100	c	g o mn	ab	1-2	hdsst c q					
309	Cult	0-27	mcl	o	r	1-2	hdsst	<30	35	IV	3b	1-3 ^{0} undulating. 5% subsoil in topsoil
		27-100	c	o g	ab	1-2	hdsst ssst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
310	PLO	0-27	hcl			1-2	hdsst q	<40	65	III	3b	
		27-40	hcl	o g	m	1-2	hdsst q					
		40-65	scl	g o	ab	3-5	hdsst q					
		65-100	hcl	g o	ab	3-5	hdsst q					
311	F	0-23	hcl			0-1		<40	35	IV	4	
		23-35	hcl	o	m	0-1	sst fr					
		35-65+	zc/c	o mn	m	0-1						
312	Cult	0-20	hcl			1-2	hdsst q	<25	40	IV	4	
		20-45	c	o g mn	ab	1-2	hdsst q					
		45-100	c	g o mn	ab	1-2	hdsst q					
313	Cult	0-27	hcl	o	r	1-2	hdsst p g	<30	35	IV	3b/4	1-3 ^{0}. Glass pottery in topsoil and 5-10% subsoil ploughed out.
		27-45	hcl	o g	ab	1-2	hdsst					
		45-100	c	o g	ab	1-2	hdsst ssst					
314	Cult	0-22	mcl	o	r	1-2	hdsst	<30	35	IV	3b	1-3 ^{0}. Headland close to hedge
		22-100	c	o g	ab	1-2	hdsst ssst					
315	PLO	0-25	mcl			1-2	hdsst slst q	<40	45	IV	3b	
		25-45	hcl	mn	ab	3-5	hdsst q					
		45-100	c	o g mn	ab	3-5	hdsst q					
316	PLO	0-28	mcl			1-2	hdsst slst q	<40	45	IV	3b	
		28-50	hcl	mn	ab	3-5	hdsst q					
		50-100	c	o g mn	ab	3-5	hdsst q					
317	F	0-25	hcl			1-2		<40	35	IV	4	
		25-32	hcl	o	c	1-2						
		32-48	hcl	o	m	1-2	sst fr					
		48-65+	hzcl/zc	o mn	m	3-5	sst fr					
318	Cult	0-24	mcl/hcl			1-2	hdsst c t	<30	35	IV	4/3b	FYM applied TS sample taken
		24-100	c	g o mn	ab	1-2	hdsst ssst					
319	Cult	0-27	hcl			1-2	hdsst c	<30	35	IV	4	Compost applied
		27-100	c	o g mn	ab	1-2	hdsst slst c					
320	Cult	0-25	mcl			1-2	hdsst c	<30	40	IV	3b	Less heavy TS Improved USS drainage
		25-37	mcl	o	f	1-2	hdsst c					
		37-60	hcl + scl	o g mn	m	1-2	hdsst c					
		60-100	c	g o mn	ab	1-2	hdsst c					
321	Cult	0-24	mcl			1-2	hdsst c	<40	50	IV	3b	Sandy lenses in SS Compost applied
		24-35	hcl	o	f	1-2	hdsst c					
		35-50	hcl + msl	o g mn	ab	3-5	hdsst c					
		50-100	c	o g mn	ab	3-5	hdsst c					
322	WW	0-26	mcl			1-2	hdsst c p	<40	35	IV	3b	Medium TS
		26-100	hcl/c	o g mn	ab	3-5	hdsst c ssst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
323	WW	0-24	mcl/hcl			1-2	hdsst c p	<30	40	IV	3b/4	
		24-60	hcl	o mn	m	3-5	hdsst slst					
		60-100	hcl	o g mn	ab	3-5	hdsst slst					
324		0-26	mcl/hcl			1-2	hdsst q	<40	35	IV	3b/4	Sandy lenses in SS
		26-50	c	o g	ab	3-5	hdsst q					
		50-100	hcl	g o	ab	3-5	hdsst q					
325	F	0-20	mcl			1-2		<40	35	IV	3b	
		20-80+	hcl	o mn	ab	3-5	sst fr					
326	WW	0-23	mcl/hcl			1-2	hdsst c	<40	35	IV	3b/4	Compost applied. Tile fragments and 5% subsoil in topsoil
		23-35	hcl	o	f/c	1-2	hdsst c					
		35-100	c	o g mn	ab	1-2	hdsst c					
327	WW	0-27	hcl	o	f>20	1-2	hdsst	<30	35	IV	4	1-3 ^{0}. 5% Subsoil in topsoil
		27-100	c	o g	ab	3-5	ssst hdsst					
328	WW	0-26	mcl/hcl	o	r	1-2	hdsst	<30	35	IV	4	1-3 ^{0}. Subsoil very dry + compact
		26-100	c	o g	ab	3-5	hdsst ssst					
329	WW	0-29	hcl	o	f	1-2	hdsst q	<30	35	IV	4	New flat
		29-100	c	o g	ab	5-10	hdsst ssst					
330	WW	0-28	hcl			1-2	hdsst c	<40	65	III	3b	5-10% subsoil in topsoil
		28-65	hcl	o mn	m	5-10	hdsst c					
		65-100	hcl	o g mn	ab	3-5	hdsst c					
331	WW	0-27	hcl			1-2	hdsst q	<40	No SPL	II	3a	Likely 3a surrounded by 3b
		27-40	scl	o g	c	3-5	hdsst					
		40-100	scl	o	ab	5-10	ssst					
332	F	0-23	hcl					<40	37	IV	4	Impenetrable > 55 due to stones
		23-37	hcl	o	m	1-2						
		37-55	hcl	o mn	m	1-2	sst fr					
		55+	Impen			10-15?	sst fr					
333	F	0-25	hcl			1-2		<40	35	IV	4	Impenetrable > 50 due to stones
		25-35	hcl	o	m	1-2						
		35-50	scl	o	m	1-2	sst fr					
		50+	Impen			10-15?	sst fr					
334	WC	0-27	hcl			1-2		<40	35	IV	4	
		27-80+	hcl	o mn	ab	1-2						
335	WC	0-25	hcl			1-2		<40	35	IV	4	
		25-35	hcl	o	c	1-2						
		35-55+	hcl	o mn	m	1-2	sst fr					
336	WW	0-30	hcl	o slt gleyed	f	1-2	hdsst q	<40	40	IV	4	1-3 ^{0} undulating 5-10% subsoil in topsoil
		30-40	hcl	o g	c	1-2	hdsst q					
		40-100	c	o g	ab	1-2	ssst hdsst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
337	WC	0-28	mcl			1-2		<40	35	IV	3b	
		28-85+	hcl	o mn	ab	1-2						
338	WW	0-31	hcl	o gleyed >20	f	1-2	hdsst q	<40	40	IV	4	1-3 ^{0}. Incorporated compost Disturbed - undifferentiated
		31-100	hcl	mixed		1-2	hdsst q					
339	WC	0-18	hcl			0-1		<40	37	IV	4	
		18-37	hcl	o	ab	0-1						
		37-55+	zc	o mn	m	1-2	sst fr					
340	WC	0-15	hcl			0-1		<40	35	iv	4	
		15-47	hcl	o	ab	0-2						
		47-750+	zc	o mn	m	1-2	sst fr					
341	WW	0-29	hcl	o	f>20	1-2	hdsst q	<40	35	IV	4	1-3 ^{0}
		29-100	c	o g	ab	3-5	hdsst ssst					
342	WW	0-29	mcl			1-2	hdsst c	<40	48	IV	3b	
		29-48	hcl	o g	m	3-5	hdsst c					
		48-100	c	g o mn	ab	3-5	hdsst c					
343	F	0-25	mcl			1-2		<40	40	IV	3b	Impenetrable > 40 due to sandstones in profile but likely heavy drift to depth
		25-30	mcl	o	c	1-2						
		30-35	mcl	o	m	1-2						
		35-40	hcl	o mn	m	3-5	sst fr					
