Lime Down
Solar Park

Environmental Statement

Volume 3, Appendix 17-1: Agricultural Land Classification and Soil Survey Report (Clean)

May 2026

Revision 2

Planning Inspectorate Reference: EN010168

Document Reference: APP/6.3

APFP Regulation 5(2)(a)

Schedule of Changes

Revision	Section Reference	Description of Changes	Reason for Revision
2	Paragraph 1.2.1	Updates in relation to DCO site area in hectares.	Updated in response to NE Relevant Representation for submission at Deadline 1.
	Table 2	Updates to Lime Down A ALC areas	Updated in response to NE Relevant Representation for submission at Deadline 1.
	Table 3	Updates to Lime Down B ALC areas.	Updated in response to NE Relevant Representation for submission at Deadline 1.
	Table 4	Updates to Lime Down C ALC areas.	Updated in response to NE Relevant Representation for submission at Deadline 1.
	Table 5	Updates to Lime Down D ALC areas.	Updated in response to NE Relevant Representation for submission at Deadline 1.

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Appendix 17-1: Agricultural Land Classification and Soil Resource Survey Report

1.1 Introduction

1.1.1 Reading Agricultural Consultants Ltd (RAC) is instructed by Lime Down Solar Park Ltd to investigate the Agricultural Land Classification (ALC) and soil resources of land for the proposed Lime Down Solar Park, by means of a survey of soil and site characteristics.

1.1.2 Guidance for assessing the quality of agricultural land in England and Wales is set out in the Ministry of Agriculture, Fisheries and Food (MAFF) revised guidelines and criteria for grading the quality of agricultural land (Ref 1), and summarised in Natural England's Technical Information Note (TIN) 049 (Ref 2).

1.1.3 Agricultural land in England and Wales is graded between 1 and 5, depending on the extent to which physical or chemical characteristics impose long-term limitations on agricultural use. The principal physical factors influencing grading are climate, site conditions and soil which, together with interactions between them, form the basis for classifying land into one of the five grades.

1.1.4 Grade 1 land is excellent quality agricultural land with very minor or no limitations to agricultural use. Grade 2 is very good quality agricultural land, with minor limitations which affect crop yield, cultivations or harvesting. Grade 3 land has moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield, and is subdivided into Subgrade 3a (good quality land) and Subgrade 3b (moderate quality land). Grade 4 land is poor quality agricultural land with severe limitations which significantly restrict the range of crops and/or level of yields. Grade 5 is very poor quality land, with very severe limitations which restrict use to permanent pasture or rough grazing.

1.1.5 Land which is classified as Grades 1, 2 and 3a in the ALC system is defined as best and most versatile (BMV) agricultural land.

1.1.6 As explained in Natural England's TIN049, the whole of England and Wales was mapped from reconnaissance field surveys in the late 1960s and early 1970s, to provide general strategic guidance on agricultural land quality for planners. This Provisional Series of maps was published on an Ordnance Survey base at a scale of One Inch to One Mile (1:63,360).

1.1.7 The Provisional ALC map shows most of the agricultural land in the Order Limits as Grade 3 with areas of Grade 4 and a very small area of Grade 2 in the east. However, TIN049 explains that:

"These maps are not sufficiently accurate for use in assessment of individual fields or development sites, and should not be used other than as general guidance. They show only five grades: their preparation preceded the

subdivision of Grade 3 and the refinement of criteria, which occurred after 1976. They have not been updated and are out of print. A 1:250 000 scale map series based on the same information is available. These are more appropriate for the strategic use originally intended …"

1.1.8 TIN049 goes on to explain that a definitive ALC grading should be obtained by undertaking a survey according to the published guidelines. This survey follows the detailed methodology set out in the ALC guidelines.

1.1.9 This survey has been carried out by Sophie Webb, BSc (Hons), MSc, MI Soil Sci who has 13 years' experience as a soil scientist and surveyor; and Alex Mitchell, BSc (Hons), Assoc MI Soil Sci, AIEMA who has eight years' experience as a soil scientist and surveyor. The survey report has been written by Sophie Webb and checked by Alastair Field, BA (Hons), MSc, FBIAC, PIEMA, MI Soil Sci. The samples have been analysed by an accredited laboratory, NRM.

1.2 Site and Climatic Conditions

General Features, land form and drainage

1.2.1 The Order Limits includes the Solar PV Sites and the Cable Route Corridor. The Solar PV Sites extend across approximately 720 ha of agricultural land within five panel areas referred to as Lime Down A to E.

1.2.2 Lime Down A is the north-westernmost of the Solar PV Sites and is located south of Sherston. The land is in arable use. The topography is very gently sloping with altitudes of around 110 m to 115 m above Ordnance Datum (AOD). Drainage of Lime Down A is through the soil profile and facilitated by the slope.

1.2.3 Lime Down B is located around the north and west of Norton. The northern portion of Lime Down B is in arable use and the western portion is under grass. Much of the west is largely level at around 100 m AOD. In the north, the landform slopes gently down to around 85 m AOD. The land drains via two small tributaries that connect with the River Avon (Sherston Branch) north of Foxley.

1.2.4 Lime Down C is the south-westernmost of the Solar PV Sites and is mostly in arable use. The topography in the west is characterised by a hilltop and slopes toward a shallow valley. The altitude falls from 128 m AOD to around 110 m AOD in the west. The north-east slopes fall from around 110 m AOD and 105 m AOD, falling eastward, and the south, south of the railway line, is mostly at around 115 m AOD. Lime Down C mainly drains through the soil profile and through the valley system which ultimately connects with the River Avon (Sherston Branch) north of Foxley.

1.2.5 Lime Down D is a central Solar PV Site and is comprised of arable land. The topography is broadly characterised by a shallow east-facing slope which falls in altitude from around 100 m AOD to 75 m AOD. A small square field parcel in the south, separated from the rest by a byway, occupies a north-facing slope falling between around 85 m and 90 m AOD. The land is drained by the slopes and by Gauze Brook which direct water toward the River Avon east of Rodbourne.

1.2.6 Lime Down E is the south-easternmost of the Solar PV Sites and is under mixed agricultural use. The steepest slopes of all of the Solar PV Sites are in the north of Lime Down E. The altitudes are broadly between around 75 m and 100 m AOD across the whole area, although the east is largely level at around 90 m AOD. Drainage is facilitated by the slopes and a valley feature and into a small watercourse which ultimately connects with the River Avon at Great Somerford.

1.2.7 The Cable Route Corridor runs broadly from the Solar PV Sites southward across the M4, east of Yatton Keynell, around the south-western periphery of Chippenham and on to Whitley. The agricultural land is generally mostly arable in the north and mostly grassland in the south. The landform is typically undulating or gently sloping between altitudes of around 100 m and 125 m AOD

between the Solar PV Sites and Chippenham, with some higher elevations around Lan Hill. South of Chippenham the altitudes are mostly between 60 m and 75 m AOD with the steepest of the slopes in the south, from east of Corsham to Whitley. Drainage is via a number of tributaries and brooks which ultimately connect with the River Avon.

Agro-climatic conditions

1.2.8 Agro-climatic data for multiple locations across the Solar PV Sites and along the Cable Route Corridor have been interpolated from the Meteorological Office's standard 5 km grid point data set at representative altitudes. One data set from each Solar PV Site and from two locations along the Cable Route Corridor are given in

1.2.9 Table 1.

1.2.10 In the western Solar PV Sites (broadly, Lime Down A, Lime Down B and Lime Down C) and at a central location along the Cable Route Corridor, the climate is generally wet and moderately warm, moisture deficits are moderate to moderately small. The number of Field Capacity Days (FCD) is larger than is average for lowland England (150) and is unfavourable for agricultural field work.

1.2.11 In the eastern Solar PV Sites (broadly Lime Down D and Lime Down E), and at a location in the south of the Cable Route Corridor, the climate is moist and moderately warm, the moisture deficits are moderate to moderately large, and the numbers of FCD are relatively large and slightly unfavourable.

Table 1 Agro-climatic conditions

Parameter	Value						
	Lime Down A	Lime Down B	Lime Down C	Lime Down D	Lime Down E	Cable Route, central	Cable Route, south
Grid Reference	ST 863840	ST 875847	ST 868828	ST 897837	ST 932818	ST 868772	ST 885675
Altitude (m AOD)	115	100	115	90	90	122	94
Average Annual Rainfall (mm)	854	817	825	795	764	852	794
Accumulated Temperatures >0°C (day°C)	1,407	1,424	1,407	1,435	1,435	1,402	1,438
Field Capacity Days	188	182	183	178	171	187	175

Parameter	Value						
	Lime Down A	Lime Down B	Lime Down C	Lime Down D	Lime Down E	Cable Route, central	Cable Route, south
Average Moisture Deficit, wheat (mm)	85	90	89	94	98	89	97
Average Moisture Deficit, potatoes (mm)	72	79	76	83	88	77	87
Grade according to climate	1	1	1	1	1	1	1

Soil parent material and soil type

1.2.12 The bedrock geology mapped by the British Geological Survey (Ref 3) across all of Lime Down A, Lime Down B and Lime Down C, and across the west of Lime Down D, belongs to the Forest Marble Formation which includes greenish-grey, variably calcareous silicate mudstone which is locally notably sandy. In the centre to east of Lime Down D and following the watercourses through Lime Down E, the bedrock is limestone of the Cornbrash Formation. In two small areas of Lime Down D and across the remainder of Lime Down E, the mapped bedrock is the Kellaways Formation, which alternates between being dominated by mudstone or interbedded siltstone and sandstone.

1.2.13 The Forest Marble Formation and Cornbrash Formation are also mapped within the Cable Route Corridor, with Kellaways Formation mapped mainly at the higher altitudes near Lan Hill.

1.2.14 Superficial deposits within the Order Limits are largely restricted to alluvium in connection with the various watercourses. Head deposits comprising poorly sorted angular rock debris and soil material are mapped south of the railway line in Lime Down C and east of Gastard in the Cable Route Corridor.

1.2.15 The mapped soil information (Ref 4) shows six soil associations present within the Solar PV Sites, with another two present only in the Cable Route Corridor. In order of prevalence, the soils in the Solar PV Sites are:

- Sherborne – shallow, well-drained, brashy, calcareous clayey soils over limestone, mapped in the centre and west of Lime Down A, the east and south of Lime Down B, the south, centre and north-west of Lime Down C, the centre and west of Lime Down D and the south-west of Lime Down E;

- Evesham 1 – slowly permeable, calcareous clays, mapped in the north and south of Lime Down A, the west of Lime Down B, the north, west and south-east of Lime Down C, and the west and south-east of Lime Down D;
- Wickham 3 – slowly permeable, fine loamy over clayey soils, mapped across the north and east of Lime Down D, and the north and east of Lime Down E;
- Denchworth – slowly permeable, waterlogged clays, mapped in the very south of Lime Down A and the west, north and north-east of Lime Down C;
- Fladbury 1 – stoneless clayey soils affected by groundwater, mapped in the east of Line Down D; and
- Bursledon – deep fine loamy soils with slowly permeable subsoils, mapped at the south-eastern tip of Lime Down E.

1.2.16 The Evesham 1 and Sherborne associations are also the most prevalent within the Cable Route Corridor. The Wickham 3 association occurs in areas west of Chippenham as well as in the south of the Cable Route Corridor where Badsey 2 association and Elmton 2 association soils – both also comprising well drained, fine loamy soils over limestone gravel or limestone – are also mapped.

1.3 Agricultural Land Quality

Soil survey methods

1.3.1 Soil profiles were examined using an Edleman (Dutch) auger at an observation density of approximately one per two hectares across the Solar PV Sites proposed for Solar PV Panels, one per hectare across land proposed for the BESS, and ensuring that one observation was made within the footprint of each proposed substation, amounting to 361 observations across the Solar PV Sites in total. Soil pits were also excavated to examine subsoil structures and stone content. Where access has been permissible, observations have been made within the bands of each mapped soil type along the Cable Route Corridor, as well as additional observations made at a density of one per hectare where built aspects are proposed. In total, 28 observations have been completed in the Cable Route Corridor.

1.3.2 The locations of observations are indicated on **ES Volume 2, Figure 17-1: Observation Mapping [EN010168/APP/6.2]**. At each observation point the following characteristics were assessed for each soil horizon up to a maximum of 120cm or any impenetrable layer:

- Soil texture;
- Stone content;
- Colour (including localised mottling);
- Consistency;
- Structural condition;
- Free carbonate; and
- Depth.

1.3.3 A total of 23 topsoil samples taken from within the Solar PV Sites, and six from the Cable Route Corridor in areas proposed for built aspects, were submitted for laboratory determination of particle size distribution (to confirm hand texturing in the field), pH, organic matter content and nutrient contents (P, K, Mg). The results are given in Annex A.

1.3.4 Soil Wetness Class (WC) was determined from the matrix colour, presence or absence of, and depth to, greyish and ochreous gley mottling, and slowly permeable subsoil layers at least 15 cm thick, in relation to the number of FCD at the location.

1.3.5 Soil droughtiness was investigated by the calculation of moisture balance equations. The calculations for each profile observed are included in Annex B. Crop-adjusted Available Profile Water (AP) is estimated from texture, stoniness and depth, and then compared to a calculated moisture deficit (MD) for the

standard crops wheat and potatoes. The MD is a function of potential evapotranspiration and rainfall. Grading of the land can be affected if the AP is insufficient to balance the MD and droughtiness occurs.

Agricultural land classification and site limitations

1.3.6 Assessment of agricultural land quality has been carried out according to the revised ALC guidelines (Ref 1). Soil profiles have been described according to Hodgson (Ref 5) which is the recognised source for describing soil profiles and characteristics according to the revised ALC guidelines. Soil matrix colours are described as per their notation in the Munsell soil colour charts (Ref 6).

1.3.7 There are two main soil types present across all of the Solar PV Sites, with additional minor soil types found mainly in the south-east (Lime Down E). The main soils are broadly described as slowly permeable clays giving an ALC limitation due to wetness, and brashy soils over limestone generally giving an ALC limitation due to droughtiness. Soil types are mapped in **ES Volume 2, Figure 17-3: Soil Type Mapping [EN010168/APP/6.2].**

Lime Down A

1.3.8 The slowly permeable clay soil type is dominant across Lime Down A. The topsoil is mostly heavy textured, comprising heavy silty clay loam or heavy clay loam. In the southernmost field the topsoil is silty clay and in the north-east some medium (silty) clay loam topsoil is present. Most of the topsoil is dark greyish brown (10YR 4/2) but dark brown (10YR 3/3), brown (10YR 4/3) and greyish brown (10YR 5/2) topsoils are also noted. The average depth is 28 cm. The topsoil is stoneless to slightly stony and, other than in the very north, is non-calcareous.

1.3.9 The subsoil horizons of this type are consistently clay within Lime Down A. In the north, the upper subsoil is greyish brown (10YR 5/2 or 2.5Y 5/2) but the majority is brown or light olive brown (10YR 5/3 or 2.5Y 5/3). The subsoil horizons become more grey with depth, tending to greyish brown and olive grey (2.5Y 5/2 or 5Y 5/2). The clay is firm to very firm and forms large blocky aggregates which break to coarse angular blocky peds. The subsoils are gleyed and slowly permeable throughout which places the profiles in WC IV. With medium loam topsoils there is a wetness limitation to Subgrade 3b and with heavy loam or silty clay topsoil there is a wetness limitation to Grade 4.

1.3.10 The shallow brashy soil type is present mainly along the western edge of Lime Down A. Most of the topsoil is dark greyish brown (10YR 4/2) medium clay loam which is slightly to moderately stony and non-calcareous. The average depth is 28 cm. The upper subsoil is typically brown (10YR 5/3) clay which is mottled and gleyed and usually moderately or very calcareous. The subsoil commonly becomes extremely stony within 30 cm depth, being brashy limestone over bedrock. The profiles of this type are often in WC II due to the gleyed subsoil

and are then limited by both wetness and droughtiness to Subgrade 3a. There are two isolated profiles (Locations 67 and 71) in which the subsoil extends to depth and is slowly permeable, but with no gleying within 40 cm, the profiles are in WC III and limited by wetness to Subgrade 3a.

1.3.11 The areas of each ALC grade in Lime Down A are given in Table 2.

Table 2 Lime Down A - ALC areas

Grade	Description	Area (ha)	% of agricultural land
Grade 1	Excellent quality	0.0	0
Grade 2	Very good quality	0.0	0
Subgrade 3a	Good quality	21.4	22
Subgrade 3b	Moderate quality	18.9	20
Grade 4	Poor quality	56.1	58
Grade 5	Very poor quality	0.0	0
	Total agricultural	96.4	100
	Total BMV	21.4	22

Lime Down B

1.3.12 The main clay and limestone soil types are present in the west and north of Lime Down B respectively. An intermediate soil type is also present in Lime Down B.

1.3.13 The slowly permeable clay soil type is as described in paragraphs 1.3.8 and 1.3.9 although the topsoil texture is most commonly clay. The profiles are in WC IV. With clay topsoil the land is limited by wetness to Grade 4.

1.3.14 The brashy limestone soils have a relatively thin topsoil (averaging 22 cm) mainly of medium clay loam or medium silty clay loam, with heavy clay loam and heavy silty clay loam in the north-east and north-west. There is a band through the west of Lime Down B with clay topsoil. The topsoil is non-calcareous to very slightly calcareous and slightly or moderately stony. There are patches in both the north-east and north-west in which the volume of large stones in the topsoil is greater than 15% which results in a topsoil stone limitation to Subgrade 3b.

1.3.15 The topsoil overlies brashy yellowish brown (10YR 4/4) heavy clay loam or heavy silty clay loam subsoil which then passes to limestone. The soil profiles are in WC I and, where not limited most by stone, are predominantly limited by droughtiness to Subgrade 3a. Profiles with heavy loam topsoils are equally limited to Subgrade 3a by wetness/workability whilst those in the band through the west of the Solar PV Site with clay topsoil are limited further by wetness to Subgrade 3b.

1.3.16 An intermediate soil type is mainly found in the east of Lime Down B. The topsoil is mostly brown (10YR 4/3) medium silty clay loam with some instances of heavier textures. The topsoil is stoneless or slightly stony, non-calcareous and around 30 cm average depth. The upper subsoil is heavy clay loam or sandy clay which is mottled and brown or greyish brown (10YR 4/3, 10YR 5/2 and 10YR 5/3), often but not always gleyed. The lower subsoil is most commonly mottled brown (10YR 5/3) clay or sandy clay which is usually slowly permeable. The profiles are in WC II or III and limited by wetness to Subgrade 3a.

1.3.17 The areas of each ALC grade in Lime Down B are given in Table 3.

Table 3 Lime Down B - ALC areas

Grade	Description	Area (ha)	% of agricultural land
Grade 1	Excellent quality	0.0	0
Grade 2	Very good quality	0.0	0
Subgrade 3a	Good quality	48.9	56
Subgrade 3b	Moderate quality	20.9	24
Grade 4	Poor quality	17.7	20
Grade 5	Very poor quality	0.0	0
	Total agricultural	87.5	100
	Total BMV	48.9	57

Lime Down C

1.3.18 As indicated in **ES Volume 2, Figure 17-2: Agricultural Land Classification Mapping [EN010168/APP/6.2],** field parcels in the west and south of Lime Down C that are proposed for ecological mitigation were not subject to survey. The land will remain in agricultural use and the ground will not be disturbed.

1.3.19 The predominant soil type across Lime Down C is the slowly permeable clay. The topsoil texture is clay or heavy clay loam and the colour is mostly dark greyish brown (10YR 4/2) but very dark greyish brown (10YR 3/2), dark grey (10YR 4/1) and grey (10YR 5/1) are also noted. The stone content is typically 0-2% although in the east of Lime Down C the stone volume is around 12% total. The average topsoil depth is 27 cm.

1.3.20 The upper subsoil is non-calcareous clay which is greyish brown (10YR 5/2 or 2.5Y 5/2), brown (10YR 5/3) or light olive brown (2.5Y 5/3). It is stoneless or very slightly stony. This passes to clay lower subsoil which varies from grey (10YR 5/1, 2.5Y 5/1 or 2.5Y 6/1) to greyish brown (10YR 5/2) or 2.5Y 5/2), light olive brown (2.5Y 5/3), olive grey (5Y 5/2) and olive (5Y 5/3). In the north of Lime Down C, the lower subsoil is moderately or very calcareous but in the

south is non-calcareous. The clay continues to depth in a majority of the profiles observed but occasionally profiles pass to limestone at moderate depth. Regardless, all the subsoil is gleyed and slowly permeable and all profiles of this type are in WC IV. With heavy clay loam or clay topsoil there is a severe wetness limitation to Grade 4.

1.3.21 The brashy limestone soil type occurs in areas in the north and south of Lime Down C. The topsoil is mostly heavy clay loam or clay of 26 cm average depth and is dark brown, dark greyish brown or brown (10YR 3/3, 10YR 4/2, 7.5YR 4/3 or 10YR 4/3). There are instances of medium silty clay loam topsoil in the south-west. The topsoil is slightly stony or rarely moderately stony. Only one location in the north has a significant volume of larger stones that affect the ALC grading.

1.3.22 Where subsoil was observed, it comprises mottled brown (10YR 5/3), light olive brown (2.5Y 5/3) or light yellowish brown (2.5Y 6/3) clay with brashy limestone, passing to limestone at moderate depth. The profiles are assessed as WC I or II, other than in areas of the west where the clay is slowly permeable and the profiles are WC IV. Profiles in WC I with clay topsoil, and the rare instances of brashy soils in WC IV with medium silty clay loam topsoil, are limited by wetness/workability to Subgrade 3b, whilst profiles in WC I or II with heavy clay loam topsoil are limited to Subgrade 3a. For profiles in WC I, there is also a droughtiness limitation to Subgrade 3a. In the field west of Lord's Wood, there is a depth limitation to Subgrade 3b due to large slabs of limestone immediately beneath the topsoil at around 25 cm depth.

1.3.23 The areas of each ALC grade in Lime Down C are given in Table 4.

Table 4 Lime Down C - ALC areas

Grade	Description	Area (ha)	% of agricultural land
Grade 1	Excellent quality	0.0	0
Grade 2	Very good quality	0.0	0
Subgrade 3a	Good quality	20.3	10
Subgrade 3b	Moderate quality	37.2	19
Grade 4	Poor quality	139.4	71
Grade 5	Very poor quality	0.0	0
	Total agricultural	196.9	100
	Total BMV	20.3	10

Lime Down D

1.3.24 The soil pattern in Lime Down D is broadly brashy limestone in the west and slowly permeable clay in the east, with a central transitional zone where both types are present.

1.3.25 The brashy soil type topsoil is mainly medium silty clay loam and has an average depth of 21 cm. The topsoil is brown or dark greyish brown (7.5YR 4/2, 7.5YR 4/3 or 10YR 4/2) and moderately stony. In the south-west the topsoil is very slightly calcareous but most is non-calcareous. The upper subsoil is primarily composed of brown (7.5YR 4/3, 10YR 4/3 or 10YR 5/3) medium silty clay loam or heavy silty clay loam with a limestone content ranging from around 25% to 50% by volume. The upper subsoil is variably calcareous. Limestone bedrock is present at shallow to moderate depths. The profiles are in WC I and are limited by droughtiness, most often to Subgrade 3a but some are more severely limited to Subgrade 3b where the stone content is greater. One profile is only slightly stony above limestone and is limited to Grade 2. Some profiles are also subject to a depth limitation due to the volume, depth and nature of limestone in the subsoil.

1.3.26 Mainly across the east of Lime Down D, the topsoil is heavy silty clay loam, heavy clay loam or clay of 31 cm average depth. The topsoil is primarily dark greyish brown (10YR 4/2), stoneless to slightly stony and non-calcareous. The upper subsoil comprises clay which is mostly brown (10YR 5/3) or light olive brown (2.5Y 5/3) but greyish brown (10YR 5/2 or 2.5Y 5/2) and grey (5Y 5/1) are also identified. The upper subsoil is stoneless, firm or very firm, mottled, gleyed and slowly permeable. The upper subsoil characteristics often continue to depth or otherwise transition to grey or greenish grey clay (10YR 5/1 or 10Y 5/1). The profiles are in WC IV or occasionally WC III. The east and west of Lime Down D are subject to different climatic conditions (173 and 178 FCD respectively) such that profiles in the west with heavy topsoils are limited by wetness to Grade 4 whilst comparable profiles in the east are limited by wetness to Subgrade 3b.

1.3.27 The areas of each ALC grade in Lime Down D are given in Table 5.

Table 5 Lime Down D - ALC areas

Grade	Description	Area (ha)	% of agricultural land
Grade 1	Excellent quality	0.0	0
Grade 2	Very good quality	2.0	1
Subgrade 3a	Good quality	91.6	44
Subgrade 3b	Moderate quality	93.9	46
Grade 4	Poor quality	19.2	9

Grade 5	Very poor quality	0.0	0
	Total agricultural	206.7	100
	Total BMV	93.6	45

Lime Down E

1.3.28 The dominant soil type across Lime Down E is the slowly permeable clay type. The topsoil is mostly medium clay loam or heavy clay loam with instances of sandier textures. The average depth is 27 cm. The topsoil is dark grey, dark greyish brown or greyish brown (10YR 4/1, 10YR 4/2 or 10YR 5/2), is stoneless or slightly stony and non-calcareous.

1.3.29 The upper subsoil is clay or occasionally heavy clay loam which is greyish brown, brown, grey or light olive brown (10YR 5/2, 10YR 5/3, 10YR 6/1 or 2.5Y 5/3). There are no stones. The upper subsoil is mottled and usually gleyed. The clay is slowly permeable immediately beneath the topsoil but where there is an upper subsoil of heavy clay loam, this is permeable. All profiles pass to similar or grey (10YR 6/1) slowly permeable clay lower subsoil which is also stoneless and non-calcareous. The profiles are in WC IV or occasionally WC III and are limited by wetness to Subgrade 3b, other than where the topsoil is occasionally sandy giving a less severe wetness limitation to Subgrade 3a.

1.3.30 In the south-west of Lime Down E the topsoil is heavy clay loam which is dark greyish brown or brown (10YR 4/2 or 7.5YR 4/3). The average depth is 26 cm. Most of the topsoil is stoneless or only slightly stony although there is one location (171) where the topsoil is moderately stony. Most is calcareous. The upper subsoil is brown, yellowish brown or pale brown (7.5YR 4/4, 10YR 5/3, 10YR 5/4 or 10YR 6/3) heavy clay loam or clay which ranges from stoneless to moderately stony (up to 30% limestone). The upper subsoil is also calcareous in most profiles and passes to limestone at an average depth of around 45 cm. The profiles are in WC I and are limited by droughtiness, sometimes with depth, to Subgrade 3a or Subgrade 3b (depending on the depth to and volume of limestone).

1.3.31 There is a third soil type present in the south-east of Lime Down E. The topsoil is deep (average 35 cm) medium sandy loam, loamy medium sand or sandy silt loam which is dark greyish brown (10YR 4/2). There are few or no stones. The topsoil is non-calcareous. The upper subsoil includes medium sand, loamy medium sand and medium sandy loam textures and is mostly brown (10YR 5/3) and stoneless. Some of the upper subsoils are mottled with ochreous stains and are gleyed. The upper subsoil characteristics either continue to depth or else transition to greyish brown or light olive brown (2.5Y 5/2 or 2.5Y 5/3), stoneless medium sand. The profiles are well drained, in WC I. Most of the profiles in this type are limited by droughtiness to Grade 2. Where the topsoil is loamy sand there is a topsoil texture limitation to Grade 2. Three profiles have no limitation

to their agricultural use and are Grade 1 but due to their isolated locations and the noted presence of groundwater within adjacent profiles that may also influence these profiles long-term, are subsumed within the wider area of Grade 2.

1.3.32 The areas of each ALC grade in Lime Down E are given in Table 5Table 6.

Table 6 Lime Down E - ALC areas

Grade	Description	Area (ha)	% of agricultural land
Grade 1	Excellent quality	0.0	0
Grade 2	Very good quality	28.8	22
Subgrade 3a	Good quality	27.0	21
Subgrade 3b	Moderate quality	74.0	57
Grade 4	Poor quality	0.0	0
Grade 5	Very poor quality	0.0	0
	Total agricultural	129.8	100
	Total BMV	55.8	43

Cable Route Corridor

1.3.33 The broad soil patterns confirmed within the Solar PV Sites have been verified to date to continue along the Cable Route Corridor, and correlate well with the mapped soil information.

1.3.34 The limestone soil type has been confirmed to be present north of the M4 carriageway, east of Grittleton and roughly between Yatton Keynell and Gastard and is primarily limited by droughtiness and depth to Subgrade 3a.

1.3.35 The deep clay soil type has been confirmed in the very north of the Cable Route Corridor, just south of the M4 carriageway and north of Whitley, and is limited by wetness to Subgrade 3b or Grade 4 (dependent on the FCD).

1.3.36 An additional soil type is identified in the south comprising a sandy silt loam or medium silty clay loam topsoil over similar or sandy loam upper subsoils and passing to slowly permeable sandy clay lower subsoils. The profiles have variable drainage, from WC II to WC IV, and are limited by wetness to Grade 2 or Subgrade 3a.

Summary

1.3.37 All the agricultural land within the Solar PV Sites has been accessible and has been subject to soil and ALC surveys. The surveys have identified soils which

correlate strongly with the two main mapped types, and the characteristics of each are very consistent within and between the Solar PV Sites.

1.3.38 The collective areas of each ALC grade within the Solar PV Sites are given in Table 7 and shown in **ES Volume 2, Figure 17-2: Agricultural Land Classification Mapping [EN010168/APP/6.2].**

Table 7 ALC of the Solar PV Sites

Grade	Description	Area (ha)	% of agricultural land
Grade 1	Excellent quality	0.0	0
Grade 2	Very good quality	30.8	4
Subgrade 3a	Good quality	209.3	29
Subgrade 3b	Moderate quality	245.0	34
Grade 4	Poor quality	232.4	33
Grade 5	Very poor quality	0.0	0
	Total agricultural	717.5	100

1.3.39 Photographs of pits and of other site conditions are provided at Annex C.

1.4 References

Ref 1 MAFF (1988). Agricultural Land Classification of England and Wales. Revised guidelines and criteria for grading the quality of agricultural land. MAFF Publications.

Ref 2 Natural England (2012). Technical Information Note 049 - Agricultural Land Classification: protecting the best and most versatile agricultural land, Second Edition.

Ref 3 British Geological Survey (2025). *BGS Geology Viewer*, https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/ [Accessed 04 September 2025]

Ref 4 Soil Survey of England and Wales (1984). Soils of South West England (1:250,000), Sheet 5.

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

Ref 6 Munsell Color (2009). *Munsell Soil Color Book*. Grand Rapids, MI, USA

Ref 7 ADAS (1995). North Wiltshire Local Plan, Chippenham, Agricultural Land Classification. Reference 051/95

Annex A Supplementary Information – Laboratory Data

Sample Location	34	47	73	95	106	128	140	150	178	196	223	230	236	261	274	283	293	334	350	378	386	390	402
% Sand	6	26	41	29	16	13	40	45	30	71	43	36	4	14	34	8	10	22	15	13	20	21	19
% Silt	39	41	30	50	42	24	34	31	34	15	34	35	19	47	30	33	37	33	40	35	44	50	56
% Clay	55	33	29	21	42	63	26	24	36	14	23	29	77	39	36	59	53	45	45	52	36	29	25
Texture	C	HCL	HCL	MCL	C	C	MCL	MCL	C	SL	MCL	HCL	C	ZC	C	C	C	C	C	C	C	HCL	MZCL
pH	6.8	8.3	8.4	8.1	8.1	6.7	8.3	7.5	8.1	6.9	7.0	6.3	7.0	7.4	7.1	7.0	7.5	7.3	7.3	6.6	8.1	8.2	7.5
% Organic Matter	3.9	2.1	4.8	8.2	6.0	6.7	5.3	4.7	5	2.2	3.7	4.1	7.7	6.4	4.7	7.2	7.3	6	4.5	5.7	6.4	7.9	8.3
P (Index)	22.4 (2)	19.4 (2)	19.0 (2)	11.2 (1)	19.6 (2)	17.6 (2)	11.6 (1)	66.4 (1)	36.2 (3)	27.0 (3)	12.8 (1)	17.8 (2)	14.2 (1)	18.8 (2)	10.0 (1)	11.4 (1)	11.8 (1)	18.4 (2)	8.8 (0)	8.4 (0)	4.8 (0)	5.6 (0)	7.2 (0)
K (Index)	265 (3)	188 (2+)	169 (2-)	178 (2-)	193 (2+)	162 (2-)	208 (2+)	361 (3)	391 (3)	122 (2-)	154 (2-)	137 (2-)	201 (2+)	211 (2+)	116 (1)	218 (2+)	252 (3)	149 (2-)	243 (3)	169 (2-)	148 (2-)	156 (2-)	142 (2-)
Mg (Index)	184 (4)	433.2 (1)	49.0 (1)	41.7 (1)	63.1 (2)	115 (3)	37.1 (1)	172 (3)	78.3 (2)	42.8 (1)	61.7 (2)	46.1 (1)	184 (4)	109 (3)	88.1 (2)	182 (4)	135 (3)	90.7 (2)	120 (3)	128 (3)	63.4 (2)	69.2 (2)	68.8 (2)

Laboratory Data Sheets

ANALYTICAL REPORT

Report Number	**98539-23**	**H 95**	**READING AGRICULTURAL CONS**	**Client**
Date Received	**31-OCT-2023**		**BEECHWOOD COURT**	
Date Reported	**14-NOV-2023**		**LONG TOLL**	
Project	**10079**		**WOODCOTE**	
Reference	**READING AGRICULTURAL**		**READING**	
Order Number	**10079**		**RG8 0RR**	

Laboratory Reference		**SOIL662007**	**SOIL662008**
Sample Reference		**10079/15**	**10079/28**
Determinand	**Unit**	**SOIL**	**SOIL**
pH water [1:2.5]		6.8	8.3
Available Phosphorus (Index)	mg/l	22.4 (2)	19.4 (2)
Available Potassium (Index)	mg/l	265 (3)	188 (2+)
Available Magnesium (Index)	mg/l	184 (4)	43.2 (1)
Sand 2.00-0.063mm	% w/w	6	26
Silt 0.063-0.002mm	% w/w	39	41
Clay <0.002mm	% w/w	55	33
Organic Carbon by DUMAS	%	3.9	2.1
Organic Matter [calculation]	%	6.7	3.7

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.

Document Control

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ANALYTICAL REPORT

Report Number	**16667-24**	**H 95**	**READING AGRICULTURAL CONS**	**Client**
Date Received	**08-JAN-2024**		**BEECHWOOD COURT**	
Date Reported	**18-JAN-2024**		**LONG TOLL**	
Project	**10079**		**WOODCOTE**	
Reference	**READING AGRICULTURAL**		**READING**	
Order Number	**10079**		**RG8 0RR**	

Laboratory Reference		**SOIL673121**	**SOIL673122**	**SOIL673123**
Sample Reference		**10079 54**	**10079 N9**	**10079 N14**
Determinand	**Unit**	**SOIL**	**SOIL**	**SOIL**
pH water [1:2.5]		8.4	6.5	6.8
Available Phosphorus (Index)	mg/l	19.0 (2)	19.8 (2)	25.8 (3)
Available Potassium (Index)	mg/l	169 (2-)	104 (1)	147 (2-)
Available Magnesium (Index)	mg/l	49.0 (1)	114 (3)	115 (3)
Sand 2.00-0.063mm	% w/w	41	36	40
Silt 0.063-0.002mm	% w/w	30	35	33
Clay <0.002mm	% w/w	29	29	27
Organic Carbon by DUMAS	%	2.8	2.3	2.1
Organic Matter [calculation]	%	4.8	3.9	3.6
Textural Class **		HCL	HCL	HCL

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	**21883-24**	**H 95**	**READING AGRICULTURAL CONS**	**Client**
Date Received	**13-FEB-2024**		**BEECHWOOD COURT**	
Date Reported	**01-MAR-2024**		**LONG TOLL**	
Project	**10079**		**WOODCOTE**	
Reference	**READING AGRICULTURAL**		**READING**	
Order Number	**10079**		**RG8 0RR**	

Laboratory Reference		**SOIL678184**	**SOIL678185**	**SOIL678186**	**SOIL678187**
Sample Reference		**76**	**87**	**109**	**121**
Determinand	**Unit**	**SOIL**	**SOIL**	**SOIL**	**SOIL**
pH water [1:2.5]		8.1	8.1	6.7	8.3
Available Phosphorus (Index)	mg/l	11.2 (1)	19.6 (2)	17.6 (2)	11.6 (1)
Available Potassium (Index)	mg/l	178 (2-)	193 (2+)	162 (2-)	208 (2+)
Available Magnesium (Index)	mg/l	41.7 (1)	63.1 (2)	115 (3)	37.1 (1)
Sand 2.00-0.063mm	% w/w	29	16	13	40
Silt 0.063-0.002mm	% w/w	50	42	24	34
Clay <0.002mm	% w/w	21	42	63	26
Organic Carbon by DUMAS	%	4.7	3.5	3.9	3.1
Organic Matter [calculation]	%	8.2	6.0	6.7	5.3
Textural Class **		MCL	C	C	MCL

Notes

Analysis Notes

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ANALYTICAL REPORT

Report Number	**22701-24**	**H 95**	**READING AGRICULTURAL CONS**	**Client**	**10079**
Date Received	**19-FEB-2024**		**BEECHWOOD COURT**		**SGS**
Date Reported	**04-MAR-2024**		**LONG TOLL**		
Project	**10079 SGS**		**WOODCOTE**		
Reference	**READING AGRICULTURAL**		**READING**		
Order Number	**10079**		**RG8 0RR**		

Laboratory Reference		**SOIL679254**	**SOIL679255**	**SOIL679256**	**SOIL679257**
Sample Reference		**A4**	**A32**	**85**	**112**
Determinand	**Unit**	**SOIL**	**SOIL**	**SOIL**	**SOIL**
pH water [1:2.5]		7.5	8.1	6.9	7.0
Available Phosphorus (Index)	mg/l	66.4 (4)	36.2 (3)	27.0 (3)	12.8 (1)
Available Potassium (Index)	mg/l	361 (3)	391 (3)	122 (2-)	154 (2-)
Available Magnesium (Index)	mg/l	172 (3)	78.3 (2)	42.8 (1)	61.7 (2)
Sand 2.00-0.063mm	% w/w	45	30	71	43
Silt 0.063-0.002mm	% w/w	31	34	15	34
Clay <0.002mm	% w/w	24	36	14	23
Organic Carbon by DUMAS	%	2.7	2.9	1.3	2.2
Organic Matter [calculation]	%	4.7	5.0	2.2	3.7
Textural Class **		MCL	C	SL	MCL

Notes

Analysis Notes

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ANALYTICAL REPORT

Report Number	**26751-24**	**H 95**	**READING AGRICULTURAL CONS**	**Client**	**10079 BUTLER**
Date Received	**11-MAR-2024**		**BEECHWOOD COURT**		
Date Reported	**17-APR-2024**		**LONG TOLL**		
Project	**10079**		**WOODCOTE**		
Reference	**BUTLER**		**READING**		
Order Number	**10079**		**RG8 0RR**		

Laboratory Reference		**SOIL685726**	**SOIL685727**
Sample Reference		**7**	**13**
Determinand	**Unit**	**SOIL**	**SOIL**
pH water [1:2.5]		6.3	7.0
Available Phosphorus (Index)	mg/l	17.8 (2)	14.2 (1)
Available Potassium (Index)	mg/l	137 (2-)	201 (2+)
Available Magnesium (Index)	mg/l	46.1 (1)	184 (4)
Sand 2.00-0.063mm	% w/w	36	4
Silt 0.063-0.002mm	% w/w	35	19
Clay <0.002mm	% w/w	29	77
Organic Carbon by DUMAS	%	2.4	4.5
Organic Matter [calculation]	%	4.1	7.7
Textural Class **		HCL	C

Notes

Analysis Notes

The sample submitted was of adequate size to complete all analysis requested.
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ANALYTICAL REPORT

Report Number	**31195-24**	**H 95**	**READING AGRICULTURAL CONS**	**Client**
Date Received	**08-APR-2024**		**BEECHWOOD COURT**	
Date Reported	**14-MAY-2024**		**LONG TOLL**	
Project	**10079B**		**WOODCOTE**	
Reference	**READING AGRICULTURAL**		**READING**	
Order Number	**10079B**		**RG8 0RR**	

Laboratory Reference		**SOIL691882**	**SOIL691883**	**SOIL691884**	**SOIL691885**
Sample Reference		**38**	**51**	**60**	**70**
Determinand	**Unit**	**SOIL**	**SOIL**	**SOIL**	**SOIL**
pH water [1:2.5]		7.4	7.1	7.0	7.5
Available Phosphorus (Index)	mg/l	18.8 (2)	10.0 (1)	11.4 (1)	11.8 (1)
Available Potassium (Index)	mg/l	211 (2+)	116 (1)	218 (2+)	252 (3)
Available Magnesium (Index)	mg/l	109 (3)	88.1 (2)	182 (4)	135 (3)
Sand 2.00-0.063mm	% w/w	14	34	8	10
Silt 0.063-0.002mm	% w/w	47	30	33	37
Clay <0.002mm	% w/w	39	36	59	53
Organic Carbon by DUMAS	%	3.7	2.7	4.2	4.2
Organic Matter [calculation]	%	6.4	4.7	7.2	7.3
Textural Class **		ZC	C	C	C

Notes

Analysis Notes

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ANALYTICAL REPORT

Report Number	**92630-25**	**H 95**	**READING AGRICULTURAL CONS**	**Client**
Date Received	**14-MAY-2025**		**BEECHWOOD COURT**	
Date Reported	**23-MAY-2025**		**LONG TOLL**	
Project	**10079**		**WOODCOTE**	
Reference	**ALEX MITCHELL**		**READING**	
Order Number	**10079**		**RG8 0RR**	

Laboratory Reference		**SOIL750754**
Sample Reference		**AGM-9**
Determinand	**Unit**	**SOIL**
pH water [1:2.5]		7.5
Available Phosphorus (Index)	mg/l	7.2 (0)
Available Potassium (Index)	mg/l	142 (2-)
Available Magnesium (Index)	mg/l	68.8 (2)
Sand 2.00-0.063mm	% w/w	19
Silt 0.063-0.002mm	% w/w	56
Clay <0.002mm	% w/w	25
Organic Carbon by DUMAS	%	4.8
Organic Matter [calculation]	%	8.3
Textural Class **		MZCL

Notes

Analysis Notes

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ANALYTICAL REPORT

Report Number	**93443-25**	**H 95**	**READING AGRICULTURAL CONS**	**Client**
Date Received	**21-MAY-2025**		**BEECHWOOD COURT**	
Date Reported	**05-JUN-2025**		**LONG TOLL**	
Project	**10079**		**WOODCOTE**	
Reference	**READING AGRICULTURAL**		**READING**	
Order Number	**10079**		**RG8 0RR**	