		40+	Impen									
344	WW	0-28	mcl	o	c>20	1-2	hdsst sh	<40	40	IV	3b	1-3 ^{0}. Sandy lenses due to localised very soft sst
		28-100	hcl/c	o g	ab	5-10	ssst					
345	WC	0-30	mcl			1-2						Impenetrable > 30cm due to sandstone. May be disturbed or very stony - map with 3b.
		30+	Impen			20+	ssst					
346	WE	0-25	mcl			1-2		<40	35	IV	3b	
		25-30	mcl			1-2						
		30-65+	hcl	o mn	ab	1-2	ssst fr					
347	WW	0-24	scl	o	f	1-2	hdsst sh	<35	35	IV	3b	<1 ^{0} near flat Increasingly stony with depth
		24-100	hcl/c	o g	ab	1-2	hdsst ssst					
348	WC	0-24	hcl			1-2		<30	35	IV	4	
		24-72	hcl	o mn	ab	1-2	sst fr					
349	WW	0-27	mcl	o	r	1-2	hdsst	<35	35	IV	3b	<1 ^{0} near flat
		27-100	c	o g	ab	5-10	hdsst ssst sh					
350	WW	0-28	mcl	o	r	1-2	hdsst	<40	40	IV	3b	<1 ^{0} near flat
		28-40	hcl	o g	ab	1-2	hdsst ssst					
		40-100	c	o g	ab	3-5	ssst					
351	WW	0-27	mcl	o	r	1-2	hdsst	<40	45	IV	3b	<1 ^{0} near flat
		27-45	hcl	o g	ab	1-2	hdsst					
		45-100	c	o g	ab	1-2	hdsst ssst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
352	WW	0-25	hcl	o g	f	1-2	hdsst	<35	35	IV	4	<1 ^{0} - headland adj road and gate. 5-10% subsoil in topsoil TS. Increasingly stony at depth
		25-100	c	o g	ab	3-5	hdsst ssst					
353	WW	0-40	mcl					<70	80	II	3a	1-3 ^{0} - infilling at shallow valley Very dry, tree roots
		40-79	mcl	o g	f	1-2	ssst					
		80-79	hcl	o g	ab	1-2	ssst					
354	WW	0-26	scl			0-1	ssst	<40	60	III	3a	<1 - close to ditch. Stratified subsoil textures
		26-50	msl	o g	ab	0-1	grvl					
		50-100	hcl + scl	o g	ab	1-2	ssst					
355	WW	0-35	mcl	o	c >20	1-2	hdsst	<40	40	IV	3b	Near flat - corner of field Ditches with 5m on 2 sides
		35-100	c	o g	ab	3-5	ssst					
356 (TP8)	WE	0-25	c			1-2		<40	36	IV	4	
		25-36	c	0	ab	1-2						
		36-58	c	o mn	ab	1-2	sst fr					
		58-80+	hcl	o mn	m	1-2	sst fr					
357	WW	0-26	mcl	o mn	ab	1-2	hdsst	<35	35	IV	3b	<1 ^{0} - near flat
		26-100	c	o g	ab	1-2	hdsst ssst					
358	WW	0-16	mcl	o	f	1-2	hdsst	<35	35	IV	3b/4	<1 ^{0} headland TS depth affected by field edge Boring offset 10m into field
		16-55	c	o g	ab	1-2	hdsst ssst					
		55-100	hcl	o g	ab	3-5	ssst c sh					
359	WW	0-38	mcl	o	f	1-2	hdsst	<43	43	IV	3b	Very close to road <1 ^{0}. Grass margin. Disturbed - adjacent road. Undisturbed LSS
		38-60	hcl	mixed	disturbed	3-5	hdsst					
		60-100	c	o g	ab	3-5	hdsst ssst					
360	WW	0-25	mcl			1-2	hdsst q	<40	60	III	3a	Improved drainage
		25-60	mcl	o	c	1-2	hdsst q					
		60-100	hcl	o g	m	3-5	hdsst q					
361	NA											
362	WW	0-24	mcl			1-2	hdsst grvl	<30	37	IV	3b	2-5% subsoil ploughed out Coarse sand/gritty subsoil Moist to 37.
		24-37	hcl	o mn	m	5-10	hdsst grvl					
		37-100	c	g o mn	ab	3-5	hdsst grvl					
363	WC	0-25	hcl			1-2		<40	35	IV	4	
		25-73	hcl	o mn	ab	1-2						
		73-90	hcl	o mn	ab	3-5	sst fr					
364	WC	0-24	mcl	o		1-2		<40	35	IV	3b	Broken/weathering sandstone 54+
		24-85+	hcl	o mn	f	5-10	sst fr					
365	WW	0-30	omzcl		ab	0-1	hdsst	<40	65	III	3a	Very close to hedge (3m)
		30-45	msl	o	f							
		45-65	lms	o	f							
		65-100	c	o g	ab	3-5	hdsst ssst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
366	NA											
367	WW	0-26	mcl			1-2	hdsst grvl	<30	40	IV	3b	5% subsoil in topsoil after ploughing. Very dry at depth
		26-40	hcl	o g mn	ab	1-2	hdsst grvl					
		40-100	c	g o	ab	1-2	hdsst grvl					
368	WC	0-25	mcl			1-2		<40	<35	IV	3b	
		25-80+	hcl	o mn	ab	3-5	sst fr					
369	WW	0-26	mcl	o	r	1-2	hdsst sh	<30	35	IV	3b	<1 ^{0} - near flat. Very close to hedge (3m). Locally very stony SS - with lenses of ssst + scl
		26-100	hcl/c	o g	ab	3-5	ssst hdsst					
370	NA										NA	
371	WW	0-24	mcl			1-2	hdsst q	<30	35	IV	3b	5% Subsoil in topsoil
		24-50	c	o g mn	ab	1-2	hdsst q					
		50-100	c	g o	ab	3-5	hdsst grvl					
372	WC	0-25	mcl					<40	<35	IV	3b	
		25-5+	hcl	o mn	ab							
373	WW	0-26	mcl	o	r	1-2	hdsst ssst	<30	35	IV	3b	1-3 ^{0} undulating
		26-100	hcl/c	o g	ab	3-5						
374	NA	0-20	mcl/hcl			1-2	hdsst q	<30	35	IV	Non-ag	Woodland
		20-100	c	o g	ab	1-2	hdsst q					
375		0-27	mcl					<40	<35	IV	3b	
		27-85+	hcl	o mn	ab							
376	WW	0-27	hcl	o + ss	f	1-2	hdsst	<30	35	IV	4	4-7 ^{0}. 5-10% subsoil in topsoil
		27-100	c	o g	ab	1-2	hdsst ssst					
377	WW	0-24	mcl/hcl			1-2	hdsst c q	<30	35	IV	3b/4	Impenetrable >60cm due to stones
		24-60	c	o g mn	ab	5-10	hdsst c					
378	WC	0-25	mcl			1-2		<40	35	IV	3b	
		25-32	mcl	o	c	1-2						
		32-40	hcl	o mn	ab	1-2	sst fr					
		40-55+	hcl	o mn	m	5-10	sst fr					
379	WW	0-23	hcl			1-2	hdsst p t	<25	35	IV	4	
		263-50	hcl/c	g o mn	ab	1-2	hdsst c					
		50-100	c	g o	ab	1-2	hdsst c					
380	WW	0-22	hcl			1-2	hdsst c	<30	35	IV	4	Heavy TS. 5% subsoil in topsoil Rare large cobbles in topsoil
		22-100	c	o g mn	ab	3-5	hdsst c					
381		0-27	mcl					<40	<35	IV	3b	
		27-85+	hcl	o mn	ab							