Laboratory Reference		**SOIL751632**	**SOIL751633**	**SOIL751634**	**SOIL751635**	**SOIL751636**					
Sample Reference		**10079/349**	**10079/376**	**10079/417**	**10079/W134**	**10079/W138**					
Determinand	**Unit**	**SOIL**	**SOIL**	**SOIL**	**SOIL**	**SOIL**					
pH water [1:2.5]		7.3	7.3	6.6	8.1	8.2					
Available Phosphorus (Index)	mg/l	18.4 (2)	8.8 (0)	8.4 (0)	4.8 (0)	5.6 (0)					
Available Potassium (Index)	mg/l	149 (2-)	243 (3)	169 (2-)	148 (2-)	156 (2-)					
Available Magnesium (Index)	mg/l	90.7 (2)	120 (3)	128 (3)	63.4 (2)	69.2 (2)					
Sand 2.00-0.063mm	% w/w	22	15	13	20	21					
Silt 0.063-0.002mm	% w/w	33	40	35	44	50					
Clay <0.002mm	% w/w	45	45	52	36	29					
Organic Carbon by DUMAS	%	3.5	2.6	3.3	3.7	4.6					
Organic Matter [calculation]	%	6.0	4.5	5.7	6.4	7.9					
Textural Class **		C	C	C	C	HCL					

Notes

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ANALYTICAL REPORT

Report Number	**95277-25**	**H 95**	**READING AGRICULTURAL CONS**	**Client**
Date Received	**06-JUN-2025**		**BEECHWOOD COURT**	
Date Reported	**13-JUN-2025**		**LONG TOLL**	
Project	**10079**		**WOODCOTE**	
Reference	**READING AGRICULTURAL**		**READING**	
Order Number	**10079**		**RG8 0RR**	

Laboratory Reference		**SOIL753225**	**SOIL753226**	**SOIL753227**	**SOIL753228**	**SOIL753229**					
Sample Reference		**10079/CR4**	**10079/CR8**	**10079/CR15**	**10079/CR19**	**10079/CR24**					
Determinand	**Unit**	**SOIL**	**SOIL**	**SOIL**	**SOIL**	**SOIL**					
pH water [1:2.5]		6.1	7.9	7.8	6.3	7.7					
Available Phosphorus (Index)	mg/l	17.8 (2)	25.3 (2)	46.6 (4)	7.8 (0)	20.9 (2)					
Available Potassium (Index)	mg/l	186 (2+)	275 (3)	326 (3)	99.9 (1)	422 (4)					
Available Magnesium (Index)	mg/l	85.1 (2)	66.7 (2)	64.9 (2)	37.3 (1)	76.4 (2)					
Sand 2.00-0.063mm	% w/w	14	27	37	62	18					
Silt 0.063-0.002mm	% w/w	42	46	41	20	47					
Clay <0.002mm	% w/w	44	27	22	18	35					
Organic Carbon by DUMAS	%	3.3	4.5	4.7	2.9	4.0					
Organic Matter [calculation]	%	5.7	7.8	8.1	4.9	6.9					
Textural Class **		C	HCL	MCL	SCL/SL	ZC/HZCL					

Notes

Analysis Notes

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Annex B Soil profile summaries and droughtiness calculations

Lime Down A

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

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

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

Stone types		
%	TAv	EAv
hard	1	0.5
chalk	10	7

Climate Data	
MDwheat	87
MDpotato	75
FCD	186
AAR	838

Wetness Class Guidelines	II	III	IV	V
SPL within 80cm, gleying within 40cm	>78cm	51-78cm	<51cm	
SPL within 80cm, gleying at 40-70cm	>67cm	<67cm		
No SPL but gleying within 40cm	coarse subsoil	I	other cases	II

Climate
1413 D°
Limitation
Grade 1

hard flint & pebble

Maximum depth of auger penetration is underlined

Site No.		Depth cm		Texture	$CaCO_3$	Colour	Mottle colour	abund-ance	stone% hard	stone% chalk	Struct-ure	APwheat mm	AP potato mm	Gley	SPL	WC	Wetness grade WE	Final Grade	Limiting Factor(s)
48	T	0	28	hZCL		10YR4/2			5	0	-	51	51	n	n	*IV*	4	**4**	WE
		28	65	C	mod	5Y5/2	Fe	com	1	0	poor	39	48	y	y				
		65	120	C	mod	5Y5/2	Fe	com	1	0	poor	38	6	y	y				
											Total	**128**	**105**						
											MB	41	30						
									Droughtiness grade (DR)			1	1						
49	T	0	25	hZCL	v.sli	10YR4/2			5	0	-	45	45	n	n	*IV*	4	**4**	WE
		25	45	C	mod	2.5Y5/3	Fe	com	0	0	poor	26	26	y	y				
		45	60	C	mod	2.5Y6/1	Fe	com	0	0	poor	14	20	y	y				
		60	120	C	mod	2.5Y6/1	Fe	com	0	0	poor	42	13	y	y				
											Total	**127**	**104**						
											MB	40	29						
									Droughtiness grade (DR)			1	1						
50	T	0	25	mZCL	v.sli	10YR4/2			1	0	-	47	47	n	n	*IV*	3b	**3b**	WE

		25	60	C	mod	2.5Y5/3	Fe	com	0	0	poor	40	46	y	y				
		60	70	C	mod	2.5Y5/2	Fe	com	0	0	poor	7	13	y	y				
		70	120	C	mod	2.5Y5/2	Fe	com	0	0	poor	35	0	y	y				
											Total	**129**	**106**						
											MB	42	31						
											Droughtiness grade (DR)	1	1						
51	T	0	25	mZCL		10YR4/2			1	0	-	47	47	n	n	*IV*	3b	**3b**	WE
		25	30	C	mod	10YR5/3	Fe	com	20	0	poor	5	5	y	y				
		30	50	C	mod	10YR5/3	Fe	com	25	0	poor	20	20	y	y				
		50	120	Lstone								21	8	n	n				
											Total	**93**	**80**						
											MB	6	5						
											Droughtiness grade (DR)	2	2						
52	T	0	28	hCL		10YR4/2			8	0	-	47	47	n	n	*IV*	4	**4**	WE
		28	48	C	mod	2.5Y5/2	Fe	com	0	0	poor	26	26	y	y				
		48	68	C	mod	5Y5/2	Fe	com	0	0	poor	15	26	y	y				
		68	120	C	mod	5Y5/2	Fe	com	0	0	poor	36	3	y	y				
											Total	**124**	**101**						
											MB	37	26						
											Droughtiness grade (DR)	1	1						
53	T	0	30	hCL		10YR4/2			8	0	-	50	50	n	n	*III*	3b	**3b**	WE
		30	40	C		10YR4/3	Fe	com	10	0		15	15	n	n				
		40	50	C	v.sli	2.5Y5/2	Fe	com	0	0	poor	13	13	y	y				
		50	70	C	v.sli	5Y5/2	Fe	com	0	0	poor	14	26	y	y				
		70	120	C	v.sli	5Y5/2	Fe	com	0	0	poor	35	0	y	y				
											Total	**126**	**103**						
											MB	39	28						

								Droughtiness grade (DR)			1	1							
54	T	0	34	hCL		10YR4/3			2	0	-	60	60	n	n	*IV*	4	**4**	WE
		34	60	C	mod	2.5Y5/3	Fe	com	1	0	poor	28	33	y	y				
		60	70	C	mod	2.5Y5/3	Fe	com	0	0	poor	7	13	y	y				
		70	120	C	mod	5Y5/2	Fe	com	0	0	poor	35	0	y	y				
											Total	**130**	**107**						
											MB	43	32						
								Droughtiness grade (DR)			1	1							
55	T	0	28	hCL		10YR4/3			2	0	-	49	49	n	n	*IV*	4	**4**	WE
		28	60	C		10YR5/2	Fe	com	1	0	poor	35	41	y	y				
		60	70	C	mod	2.5Y5/2	Fe	com	0	0	poor	7	13	y	y				
		70	120	C	mod	2.5Y5/2	Fe	com	0	0	poor	35	0	y	y				
											Total	**127**	**104**						
											MB	40	29						
								Droughtiness grade (DR)			1	1							
56	T	0	30	mZCL		10YR5/2			2	0	-	56	56	n	n	*IV*	3b	**3b**	WE
		30	45	C		10YR5/2	Fe	many	5	0	poor	19	19	y	y				
		45	70	C		2.5Y5/2	Fe	many	5	0	poor	20	31	y	y				
		70	120	C	mod	2.5Y5/2	Fe	com	0	0	poor	35	0	y	y				
											Total	**129**	**106**						
											MB	42	31						
								Droughtiness grade (DR)			1	1							
57	T	0	29	hZCL		10YR5/2			2	0	-	54	54	n	n	*IV*	4	**4**	WE
		29	50	C	mod	2.5Y5/2	Fe	com	0	0	poor	27	27	y	y				
		50	70	C	mod	5Y5/2	Fe	com	0	0	poor	14	26	y	y				
		70	120	C	mod	5Y5/2	Fe	com	0	0	poor	35	0	y	y				
											Total	**130**	**107**						

											MB	43	32						
										Droughtiness grade (DR)		1	1						
58	T	0	26	hZCL		10YR5/2			2	0	-	48	48	n	n	*IV*	4	**4**	WE
		26	50	C		2.5Y5/2	Fe	com	0	0	poor	31	31	y	y				
		50	70	C	mod	5Y5/2	Fe	com	0	0	poor	14	26	y	y				
		70	120	C	mod	5Y5/2	Fe	com	0	0	poor	35	0	y	y				
											Total	**129**	**106**						
											MB	42	31						
										Droughtiness grade (DR)		1	1						
59	T	0	39	mZCL		10YR4/2			1	0	-	73	73	n	n	*IV*	3b	**3b**	WE
		39	52	C		2.5Y5/2	Fe	com	0	0	poor	16	17	y	y				
		52	70	C		2.5Y5/2	Fe	com	0	0	poor	13	23	y	y				
		70	120	C	mod	5Y5/2	Fe	com	0	0	poor	35	0	y	y				
											Total	**137**	**114**						
											MB	50	39						
										Droughtiness grade (DR)		1	1						
60	T	0	19	hZCL		10YR4/2			8	0	-	33	33	n	n	*IV*	4	**4**	WE
		19	42	C	mod	2.5Y5/2	Fe	com	0	0	poor	30	30	y	y				
		42	60	C	mod	5Y5/2	Fe	com	0	0	poor	17	23	y	y				
		60	120	C	mod	5Y5/2	Fe	com	0	0	poor	42	13	y	y				
											Total	**123**	**100**						
											MB	36	25						
										Droughtiness grade (DR)		1	1						
61	T	0	29	mZCL		10YR4/2			8	0	-	51	51	n	n	*IV*	3b	**3b**	WE
		29	50	C		2.5Y5/3	Fe	com	0	0	poor	27	27	y	y				
		50	75	C		5Y5/2	Fe	com	0	0	poor	18	26	y	y				
		75	120	C		5Y5/2	Fe	com	0	0	poor	32	0	y	y				

										Total	**127**	**104**							
										MB	40	29							
								Droughtiness grade (DR)			1	1							
62	T	0	33	hZCL		10YR4/2			5	0	-	60	60	n	n	*IV*	4	**4**	WE
		33	55	C		10YR5/2	Fe	com	0	0	poor	26	29	y	y				
		55	75	C		10YR5/2	Fe	com	0	0	poor	14	20	y	y				
		75	120	C		5Y5/2	Fe	com	0	0	poor	32	0	y	y				
											Total	**131**	**108**			Groundwater at 10cm			
											MB	44	33						
								Droughtiness grade (DR)				1	1						
63	T	0	15	mZCL		10YR4/2			8	0	-	26	26	n	n	*IV*	3b/4	**3b**	WE
		15	40	C		2.5Y5/3	Fe	com	0	0	poor	33	33	y	y				
		40	50	C	mod	5Y5/2	Fe	com	0	0	poor	13	13	y	y				
		50	120	C	mod	5Y5/2	Fe	com	0	0	poor	49	26	y	y				
											Total	**121**	**98**						
											MB	34	23						
								Droughtiness grade (DR)				1	1						
64	T	0	25	mCL		10YR3/3			2	0	-	44	44	n	n	*IV*	3b	**3b**	WE
		25	48	C		10YR5/2	Fe	com	0	0	poor	30	30	y	y				
		48	60	C		5Y5/3	Fe	com	5	0	poor	9	15	y	y				
		60	120	C		5Y5/3	Fe	com	5	0	poor	40	12	y	y				
											Total	**123**	**101**						
											MB	36	26						
								Droughtiness grade (DR)				1	1						
65	T	0	20	mCL		10YR4/2			15	0	-	31	31	n	n	*IV*	3b	**3b**	WE
		20	35	mCL		10YR4/2			30	0		17	17	y	y				
		35	60	C			Fe	com	0	0	poor	27	33	y	y				

		60	120	C			Fe	com	0	0	poor	42	13	y	y				
											Total	**117**	**94**			Three attempts Possible limestone			
											MB	30	19						
										Droughtiness grade (DR)		1	1						
66	T	0	30	hZCL		10YR4/2			1	0	-	56	56	n	n	*IV*	4	**4**	WE
		30	50	C		10YR5/2	Fe	com	0	0	poor	26	26	y	y				
		50	60	C		10YR5/2	Fe	com	0	0	poor	7	13	y	y				
		60	120	C		5Y5/2	Fe	com	0	0	poor	42	13	y	y				
											Total	**131**	**108**						
											MB	44	33						
										Droughtiness grade (DR)		1	1						
67	T	0	32	mZCL		10YR4/2			1	0	-	60	60	n	n	*III*	3a	**3a**	WE
		32	55	C	very	10YR4/3	Fe	com	0	0		33	37	n	y				
		55	60	C	very	10YR4/3	Fe	com	0	0		4	8	n	y				
		60	120	C	very	5Y5/2	Fe	com	0	0	poor	42	13	y	y				
											Total	**139**	**118**						
											MB	52	43						
										Droughtiness grade (DR)		1	1						
68	T	0	28	hZCL		10YR4/2			0	0	-	53	53	n	n	*IV*	4	**4**	WE
		28	70	C		10YR5/3	Fe	com	0	0	poor	43	55	y	y				
		70	120	C		10YR5/1	Fe	com	0	0	poor	35	0	y	y				
											Total	**131**	**108**						
											MB	44	33						
										Droughtiness grade (DR)		1	1						
69	T	0	22	hCL		10YR4/2			0	0	-	40	40	n	n	*IV*	4	**4**	WE
		22	38	C		10YR5/3	Fe	com	0	0	poor	21	21	y	y				
		38	120	C	sli	10YR5/1	Fe	com	0	0	poor	65	42	y	y				

											Total	**125**	**102**						
											MB	38	27						
										Droughtiness grade (DR)		1	1						
70	T	0	28	hCL		10YR4/2			0	0	-	50	50	n	n	*IV*	4	**4**	WE
		28	45	C		10YR5/3	Fe	com	10	0	poor	20	20	y	y				
		45	120	C		10YR5/1	Fe	com	25	0	poor	43	25	y	y				
											Total	**113**	**95**						
											MB	26	20						
										Droughtiness grade (DR)		2	1						
71	T	0	38	mCL		10YR4/2			1	0	-	68	68	n	n	*III*	3a	**3a**	WE
		38	50	C		10YR4/4	Fe	com	5	0	poor	15	15	n	y				
		50	120	C		10YR5/1	Fe	com	15	0	poor	42	22	y	y				
											Total	**125**	**105**						
											MB	38	30						
										Droughtiness grade (DR)		1	1						
72	T	0	29	mCL		10YR3/3			8	0	-	48	48	n	n	*I*	2	**3a**	DR
		29	40	C	very	10YR4/3	Fe	com	15	0		15	15	n	n				
		40	50	C	very	10YR4/3	Fe	com	80	0		4	4	n	n				
		50	120	Lstone								21	8	n	n				
											Total	**88**	**75**						
											MB	1	0						
										Droughtiness grade (DR)		3a	2						
73	T	0	26	hCL		10YR3/3			15	0	-	40	40	n	n	*II*	3a	**3a**	WE DR DP
		26	34	C	very	10YR5/3	Fe	com	80	0		3	3	y	n				
		34	45	C	very	10YR5/3	Fe	com	80	0		4	4	y	n				
		45	120	Lstone								23	10	n	n				
											Total	**71**	**58**						

											MB	-16	-17						
											Droughtiness grade (DR)	3a	3a						
74	T	0	25	mCL		10YR4/2			15	0	-	39	39	n	n	*III*	3a	**3a**	WE DR
		25	40	C		10YR4/3	Fe	com	15	0	poor	17	17	n	y				
		40	60	C		10YR4/3	Fe	com	25	0	poor	15	20	n	y				
		60	120	Lstone								18	4	n	n				
											Total	**89**	**79**						
											MB	2	4						
											Droughtiness grade (DR)	3a	2						
75	T	0	26	mCL		10YR4/2			15	0	-	40	40	n	n	*II*	3a	**3a**	WE DR DP
		26	40	C	very	10YR5/3	Fe	com	80	0		6	6	y	n				
		40	120	Lstone								25	12	n	n				
											Total	**71**	**58**						
											MB	-16	-17						
											Droughtiness grade (DR)	3a	3a						
76	T	0	25	hCL		10YR4/2			15	0	-	39	39	n	n	*II*	3a	**3a**	WE DR DP
		25	40	C	very	10YR5/3	Fe	com	80	0		6	6	y	n				
		40	120	Lstone								25	12	n	n				
											Total	**70**	**57**						
											MB	-17	-18						
											Droughtiness grade (DR)	3a	3a						
77	T	0	30	ZC		10YR4/2			0	0	-	51	51	n	n	*IV*	4	**4**	WE
		30	80	C		2.5Y5/3	Fe	com	0	0	poor	47	52	y	y				
		80	120	C	mod	2.5Y5/1	Fe	com	0	0	poor	28	0	y	y				
											Total	**126**	**103**						
											MB	39	28						
											Droughtiness grade (DR)	1	1						

78	T	0	32	ZC		10YR4/2			0	0	-	54	54	n	n	*IV*	4	**4**	WE
		32	70	C		2.5Y5/3	Fe	com	0	0	poor	37	49	y	y				
		70	120	C	mod	5Y6/3	Fe	com	0	0	poor	35	0	y	y				
											Total	**127**	**104**						
											MB	40	29						
											Droughtiness grade (DR)	1	1						
79	T	0	38	ZC		10YR4/2			0	0	-	65	65	n	n	*IV*	4	**4**	WE
		38	75	C		2.5Y5/3	Fe	com	0	0	poor	33	42	y	y				
		75	120	C	mod	2.5Y5/1	Fe	com	0	0	poor	32	0	y	y				
											Total	**129**	**106**						
											MB	42	31						
											Droughtiness grade (DR)	1	1						
80	T	0	25	ZC		10YR4/2			0	0	-	43	43	n	n	*IV*	4	**4**	WE
		25	65	C		10YR5/2	FeMn	com	0	0	poor	43	52	y	y				
		65	120	C	mod	5Y5/2	Fe	com	0	0	poor	39	7	y	y				
											Total	**124**	**101**						
											MB	37	26						
											Droughtiness grade (DR)	1	1						
81	T	0	32	mCL		10YR4/2			0	0	-	58	58	n	n	*IV*	3b	**3b**	WE
		32	64	C		10YR3/1	Fe	com	0	0	poor	33	42	y	y				
		64	120	C	slight	5Y5/2	Fe	com	0	0	poor	39	8	y	y				
											Total	**130**	**107**						
											MB	43	32						
											Droughtiness grade (DR)	1	1						
82	T	0	20	hCL		10YR4/2			0	0	-	36	36	n	n	*IV*	4	**4**	WE
		20	60	C		10YR5/2	Fe	com	0	0	poor	46	52	y	y				

		60	120	C		2.5Y5/2	Fe	com	0	0	poor	42	13	y	y				
											Total	**124**	**101**						
											MB	37	26						
											Droughtiness grade (DR)	1	1						
83	T	0	32	hCL		10YR4/2			10	0	-	52	52	n	n	*II*	3a	**3a**	WE
		32	42	C		10YR5/3	Fe	com	15	0	m/poor	12	12	y	n				
		42	50	C		10YR5/3	Fe	com	40	0	m/poor	7	7	y	n				
		50	120	Lstone								21	8	n	n				
											Total	**93**	**80**						
											MB	6	5						
											Droughtiness grade (DR)	2	2						
84	T	0	35	hCL		10YR4/2			1	0	-	62	62	n	n	*IV*	4	**4**	WE
		35	55	C		10YR5/3	Fe	com	0	0	poor	23	26	y	y				
		55	70	C	slight	2.5Y5/2	Fe	com	0	0	poor	11	20	y	y				
		70	80	C	very	5Y5/2	Fe	com	0	0	poor	7	0	y	y				
		80	120	C	very	5Y5/2	Fe	com	0	0	poor	28	0	y	y				
											Total	**131**	**108**						
											MB	44	33						
											Droughtiness grade (DR)	1	1						
85	T	0	32	mCL		10YR4/2			15	0	-	49	49	n	n	*II*	3a	**3a**	WE DR
		32	35	C	mod	10YR5/3	Fe	com	25	0		4	4	y	n				
		35	45	C	mod	10YR5/3	Fe	com	80	0		4	4	y	n				
		45	120	Lstone								23	10	n	n				
											Total	**80**	**67**						
											MB	-7	-8						
											Droughtiness grade (DR)	3a	2						
86	T	0	28	mCL		10YR4/2			15	0	-	43	43	n	n	*II*	3a	**3a**	WE DR