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
382	WC	0-23	mcl			1-2		<40	42	IV	3b	
		23-32	mcl	o mn	c	1-2						
		32-42	hcl	o mn	ab	1-2	sst fr					
		42-55+	hzcl	o mn	ab	5-10	sst fr					
383	WW	0-26	mcl/hcl			1-2	hdsst p q	<30	35	IV	3b/4	Rare large cobbles in TS Compost/Nightsoil applied
		26-50	c	g o mn	ab	1-2	hdsst q					
		50-100	c	g o mn	ab	3-5	hdsst c					
384	WW	0-25	mcl/hcl			1-2	hdsst q p	<30	75	III	3a/3b	Slightly improved drainage Inclusions of msl in USS
		25-40	hcl	g o mn	ab	1-2	hdsst ssst					
		40-60	hcl + scl	o g	ab	5-10	hdsst ssst					
		60-100	c	o g	ab	3-5	hdsst c					
385	NA										NA	
386	WC	0-34	mcl			1-2		<40	42	IV	3b	Valley bottom. Impenetrable to auger > 60cm
		35-50	mcl/scl	o mn	ab	1-2						
		50-60	scl	o	ab	1-2	sst fr					
		60+	Impen									
387	WW	0-25	hcl			3-5	hdsst p t	<30	35	IV	4	Disturbed - possibly from A1 construction Compact and dry
		25-100	c	g o	ab	3-5	hdsst c					
388	PGR	0-20	hcl	o g	c	1-2	hdsst	<30	35	IV	4	Very close to woodland edge 4-7 ^{0} - wet surface Soft rush infestation
		20-100	c	o g mn	ab	3-5	hdsst ssst					
389	PGR	0-26	hcl	o mn	f	1-2		<30	35	IV	4	Heavy rush infestation
		26-44	hzcl	o mn	m	1-2	sst fr					
		44-52	hcl	o	m	1-2	sst fr					
		52-85+	hcl	o mn	m	1-2	sst fr					
390	PGR	0-25	hcl	o mn	f	1-2		<30	35	IV	4	Pockets of zc subsoil in topsoil. Mixed topsoil and subsoil to 47cm.
		25-47	hcl	o mn	m	1-2						
		47-65+	c/hcl	o	ab	1-2	sst fr					
391	PGR	0-20	sl o mcl	o g	c	1-2	hdsst q	<30	35	IV	3b	1-3 ^{0} com soft rush
		20-100	c	o g mn	ab	1-2	hdsst ssst					
392	PGR	0-28	sl o mcl	o g	c	1-2	hdsst	<30	35	IV	3b	1-3 ^{0}. Com sandy lenses in subsoil
		28-100	hcl	o g mn	ab	5-10	hdsst ssst c					
393	PGR	0-20	mcl					<70	50	III	3a	
		20-50	mcl	o	f							
		50-85+	scl	o	m	3-5	sst fr					
394	PGR	0-24	sl o mcl	o g	f	1-2	hdsst	<30	35	IV	3b	1-3 ^{0}. Rutting. C com soft rush Prob disturbed
		24-100	c	o g mn	ab	1-2	ssst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
395	PGR	0-20	mcl					<40	45	IV	3b	
		20-45	mcl	o	c							
		45-80+	c	o mn	m							
396	WW	0-28	hcl			1-2	hdsst c p	<40	45	IV	4	Strong o + mn mottling
		28-45	mcl	o mn	c	1-2	hdsst c					
		45-100	hcl	o mn	ab	1-2	hdsst c					
397	WW	0-24	hcl	gleyed	mixed	1-2	hdsst	<40	60	III	3b	4-7 ^{0} >10% subsoil inclusions in topsoil. Possibly disturbed
		24-35	hcl	o g	mixed	1-2	hdsst ssst					
		35-65	scl	dk rb		1-2	hdsst ssst					
		65-100	c	o g	ab	1-2	hdsst ssst					
398	PGR	0-14	hcl	5-10% SS	mixed	1-2	ssst	<30	35	IV	4	4-7 ^{0} - Disturbed TS possibly with ditch clearing arisings Boring offset by 10m in field TS soft + wet - poached
		14-35	hcl	>50% SS	mixed	3-5	hdsst ssst					
		35-100	hcl	o g	ab	5-10	hdsst ssst					
399	WW	0-24	hcl			1-2	hdsst c	<30	35	IV	4	Compost applied
		24-60	c	o mn g	ab	1-2	hdsst c					
		60-100	c	g o	ab	1-2	hdsst c					
400	WW	0-23	hcl			1-2	hdsst c p	<30	35	IV	4	Heavy TS 5% SS inclusions in topsoil
		23-30	hcl	o g	c	1-2	hdsst c					
		30-100	c	g o	ab	1-2	hdsst c					
401 (TP9)	WW	0-24	mcl/hcl			1-2	hdsst c p	<40	35	IV	4	Marginally heavy TS
		24-35	hcl	o	m	1-2	hdsst c q					
		35-60	c	o g mn	ab	1-2	hdsst c q					
		60-100	c	g o mn	ab	1-2	hdsst c q					
402	NA										Non Ag	
403	NA										Non Ag	
404	WW	0-26	hcl	o	c	1-2	hdsst sh	<40	35	IV	4	<1 ^{0} near flat - headland
		26-100	c	o g mn	ab	1-2	hdsst ssst c					
405	WW	0-26	hcl			1-2	hdsst p c	<40	50	IV	4	Sandy inclusions in USS
		26-50	scl	o mn	m	3-5	hdsst c					
		50-100	c	g o	ab	3-5	hdsst slst					
406	SAS	0-22	omcl	o	c	1-2	hdsst c	<30	35	IV	4	Wet Locally disturbed
		22-55	hcl	o g mn	m	1-2	hdsst c					
		55-100	c	g o mn	ab	1-2	hdsst c					
407	NA										Non Ag	
408	NA										Non Ag	
409	NA										Non Ag	