		28	32	C	mod	2.5Y5/3	Fe	com	25	0		5	5	y	n				
		32	45	C	mod	2.5Y5/3	Fe	com	80	0		5	5	y	n				
		45	120	Lstone								23	10	n	n				
											Total	**76**	**63**						
											MB	-11	-12						
											Droughtiness grade (DR)	3a	3a						
87	T	0	26	hCL		10YR4/2			3	0	-	45	45	n	n	*IV*	4	**4**	WE
		26	60	C	mod	2.5Y5/3	Fe	com	0	0	poor	38	44	y	y				
		60	70	C	mod	2.5Y5/3	Fe	com	0	0	poor	7	13	y	y				
		70	120	C		2.5Y5/1	Fe	com	0	0	poor	35	0	y	y				
											Total	**126**	**103**						
											MB	39	28						
											Droughtiness grade (DR)	1	1						
88	T	0	28	mCL		10YR4/2			20	0	-	41	41	n	n	*II*	3a	**3a**	WE DR DP ST
		28	30	C	mod	10YR5/3	Fe	com	25	0		2	2	y	n				
		30	40	C	mod	10YR5/3	Fe	com	80	0		4	4	y	n				
		40	120	Lstone								25	12	n	n				
											Total	**72**	**59**			15% stone >2cm; 10% stone >6cm 3a/3b topsoil stone			
											MB	-15	-16						
											Droughtiness grade (DR)	3a	3a						
89	T	0	22	hCL		10YR4/2			20	0	-	32	32	n	n	*II*	3a	**3a**	WE DR DP ST
		22	25	C	mod	10YR5/3	Fe	com	25	0		4	4	y	n				
		25	40	C	mod	10YR5/3	Fe	com	80	0		6	6	y	n				
		40	120	Lstone								25	12	n	n				
											Total	**67**	**54**			15% stone >2cm; 10% stone >6cm 3a/3b topsoil stone			
											MB	-20	-21						
											Droughtiness grade (DR)	3a	3a						

90	T	0	34	hCL	10YR4/2			5	0	-	58	58	n	n	*IV*	4	**4**	WE
		34	70	C	10YR5/3	Fe	com	0	0	poor	35	47	y	y				
		70	80	C	10YR5/3	Fe	com	0	0	poor	7	0	y	y				
		80	120	C	10YR5/2	Fe	com	0	0	poor	28	0	y	y				
										Total	**128**	**105**						
										MB	41	30						
										Droughtiness grade (DR)	1	1						
91	T	0	30	hCL	10YR4/3			1	0	-	53	53	n	n	*IV*	4	**4**	WE
		30	60	C	10YR5/3	Fe	com	0	0	poor	33	39	y	y				
		60	80	C	10YR5/3	Fe	com	0	0	poor	14	13	y	y				
		80	120	C	10YR5/2	Fe	com	0	0	poor	28	0	y	y				
										Total	**128**	**105**						
										MB	41	30						
										Droughtiness grade (DR)	1	1						
92	T	0	20	hCL	10YR4/2			25	0	-	28	28	n	n	*IV*	4	**4**	WE
		20	60	C	10YR5/3	Fe	com	25	0	poor	35	40	y	y				
		60	80	C	10YR5/3	Fe	com	0	0	poor	14	13	y	y				
		80	120	C	10YR5/2	Fe	com	0	0	poor	28	0	y	y				
										Total	**105**	**81**			18% stone >2cm; 12% stone >6cm			
										MB	18	6			3b topsoil stone			
										Droughtiness grade (DR)	2	2						

Lime Down B

Stone types		
%	TAv	EAv
hard	1	0.5
Lstone	4	3

Climate Data	
MDwheat	90
MDpotato	79
FCD	182
AAR	817

Wetness Class Guidelines	II	III	IV	V
SPL within 80cm, gleying within 40cm	>77cm	49-77cm	<49cm	
SPL within 80cm, gleying at 40-70cm	>65cm	<65cm		
No SPL but gleying within 40cm	coarse subsoil	I	other cases	II

Climate
1424 D°
Limitation
Grade 1

hard flint & pebble

Maximum depth of auger penetration is underlined

Site No.		Depth cm		Texture	$CaCO_3$	Colour	Mottle colour	abund-ance	stone% hard	stone% Lstone	Struct-ure	APwheat mm	AP potato mm	Gley	SPL	WC	Wetness grade WE	Final Grade	Limiting Factor(s)
276	T	0	30	C		10YR4/2			0	0		51	51	n	n	IV	4	4	WE
		30	45	C		2.5Y5/3	Fe	com	0	0	poor	20	20	y	y				
		45	60	C	v.sli	2.5Y6/3	Fe	com	0	0	poor	14	20	y	y				
		60	120	C	mod	5Y5/2	Fe	com	0	0	poor	42	13	y	y				
											Total	**126**	**103**						
											MB	36	24						
									Droughtiness grade (DR)			1	1						
277	T	0	20	C		10YR4/2			1	0	-	34	34	n	n	IV	4	4	WE
		20	30	C	v.sli	10YR5/3	Fe	com	15	0	poor	11	11	y	y				
		30	60	C	v.sli	10YR5/3	Fe	com	25	0	poor	25	30	y	y				
		60	120	C					0	0	poor	42	13	y	y				
											Total	**112**	**88**						
											MB	22	9						
									Droughtiness grade (DR)			2	2						
278	T	0	28	C		10YR4/2			1	0	-	47	47	n	n	IV	4	4	WE
		28	55	C	v.sli	10YR5/3	FeMn	com	0	0	poor	32	35	y	y				
		55	70	C	slight	10YR5/3	Fe	com	0	0	poor	11	20	y	y				
		70	120	C					0	0	poor	35	0	y	y				

Possible limestone underneath

											Total	**125**	**102**						
											MB	35	23						
										Droughtiness grade (DR)		1	1						
279	T	0	30	C		10YR4/2			1	0	-	51	51	n	n	*IV*	4	**4**	WE
		30	40	C	v.sli	10YR5/3	Fe	com	0	0	poor	13	13	y	y				
		40	60	C	v.sli	10YR5/3	Fe	com	0	0	poor	20	26	y	y				
		60	120	C					0	0	poor	42	13	y	y				
											Total	**126**	**103**			Possible limestone underneath			
											MB	36	24						
										Droughtiness grade (DR)		1	1						
280	T	0	28	C		10YR4/2			0	0	-	48	48	n	n	*IV*	4	**4**	WE
		28	60	C	v.sli	2.5Y5/3	Fe	com	0	0	poor	36	42	y	y				
		60	65	C	mod	5Y5/2	Fe	com	0	0	poor	4	7	y	y				
		65	120	C	mod	5Y5/2	Fe	com	0	0	poor	39	7	y	y				
											Total	**125**	**102**						
											MB	35	23						
										Droughtiness grade (DR)		1	1						
281	T	0	30	C		10YR4/2			0	0	-	51	51	n	n	*IV*	4	**4**	WE
		30	32	C		5Y5/2	Fe	com	25	0	poor	2	2	y	y				
		32	65	C		5Y5/2	Fe	com	25	0	poor	26	33	y	y				
		65	120	C					0	0	poor	39	7	y	y				
											Total	**118**	**93**			Avoiding gas pipeline			
											MB	28	14			GW at 30cm. Limestone possible <120cm			
										Droughtiness grade (DR)		2	1						
282	T	0	25	C		10YR4/2			0	0	-	45	45	n	n	*III*	4	**4**	WE
		25	40	C		10YR5/3	Fe	com	15	0	m/poor	19	19	y	n				
		40	65	C	mod	10YR5/3	Fe	com	25	0	m/poor	20	28	y	n				

		65	120	C					0	0	poor	39	7	y	y					
											Total	**122**	**98**							
											MB	32	19							
											Droughtiness grade (DR)	1	1							
287	T	0	29	C		10YR4/3			0	0	-	49	49	n	n	*I*	3b	**3b**	WE	
		29	33	C	v.sli	10YR5/3	Fe	com	2	0	mod	6	6	n	n					
		33	40	C	mod	10YR5/3	Fe	com	0	25	poor	8	8	n	n					
		40	120	Lstone								25	12	n	n					
											Total	**88**	**75**							
											MB	-2	-4							
											Droughtiness grade (DR)	3a	2							
293	T	0	25	C		10YR4/2			0	0	-	43	43	n	n	*IV*	4	**4**	WE	
		25	40	C		10YR5/3	Fe	com	1	0	poor	19	19	y	y					
		40	70	C		10YR5/3	Fe	com	1	0	poor	27	39	y	y					
		70	120	C		10YR6/3	Fe	com	0	0	poor	35	0	y	y					
											Total	**124**	**100**							
											MB	34	21							
											Droughtiness grade (DR)	1	1							
296	T	0	30	hCL		10YR4/2			10	0	-	49	49	n	n	*IV*	4	**4**	WE	
		30	66	C	mod	10YR5/2	Fe	com	1	0	poor	37	46	y	y					
		66	120	C	slight	2.5Y5/2	Fe	com	1	0	poor	37	5	y	y					
											Total	**123**	**100**							
											MB	33	21							
											Droughtiness grade (DR)	1	1							
297	T	0	20	hZCL		10YR4/2			10	0	-	34	34	n	n	*IV*	4	**4**	WE	
		20	55	C	slight	10YR5/2	Fe	com	1	0	poor	42	45	y	y					
		55	120	C	slight	2.5Y5/2	Fe	com	1	0	poor	45	19	y	y					

											Total	**122**	**99**							
											MB	32	20							
										Droughtiness grade (DR)		1	1							
298	T	0	30	hZCL	v.sli	10YR4/3			10	0	-	52	52	n	n	//	3a	**3a**	WE		
		30	60	C	slight	10YR5/2	Fe	com	10	15		34	41	y	n						
		60	120	Lstone								18	4	n	n						
											Total	**104**	**96**							
											MB	14	17							
										Droughtiness grade (DR)		2	1							
299	T	0	30	mZCL	v.sli	10YR4/3			10	0	-	52	52	n	n	/	2	**3a**	DR		
		30	40	C	slight	10YR4/2			0	25		15	15	n	n						
		40	120	Lstone								25	12	n	n						
											Total	**91**	**78**							
											MB	1	-1							
										Droughtiness grade (DR)		3a	2							
300	T	0	28	mZCL	v.sli	10YR4/3			0	25	-	47	47	n	n	/	2	**3b**	ST		
		28	40	hZCL	slight	10YR4/3			0	40		17	17	n	n						
		40	120	Lstone								25	12	n	n						
											Total	**89**	**76**							
											MB	-1	-3							
										Droughtiness grade (DR)		3a	2							
301	T	0	20	mZCL	v.sli	10YR4/3			0	25	-	34	34	n	n	/	2	**3b**	ST		
		20	40	hZCL	slight	10YR4/3			0	40		28	28	n	n						
		40	120	Lstone								25	12	n	n						
											Total	**87**	**74**							
											MB	-3	-5							
										Droughtiness grade (DR)		3a	2							

TS stone 15% >2cm

302	T	0	20	hCL	v.sli	10YR4/3			0	25	-	29	29	n	n	/	3a	**3b**	ST
		20	40	hZCL	slight	10YR4/3			0	40		24	24	n	n				
		40	120	Lstone								25	12	n	n				
											Total	**78**	**65**						
											MB	-12	-14						
											Droughtiness grade (DR)	3a	3a						
303	T	0	27	hCL	v.sli	10YR4/3			0	25	-	39	39	n	n	/	3a	**3b**	ST
		27	40	hZCL	slight	10YR4/3			0	40		15	15	n	n				
		40	120	Lstone								25	12	n	n				
											Total	**79**	**66**						
											MB	-11	-13						
											Droughtiness grade (DR)	3a	3a						
304	T	0	30	hCL	v.sli	10YR4/3			0	8	-	51	51	n	n	//	3a	**3a**	WE
		30	47	hCL	slight	10YR5/3	FeMn	com	0	10		25	25	y	n				
		47	70	SCL	mod	10YR5/3			0	0		25	35	n	n				
		70	120	SCL	mod	10YR5/3			0	0		50	0	n	n				
											Total	**150**	**110**						
											MB	60	31						
											Droughtiness grade (DR)	1	1						
305	T	0	20	hCL	v.sli	10YR4/2			0	20	-	30	30	n	n	/	3a	**3a**	WE DR
		20	25	hCL	very	10YR4/2			0	40		6	6	n	n				
		25	40	hCL	very	10YR4/2			0	40		17	17	n	n				
		40	120	Lstone								25	12	n	n				
											Total	**78**	**65**						
											MB	-12	-14						
											Droughtiness grade (DR)	3a	3a						

306	T	0	20	hZCL	v.sli	10YR4/2	0	20	-	32	32	n	n	/	3a	**3a**	WE DR
		20	25	hCL	very	10YR4/2	0	40		6	6	n	n				
		25	40	hCL	very	10YR4/2	0	40		17	17	n	n				
		40	120	Lstone						25	12	n	n				
									Total	**79**	**66**						
									MB	-11	-13						
									Droughtiness grade (DR)	3a	3a						
307	T	0	20	hZCL	v.sli	10YR4/2	0	20	-	32	32	n	n	/	3a	**3a**	WE DR
		20	25	hCL	very	10YR4/2	0	40		6	6	n	n				
		25	40	hCL	very	10YR4/2	0	40		17	17	n	n				
		40	120	Lstone						25	12	n	n				
									Total	**79**	**66**						
									MB	-11	-13						
									Droughtiness grade (DR)	3a	3a						
308	T	0	28	hZCL		10YR4/3	0	20	-	45	45	n	n	/	3a	**3a**	WE DR
		28	32	hCL	slight	10YR4/4	0	40		4	4	n	n				
		32	40	hCL	slight	10YR4/4	0	40		9	9	n	n				
		40	120	Lstone						25	12	n	n				
									Total	**83**	**70**						
									MB	-7	-9						
									Droughtiness grade (DR)	3a	2						
309	T	0	29	hZCL		10YR5/3	0	10	-	51	51	n	n	/	3a	**3a**	WE DR
		29	40	hCL	slight	10YR4/4	0	40		12	12	n	n				
		40	120	Lstone						25	12	n	n				
									Total	**88**	**75**						
									MB	-2	-4						
									Droughtiness grade (DR)	3a	2						

310	T	0	17	hZCL	10YR4/2	0	10	-	30	30	n	n	/	3a	**3b**	ST
		17	40	hCL	10YR4/4	0	40		26	26	n	n				
		40	120	Lstone					25	12	n	n				
								Total	**81**	**68**						
								MB	-9	-11						
								Droughtiness grade (DR)	3a	3a						
311	T	0	19	hZCL	10YR4/2	0	25	-	33	30	n	n	/	3a	**3b**	ST
		19	40	hCL	10YR4/4	0	40		24	26	n	n				
		40	120	Lstone					25	12	n	n				
								Total	**82**	**68**						
								MB	-8	-11						
								Droughtiness grade (DR)	3a	3a						
312	T	0	20	mZCL	10YR4/2	0	25	-	31	31	n	n	/	2	**3b**	ST
		20	40	hCL	10YR4/4	0	40		22	22	n	n				
		40	120	Lstone					25	12	n	n				
								Total	**78**	**65**						
								MB	-12	-14						
								Droughtiness grade (DR)	3a	3a						
313	T	0	25	mZCL	10YR4/2	0	25	-	38	38	n	n	/	2	**3b**	ST
		25	40	hCL	10YR4/4	0	40		17	17	n	n				
		40	120	Lstone					25	12	n	n				
								Total	**80**	**67**						
								MB	-10	-12						
								Droughtiness grade (DR)	3a	3a						
314	T	0	18	mZCL	10YR4/3	0	25	-	27	27	n	n	/	2	**3b**	ST
		18	40	hCL	10YR4/4	0	40		25	25	n	n				

		40	120	Lstone							25	12	n	n					
										Total	**77**	**64**							
										MB	-13	-15							
									Droughtiness grade (DR)		3a	3a							
315	T	0	23	mZCL	10YR4/2			0	25	-	27	27	n	n	*I*	2	**3a**	ST	
		23	40	hCL	10YR4/4			0	40		25	25	n	n					
		40	120	Lstone							25	12	n	n					
										Total	**77**	**64**			TS stone 12% >2cm				
										MB	-13	-15							
									Droughtiness grade (DR)		3a	3a							
316	T	0	23	mZCL	10YR4/3			0	10	-	40	40	n	n	*I*	2	**3a**	DR	
		23	40	hCL	10YR4/4			0	40		19	19	n	n					
		40	120	Lstone							25	12	n	n					
										Total	**84**	**71**							
										MB	-6	-8							
									Droughtiness grade (DR)		3a	2							
317	T	0	40	mZCL	10YR4/3			5	0	-	72	72	n	n	*II*	3a	**3a**	WE	
		40	65	hCL	10YR5/2	Fe	com	0	0		31	40	y	n					
		65	80	C	2.5Y5/3	FeMn	com	0	0	poor	11	7	y	y					
		80	120	C	10YR5/3	FeMn	com	0	0	poor	28	0	y	y					
										Total	**142**	**119**							
										MB	52	40							
									Droughtiness grade (DR)		1	1							
318	T	0	30	mZCL	10YR4/3			5	0	-	54	54	n	n	*III*	3a	**3a**	WE	
		30	40	hCL	10YR4/3	Fe	com	0	0		16	16	n	n					
		40	120	C	10YR5/3	FeMn	com	0	0	poor	62	39	y	y					

										Total	**132**	**109**							
										MB	42	30							
									Droughtiness grade (DR)		1	1							
319	T	0	30	mZCL	10YR4/3			5	0	-	54	54	n	n	///	3a	**3a**	WE	
		30	45	SC	10YR4/3	Fe	com	0	0		23	23	n	n					
		45	120	fSC	10YR5/3	Fe	com	0	0	poor	63	33	y	y					
										Total	**139**	**109**							
										MB	49	30							
									Droughtiness grade (DR)		1	1							
320	T	0	32	mZCL	10YR4/3			2	0	-	60	60	n	n	II-///	3a	**3a**	WE	
		32	45	SC	10YR5/3	Fe	com	0	0		20	20	y	n					
		45	120	SC	10YR5/3	Fe	com	0	0	m/poor	70	35	y	(y)					
										Total	**149**	**114**							
										MB	59	35							
									Droughtiness grade (DR)		1	1							
321	T	0	30	mCL	10YR4/3			1	0	-	53	53	n	n	*IV*	3b	**3b**	WE	
		30	55	C	10YR5/3	FeMn	com	0	0	poor	30	33	y	y					
		55	120	C	7.5YR5/3	FeMn	com	0	0	poor	46	20	y	y					
										Total	**128**	**105**							
										MB	38	26							
									Droughtiness grade (DR)		1	1							
323	T	0	22	mZCL	10YR4/3			0	10	-	39	39	n	n	*I*	2	**3a**	DR	
		22	40	hCL	10YR4/4			0	40		20	20	n	n					
		40	120	Lstone							25	12	n	n					
										Total	**84**	**71**							
										MB	-6	-8							

						Droughtiness grade (DR)			3a	2							
324	T	0	18	mZCL	10YR4/3	0	10	-	32	32	n	n	/	2	**3a**	DR	
		18	40	hCL	10YR4/4	0	40		25	25	n	n					
		40	120	Lstone					25	12	n	n					
								Total	**81**	**68**							
								MB	-9	-11							
						Droughtiness grade (DR)			3a	3a							
325	T	0	20	mZCL	10YR4/3	0	15	-	34	34	n	n	/	2	**3a**	DR	
		20	40	hCL	10YR4/4	0	40		22	22	n	n					
		40	120	Lstone					25	12	n	n					
								Total	**81**	**68**							
								MB	-9	-11							
						Droughtiness grade (DR)			3a	3a							
326	T	0	20	mZCL	10YR4/3	0	15	-	34	34	n	n	/	2	**3a**	DR	
		20	40	hCL	10YR4/4	0	40		22	22	n	n					
		40	120	Lstone					25	12	n	n					
								Total	**81**	**68**							
								MB	-9	-11							
						Droughtiness grade (DR)			3a	3a							
327	T	0	22	mZCL	10YR4/3	0	15	-	37	37	n	n	/	2	**3a**	DR	
		22	40	hCL	10YR4/4	0	40		20	20	n	n					
		40	120	Lstone					25	12	n	n					
								Total	**82**	**69**							
								MB	-8	-10							
						Droughtiness grade (DR)			3a	2							
328	T	0	20	mZCL	10YR4/3	0	15	-	37	37	n	n	/	2	**3a**	DR	

		20	40	hCL	10YR4/4	0	40		20	20	n	n					
		40	120	Lstone					25	12	n	n					
								Total	82	69							
								MB	-8	-10							
								Droughtiness grade (DR)	3a	2							
329	T	0	18	mCL	10YR4/3	0	15	-	29	37	n	n	/	2	3a	DR	
		18	40	hCL	10YR4/4	0	40		25	20	n	n					
		40	120	Lstone					25	12	n	n					
								Total	78	69							
								MB	-12	-10							
								Droughtiness grade (DR)	3a	2							
330	T	0	19	mCL	10YR4/3	0	15	-	30	30	n	n	/	2	3a	DR	
		19	40	hCL	10YR4/4	0	40		24	24	n	n					
		40	120	Lstone					25	12	n	n					
								Total	79	66							
								MB	-11	-13							
								Droughtiness grade (DR)	3a	3a							
331	T	0	20	mZCL	10YR4/3	0	20	-	32	32	n	n	/	2	3a	DR ST	
		20	40	hCL	10YR4/4	0	40		22	22	n	n					
		40	120	Lstone					25	12	n	n					
								Total	79	66							
								MB	-11	-13							
								Droughtiness grade (DR)	3a	3a							

Lime Down C

Stone types		
%	TAv	EAv
hard	1	0.5
chalk	10	7

Climate Data	
MDwheat	87
MDpotato	75
FCD	186

Wetness Class Guidelines	II	III	IV	V
SPL within 80cm, gleying within 40cm	>78cm	51-78cm	<51cm	
SPL within 80cm, gleying at 40-70cm	>67cm	<67cm		
No SPL but gleying within 40cm	coarse subsoil	I	other cases	II

Climate
1413 D°
Limitation
Grade 1

hard flint & pebble

AAR 838

Maximum depth of auger penetration is underlined

Site No.		Depth cm		Texture	$CaCO_3$	Colour	Mottle colour	abund-ance	stone% hard	stone% chalk	Struct-ure	APwheat mm	AP potato mm	Gley	SPL	WC	Wetness grade WE	Final Grade	Limiting Factor(s)
22	T	0	30	C		10YR4/2			1	0	-	51	51	n	n	IV	4	4	WE
		30	49	C		10YR5/3	Fe	com	15	0	poor	21	21	y	y				
		49	75	C	mod	2.5Y5/3	Fe	com	5	0	poor	18	26	y	y				
		75	120	C	mod	2.5Y5/3	Fe	com	5	0	poor	30	0	y	y				
											Total	**120**	**98**						
											MB	33	23						
									Droughtiness grade (DR)			1	1						
23	T	0	25	hCL		10YR4/2			0	0	-	45	45	n	n	IV	4	4	WE
		25	55	C		10YR5/2	Fe	com	0	0	poor	36	39	y	y				
		55	90	C	very	2.5Y5/3	Fe	com	0	0	poor	25	20	y	y				
		90	120	C	very	2.5Y5/3	Fe	com	0	0	poor	21	0	y	y				
											Total	**126**	**104**						
											MB	39	29						
									Droughtiness grade (DR)			1	1						
24	T	0	28	hCL		10YR4/2			0	0	-	50	50	n	n	IV	4	4	WE
		28	55	C	slight	2.5Y5/3	Fe	com	0	0	poor	32	35	y	y				
		55	70	C	very	2.5Y5/2	Fe	com	0	0	poor	11	20	y	y				
		70	120	C	very	2.5Y5/2	Fe	com	0	0	poor	35	0	y	y				

											Total	**128**	**105**						
											MB	41	30						
										Droughtiness grade (DR)		1	1						
25	T	0	25	hCL		10YR4/2			0	0	-	45	45	n	n	*IV*	4	**4**	WE
		25	65	C	slight	2.5Y5/3	Fe	com	0	0	poor	43	52	y	y				
		65	120	C	very	2.5Y5/2	Fe	com	0	0	poor	39	7	y	y				
											Total	**126**	**104**						
											MB	39	29						
										Droughtiness grade (DR)		1	1						
26	T	0	28	C		10YR4/2			10	0	-	43	43	n	n	*II*	3b	**3b**	WE
		28	32	C	mod	10YR5/3	Fe	com	20	0		5	5	y	n				
		32	60	C	mod	10YR5/3	Fe	com	40	0		23	28	y	n				
		60	120	Lstone					0	0		18	4	n	n				
											Total	**89**	**80**						
											MB	2	5						
										Droughtiness grade (DR)		3a	2						
27	T	0	25	hCL		10YR4/2			0	0	-	45	45	n	n	*IV*	4	**4**	WE
		25	60	C	slight	2.5Y5/3	Fe	com	0	0	poor	40	46	y	y				
		60	72	C	very	2.5Y5/2	Fe	com	0	0	poor	8	13	y	y				
		72	120	C	very	2.5Y5/2	Fe	com	0	0	poor	34	0	y	y				
											Total	**126**	**104**						
											MB	39	29						
										Droughtiness grade (DR)		1	1						
28	T	0	25	hCL		10YR4/2			0	0	-	45	45	n	n	*IV*	4	**4**	WE
		25	45	C		2.5Y5/2	Fe	com	0	0	poor	26	26	y	y				
		45	70	C	very	5Y5/2	Fe	com	0	0	poor	21	33	y	y				
		70	120	C	very	5Y5/2	Fe	com	0	0	poor	35	0	y	y				

											Total	**126**	**104**						
											MB	39	29						
										Droughtiness grade (DR)		1	1						
29	T	0	28	hCL		10YR4/2			3	0	-	49	49	n	n	*IV*	4	**4**	WE
		28	55	C		2.5Y5/3	Fe	com	15	0	poor	28	30	y	y				
		55	60	C		2.5Y5/3	Fe	com	40	0	poor	2	4	n	n				
		60	120	Lstone					0	0		18	4	n	n				
											Total	**97**	**87**						
											MB	10	12						
										Droughtiness grade (DR)		2	1						
30	T	0	22	C		10YR4/2			2	0	-	37	37	n	n	*IV*	4	**4**	WE
		22	70	C	slight	2.5Y5/2	Fe	com	0	0	poor	50	62	y	y				
		70	75	C	very	5Y5/2			40	0		3	0	n	n				
		75	120	Lstone					0	0		14	0	n	n				
											Total	**103**	**99**						
											MB	16	24						
										Droughtiness grade (DR)		2	1						
31	T	0	28	C		10YR4/2			2	0	-	47	47	n	n	*IV*	4	**4**	WE
		28	58	C	slight	2.5Y5/2	Fe	com	0	0	poor	34	39	y	y				
		58	60	C	very	5Y5/2			40	0		1	2	n	n				
		60	120	Lstone					0	0		18	4	n	n				
											Total	**100**	**92**						
											MB	13	17						
										Droughtiness grade (DR)		2	1						
32	T	0	35	C		10YR4/2			2	0	-	58	58	n	n	*IV*	4	**4**	WE
		35	60	C	slight	2.5Y5/3	Fe	com	0	0	poor	27	33	y	y				
		60	75	C	mod	5Y5/2	Fe	com	0	0	poor	11	13	y	y				

		75	120	C	mod	5Y5/2	Fe	com	0	0	poor	32	0	y	y				
											Total	**127**	**104**						
											MB	40	29						
											Droughtiness grade (DR)	1	1						
33	T	0	31	hCL		10YR4/2			1	0	-	55	55	n	n	*IV*	4	**4**	WE
		31	46	C	mod	10YR5/3	Fe	com	0	0	poor	20	20	y	y				
		46	60	C	mod	10YR5/3	Fe	com	40	0	poor	8	11	y	n				
		60	120	Lstone					0	0		18	4	n	n				
											Total	**100**	**90**						
											MB	13	15						
											Droughtiness grade (DR)	2	1						
34	T	0	30	C		10YR4/2			12	0	-	45	45	n	n	*IV*	4	**4**	WE
		30	40	C	mod	10YR5/3	Fe	com	15	0	poor	11	11	y	y				
		40	60	C	mod	10YR5/3	Fe	com	15	0	poor	17	22	y	y				
		60	120	Lstone					0	0		18	4	n	n				
											Total	**91**	**82**			Stone and groundwater at 40cm			
											MB	4	7						
											Droughtiness grade (DR)	3a	2						
35	T	0	32	C		10YR4/2			2	0	-	53	53	n	n	*IV*	4	**4**	WE
		32	90	C	mod	2.5Y5/3	Fe	com	1	0	poor	51	49	y	y				
		90	120	C	mod	5Y5/2	Fe	com	0	0	poor	21	0	y	y				
											Total	**125**	**102**						
											MB	38	27						
											Droughtiness grade (DR)	1	1						
36	T	0	38	C		10YR4/2			0	0	-	65	65	n	n	*IV*	4	**4**	WE
		38	70	C		10R5/2	Fe	com	0	0	poor	30	42	y	y				
		70	120	C	slight	5Y5/3	Fe	com	0	0	poor	35	0	y	y				

											Total	**129**	**106**						
											MB	42	31						
										Droughtiness grade (DR)		1	1						
37	T	0	32	C		10YR4/2			0	0	-	54	54	n	n	*IV*	4	**4**	WE
		32	54	C		10R5/2	Fe	com	0	0	poor	26	29	y	y				
		54	120	C	slight	5Y5/3	Fe	com	0	0	poor	46	21	y	y				
											Total	**127**	**104**						
											MB	40	29						
										Droughtiness grade (DR)		1	1						
38	T	0	25	C		10YR4/2			10	0	-	39	39	n	n	*I*	3b	**3b**	WE
		25	50	C					40	0		25	25	n	n				
		50	120	Lstone					0	0		21	8	n	n				
											Total	**84**	**72**			Three attempts, all directly onto stone			
											MB	-3	-4						
										Droughtiness grade (DR)		3a	2						
39	T	0	30	C		10YR4/2			10	0	-	39	39	n	n	*I*	3b	**3b**	WE
		30	50	C					40	0		25	25	n	n				
		50	120	Lstone					0	0		21	8	n	n				
											Total	**84**	**72**						
											MB	-3	-4						
										Droughtiness grade (DR)		3a	2						
40	T	0	30	C		10YR4/2			1	0	-	51	51	n	n	*IV*	4	**4**	WE
		30	50	C		2.5Y5/2	Fe	com	0	0	poor	26	26	y	y				
		50	120	C		5Y5/1	Fe	com	0	0	poor	49	26	y	y				
											Total	**126**	**103**						
											MB	39	28						
										Droughtiness grade (DR)		1	1						

41	T	0	32	C	10YR4/2			0	0	-	54	54	n	n	*IV*	4	**4**	WE
		32	55	C	2.5Y5/2	Fe	com	0	0	poor	27	30	y	y				
		55	120	C	5Y5/2	Fe	com	0	0	poor	46	20	y	y				
										Total	**127**	**104**						
										MB	40	29						
										Droughtiness grade (DR)	1	1						
42	T	0	30	hCL	10YR3/2			0	0	-	54	54	n	n	*IV*	4	**4**	WE
		30	70	C	10YR4/2	Fe	com	0	0	poor	40	52	y	y				
		70	90	C	10YR5/2	Fe	com	0	0	poor	14	0	y	y				
		90	120	C	10YR5/2+5/4	Fe	com	0	0	poor	21	0	y	y				
										Total	**129**	**106**						
										MB	42	31						
										Droughtiness grade (DR)	1	1						
43	T	0	32	C	10YR4/2			0	0	-	54	54	n	n	*IV*	4	**4**	WE
		32	44	C	10YR5/2	Fe	com	0	0	poor	16	16	y	y				
		44	120	C	2.5Y5/3	Fe	com	0	0	poor	57	34	y	y				
										Total	**127**	**104**						
										MB	40	29						
										Droughtiness grade (DR)	1	1						
44	T	0	20	hCL	10YR3/2			0	0	-	58	58	n	n	*IV*	4	**4**	WE
		20	45	C	10YR5/2	Fe	com	0	0	poor	16	16	y	y				
		45	65	C	10YR5/2	FeMn	com	0	0	poor	57	34	y	y				
		65	120	C	10YR5/1	FeMn	com	0	0	poor	57	34	y	y				
										Total	**130**	**107**						
										MB	43	32						
										Droughtiness grade (DR)	1	1						

245	T	0	30	hCL		10YR5/1			1	0	-	53	53	n	n	*IV*	4	**4**	WE
		30	60	C	v.sli	2.5Y5/2	Fe	com	2	0	poor	32	38	y	y				
		60	80	C		2.5Y6/1	Fe	com	2	0	poor	14	13	y	y				
		80	120	C		2.5Y6/1	Fe	com	2	0	poor	27	0	y	y				
											Total	**127**	**105**						
											MB	40	30						
											Droughtiness grade (DR)	1	1						
246	T	0	30	hCL		10YR5/1			1	0		53	53	n	n	*IV*	4	**4**	WE
		30	60	C	v.sli	2.5Y5/2	Fe	com	2	0	poor	32	38	y	y				
		60	80	C	slight	2.5Y6/1	Fe	com	2	0	poor	14	13	y	y				
		80	120	C	slight	2.5Y6/1	Fe	com	2	0	poor	27	0	y	y				
											Total	**127**	**105**						
											MB	40	30						
											Droughtiness grade (DR)	1	1						
247	T	0	28	C		10YR5/1			0	15		42	42	n	n	*II*	3b	**3b**	WE
		28	60	SC	very	2.5Y5/3	Fe	com	0	10		40	44	y	n				
		60	80	SC	very	2.5Y5/3	Fe	com	0	10		19	14	y	n				
		80	120	Lstone								12	0	n	n				
											Total	**113**	**101**						
											MB	26	26						
											Droughtiness grade (DR)	2	1						
248	T	0	25	C		10YR4/2			2	0		42	42	n	n	*IV*	4	**4**	WE
		25	50	C		10YR5/3	Fe	com	0	0	poor	33	33	y	y				
		50	70	C		2.5Y6/4	Fe	com	0	0	poor	14	26	y	y				
		70	120	C		2.5Y6/4	Fe	com	0	0	poor	35	0	y	y				
											Total	**123**	**100**						

											MB	36	25						
										Droughtiness grade (DR)	1	1						
249	T	0	28	C		10YR4/2			0	10		44	44	n	n	*I*	3b	**3b**	WE
		28	40	C					0	40		13	13	n	n				
		40	120	Lstone								25	12	n	n				
											Total	**82**	**69**						
											MB	-5	-6						
										Droughtiness grade (DR)	3a	2						
253	T	0	26	hCL		10YR4/2			2	0		46	46	n	n	*IV*	4	**4**	WE
		26	32	C		10YR5/2	Fe	com	0	0	poor	8	8	y	y				
		32	60	C		10YR5/2	Fe	com	0	0	poor	30	36	y	y				
		60	120	C		2.5Y5/1	Fe	com	0	0	poor	42	13	y	y				
											Total	**126**	**103**						
											MB	39	28						
										Droughtiness grade (DR)	1	1						
254	T	0	28	C		10YR4/3			0	10		44	44	n	n	*I*	3b	**3b**	WE
		28	40	C					0	40		13	13	n	n				
		40	120	Lstone								25	12	n	n				
											Total	**82**	**69**						
											MB	-5	-6						
										Droughtiness grade (DR)	3a	2						
255	T	0	28	hCL		10YR4/3			12	0		45	45	n	n	*II*	3a	**3a**	WE DR
		28	32	C	very	2.5Y6/3	Fe	com	0	30		5	5	y	n				
		32	50	C	very	2.5Y6/3	Fe	com	0	40		20	20	y	n				
		50	120	Lstone								21	8	n	n				

											Total	**91**	**78**						
											MB	4	3						
										Droughtiness grade (DR)		3a	2						
256	T	0	25	hCL		7.5YR4/3			20	0		37	37	n	n	*I*	3a	**3a**	WE DR
		25	40	C	very				0	40		17	17	n	n				
		40	120	Lstone								25	12	n	n				
											Total	**78**	**65**						
											MB	-9	-10						
										Droughtiness grade (DR)		3a	2						
257	T	0	24	hCL		7.5YR4/3			20	0		35	35	n	n	*I*	3a	**3a**	WE DR
		24	40	C	very				0	40		18	18	n	n				
		40	120	Lstone								25	12	n	n				
											Total	**78**	**65**						
											MB	-9	-10						
										Droughtiness grade (DR)		3a	3a						
258	T	0	22	C		10YR4/2			8	0		35	35	n	n	*I*	3b	**3b**	WE
		22	26	C	slight	10YR4/3			0	25		5	5	n	n				
		26	40	C	slight	10YR4/3			0	40		16	16	n	n				
		40	120	Lstone					0	0		25	12	n	n				
											Total	**80**	**67**						
											MB	-7	-8						
										Droughtiness grade (DR)		3a	2						
259	T	0	30	C		10YR4/2			2	0		50	50	n	n	*IV*	4	**4**	WE
		30	50	C		10YR5/3	Fe	com	2	0	poor	26	26	y	y				
		50	80	C		2.5Y5/1	Fe	com	0	0	poor	21	26	y	y				

		80	120	C		2.5Y5/1	Fe	com	0	0	poor	28	0	y	y				
											Total	**125**	**102**						
											MB	38	27						
											Droughtiness grade (DR)	1	1						
260	T	0	30	C		10YR4/2			8	0		47	47	n	n	*I*	3b	**3b**	WE
		30	37	C	slight	10YR4/3			2	0		11	11	n	n				
		37	50	C	slight	10YR4/3			0	25		17	17	n	n				
		50	120	Lstone					0	0		21	8	n	n				
											Total	**96**	**83**						
											MB	9	8						
											Droughtiness grade (DR)	2	2						
261	T	0	24	ZC		10YR4/2			8	0		38	38	n	n	*I*	3b	**3b**	WE
		24	34	C	slight	10YR4/3			2	0		16	16	n	n				
		34	50	C	slight	10YR4/3			0	25		21	21	n	n				
		50	120	Lstone					0	0		21	8	n	n				
											Total	**95**	**82**						
											MB	8	7						
											Droughtiness grade (DR)	2	2						
262	T	0	28	C		10YR4/2			1	0		47	47	n	n	*IV*	4	**4**	WE
		28	35	C		10YR5/3	Fe	com	1	0	poor	9	9	y	y				
		35	50	C		10YR5/3	Fe	com	0	0	poor	20	20	y	y				
		50	120	C					0	0	poor	49	26	y	y				
											Total	**125**	**102**						
											MB	38	27						
											Droughtiness grade (DR)	1	1						

263	T	0	22	C	10YR4/2			1	0		37	37	n	n	*IV*	4	**4**	WE	
		22	40	C	10YR5/3	Fe	com	1	0	poor	23	23	y	y					
		40	50	C	10YR5/3	Fe	com	0	0	poor	13	13	y	y					
		50	120	C				0	0	poor	49	26	y	y					
										Total	**122**	**99**			Wet. Next to pond				
										MB	35	24							
										Droughtiness grade (DR)	1	1							
264	T	0	20	hCL	10YR4/2			1	0		36	36	n	n	*IV*	4	**4**	WE	
		20	55	C	10YR5/3	Fe	com	1	0	poor	42	45	y	y					
		55	70	C	10YR5/3	Fe	com	0	0	poor	11	20	y	y					
		70	120	C				0	0	poor	35	0	y	y					
										Total	**123**	**100**							
										MB	36	25							
										Droughtiness grade (DR)	1	1							
265	T	0	20	hCL	10YR4/1			1	0		36	36	n	n	*IV*	4	**4**	WE	
		20	55	C	10YR5/2	Fe	com	1	0	poor	42	45	y	y					
		55	70	C	10YR5/2	Fe	com	0	0	poor	11	20	y	y					
		70	120	C				0	0	poor	35	0	y	y					
										Total	**123**	**100**							
										MB	36	25							
										Droughtiness grade (DR)	1	1							
266	T	0	24	hCL	10YR4/1			1	0		43	43	n	n	*IV*	4	**4**	WE	
		24	50	C	10YR5/2	Fe	com	1	0	poor	33	33	y	y					
		50	70	C	10YR5/2	Fe	com	0	0	poor	14	26	y	y					
		70	120	C				0	0	poor	35	0	y	y					
										Total	**125**	**102**							

												MB	38	27						
												Droughtiness grade (DR)	1	1						
267	T	0	28	hCL		10YR4/2			12	0	-	45	45	n	n	*II*	3a	**3a**	WE	
		28	46	C	mod	2.5Y5/3	Fe	com	15	0		25	25	y	n					
		46	70	C	mod	2.5Y5/3	Fe	com	15	0		19	33	y	n					
		70	120	Lstone					0	0		15	0	n	n					
											Total	**104**	**102**							
											MB	17	27							
											Droughtiness grade (DR)	2	1							
268	T	0	18	hCL		10YR4/1			15	0	-	28	28	n	n	*I*	3a	**3a**	DR	
	T	18	25	hCL		10YR4/1			25	0		10	10	n	n					
		25	50	C					25	0		31	31	n	n					
		50	120	Lstone					0	0		21	8	n	n					
											Total	**89**	**76**							
											MB	2	1							
											Droughtiness grade (DR)	3a	2							
269	T	0	26	hCL		10YR4/1			12	0	-	41	41	n	n	*IV*	4	**4**	WE	
		26	50	C	mod	2.5Y5/3	Fe	com	15	0	poor	27	27	y	y					
		50	70	C	mod	2.5Y5/3	Fe	com	15	0	poor	12	22	y	y					
		70	120	Lstone					0	0		15	0	n	n					
											Total	**95**	**91**							
											MB	8	16							
											Droughtiness grade (DR)	2	1							
270	T	0	25	hCL		10YR4/1			12	0	-	40	40	n	n	*IV*	4	**4**	WE	
		25	55	C		10YR5/3	Fe	com	0	0	poor	36	39	y	y					
		55	120	C		2.5Y5/1	Fe	com	0	0	poor	46	20	y	y					
											Total	**121**	**98**							

										MB	34	23							
								Droughtiness grade (DR)			1	1							
271	T	0	25	hCL	10YR4/2			1	0	-	45	45	n	n	*III*	3b	**3b**	WE	
		25	40	hCL	10YR5/3	Fe	com	0	0	m/poor	21	21	y	y					
		40	120	hCL	10YR5/3	Fe	com	0	0	m/poor	74	42	y	y					
										Total	**139**	**108**							
										MB	52	33							
								Droughtiness grade (DR)			1	1							
272	T	0	25	hCL	10YR4/1			12	0	-	40	40	n	n	*IV*	4	**4**	WE	
		25	120	C	10YR5/3	Fe	com	0	0	poor	82	59	y	y					
										Total	**121**	**98**							
										MB	34	23							
								Droughtiness grade (DR)			1	1							
273	T	0	25	C	10YR4/2			12	0	-	38	38	n	n	*IV*	4	**4**	WE	
		25	45	C	10YR5/2	Fe	com	0	0	poor	26	26	y	y					
		45	120	C	10YR5/2	Fe	com	0	0	poor	56	33	y	y					
										Total	**119**	**96**							
										MB	32	21							
								Droughtiness grade (DR)			1	1							
274	T	0	30	C	10YR4/2			0	0	-	51	51	n	n	*IV*	4	**4**	WE	
		30	60	C	2.5Y5/3	Fe	com	0	0	poor	33	39	y	y					
		60	120	C	2.5Y5/3	Fe	com	0	0	poor	42	13	y	y					
										Total	**126**	**103**							
										MB	39	28							
								Droughtiness grade (DR)			1	1							
275	T	0	25	hCL	10YR4/2			10	0	-	41	41	n	n	*I*	3a	**3a**	WE DR	