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
410	WW	0-29	hcl	o slt gleyed	f	1-2	hdsst	<40	35	IV	4	1-3 ^{o} Mixed layer 29-35 50/50 TS/SS
		29-35	hcl	mixed		1-2	zst					
		35-100	c	o g mn	ab	1-2	hdsst ssst c					
411	WW	0-24	hcl			1-2	hdsst p c	<30	35	IV	4	Heavy TS
		24-35	hcl	g o	c	3-5	hdsst slst					
		35-60	c	o g mn	ab	3-5	hdsst slst					
		60-100	c	o g mn	ab	3-5	hdsst slst					
412	A	0-35	mcl					<40	35	IV	3b	
		35-55+	hcl	o g mn	c							
413	NA										Non-ag	SS margin
414	NA										Non Ag	
415	WW	0-32	mcl	mn	c			<40	37	IV	3b	
		32-100	hcl/c	o mn	c	3-5	sst fr					
416	A	0-37	mcl					<40	35	IV	3b	
		37-60+	hcl	o g mn	c							
417	WW/NA	0-27	mcl			1-2	hdsst q c	<40	55	III	3a/NA	May be non-ag depending on width of land take
		27-55	scl	g o	m	3-5	hdsst q c					
		55-100	scl	g o mn	ab	3-5	hdsst q c					
418	NA											
419	NA						0					
420	WW	0-30	mcl			3-5	hdsst c	<40	50	IV	3b	Locally disturbed Subsidence hollow? Mixed subsoil Very dry and compact >50
		30-60	scl	o g mn	mixed	3-5	hdsst c					
		60-100	hcl + scl	o g	mixed	3-5	hdsst c					
421 (TP10)	A	0-35	mcl/scl			1-2		<40	38	IV	3b	Pockets of lms in subsoil. Anaerobic and compact 15-28cm
		35-40	mcl/scl	o mn	c	1-2						
		40+	hcl	o	m	3-5						
422	NA											
423	WW	0-38	mcl			1-2	sst fr	<40	38	IV	3b	1-3 ^{o} TS unusually deep - possibly levelling infilling of subsidence
		38-60+	hcl	o mn	f/c	3-5	sst fr					
424	WW	0-38	mcl			1-2	sst fr	<40	36	IV	3b	
		38-100	hcl	o mn	m	3-5	sst fr					
425	WW	0-36	mcl	o				<40	40	IV	3b	
		36-75+	hcl	mn	c	3-5	sst fr					
426	NA	0-25	mcl	o	mixed	5-10	hdsst c	<40	40	IV	3b in field /NA	Grass margin. Footpath area Disturbed USS
		25-40	mcl	g o	mixed	5-10	hdsst c					
		40-100	hcl/c	g o mn	ab	3-5	hdsst c					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
427	NA											
428	NA											
429	WW	0-26	hcl/mcl			1-2	hdsst c	<30	35	IV	4/3b	
		26-50	c	o g mn	ab	3-5	hdsst c					
		50-100	c	g o mn	ab	3-5	hdsst c					
430	A	0-32	scl					<40	80	III	3a	
		32-40	scl	o	c							
		40-80+	scl	o mn	c							
431	PGR	0-5	scl	o	c	1-2	hdsst grvl	<40	55	IV	3b	Rigg & Furrow. Organic to 5cm. Poor microrelief
		5-26	mcl	o g	c	1-2	hdsst grvl					
		26-55	hcl/c	o g mn	ab	3-5	hdsst grvl					
		55-100	hcl	o g mn	ab	3-5	hdsst grvl					
432	WW	0-30	mcl	o	r	1-2	hdsst	<35	35	IV	3b	1-3 ^{0}
		30-100	c	o g mn	ab	1-2	hdsst ssst					
433	A	0-36	scl					<40	65	III	3a	1-3 ^{0}
		36-80+	(h)scl	o	c	1-2	sst fr					
434	WW	0-26	mzcl	o	r	1-2	hdsst sh	<35	35	IV	3b	1-3 ^{0} Increasingly stony with depth
		26-100	hcl/c	o g mn	ab	3-5	hdsst ssst					
435	PGR	0-26	scl			1-2	hdsst c	<30	35	IV	3b	
		26-45	scl	o mn	m	5-10	hdsst c					
		45-100	c	o mn	ab	3-5	hdsst c					
436	PGR	0-25	fsl					<40	>68	III	3a	
		25-38	fscl/fsl	o	m							
		38-68	mcl	o mn	ab							
		68-80+	hcl	o mn	c							
437	WW	0-30	omsl			1-2	hdsst q grvl	>70	No SPL	I	2	1-3 ^{0} headland
		30-65	scl	o	f	1-2	hdsst q grvl					
		65-95	lms	o g	f	5-10	grvl 55-65					
		95-100	c	o g	ab	1-2	ssst					
438	PGR	0-45	omsl			0-1	hdsst	>70	No SPL	I	2	1-3 ^{0} Disturbed Mixed lower layers, climate
		45-60	scl	o g	c	1-2	hdsst					
		60-100	scl + msl	mixed	c	1-2	hdsst					
439	PGR	0-38	msl					<40	78	III/II	3a	Below ridge
		38-65	msl	o	f							
		65-78	lms	o	c							
		78-100+	hcl	o mn	c							

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
440	ST	0-30	omsl			1-2	hdsst	>70	No SPL	I	2	4-7 ^{0} Base of a hill
		30-55	msl	o g	c	1-2	hdsst grvl					
		55-100	lms	o g mn	c							
441	PGR	0-24	sl o scl	o	c	1-2	hdsst c	<40	45	IV	3b	
		24-45	hcl	o g	ab	1-2	hdsst c					
		45-100	hcl/c	g o mn	ab	1-2	hdsst c					
442	PGR	0-24				1-2	hdsst c	<40	50	IV	3a	Possibly disturbed Mixed subsoil textures
		24-70	mcl/hcl	o g	mixed	3-5	ssst c					
		70-100	hcl	o g	mixed	3-5	ssst c					
443	PGR	0-28	scl			1-2		>40	75	II	3a	
		28-52	scl	o	f	3-5	sst fr					
		52-65	msl	o	m	3-5	sst fr					
		65-82+	scl	o mn	ab	3-5	sst fr					
444	PGR	0-19	omzcl	o	r	1-2	hdsst	<40	35	IV	4/3b	4-7 ^{0} R+F poor microrelief. Increasingly stony at depth
		19-40	hcl	o g	c	1-2	hdsst c					
		40-100	c	o g	ab	5-10	hdsst c sh					
445	PGR	0-25	scl	o	c	1-2	hdsst c	<35	35	IV	3b	Rigg & Furrow. Very dry and compact USS. Likely disturbed
		25-60	hcl	o g mn	mixed	3-5	hdsst c q					
		60-100	c	g o mn	ab	3-5	hdsst c q					
446	PGR	0-20	sl o mcl					<35	35	IV	3b	Rigg and furrow landform
		20-35	mcl	o	c							
		35-60+	c	o	m							
447	PGR	0-33	mcl	o	c			<40	35	IV	3b	
		33-60+	hcl	o	m							
448 (TP11)	PGR	0-28	scl			1-2		<70	82	4	3b	
		28-35	scl	o	f	3-5	sst fr					
		35-50	scl	o	m	3-5	sst fr					
		50-80+	hzcl	o mn	ab	3-5	sst fr					
449	PGR	0-23	scl					<40	>100	I	3b	Disturbed, poor microrelief
		23-71	msl	o	f	1-2	sst fr gritty					
		71-100+	lms	o	c							
450	PGR	0-20	omzcl	o	f	1-2	hdsst	<35	35	IV	3b/4	1-3 ^{0} R+F - locally microrelief Subsistence/quarrying/tipping
		20-35	mcl	o g	c	1-2	hdsst					
		35-100	c	o g	ab	1-2	hdsst ssst c					
451	PGR	0-29	scl					<40	36	IV	3b	
		29-51	hcl	o	c	5-10	sst fr					
		51+	lmpen			10-20	hdsst					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
452	PGR	0-20	omzcl	o	f	1-2	hdsst	<35	35	IV	3b/4	4-7 ^{0} R+F and microrelief Localised disturbance
		20-45	hcl	o g mn	ab	1-2	hdsst c					
		45-100	c	o g	ab	1-2	ssst					
453	PGR	0-24	scl	o	r	1-2	hdsst grvl	<60	>100	I	2	Boring slightly offset due to cattle
		24-60	msl	o	c	1-2	hdsst grvl					
		60-100	lms									
454	PGR	0-25	mcl					<40	35	IV	3b	
		25-30	mcl	o	c							
		30-58	hcl/c	o	ab							
		58-70+	c	o	m							
455	PGR	0-32	mcl	o	c			<40	35	IV	3b	
		32-60+	hcl	o mn	m							
456	PGR	0-25	scl					<70	68	III	3a	
		25-39	scl									
		39-68	scl	o	c	3-5	sst fr					
		68-100	scl	o	c	3-5	sst fr gritty					
457	PGR	0-10	mcl	mn	f			<40	35	IV	3b	
		10-24	mcl	o	f							
		24-60_	hcl	o mn	c							
458	PGR	0-22	omzcl	o	f	1-2	hdsst	<35	35	IV	3b	1-3 ^{0} R+F Better drained/structure 60-100
		22-60	hcl	o g	ab	1-2	hdsst					
		60-100	mcl	o g	ab	1-2	hdsst					
459	WB	0-28	mcl	o	r	3-5	hdsst	<40	45	IV	3b	1-3 ^{0} headland
		28-45	mcl/hcl	o g	c	3-5	hdsst					
		45-100	hcl	o g	ab	3-5	ssst					
460	PGR	0-28	scl					<70	>100	I	2	
		28-35	scl	o	f							
		35-58	msl									
		58-70+	lms									
461	PGR	0-28	hcl	slt gleyed		1-2	hdsst	<35	35	IV	4	Non ag/garden area
		28-60	c	o g	ab	0-1	ssst					
		60-100	c	o g	ab							
462	PGR	0-37	mcl	o	f			<40	37	IV	3b	
		37-60+	hcl	o mn	c		gritty					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
463	PGR	0-15	scl	mn	f			<40	80	iii	3a	
		15-37	scl									
		37-60	scl	o mn	c							
		60-80	msl	o	c							
		80-100	scl	o mn	c							
464	PGR	0-28	hcl	g	c	1-2	hdsst grvl	<40	35	IV	4	
		28-60	c	o g	ab	0-1	hdsst c					
		60-100	c	o g	ab							
465	PGR	0-27	mcl	o	c			<40	35	IV	3b	
		27-55	hcl	o	m	3-5	ssst fr					
		55-60+	c	o	m							
466	NA	Slope limiting									3b/NA	Domestic gardens/property
467	PGR										4	Gradient limiting - soils likely heavy
468	WW	0-17	m/hcl	o	f	0-1	hdsst q	<35	35	IV	3b/4	1-3 ^{o} gentle undulations
		17-100	hcl/c	o mn	ab	1-2	hdsst					
469	PGR	0-35	scl					<40	35	IV	3b	Pockets of hcl in subsoil.
		35-52	hcl	o	f		gritty					
		52-100	scl = hcl	o mn	c		gritty					
470	WW	0-21	hcl	s g	f	1-2	hdsst	<35	35	IV	4	1-3 ^{o} gentle undulations
		21-100	c	o mn	ab	3-5	hdsst ssst					
471	WW	0-21	hcl	o g	f	1-2	hdsst	<35	35	IV	4	
		21-100	c	o g	ab	3-5	hdsst slt					
472	PGR	0-25	sl o msl			1-2	hdsst c	<40	55	III	3a	Impenetrable > 55cm due to stones over Till
		25-40	msl/scl	o	f							
		40-55	msl	o	m	3-5	sst fr					
		55+	Impen			10-15	sst fr					
473	WW	0-20	hcl			1-2	hdsst c	<20	35	IV	4	
		20-45	c	o g	ab	1-2	hdsst c					
		45-100	c	o g mn	ab	1-2	hdsst c					
474	PGR	0-27	sl o scl	o	f			<40	35	IV	3b	
		27-32	scl	o	m	3-5	sst fr					
		32-55	hcl	o	m	3-5	sst fr					
		55-65+	hcl	o mn	c							
475	PGR	0-26	mcl	o	r			<40	47	IV	3b	
		26-47	mcl	o	c							
		47-65+	hcl	o	m	3-5	sst fr					
476	Not surveyed											No access