		25	40	C				0	25		20	20	n	n					
		40	120	Lstone							25	12	n	n					
										Total	**85**	**72**							
										MB	-2	-3							
										Droughtiness grade (DR)	3a	2							
332	T	0	22	mZCL	7.5YR3/2			5	0	-	40	40	n	n	*IV*	3b	**3b**	WE	
		22	**31**	ZC	10YR5/3	Fe	com	0	25	poor	9	9	y	y					
		31	**50**	ZC	10YR5/3	Fe	com	0	60	poor	14	14	y	y					
		50	**120**	Lstone				0	0		21	8	n	n					
										Total	**84**	**71**							
										MB	-3	-5							
										Droughtiness grade(DR)	3a	2							
333	T	0	26	mZCL	7.5YR3/2			5	0	-	47	47	n	n	*IV*	3b	**3b**	WE	
		26	**50**	ZC	10YR5/3	Fe	com	0	60	poor	17	17	y	y					
		50	**120**	LStone				0	0		0	0	n	n					
										Total	**64**	**64**							
										MB	-23	-11							
										Droughtiness grade(DR)	3b	3a							
334	T	0	22	C	7.5YR3/2			5	0	-	36	36	n	n	*IV*	4	**4**	WE	
Pit 7		22	**46**	C	10YR5/3	Fe	com	0	25	poor	26	26	y	y					
		46	**55**	C	10YR5/3	Fe	com	0	60	poor	5	7	y	y					
		55	**120**	LStone				0	0		0	0	n	n					
										Total	**67**	**68**							
										MB	-20	-7							
										Droughtiness grade(DR)	3a	2							

335	T	0	26	C		10YR3/2			5	0	-	42	42	n	n	*IV*	4	**4**	WE
		26	**45**	C		10YR5/2	Fe	com	1	0	poor	24	24	y	y				
		45	**51**	C	sli	10YR5/1	Fe	com	0	10	poor	7	7	y	y				
		51	**120**	LStone					0	0		0	0	n	n				
											Total	**73**	**74**						
											MB	-14	-1						
											Droughtiness grade(DR)	3a	2						
336	T	0	28	C		10YR3/2			5	0	-	45	45	n	n	*IV*	4	**4**	WE
		28	**38**	C	sli	10YR5/2	Fe	com	1	0	poor	13	13	y	y				
		38	**55**	C	sli	10YR5/1	Fe	com	0	60	poor	11	13	y	y				
		55	**120**	LStone					0	0		0	0	n	n				
											Total	**70**	**71**						
											MB	-17	-4						
											Droughtiness grade(DR)	3a	2						
337	T	0	25	C		10YR4/2			1	0	-	42	42	n	n	*IV*	4	**4**	WE
		25	**44**	C		10YR5/3	Fe	com	1	0	poor	24	24	y	y				
		44	**53**	C	sli	10YR5/1	Fe	com	0	10	poor	9	11	y	y				
		53	**120**	LStone					0	0		44	21	n	n				
											Total	**120**	**98**						
											MB	33	23						
											Droughtiness grade(DR)	1	1						
338	T	0	25	hCL		10YR3/2			1	0	-	45	45	n	n	*IV*	4	**4**	WE
		25	**52**	C		10YR4/2	Fe	com	0	0	poor	34	35	y	y				
		52	**100**	C	sli	2.5Y5/3	Fe	com	1	0	poor	33	23	y	y				
		100	**120**	C	sli	2.5Y5/3	Fe	com	1	0	poor	14	0	y	y				

												Total	**126**	**103**						
												MB	39	28						
											Droughtiness grade(DR)		1	1						
339	T	0	20	hCL		10YR4/4			12	0	-		32	32	n	n	*IV*	4	**4**	WE
		20	40	C					0	60	poor		15	15	y	y				
		40	120	LStone									0	0	n	n				
												Total	**47**	**47**						
												MB	-40	-28						
											Droughtiness grade(DR)		3b	3a						
340	T	0	24	C		10YR4/3			0	0	-		41	41	n	n	*IV*	4	**4**	WE
		24	55	C	sli	2.5Y5/2	Fe	com	1	0	poor		37	40	y	y				
		55	85	C	sli	2.5Y5/1	Fe	com	0	5	poor		20	19	y	y				
		85	120	C	sli	2.5Y5/1	Fe	com	0	10	poor		23	0	y	y				
												Total	**121**	**100**						
												MB	34	25						
											Droughtiness grade(DR)		1	1						
341	T	0	22	hCL		10YR4/3			8	0	-		37	37	n	n	*IV*	4	**4**	WE
		22	65	C		2.5Y5/3	Fe	com	0	0	poor		47	56	y	y				
		65	70	C		2.5Y5/1	Fe	com	0	10	poor		3	6	y	y				
		70	120	C		2.5Y5/1	Fe	com	0	10	poor		33	0	y	y				
												Total	**120**	**99**						
												MB	33	24						
											Droughtiness grade(DR)		1	1						
342	T	0	28	hCL		10YR4/3			1	0	-		50	50	n	n	*IV*	4	**4**	WE
		28	32	C		10YR5/3	Fe	com	0	0	poor		5	5	y	y				

		32	50	C		10YR5/3	Fe	com	1	60	poor	13	13	y	y					
		50	120	LStone					0	0		0	0	n	n					
											Total	69	69							
											MB	-18	-6							
											Droughtiness grade(DR)	3a	2							
343	T	0	25	hZCL		10YR3/2			10	0	-	43	43	n	n	III	3b	3b	WE	
		25	40	ZC	sli	10YR4/2	Fe	com	2	0		22	22	y	n					
		40	70	ZC		10YR4/2	Fe	com	1	0		31	45	y	n					
		70	120	C							poor	35	0	y	y					
											Total	131	110							
											MB	44	35							
											Droughtiness grade(DR)	1	1							
344	T	0	21	hZCL		10YR4/2			0	0	-	40	40	n	n	IV	4	4	WE	
		21	63	C		2.YR5/3	Fe	com	0	0	poor	47	55	y	y					
		63	96	C		2.5Y5/1	Fe	com	1	0	poor	23	9	y	y					
		96	120	C		2.5Y5/1	Fe	com	0	10	poor	16	0	y	y					
											Total	125	104							
											MB	38	29							
											Droughtiness grade(DR)	1	1							
345	T	0	28	hZCL		10YR3/2			0	0	-	53	53	n	n	IV	4	4	WE	
		28	52	C		10YR5/2	Fe	com	0	0	poor	30	31	y	y					
		52	74	C		2.5Y5/2	Fe	com	0	0	poor	15	23	y	y					
		74	80	C		2.5Y5/1	Fe	com	0	10	poor	4	0	y	y					
		80	120	C		2.5Y5/1	Fe	com	0	10	poor	26	0	y	y					
											Total	129	108							
											MB	42	33							

							Droughtiness grade(DR)			1	1								
346	T	0	20	mZCL	10YR4/2			18	0	-	32	32	n	n	*II*	3a	**3a**	DR	
		20	**40**	hCL	10YR5/3	Fe	com	0	25		26	26	y	n					
		40	50	hCL	10YR5/3	Fe	com	1	60		9	9	y	n					
		50	120	LStone				0	0		0	0	n	n					
										Total	**66**	**66**							
										MB	-21	-9							
							Droughtiness grade(DR)				3b	2							
347	T	0	27	hZCL	10YR4/3			5	0	-	49	49	n	n	*IV*	4	**4**	WE	
		27	**40**	C	10YR5/3	Fe	com	0	0	poor	17	17	y	y					
		40	45	C	2.5Y5/2	Fe	com	0	0	poor	7	7	y	y					
		45	120	C	2.5Y5/2	Fe	com	0	25	poor	47	27	y	y					
										Total	**120**	**99**							
										MB	33	24							
							Droughtiness grade(DR)				1	1							
348	T	0	22	hZCL	10YR4/3			5	0	-	40	40	n	n	*IV*	4	**4**	WE	
		22	**40**	C	10YR5/3	Fe	com	0	0	poor	23	23	y	y					
		40	45	C	2.5Y5/2	Fe	com	0	25	poor	5	5	y	y					
		45	120	C	2.5Y5/2	Fe	com	0	25	poor	47	27	y	y					
										Total	**116**	**95**							
										MB	29	20							
							Droughtiness grade(DR)				2	1							
349	T	0	25	C	10YR4/3			5	0	-	41	41	n	n	*II*	3b	**3b**	WE	
		25	**40**	C	10YR5/3	Fe	com	0	25		20	20	y	n					
		40	50	C	10YR5/3	Fe	com	1	60		9	9	y	n					

		50	120	LStone				0	0		0	0	n	n					
										Total	69	69							
										MB	-18	-6							
										Droughtiness grade(DR)	3a	2							
350	T	0	36	C	10YR4/3			5	0	-	58	58	n	n	II	3b	3b	WE	
		36	80	C	10YR5/3	Fe	com	0	0		46	54	y	n					
		80	90	C	2.5Y5/3	Fe	com	1	0	poor	7	0	y	n					
		90	120	C	2.5Y5/3	Fe	com	1	0	poor	21	0	y	n					
										Total	132	113							
										MB	45	38							
										Droughtiness grade(DR)	1	1							
351	T	0	28	C	10YR4/3			0	0	-	48	48	n	n	IV	4	4	WE	
		28	55	C	10YR5/3	Fe	com	0	0	poor	32	35	y	y					
		55	100	C	2.5Y5/2	Fe	com	0	0	poor	32	20	y	y					
		100	120	C	2.5Y5/2	Fe	com	0	10	poor	13	0	y	y					
										Total	124	102							
										MB	37	27							
										Droughtiness grade(DR)	1	1							
352	T	0	18	hZCL	10YR4/3			0	30	-	26	26	n	n	I	3a	3b	ST	
	T	18	28	hZCL	10YR4/3			0	30		15	15	n	n					
		28	40	C				0	60	poor	9	9	n	n					
		40	120	Lstone				0	0		25	12	n	n					
										Total	75	62							
										MB	-12	-13							
										Droughtiness grade(DR)	3a	3a							

TS stone 18% >2cm

353	T	0	18	hZCL	10YR4/3		0	30	-	26	26	n	n	*I*	3a	**3b**	ST
	T	18	28	hZCL	10YR4/3		0	30		15	15	n	n				
		28	40	C			0	60	poor	9	9	n	n				
		40	120	Lstone			0	0		25	12	n	n				
									Total	75	62			TS stone 18% >2cm			
									MB	-12	-13						
									Droughtiness grade(DR)	3a	3a						
354	T	0	26	hZCL	10YR4/2		0	20	-	42	42	n	n	*I*	3a	**3b**	ST
Pit 8		26	40	C	10YR4/3		0	60	poor	11	11	n	n				
		40	120	Lstone			0	0		25	12	n	n				
									Total	77	64			TS stone 18% >2cm			
									MB	-10	-11						
									Droughtiness grade(DR)	3a	3a						
355	T	0	15	hZCL	10YR4/3		0	30	-	26	26	n	n	*I*	3a	**3b**	ST
	T	15	28	hZCL	10YR4/3		0	30		15	15	n	n				
		28	40	C			0	60	poor	9	9	n	n				
		40	120	Lstone			0	0		25	12	n	n				
									Total	75	62			TS stone 18% >2cm			
									MB	-12	-13						
									Droughtiness grade(DR)	3a	3a						
356	T	0	35	hZCL	10YR4/4			5	0	-	63	63	n	n	*IV*	4	**4**	WE
		35	55	C	10YR5/3	Fe	com	1	0	poor	23	26	y	y				
		55	120	C	10YR5/3	Fe	com	0	15	poor	42	17	y	y				
										Total	128	107						
										MB	41	32						
										Droughtiness grade(DR)	1	1					

357	T	0	27	hZCL		10YR4/2			5	0	-	49	49	n	n	*IV*	4	**4**	WE
		27	**79**	C		10YR5/2	Fe	com	1	0	poor	50	55	y	y				
		79	**120**	C		10YR5/2	Fe	com	0	15	poor	26	0	y	y				
											Total	**125**	**104**						
											MB	38	29						
											Droughtiness grade(DR)	1	1						
358	T	0	28	hZCL		7.5YR4/2			5	0	-	51	51	n	n	*IV*	4	**4**	WE
		28	**65**	ZC		10YR5/2	Fe	com	1	0	poor	37	44	y	y				
		65	**76**	C	sli	2.5Y5/3	Fe	com	1	0	poor	8	6	y	y				
		76	**120**	C	sli	2.5Y5/3	Fe	com	5	0	poor	29	0	y	y				
											Total	**124**	**101**						
											MB	37	26						
											Droughtiness grade(DR)	1	1						
359	T	0	34	mZCL		10YR4/3			5	0	-	62	62	n	n	*IV*	3b	**3b**	WE
		34	**40**	C		10YR5/3	Fe	com	1	0	poor	8	8	y	y				
		40	**50**	C	sli	10YR5/3	Fe	com	1	60	poor	7	7	y	y				
		50	**120**	Lstone								21	8	n	n				
											Total	**98**	**85**						
											MB	11	10						
											Droughtiness grade(DR)	2	2						
360	T	0	22	hZCL		7.5YR4/2			1	0	-	41	41	n	n	*IV*	4	**4**	WE
		22	**50**	ZC		10YR5/1	Fe	com	0	0	poor	34	34	y	y				
		50	**65**	C	sli	5GY5/1	Fe	com	0	0	poor	11	20	y	y				
		65	**120**	C	sli	5GY5/1	Fe	com	5	0	poor	37	6	y	y				
											Total	**122**	**101**						

										MB	35	26							
										Droughtiness grade(DR)	1	1							
361	T	0	22	hZCL	7.5YR4/2			1	0	-	41	41	n	n	*IV*	4	**4**	WE	
		22	**55**	ZC	10YR5/1	Fe	com	0	0	poor	37	40	y	y					
		55	**82**	C	2.5Y5/2	Fe	com	0	0	poor	19	20	y	y					
		82	**120**	C	2.5Y5/2	Fe	com	5	0	poor	25	0	y	y					
										Total	**123**	**101**							
										MB	36	26							
										Droughtiness grade(DR)	1	1							
362	T	0	21	hZCL	10YR4/2			1	0	-	40	40	n	n	*IV*	4	**4**	WE	
		21	**31**	ZC	2.5Y5/3	Fe	com	0	0	poor	12	12	y	y					
		31	**55**	C	2.5Y5/3	Fe	com	0	0	poor	28	31	y	y					
		55	**120**	C	2.5Y5/2	Fe	com	10	0	poor	41	18	y	y					
										Total	**121**	**100**							
										MB	34	25							
										Droughtiness grade(DR)	1	1							
363	T	0	20	hCL	10YR4/2			1	0	-	36	36	n	n	*IV*	4	**4**	WE	
		20	**55**	C	10YR5/3	Fe	com	0	0	poor	43	46	y	y					
		55	**60**	C	mod 2.5Y5/1	Fe	com	0	0	poor	4	7	y	y					
		60	**120**	C	mod 2.5Y5/1	Fe	com	0	20	poor	37	11	y	y					
										Total	**119**	**99**							
										MB	32	24							
										Droughtiness grade(DR)	1	1							
364	T	0	20	hZCL	7.5YR4/2			1	0	-	38	38	n	n	*IV*	4	**4**	WE	
		20	**32**	C	2.5Y5/2	Fe	com	0	20	poor	13	13	y	y					

		32	50	C	mod	2.5Y5/1	Fe	com	0	40	poor	17	17	y	y					
		50	120	Lstone					0	0		21	8	n	n					
											Total	89	76							
											MB	2	1							
											Droughtiness grade(DR)	3a	2							
365	T	0	26	hCL		10YR4/2			1	0	-	46	46	n	n	III	3b	3b	WE	
		26	42	C	mod	10YR5/3	Fe	com	0	15	poor	19	19	y	(y)					
		42	50	C	mod	10YR5/3	Fe	com	0	40	m/poor	8	8	y	n					
		50	120	Lstone					0	0		21	8	n	n					
											Total	94	81							
											MB	7	6							
											Droughtiness grade(DR)	2	2							
366	T	0	24	C		10YR4/2			2	0	-	40	40	n	n	IV	4	4	WE	
		24	80	C		5Y5/3	Fe	com	2	0	poor	54	59	y	y					
		80	120	ZC		5Y5/2	Fe	com	0	0	poor	28	0	y	y					
											Total	122	99							
											MB	35	24							
											Droughtiness grade(DR)	1	1							
367	T	0	22	C		10YR4/2			2	0	-	37	37	n	n	IV	4	4	WE	
		22	74	C		5Y5/3	Fe	com	2	0	poor	52	61	y	y					
		74	120	ZC		5Y5/2	Fe	com	0	0	poor	32	0	y	y					
											Total	121	98							
											MB	34	23							
											Droughtiness grade(DR)	1	1							
368	T	0	23	C		10YR4/2			0	0	-	39	39	n	n	III	4	4	WE	

		23	55	C		2.5Y4/3	Fe	com	2	0	poor	38	41	n	y					
		55	120	ZC	sli	2.5Y5/1	Fe	com	0	0	poor	46	18	y	y					
											Total	122	98							
											MB	35	23							
											Droughtiness grade(DR)	1	1							
369	T	0	25	C		10YR4/2			1	0	-	42	42	n	n	*IV*	4	**4**	WE	
		25	55	C		2.5Y5/3	Fe	com	0	0	poor	36	39	y	y					
		55	120	C	sli	2.5Y5/1	Fe	com	0	0	poor	46	20	y	y					
											Total	124	101							
											MB	37	26							
											Droughtiness grade(DR)	1	1							
370	T	0	25	hCL		10YR3/2			1	0	-	45	45	n	n	*IV*	4	**4**	WE	
		25	52	C		10YR5/2	Fe	com	0	0	poor	34	35	y	y					
		52	70	C		10YR5/2	Fe	com	0	40	poor	10	17	y	y					
		70	120	Lstone					0	0		15	0	n	n					
											Total	103	97							
											MB	16	22							
											Droughtiness grade(DR)	2	1							
371	T	0	23	hCL		10YR3/2			1	0	-	41	41	n	n	*IV*	4	**4**	WE	
		23	41	C		10YR5/2	Fe	com	0	0	poor	23	23	y	y					
		41	55	C	sli	10Y5/1	Fe	com	0	5	poor	15	18	y	y					
		55	120	Lstone					0	0		20	6	n	n					
											Total	99	88							
											MB	12	13							
											Droughtiness grade(DR)	2	1							

Groundwater
90cm+

372	T	0	23	hCL		10YR4/3			1	0	-	41	41	n	n	*IV*	4	**4**	WE
		23	**58**	C		10YR5/3	Fe	com	0	0	poor	41	46	y	y				
		58	**70**	C	sli	2.5Y5/2	Fe	com	0	0	poor	8	16	y	y				
		70	**120**	Lstone					0	0		15	0	n	n				
											Total	**105**	**102**						
											MB	18	27						
											Droughtiness grade(DR)	2	1						
373	T	0	36	C		10YR2/2			1	0	-	61	61	n	n	*IV*	4	**4**	WE
		36	**50**	C		10YR4/1	Fe	com	1	0	poor	18	18	y	y				
		50	**74**	C	sli	10Y6/1	Fe	com	0	10	poor	16	24	y	y				
		74	**120**	Lstone					0	0		14	0	n	n				
											Total	**108**	**103**						
											MB	21	28						
											Droughtiness grade(DR)	2	1						
374	T	0	20	C		10YR4/2			1	0	-	34	34	n	n	*IV*	4	**4**	WE
		20	**30**	C		2.5Y5/3	Fe	com	0	0	poor	13	13	y	y				
		30	**65**	C	sli	2.5Y5/1	Fe	com	0	0	poor	37	46	y	y				
		65	**120**	C	sli	10Y6/1	Fe	com	0	0	poor	39	7	y	y				
											Total	**122**	**99**						
											MB	35	24						
											Droughtiness grade(DR)	1	1						
375	T	0	23	C		10YR4/2			1	0	-	39	39	n	n	*IV*	4	**4**	WE
		23	**45**	C		2.5Y5/3	Fe	com	0	0	poor	29	29	y	y				
		45	**120**	C	sli	2.5Y5/1	Fe	com	0	0	poor	56	33	y	y				
											Total	**123**	**100**						
											MB	36	25						

								Droughtiness grade(DR)			1	1							
376	T	0	30	hCL		10YR4/2			1	0	-	53	53	n	n	*IV*	4	**4**	WE
		30	**60**	C		10YR5/2	Fe	com	0	0	poor	33	39	y	y				
		60	**98**	C		2.5Y5/3	Fe	com	0	0	poor	27	13	y	y				
		98	**120**	C		2.5Y5/3	Fe	com	0	10	poor	15	0	y	y				
											Total	**128**	**105**						
											MB	41	30						
								Droughtiness grade(DR)				1	1						
377	T	0	23	mZCL	sli	10YR4/3			5	0	-	42	42	n	n	*I*	2	**3a**	DR DP
		23	**40**	C	mod				0	40		19	19	n	n				
		40	**120**	Lstone					0	0		25	12	n	n				
											Total	**86**	**73**						
											MB	-1	-2						
								Droughtiness grade(DR)				3a	2						
378	T	0	30	C		10YR4/2			0	0	-	51	51	n	n	*III*	4	**4**	WE
		30	**55**	C		2.5Y5/6	Fe	com	1	0	poor	29	32	n	y				
		55	**74**	C	sli	5Y5/3	Fe	com	0	0	poor	13	20	y	y				
		74	**120**	C	sli	5Y5/3	Fe	com	10	0	poor	29	0	y	y				
											Total	**123**	**103**						
											MB	36	28						
								Droughtiness grade(DR)				1	1						
379	T	0	24	C	sli	10YR4/3			0	12	-	36	36	n	n	*I*	2	**3b**	DR DP
		24	**40**	C	mod				0	40		18	18	n	n				
		40	**120**	Lstone					0	0		25	12	n	n				
											Total	**79**	**66**						

										MB	-8	-9							
									Droughtiness grade(DR)		3a	2							
380	T	0	15	hCL	sli	10YR4/3	0	18	-	23	23	**n**	**n**	/	2	**3a**	DR DP ST		
		15	**40**	hCL	mod		0	40		28	28	**n**	**n**						
		40	**120**	Lstone			0	0		25	12	**n**	**n**						
									Total	**76**	**63**								
									MB	-11	-12								
									Droughtiness grade(DR)	3a	3a								

Lime Down D

Stone types		
%	TAv	EAv
hard	1	0.5
chalk	10	7

Climate Data	
MDwheat	94
MDpotato	83
FCD	178

Wetness Class Guidelines	II	III	IV	V
SPL within 80cm, gleying within 40cm	>76cm	48-76cm	<48cm	
SPL within 80cm, gleying at 40-70cm	>64cm	<64cm		
No SPL but gleying within 40cm	coarse subsoil	I	other cases	II

Climate
1435 D°
Limitation
Grade 1

hard flint & pebble AAR 793

Maximum depth of auger penetration is underlined

Site No.		Depth cm		Texture	$CaCO_3$	Colour	Mottle colour	abund-ance	stone% hard	stone% chalk	Struct-ure	APwheat mm	AP potato mm	Gley	SPL	WC	Wetness grade WE	Final Grade	Limiting Factor(s)
93	T	0	30	mZCL		10YR4/1			18			47	47	n	n	I	2	**3a**	DR DP
		30	34	hZCL	slight	10YR4/3			35			5	5	n	n				
		34	40	hZCL	slight	10YR4/3			50			5	5	n	n				
		40	120	Lstone								25	12	n	n				
											Total	**82**	**69**						
											MB	-12	-14						
									Droughtiness grade (DR)			3a	3a						
94	T	0	33	mZCL		10YR4/2			18		-	52	52	n	n	I	2	**3a**	DR DP
		33	40	hZCL	slight	10YR4/3			35			8	8	n	n				
		40	120	Lstone								25	12	n	n				
											Total	**85**	**72**						
											MB	-9	-11						
									Droughtiness grade (DR)			3a	3a						
95	T	0	25	mZCL		10YR4/2			18		-	39	39	n	n	I	2	**3a**	DR DP
Pit		25	40	hZCL	slight	7.5YR4/3			35			17	17	n	n				
		40	120	Lstone								25	12	n	n				
											Total	**82**	**69**						
											MB	-12	-15						

							Droughtiness grade (DR)		3a	3a						
96	T	0	26	mZCL		10YR4/2	15	-	42	42	n	n	/	2	**3a**	DR DP
		26	28	mZCL	slight	10YR3/3	35		2	2	n	n				
		28	40	mZCL	slight	10YR3/3	50		11	11	n	n				
		40	120	Lstone					25	12	n	n				
								Total	**80**	**67**						
								MB	-14	-16						
							Droughtiness grade (DR)		3a	3a						
97	T	0	20	mZCL	v.sli	7.5YR4/3	25	-	29	29	n	n	/	2	**3b**	DR
		20	30	mZCL	slight		35		11	11	n	n				
		30	120	Lstone					29	16	n	n				
								Total	**69**	**56**						
								MB	-25	-27						
							Droughtiness grade (DR)		3b	3a						
98	T	0	30	mZCL	v.sli	7.5YR4/3	15	-	49	49	n	n	/	2	**3a**	DR DP
		30	40	mZCL	slight		35		11	11	n	n				
		40	120	Lstone					25	12	n	n				
								Total	**85**	**72**						
								MB	-9	-11						
							Droughtiness grade (DR)		3a	3a						
99	T	0	30	mZCL	v.sli	7.5YR4/3	15	-	49	49	n	n	/	2	**3a**	DR DP
		30	40	mZCL	slight		35		11	11	n	n				
		40	120	Lstone					25	12	n	n				
								Total	**85**	**72**						
								MB	-9	-11						
							Droughtiness grade (DR)		3a	3a						

100	T	0	26	mZCL	v.sli	7.5YR4/3			15	-	42	42	n	n	*I*	2	**3a**	DR DP
		26	30	hZCL	very	7.5YR4/3			30		5	5	n	n				
		30	120	Lstone							29	16	n	n				
										Total	**76**	**63**						
										MB	-18	-20						
									Droughtiness grade (DR)		3a	3a						
101	T	0	20	mZCL	v.sli	7.5YR4/3			25	-	29	29	n	n	*I*	2	**3a**	DR DP ST
		20	40	mZCL					35		23	23	n	n				
		40	120	Lstone							25	12	n	n				
										Total	**77**	**64**						
										MB	-17	-19						
									Droughtiness grade (DR)		3a	3a						
102	T	0	25	hZCL		10YR4/2			5	-	45	45	n	n	*IV*	4	**4**	WE
		25	55	C		10YR5/3	Fe	com	5	poor	34	37	y	y				
		55	65	C		10YR5/3	Fe	com	25	poor	5	10	y	y				
		65	120	Lstone							17	2	n	n				
										Total	**101**	**94**						
										MB	7	11						
									Droughtiness grade (DR)		2	1						
103	T	0	23	hZCL		10YR4/2			5	-	42	42	n	n	*IV*	4	**4**	WE
		23	40	C		10YR5/3	Fe	com	5	poor	21	21	y	y				
		40	65	C		10YR5/3	Fe	com	25	poor	18	25	y	y				
		65	120	Lstone							17	2	n	n				
										Total	**97**	**90**						
										MB	3	7						
									Droughtiness grade (DR)		3a	2						
104	T	0	22	C		7.5YR4/2			25	-	29	29	n	n	*I*	3b	**3b**	WE DR

		22	23	hCL	10YR4/3	35	poor	1	1	n	n						
		23	40	hCL	10YR4/3	35	poor	14	14	n	n						
		40	120	Lstone				25	12	n	n						
							Total	**68**	**55**								
							MB	-26	-28								
						Droughtiness grade (DR)		3b	3a								
105	T	0	15	C	7.5YR4/2	30	-	18	18	n	n	/	3b	**3b**	WE DR ST		
	T	15	20	C	7.5YR4/2	30		6	6	n	n						
		20	40	hCL		40		20	20	n	n						
		40	120	Lstone				25	12	n	n						
							Total	**69**	**56**								
							MB	-25	-27								
						Droughtiness grade (DR)		3b	3a								
106	T	0	26	C	7.5YR4/2	15	-	38	38	n	n	/	3b	**3b**	WE DR		
Pit		26	28	hCL	10YR5/3	40		2	2	n	n						
		28	30	hCL	10YR5/3	40		2	2	n	n						
		30	120	Lstone				29	16	n	n						
							Total	**71**	**58**								
							MB	-23	-25								
						Droughtiness grade (DR)		3b	3a								
107	T	0	22	C	7.5YR4/2	15	-	32	32	n	n	/	3b	**3b**	WE DR DP		
		22	24	hCL	10YR5/3	40		2	2	n	n						
		24	30	hCL	10YR5/3	40		6	6	n	n						
		30	120	Lstone				29	16	n	n						
							Total	**69**	**56**								
							MB	-25	-27								
						Droughtiness grade (DR)		3b	3a								

108	T	0	22	mZCL		10YR4/2	30	-	30	30	n	n	/	3a	**3b**	DR DP	
		22	25	SC		10YR5/3	40		3	3	n	n				WE	
		25	30	SC		10YR5/3	40		5	5	n	n					
		30	120	Lstone					29	16	n	n					
								Total	**66**	**53**							Rising groundwater at 25cm
								MB	-28	-30							
								Droughtiness grade (DR)	3b	3a							
109	T	0	30	mZCL		10YR4/2	18	-	47	47	n	n	/	2	**3a**	DR DP	
		30	35	hZCL	very	7.5YR4/3	35		6	6	n	n					
		35	120	Lstone					27	14	n	n					
								Total	**80**	**67**							
								MB	-14	-16							
								Droughtiness grade (DR)	3a	3a							
110	T	0	21	mZCL		10YR4/2	18	-	33	33	n	n	/	2	**3b**	DR	
		21	24	hZCL	slight	7.5YR4/3	35		3	3	n	n					
		24	30	hZCL	slight	7.5YR4/3	35		7	7	n	n					
		30	120	Lstone					29	16	n	n					
								Total	**72**	**59**							
								MB	-22	-24							
								Droughtiness grade (DR)	3b	3a							
111	T	0	20	mZCL		7.5YR4/3	18	-	32	32	n	n	/	2	**3b**	DR	
		20	30	hZCL	slight	7.5YR4/3	35		11	11	n	n					
		30	120	Lstone					29	16	n	n					
								Total	**72**	**59**							
								MB	-22	-24							
								Droughtiness grade (DR)	3b	3a							
112	T	0	23	mZCL		7.5YR4/3	18	-	36	36	n	n	/	3a	**3a**	DR GW	

		23	35	hZCL	slight	7.5YR4/3	35		14	14	n	n					
		35	120	Lstone					27	14	n	n					
								Total	77	64			Groundwater				
								MB	-17	-19							
								Droughtiness grade (DR)	3a	3a							
113	T	0	20	mZCL		10YR4/2	25	-	29	29	n	n	/	2	3b	DR	
		20	35	hZCL	slight	7.5YR4/3	35		17	17	n	n					
		35	120	Lstone					27	14	n	n					
								Total	73	60							
								MB	-21	-23							
								Droughtiness grade (DR)	3b	3a							
114	T	0	20	mZCL		7.5YR4/3	18	-	32	32	n	n	/	2	3b	DR	
		20	30	hZCL	slight	7.5YR4/3	35		11	11	n	n					
		30	120	Lstone					29	16	n	n					
								Total	72	59			Groundwater				
								MB	-22	-24							
								Droughtiness grade (DR)	3b	3a							
115	T	0	20	mZCL		10YR4/2	20	-	31	31	n	n	/	2	3a	DR	
		20	35	hZCL	very	10YR5/3	35		17	17	n	n					
		35	120	Lstone					27	14	n	n					
								Total	75	62							
								MB	-19	-21							
								Droughtiness grade (DR)	3a	3a							
116	T	0	20	mZCL		10YR4/2	20	-	31	31	n	n	/	2	3a	DR	
		20	35	hZCL	very	10YR5/3	35		17	17	n	n					
		35	120	Lstone					27	14	n	n					
								Total	75	62							

										MB	-19	-21							
									Droughtiness grade (DR)		3a	3a							
117	T	0	23	hCL		10YR5/2			15	-	36	36	n	n	*IV*	4	**4**	WE	
		23	40	C	mod	2.5Y5/3	Fe	com	20	poor	18	18	y	y					
		40	50	C	mod	2.5Y5/3	Fe	com	35	poor	9	9	y	y					
		50	120	Lstone							21	8	n	n					
										Total	**83**	**70**							
										MB	-11	-13							
									Droughtiness grade (DR)		3a	3a							
118	T	0	20	mZCL		10YR4/2			25	-	29	29	n	n	*I*	2	**3b**	DR	
		20	30	hZCL	slight	7.5YR4/3			35		11	11	n	n					
		30	120	Lstone							29	16	n	n					
										Total	**69**	**56**							
										MB	-25	-27							
									Droughtiness grade (DR)		3b	3a							
119	T	0	25	mZCL		10YR3/3			15	-	41	41	n	n	*I*	2	**3a**	DR	
		25	35	mZCL	slight	10YR4/3			35		11	11	n	n					
		35	45	mZCL	slight	10YR4/3			35		11	11	n	n					
		45	120	Lstone							23	10	n	n					
										Total	**87**	**74**							
										MB	-7	-9							
									Droughtiness grade (DR)		3a	2							
120	T	0	25	mZCL		10YR4/2			15	-	41	41	n	n	*I*	2	**3a**	DR	
		25	40	hZCL		10YR4/3			25		20	20	n	n					
		40	50	hZCL		10YR4/3			35		11	11	n	n					
		50	120	Lstone							21	8	n	n					
										Total	**93**	**80**							

Groundwater

									MB	-1	-3								
								Droughtiness grade (DR)		3a	2								
121	T	0	20	mZCL	10YR4/2			25	-	29	29	n	n	*I*	2	**3b**	DR		
		20	35	hZCL	10YR4/3			35		17	17	n	n						
		35	120	Lstone	10YR4/3					27	14	n	n						
									Total	**73**	**60**								
									MB	-21	-23								
								Droughtiness grade (DR)		3b	3a								
122	T	0	25	mZCL	10YR4/2			10	-	43	43	n	n	*IV*	3b	**3b**	WE GW		
		25	40	C	10YR5/3	Fe	com	25	poor	15	15	y	y						
		40	120	Lstone						25	12	n	n						
									Total	**83**	**70**			Groundwater at 38cm					
									MB	-11	-13								
								Droughtiness grade (DR)		3a	3a								
123	T	0	20	hZCL	2.5Y4/3			1	-	38	38	n	n	*IV*	4	**4**	WE		
		20	45	ZC	2.5Y5/3	Fe	com	0	poor	30	30	y	y						
		45	120	ZC	2.5Y5/3	Fe	com	0	poor	55	30	y	y						
									Total	**123**	**98**			Weak, compressible subsoil					
									MB	29	15								
								Droughtiness grade (DR)		2	1								
124	T	0	20	hZCL	2.5Y4/3			1	-	38	38	n	n	*IV*	4	**4**	WE		
		20	50	ZC	2.5Y5/3	Fe	com	0	poor	36	36	y	y						
		50	120	ZC	2.5Y5/3	Fe	com	0	poor	49	24	y	y						
									Total	**123**	**98**			Weak, compressible subsoil					
									MB	29	15								
								Droughtiness grade (DR)		2	1								

125	T	0	28	C	10YR4/2			1	-	47	47	n	n	*IV*	4	**4**	WE	
		28	60	C	10YR5/3	Fe	com	0	poor	36	42	y	y					
		60	120	C	10YR5/3	Fe	com	0	poor	42	13	y	y					
									Total	**125**	**102**							
									MB	31	19							
								Droughtiness grade (DR)		1	1							
126	T	0	28	C	10YR4/2			1	-	47	47	n	n	*IV*	4	**4**	WE	
		28	70	C	10YR5/3	Fe	com	0	poor	43	42	y	y					
		70	120	C	10YR5/3	Fe	com	0	poor	35	13	y	y					
									Total	**125**	**102**							
									MB	31	19							
								Droughtiness grade (DR)		1	1							
127	T	0	25	C	10YR4/2			1	-	42	42	n	n	*IV*	4	**4**	WE	
		25	35	C	10YR5/3	Fe	com	0	poor	13	13	y	y					
		35	46	C	10YR5/1	Fe	com	0	poor	14	14	y	y					
		46	120	C	10YR5/1	Fe	com	0	poor	54	31	y	y					
									Total	**124**	**101**			Firm, compressible subsoil				
									MB	30	18							
								Droughtiness grade (DR)		1	1							
128	T	0	25	C	10YR4/2			2	-	44	44	n	n	*III*	4	**4**	WE	
Pit		25	46	C	10YR4/3	Fe	com	0	m/poor	34	34	n	n					
		46	60	C	2.5Y5/6			50		8	12	n	n					
		60	120	C	2.5Y5/6			50	poor	26	9	n	y					
									Total	**111**	**98**			Compaction at top of upper subsoil Rising groundwater				
									MB	17	15							
								Droughtiness grade (DR)		2	1							
129	T	0	25	hCL	10YR4/3			2	-	44	44	n	n	*III*	3b	**3b**	WE	

		25	50	C	10YR5/3	Fe	com	0	m/poor	36	36	y	(y)					
		50	120	C	10YR5/3	Fe	com	0	m/poor	53	29	y	(y)					
									Total	**133**	**109**							
									MB	39	26							
								Droughtiness grade (DR)		1	1							
130	T	0	18	hZCL	10YR4/2			15	-	29	29	n	n	*I*	3a	**3a**	WE DR DP	
	T	18	25	hZCL	10YR4/2			30		10	10	n	n					
		25	30	hZCL				35		6	6	n	n					
		30	120	Lstone						29	16	n	n					
									Total	**74**	**61**							
									MB	-20	-22							
								Droughtiness grade (DR)		3a	3a							
131	T	0	18	mZCL	10YR4/2			18	-	28	28	n	n	*I*	2	**3b**	DR	
	T	18	25	mZCL	10YR4/2			30		10	10	n	n					
		25	30	hZCL				35		6	6	n	n					
		30	120	Lstone						29	16	n	n					
									Total	**73**	**60**							
									MB	-21	-23							
								Droughtiness grade (DR)		3b	3a							
132	T	0	20	hZCL	10YR4/2				-	38	38	n	n	*IV*	4	**4**	WE	
		20	120	C	10Y5/1	Fe	com		poor	88	65	y	y					
									Total	**126**	**103**							
									MB	32	20							
								Droughtiness grade (DR)		1	1							
133	T	0	30	mZCL	10YR4/2			1	-	56	56	n	n	*IV*	3b	**3b**	WE	
		30	40	C	10YR5/3	Fe	com	0	poor	13	13	y	y					
		40	50	C	10YR5/1	Fe	com	0	poor	13	13	y	y					

		50	120	C	10YR5/1	Fe	com	0	poor	49	26	y	y						
									Total	**131**	**108**								
									MB	37	25								
									Droughtiness grade (DR)	1	1								
134	T	0	25	mZCL	10YR4/2			1	-	47	47	n	n	*IV*	3b	**3b**	WE		
		25	50	C	10YR5/3	Fe	com	0	poor	33	33	y	y						
		50	120	C	10YR5/1	Fe	com	0	poor	49	26	y	y						
									Total	**129**	**106**								
									MB	35	23								
									Droughtiness grade (DR)	1	1								
135	T	0	26	hZCL	10YR4/2			15	-	42	42	n	n	*II*	3a	**3a**	WE DR		
		26	30	hCL	10YR5/3	Fe	com	15		6	6	y	n						
		30	50	hCL	10YR5/3	Fe	com	25		25	25	y	n						
		50	120	Lstone						21	8	n	n						
									Total	**93**	**80**								
									MB	-1	-3								
									Droughtiness grade (DR)	3a	2								
136	T	0	15	mZCL	10YR4/2			20	-	23	23	n	n	*I*	2	**3a**	DR		
	T	15	25	mZCL	10YR4/2			20		15	15	n	n						
		25	50	hCL				35		27	27	n	n						
		50	120	Lstone						21	8	n	n						
									Total	**86**	**73**								
									MB	-8	-10								
									Droughtiness grade (DR)	3a	2								
137	T	0	15	mZCL		10YR4/2			15	-	24	24	n	n	*I*	2	**3a**	DR		
		15	18	hCL	mod	10YR5/3			25		4	4	n	n						
		18	50	hCL	mod	10YR5/3			35		34	34	n	n						

		50	120	Lstone				21	8	n	n				
							Total	**84**	**71**						
							MB	-10	-12						
						Droughtiness grade (DR)		3a	3a						
138	T	0	20	mZCL	10YR4/2	15	-	33	33	n	n	/	2	**3a**	DR
		20	50	hCL	10YR5/3	25		37	37	n	n				
		50	120	Lstone				21	8	n	n				
							Total	**90**	**77**						
							MB	-4	-6						
						Droughtiness grade (DR)		3a	2						
139	T	0	10	mCL	10YR4/2	30	-	13	13	n	n	/	2	**3b**	DR
		10	25	mCL		30		17	17	n	n				
		25	40	hCL		40		15	15	n	n				
		40	120	Lstone				25	12	n	n				
							Total	**70**	**57**						
							MB	-24	-26						
						Droughtiness grade (DR)		3b	3a						
140	T	0	20	mCL	10YR4/2	30	-	26	26	n	n	/	2	**3b**	DR
		20	40	hCL	2.5Y6/3	40		20	20	n	n				
		40	120	Lstone				25	12	n	n				
							Total	**71**	**58**						
							MB	-23	-25						
						Droughtiness grade (DR)		3b	3a						
141	T	0	14	mCL	10YR4/2	30	-	18	18	n	n	/	2	**3b**	DR
	T	14	20	mCL	10YR4/2	30		8	8	n	n				
		20	40	hCL	2.5Y6/3	40		20	20	n	n				
		40	120	Lstone				25	12	n	n				

								Total	**71**	**58**						
								MB	-23	-25						
							Droughtiness grade (DR)		3b	3a						
142	T	0	15	mCL		10YR4/3	25	-	21	21	n	n	/	2	**3a**	DR ST WE/GW
	T	15	25	mCL		10YR4/3	35		12	12	n	n				
		25	40	hCL		2.5Y6/3	35		16	16	n	n				
		40	120	Lstone					25	12			Groundwater			
								Total	**74**	**61**						
								MB	-20	-22						
							Droughtiness grade (DR)		3a	3a						
143	T	0	10	mCL		10YR4/3	40	-	11	11	n	n	/	2	**3b**	DR ST
	T	10	25	mCL		10YR4/3	40		17	17	n	n				
		25	40	hCL		2.5Y6/3	50		13	13	n	n				
		40	120	Lstone					25	12						
								Total	**66**	**53**						
								MB	-28	-30						
							Droughtiness grade (DR)		3b	3b						
144	T	0	22	mZCL		10YR4/3	25	-	32	32	n	n	/	2	**3a**	DR ST
		22	23	hCL	very	10YR5/3	40		1	1	n	n				
		23	40	hCL	very	10YR5/3	40		17	17	n	n				
		40	120	Lstone					25	12						
								Total	**75**	**62**						
								MB	-19	-21						
							Droughtiness grade (DR)		3a	3a						
145	T	0	15	mZCL		10YR4/2	25	-	22	22	n	n	/	2	**3a**	DR WE/GW
	T	15	20	mZCL		10YR4/2	25		7	7	n	n				
		20	40	hCL			40		20	20	n	n				