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
477	PGR	0-26	mcl	0	r			<40	47	IV	3b	
		26-47	hcl	o	c							
		47-65+	hcl/c	o	m	3-5	sst fr					
478	Not surveyed											No access
479	PGR	0-25	mcl	o gleyed	f	1-2	hdsst	<30	35	IV	3b	Grazed - cattle. 1-3 ^{0} Compact 0-10 - cattle poaching
		25-100	c	o g mn	ab	5-10	hdsst ssst					
480 (TP12)	PGR	0-25	mcl	o	r			<40	40	IV	3b	
		25-40	mcl/scl	o	c							
		40-80+	hcl	o mn	m							
481	Not surveyed											No access
482	Not surveyed											
483	Not surveyed											
484	Not surveyed											
485	Not surveyed											
486	Not surveyed											
487	PGR	0-24	m/hcl	o	m	1-2	hdsst c	<30	35	IV	3b/4	Poss disturbed topsoil adj road - 3b in field
		24-60	c	o g	ab	3-5	hdsst c					
		60-100	c	g o	ab	3-5	hdsst c					
488	PGR	0-30	mcl	o	f			<40	75	III	3a	
		30-53	mcl	o mn	f/c							
		53-70	scl	o mn	c/f	3-5	sst fr					
		70-100	hcl/c	o mn	m							
489	A	0-23	mcl					<40	35	IV	3b	
		23-36	hcl	o mn	c/f		gritty					
		36-75+	scl (firm)	o mn	c		v gritty					
490	Not surveyed											
491	Not surveyed											
492	Not surveyed											
493	A	0-23	mcl								3b	Map as 3b
		23-64	lms			1-2	grvl gritty					
		64+	lmpen									
494	NA											Roadside plantation
495	PGR	0-27	sl o mzcl			1-2	hdsst c	<40	35	IV	3b	Marginal non ag - domestic garden but cut/mown
		27-35	mcl	o	f	3-5	hdsst c					
		35-100	c	o g mn	ab	3-5	hdsst c					

Auger boring /Trial Pit No	Land Use		Texture	Mottles		Stones		Depth to gleying	Depth to SPL	Wetness Class	ALC	Comments
				Col	Ab.	Ab.	Type					
496 (TP13)	A	0-23	mcl								3b	Map with 3b
		23-64	lms	o	f/m	3-5	grvl gritty					
		64+	lmpen									
497	Not surveyed											
498	Not surveyed											
499	PLO	0-28	mcl					<40	38	IV	3b	
		25-38	mcl	o	m							
		38-48	scl/hcl	o	ab		v gritty					
		48-60+	hcl	o mn	c							
500	Not surveyed											
501	PLO	0-20	mcl			1-2		<40	50	IV	3b	
		20-50	mzcl	o	m	1-2	sst f					
		50-60+	hcl (firm)	o mc	c/m	1-2	v gritty					
502		0-22	mcl			1-2		<40	50	IV	3b	
		22-50	mzcl	o	m	1-2	sst fr					
		50-60+	hcl (firm)	o mn	m	3-5	sst fr					
503	Not surveyed											

Appendix 5 - Description of ALC Grades and Subgrade

The ALC Grades and Subgrades are described below in terms of the types of limitation which can occur, typical cropping range and the expected level and consistency of yield. In practice, the grades are defined by reference to the land's physical characteristics, for which the cut-offs are described in Section 3 of the 1988 MAFF (now Defra) ALC guidelines. The most productive and flexible land falls into Grades 1, 2 and Subgrade 3a and collectively comprises about one-third of the agricultural land in England and Wales. About half the land is either of moderate quality (Subgrade 3b) or poor quality (Grade 4). Although less significant on a national scale, such land can be locally valuable to agriculture and the rural economy where poorer farmland predominates. The remainder is very poor-quality land in Grade 5, which mostly occurs in the uplands.

Descriptions are also given of other land categories which may be used on ALC maps.

Grade 1 - excellent quality agricultural land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2 - very good quality agricultural land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than on Grade 1 land.

Grade 3 - good to moderate quality agricultural land

Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a - good quality agricultural land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b - moderate quality agricultural land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4 - poor quality agricultural land

Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5 - very poor-quality agriculture land

Land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

Appendix 6 – Laboratory Analysis

(See following pages)

ANALYTICAL REPORT

Report Number	**35150-18**	**J143**	**DAVID ROYLE**
Date Received	**23-NOV-2018**		**LDCL**
Date Reported	**27-NOV-2018**		**COWSLIP OFFICES**
Project	**SOIL**		**FIMBER**
Reference	**A1 MORPETH FELTON**		**DRIFFIELD**
Order Number			**EAST YORKSHIRE YO25 9LY**

Laboratory Reference		**SOIL413692**	**SOIL413693**	**SOIL413694**							
Sample Reference		**TOPSOIL PIT 2 0-320**	**UPPER SS PIT2 320-550**	**LOWER SS PIT 2 550-1000**							
Determinand	**Unit**	**SOIL**	**SOIL**	**SOIL**							
Textural Class		Sandy Loam	Sandy Loam	Sandy Loam							
Sand 2.00-0.063mm	% w/w	72	78	76							
Silt 0.063-0.002mm	% w/w	14	11	12							
Clay <0.002mm	% w/w	14	11	12							
Stones >50mm	% w/w	0.0	0.0	4.7							
Stones 20-50mm	% w/w	2.3	8.3	30.0							
Stones 2-20mm	% w/w	6.1	6.4	14.6							

Notes

Analysis Notes
The sample submitted was of adequate size to complete all analysis requested.
The results as reported relate only to the item(s) submitted for testing.
The results are presented on a dry matter basis unless otherwise stipulated.

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Reported by

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ANALYTICAL REPORT

Report Number	**35198-18**	**J143**	**DAVID ROYLE**
Date Received	**23-NOV-2018**		**LDCL**
Date Reported	**27-NOV-2018**		**COWSLIP OFFICES**
Project	**SOIL**		**FIMBER**
Reference	**A1 MORPETH FELTON**		**DRIFFIELD**
Order Number			**EAST YORKSHIRE YO25 9LY**

Laboratory Reference		**SOIL413725**	**SOIL413726**
Sample Reference		**PIT 9 260-500**	**PIT 9 550-1000**
Determinand	**Unit**	**SOIL**	**SOIL**
Textural Class		Clay	Clay
Sand 2.00-0.063mm	% w/w	16	15
Silt 0.063-0.002mm	% w/w	41	41
Clay <0.002mm	% w/w	43	44

Notes

Analysis Notes

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ANALYTICAL REPORT

Report Number	**35199-18**	**J143**	**DAVID ROYLE**
Date Received	**23-NOV-2018**		**LDCL**
Date Reported	**27-NOV-2018**		**COWSLIP OFFICES**
Project	**SOIL**		**FIMBER**
Reference	**A1 MORPETH FELTON**		**DRIFFIELD**
Order Number			**EAST YORKSHIRE YO25 9LY**

Laboratory Reference		**SOIL413727**	**SOIL413728**	**SOIL413729**	**SOIL413730**	**SOIL413731**	**SOIL413732**	**SOIL413733**			
Sample Reference		**AB 20-28**	**AB 36**	**AB 68-69**	**AB 79-81**	**AB 209-212**	**AB 218-252**	**AB 319-322**			
Determinand	**Unit**	**SOIL**	**SOIL**	**SOIL**	**SOIL**	**SOIL**	**SOIL**	**SOIL**			
Textural Class		Clay Loam	Clay Loam	Clay Loam	Clay Loam	Clay	Clay Loam	Clay Loam			
Sand 2.00-0.063mm	% w/w	41	50	32	26	21	31	36			
Silt 0.063-0.002mm	% w/w	30	26	39	41	38	34	34			
Clay <0.002mm	% w/w	29	24	29	33	41	35	30			

Notes

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ANALYTICAL REPORT

Report Number	**78994-17**	**X922**	**ROSEMARY PEEL**
Date Received	**24-OCT-2017**		**RSK ADAS LTD**
Date Reported	**31-OCT-2017**		**PARKFIELD COTTAGE**
Project	**PE/CMT6 SOIL 191017**		**POLLARDS LANE**
Reference	**A1 MORPETH**		**SOUTHWELL**
Order Number			**NOTTS NG25 0TL**

Laboratory Reference		**SOIL361409**	**SOIL361410**	**SOIL361411**	**SOIL361412**	**SOIL361413**					
Sample Reference		**PIT 3 0-250**	**PIT 4 0-250**	**PIT 6 0-250**	**PIT 7 0-250**	**PIT 8 0-250**					
Determinand	**Unit**	**SOIL**	**SOIL**	**SOIL**	**SOIL**	**SOIL**					
Sand 2.00-0.063mm	% w/w	43	43	39	49	32					
Silt 0.063-0.002mm	% w/w	28	27	28	25	32					
Clay <0.002mm	% w/w	29	30	33	26	36					
Organic Matter LOI	% w/w	11.5	4.7	5.7	5.6	6.4					
Textural Class **		O-HCL	HCL	HCL	MCL	C					

Notes

Analysis Notes

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** Please see the attached document for the definition of textural classes.

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ANALYTICAL REPORT

Report Number	**80276-17**	**X922**	**ROSEMARY PEEL**
Date Received	**02-NOV-2017**		**RSK ADAS LTD**
Date Reported	**09-NOV-2017**		**PARKFIELD COTTAGE**
Project	**PE CMT 6 SOIL 251017**		**POLLARDS LANE**
Reference	**A1 MOPETH**		**SOUTHWELL**
Order Number			**NOTTS NG25 0TL**

Laboratory Reference		**SOIL362307**	**SOIL362308**	**SOIL362309**							
Sample Reference		**PIT 10 0-250**	**PIT 11 0-250**	**PIT 12 0-250**							
Determinand	**Unit**	**SOIL**	**SOIL**	**SOIL**							
Sand 2.00-0.063mm	% w/w	48	56	43							
Silt 0.063-0.002mm	% w/w	26	24	28							
Clay <0.002mm	% w/w	26	20	29							
Textural Class **		MCL	SCL	HCL							

Notes

Analysis Notes

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