		40	120	Lstone								25	12						Groundwater	
											Total	**74**	**61**							
											MB	-20	-22							
										Droughtiness grade (DR)		3a	3a							
146	T	0	28	mZCL		10YR4/2			15		-	46	46	n	n	*II*	3a	**3a**	DR WE	
		28	34	C	mod	5YR4/2	Fe	com	25		poor	6	6	y	n					
		34	40	C	mod	5YR4/2	Fe	com	25		poor	6	6	y	n					
		40	120	Lstone								25	12							
											Total	**83**	**70**							
											MB	-11	-13							
										Droughtiness grade (DR)		3a	3a							
224	T	0	38	hCL		10YR4/2			1	0		68	68	n	n	*IV*	3b	**3b**	WE	
		38	70	C		10YR5/3	Fe	com	0	0	poor	30	42	y	y					
		70	120	C		10YR5/2	Fe	com	0	0	poor	35	0	y	y					
											Total	**132**	**109**						173 FCD on the east side of Lime Down D	
											MB	38	26							
										Droughtiness grade (DR)		1	1							
225	T	0	34	hCL		10YR4/2			1	0	-	61	61	n	n	*IV*	3b	**3b**	WE	
		34	54	C		2.5Y5/1	Fe	com	0	0	poor	24	26	y	y					
		54	120	C		2.5Y5/1	Fe	com	0	0	poor	46	21	y	y					
											Total	**130**	**107**							
											MB	36	24							
										Droughtiness grade (DR)		1	1							
226	T	0	42	hCL		10YR4/2			1	0	-	75	75	n	n	*III*	3b	**3b**	WE	
		42	120	ZC		10YR5/3	Fe	com	0	0	poor	59	34	y	y					

										Total	**133**	**108**							
										MB	39	25							
								Droughtiness grade (DR)			1	1							
227	T	0	28	hCL	10YR4/2			1	0	-	50	50	n	n	*IV*	3b	**3b**	WE	
		28	120	C	2.5Y5/1	Fe	com	0	0	poor	78	55	y	y					
										Total	**128**	**105**							
										MB	34	22							
								Droughtiness grade (DR)			1	1							
228	T	0	40	hCL	10YR4/2			1	0	-	71	71	n	n	*III*	3b	**3b**	WE	
		40	52	C	10YR5/2	Fe	com	0	0	poor	14	16	y	y					
		52	120	C	10YR5/2	Fe	com	0	0	poor	48	23	y	y					
										Total	**133**	**110**							
										MB	39	27							
								Droughtiness grade (DR)			1	1							
229	T	0	30	hCL	10YR4/2			1	0	-	53	53	n	n	*III*	3b	**3b**	WE	
		30	40	hZCL	10YR4/2	Fe	few	0	0		17	17	n	n					
		40	120	C	10YR5/2	Fe	com	0	0	poor	62	39	y	y					
										Total	**132**	**109**							
										MB	38	26							
								Droughtiness grade (DR)			1	1							
230	T	0	30	hCL	10YR4/2			1	0	-	53	53	n	n	*IV*	3b	**3b**	WE	
		30	45	C	2.5Y5/3	Fe	com	0	0	poor	20	20	y	y					
		45	120	C	2.5Y5/3	Fe	com	0	0	poor	56	33	y	y					
										Total	**128**	**105**							
										MB	34	22							
								Droughtiness grade (DR)			1	1							

231	T	0	30	hCL	10YR4/2			1	0	-	53	53	n	n	*IV*	3b	**3b**	WE
		30	50	C	5Y5/1	Fe	many	0	0	poor	26	26	y	y				
		50	120	C	5Y5/1	Fe	com	0	0	poor	49	26	y	y				
										Total	**128**	**105**						
										MB	34	22						
										Droughtiness grade (DR)	1	1						
232	T	0	28	hCL	10YR4/2			1	0	-	50	50	n	n	*IV*	3b	**3b**	WE
		28	40	C	2.5Y5/2	Fe	com	0	0	poor	16	16	y	y				
		40	120	C	2.5Y5/2	Fe	com	0	0	poor	62	39	y	y				
										Total	**128**	**105**						
										MB	34	22						
										Droughtiness grade (DR)	1	1						
233	T	0	20	hCL	10YR4/2			0	0	-	36	36	n	n	*IV*	3b	**3b**	WE
		20	50	C	2.5Y5/3	Fe	com	0	0	poor	39	39	y	y				
		50	120	C	2.5Y5/2	Fe	com	0	0	poor	49	26	y	y				
										Total	**124**	**101**						
										MB	30	18						
										Droughtiness grade (DR)	1	1						
234	T	0	35	hCL	10YR4/2			0	0	-	63	63	n	n	*II-III*	3b	**3b**	WE
		35	48	C	2.5Y5/3	Fe	com	20	0		17	17	y	n				
		48	120	C	2.5Y5/2	Fe	com	20	0	m/poor	45	26	y	(y)				
										Total	**125**	**106**			Subsoil wet			
										MB	31	23						
										Droughtiness grade (DR)	1	1						
235	T	0	22	C	10YR4/2			0	0	-	37	37	n	n	*IV*	3b	**3b**	WE
		22	120	C	2.5Y5/2	Fe	com	0	0	poor	85	62	y	y				
										Total	**123**	**100**						

										MB	29	17							
									Droughtiness grade (DR)		2	1							
236	T	0	24	C	10YR4/2			0	0	-	41	41	n	n	*IV*	3b	**3b**	WE	
		24	120	C	10YR5/2	Fe	com	0	0	poor	83	60	y	y					
										Total	**124**	**101**							
										MB	30	18							
									Droughtiness grade (DR)		1	1							
237	T	0	20	C	10YR4/2			0	0	-	34	34	n	n	*IV*	3b	**3b**	WE	
		20	120	C	10YR5/2	Fe	com	0	0	poor	88	65	y	y					
										Total	**122**	**99**							
										MB	28	16							
									Droughtiness grade (DR)		2	1							
238	T	0	25	C	10YR4/2			0	0	-	43	43	n	n	*IV*	3b	**3b**	WE	
		25	120	C	10YR5/3	Fe	com	0	0	poor	82	59	y	y					
										Total	**124**	**101**							
										MB	30	18							
									Droughtiness grade (DR)		1	1							
239	T	0	20	C	10YR4/2			0	0	-	34	34	n	n	*IV*	3b	**3b**	WE	
		20	120	C	10YR5/3	Fe	com	0	0	poor	88	65	y	y					
										Total	**122**	**99**							
										MB	28	16							
									Droughtiness grade (DR)		2	1							
240	T	0	20	C	10YR4/2			0	0	-	34	34	n	n	*IV*	3b	**3b**	WE	
		20	120	C	10YR5/2	Fe	com	0	0	poor	88	65	y	y					
										Total	**122**	**99**							
										MB	28	16							

									Droughtiness grade (DR)			2	1						
241	T	0	22	C		10YR4/2			0	0	-	37	37	n	n	*IV*	3b	**3b**	WE
		22	120	C		10YR5/2	Fe	com	0	0	poor	85	62	y	y				
											Total	**123**	**100**						
											MB	29	17						
									Droughtiness grade (DR)			2	1						
381	T	0	38	mZCL		10YR4/2			1	0	-	72	72	n	n	*IV*	3b	**3b**	WE
		38	**57**	C		2.5Y5/3	Fe	com	0	5	poor	20	24	y	y				
		57	**80**	C	mod	2.5Y5/3	Fe	com	0	25	poor	14	14	y	y				
		80	**120**	LStone								0	0	n	n				
											Total	**105**	**109**						
											MB	11	26						
									Droughtiness grade(DR)			2	1						
382	T	0	28	mZCL		10YR4/2			1	0	-	53	53	n	n	*III*	3a	**3a**	WE
		28	**50**	C		10YR5/4	Fe	com	0	0	m/poor	32	32	n	n				
		50	**80**	C	mod	2.5Y5/3	Fe	com	0	15	poor	19	23	y	y				
		80	**120**	Lstone								12	0	n	n				
											Total	**116**	**108**						
											MB	22	25						
									Droughtiness grade(DR)			2	1						
383	T	0	29	mZCL		10YR4/2			1	12	-	49	49	n	n	*III*	3a	**3a**	WE
		29	**52**	hCL		10YR5/3-5/4	Fe	com	0	15		32	33	n	n				
		52	**80**	C	mod	10YR5/3	Fe	com	0	25	poor	17	19	y	y				
		80	**120**	Lstone								12	0	n	n				
											Total	**110**	**101**						
											MB	16	18						

									Droughtiness grade(DR)			2	1						
384	T	0	36	mZCL		10YR4/2			1	0	-	68	68	n	n	*IV*	3b	**3b**	WE
		36	**50**	ZC	sli	2.5Y5/3	Fe	com	1	0	poor	17	17	y	y				
		50	**80**	ZC	sli	2.5Y5/3	Fe	com	1	25	poor	18	20	y	y				
		80	**120**	Lstone								12	0	n	n				
											Total	**114**	**104**						
											MB	20	21						
									Droughtiness grade(DR)			2	1						
385	T	0	30	mZCL		10YR4/2			1	0	-	56	56	n	n	*IV*	3b	**3b**	WE
		30	**48**	ZC	sli	2.5Y5/3	Fe	com	1	0	poor	21	21	y	y				
		48	**80**	ZC	sli	2.5Y5/3	Fe	com	1	25	poor	20	22	y	y				
		80	**120**	Lstone								12	0	n	n				
											Total	**110**	**100**						
											MB	16	17						
									Droughtiness grade(DR)			2	1						
386	T	0	34	C		10YR4/2			1	0	-	57	57	n	n	*IV*	4	**4**	WE
		34	**50**	C	sli	2.5Y5/2	Fe	com	1	0	poor	21	21	y	y				
		50	**80**	C	sli	2.5Y5/2	Fe	com	1	25	poor	18	21	y	y				
		80	**120**	Lstone								12	0	n	n				
											Total	**108**	**99**						
											MB	14	16						
									Droughtiness grade(DR)			2	1						
387	T	0	22	C	sli	10YR4/3			0	15	-	33	33	n	n	*I*	3b	**3b**	WE
		22	**40**	C	mod				0	25		23	23	n	n				
		40	**50**	C	mod				0	40		11	11	n	n				

		50	120	Lstone									21	8	n	n				
												Total	89	76						
												MB	-5	-7						
												Droughtiness grade(DR)	3a	2						
388	T	0	28	C	sli	10YR4/3			0	15	-		42	42	n	n	/	3b	3b	WE DR
		28	34	C	mod	10YR4/4	Fe	few	0	25			8	8	n	n				
		34	40	C	mod	10YR4/4	Fe	few	0	40			7	7	n	n				
		40	120	Lstone									25	12	n	n				
												Total	82	69						
												MB	-12	-14						
												Droughtiness grade(DR)	3a	3a						
389	T	0	12	C	sli	10YR4/3			0	25	-		17	17	n	n	/	3b	3b	WE ST
	T	12	25	C	sli	10YR4/3			0	25			18	18	n	n				
		25	50	C	mod				0	60			22	22	n	n				
		50	120	Lstone									21	8	n	n				
												Total	77	64			TS stone 12%>6cm; 20%>2cm			
												MB	-17	-19						
												Droughtiness grade(DR)	3a	3a						
390	T	0	28	hCL	sli	10YR4/4			0	18	-		43	43	n	n	/	2	3a	WE ST DR
		28	34	hCL	sli	10YR4/3	Fe	com	0	25			8	8	n	n				
		34	50	hCL	mod				0	60			14	14	n	n				
		50	120	Lstone									21	8	n	n				
												Total	86	73			TS stone 12% >2cm			
												MB	-8	-10						
												Droughtiness grade(DR)	3a	2						

391	T	0	15	hCL	sli	10YR4/3	0	20	-	23	23	n	n	/	3a	**3a**	WE ST DR		
	T	15	25	hCL	sli	10YR4/3	0	25		15	15	n	n						
		25	50	C	mod		0	60		22	22	n	n						
		50	120	Lstone						21	8	n	n						
									Total	**80**	**67**								
									MB	-14	-16								
									Droughtiness grade(DR)	3a	3a								
392	T	0	26	hCL	sli	10YR4/4	0	12	-	42	42	n	n	/	3a	**3a**	WE DR		
		26	40	hCL	sli	10YR4/3	0	25		18	18	n	n						
		40	50	hCL	mod		0	60		9	9	n	n						
		50	120	Lstone						21	8	n	n						
									Total	**90**	**77**								
									MB	-4	-6								
									Droughtiness grade(DR)	3a	2								
393	T	0	24	hCL		10YR4/4	0	12	-	39	39	n	n	/	2	**3a**	WE DR		
		24	40	hCL	sli	10YR4/3	0	25		21	21	n	n						
		40	50	hCL	mod		0	60		9	9	n	n						
		50	120	Lstone						21	8	n	n						
									Total	**90**	**77**								
									MB	-4	-6								
									Droughtiness grade(DR)	3a	2								
394	T	0	21	mZCL		10YR4/3	0	18	-	34	34	n	n	/	2	**3a**	DR ST		
		21	32	hCL	mod	10YR4/3	0	25		14	14	n	n						
		32	50	hCL	mod	10YR5/3	0	60		16	16	n	n						
		50	120	Lstone						21	8	n	n						
									Total	**85**	**72**								

TS stone 12% >2cm

TS stone 12% >2cm

									MB	-9	-11								
									Droughtiness grade(DR)	3a	3a								
395	T	0	38	hCL		10YR3/3	0	10	-	63	63	n	n	/	3a	**3a**	WE		
		38	**42**	C		10YR4/3	0	10		6	6	n	n						
		42	**70**	C		10YR4/3	0	25		24	36	n	n						
		70	**120**	Lstone						15	0	n	n						
									Total	**108**	**105**								
									MB	14	22								
									Droughtiness grade(DR)	2	1								
396	T	0	29	mCL	sli	10YR4/2	0	15	-	46	46	n	n	/	2	**3a**	DR DP		
		29	40	mCL	mod	10YR4/3	0	30		14	14	n	n						
		40	120	Lstone						25	12	n	n						
									Total	**85**	**72**								
									MB	-9	-11								
									Droughtiness grade (DR)	3a	3a								
397	T	0	29	mCL	sli	10YR4/2	0	17	-	45	45	n	n	/	2	**3a**	DR DP		
		29	40	mCL	mod	10YR4/3	0	30		14	14	n	n						
		40	120	Lstone						25	12	n	n						
									Total	**84**	**71**								
									MB	-10	-12								
									Droughtiness grade (DR)	3a	3a								
398	T	0	27	mCL	n	10YR4/2	0	5	-	47	47	n	n	/	2	**3a**	DR		
		27	40	mCL	sli	10YR4/3	0	10		19	19	n	n						
		40	45	mCL	sli	10YR4/3	0	20		7	7	n	n						
		45	120	Lstone						23	10	n	n						

											Total	**96**	**83**						
											MB	2	0						
										Droughtiness grade (DR)		3a	2						
399	T	0	32	mCL	n	10YR4/2			0	2	-	57	57	n	n	//	3a	**3a**	WE
		32	65	mCL	n	10YR5/3	Fe	com	0	0		44	53	y	n				
		65	75	hCL	n	10YR5/1, 10YR5/3	Fe	many	0	5		10	8	y	n				
		75	120	Lstone								14	0	n	n				
											Total	**124**	**117**						
											MB	30	34						
										Droughtiness grade (DR)		1	1						
400	T	0	26	hCL	trace	10YR4/2			0	3		46	46	n	n	///	3b	**3b**	WE
		26	45	C	slight	10YR5/4	Mn	com	0	3		30	30	n	n				
		45	120	C	slight	10YR5/1	Fe	many	0	0	poor	56	33	y	y				
											Total	**131**	**108**						
											MB	37	25						
										Droughtiness grade (DR)		1	1						
401	T	0	28	mCL	n	10YR4/2			0	2	-	50	50	n	n	//	3a	**3a**	WE
		28	46	mCL	n	10YR5/3			0	0		29	29	n	n				
		46	78	mCL	n	10YR5/3	FeMn	com	0	0		34	38	y	n				
		78	120	hCL	n	10YR5/1, 2.5Y5/2	Fe	many	0	0	m/poor	36	0	y	y				
											Total	**149**	**117**						
											MB	55	34						
										Droughtiness grade (DR)		1	1						
402	T	0	29	mZCL	sli	10YR4/2			0	12	-	52	52	n	n	/	2	**3a**	DR DP
		29	45	mCL	sli	10YR4/3			0	25		23	23	n	n				

		45	120	Lstone							23	10	n	n				
										Total	**98**	**85**						
										MB	4	2						
									Droughtiness grade (DR)		3a	2						
403	T	0	29	mCL	sli	10YR4/2	0	17	-		45	45	n	n	/	2	**3a**	DR DP
		29	37	mCL	sli	10YR4/3	0	30			10	10	n	n				
		37	120	Lstone							26	13	n	n				
										Total	**81**	**68**						
										MB	-13	-15						
									Droughtiness grade (DR)		3a	3a						
404	T	0	28	mCL	slight	10YR4/2	0	7	-		48	48	n	n	/	2	**3a**	DR DP
		28	32	mCL	mod	10YR4/3	0	10			6	6	n	n				
		32	40	mCL	mod	10YR4/3	0	30			10	10	n	n				
		40	120	Lstone							25	12	n	n				
										Total	**88**	**75**						
										MB	-6	-8						
									Droughtiness grade (DR)		3a	2						
405	T	0	28	mCL	trace	10YR4/2	0	3	-		49	49	n	n	/	2	**2**	DR
		28	37	hZCL	sli	10YR5/3	0	0			15	15	n	n				
		37	50	hCL	calc	10YR5/3	0	25			17	17	n	n				
		50	120	Lstone							21	8	n	n				
										Total	**102**	**89**						
										MB	8	6						
									Droughtiness grade (DR)		2	2						
406	T	0	30	hCL	n	10YR4/2	0	5	-		52	52	n	n	//	3a	**3a**	WE

		30	40	C	n	2.5Y5/2	Fe	com	0	0		16	16	n	n				
		40	45	C	mod	2.5Y5/2	Fe	com	0	20		7	7	n	n				
		45	120	Lstone								23	10	n	n				
											Total	**98**	**85**						
											MB	4	2						
											Droughtiness grade (DR)	3a	2						
407	T	0	29	mCL	mod	10YR4/2			0	15	-	46	46	n	n	/	2	**3a**	DR DP
		29	37	mCL	calc	10YR4/3			0	20		11	11	n	n				
		37	120	Lstone								26	13	n	n				
											Total	**83**	**70**						
											MB	-11	-13						
											Droughtiness grade (DR)	3a	3a						
408	T	0	27	mCL	n	10YR4/2			0	10	-	45	45	n	n	/	2	**3a**	DR
		27	40	hCL	n	10YR4/3	Mn	com	0	2		20	20	n	n				
		40	45	hCL	sli	10YR4/3			0	25		7	7	n	n				
		45	120	Lstone								23	10	n	n				
											Total	**95**	**82**						
											MB	1	-1						
											Droughtiness grade (DR)	3a	2						
409	T	0	28	mCL	sli	10YR4/2			0	12	-	46	46	n	n	/	2	**3a**	DR DP
		28	40	mCL	sli	10YR4/3			0	25		16	16	n	n				
		40	120	Lstone								25	12	n	n				
											Total	**86**	**73**						
											MB	-8	-10						
											Droughtiness grade (DR)	3a	2						

Lime Down E

Stone types		
%	TAv	Eav
hard	1	0.5
N/A		

Climate Data	
MDwheat	96
MDpotato	85
FCD	173
AAR	778

Wetness Class Guidelines	II	III	IV	V
SPL within 80cm, gleying within 40cm	>75cm	47-75cm	<47cm	
SPL within 80cm, gleying at 40-70cm	>62cm	<62cm		
No SPL but gleying within 40cm	coarse subsoil	I	other cases	II

Climate
1,427
Limitation
Grade 1

hard flint & pebble

Maximum depth of auger penetration is underlined

96m

Site No.		Depth cm		Texture	$CaCO_3$	Colour	Mottle colour	abund-ance	stone% hard	stone% N/A	Struct-ure	APwheat mm	AP potato mm	Gley	SPL	WC	Wetness grade WE	Final Grade	Limiting Factor(s)
147	T	0	30	hCL	n	10YR4/2			1			53	53	n	n	*IV*	3b	**3b**	WE
		30	52	C	n	10YR6/1	Fe	many	0		poor	27	29	y	y				
		52	120	C	n	10YR6/1	Fe	com	0		poor	48	23	y	y				
											Total	**128**	**105**						
											MB	32	20						
									Droughtiness grade (DR)			1	1						
148	T	0	25	SCL	n	10YR4/2			0			43	43	n	n	*IV*	3b	**3b**	WE
		25	35	hCL	n	10YR6/2	Fe	com	0			16	16	y	n				
		35	70	C	n	10YR6/1	Fe	many	0		poor	34	46	y	y				
		70	120	SC	n	10YR6/1	Fe	com	0		poor	40	0	y	y				
											Total	**132**	**104**		Clay-few fine sandy lenses				
											MB	36	19						
									Droughtiness grade (DR)			1	1						
149	T	0	28	mCL	n	10YR4/2			2			49	49	n	n	*IV*	3b	**3b**	WE
		28	60	C	n	10YR6/1	Fe	many	0		poor	36	42	y	y				
		60	120	C	n	10YR6/1	Fe	com	0		poor	42	13	y	y				
											Total	**127**	**104**		Lss-few fine sandy lenses				
											MB	31	19						

									Droughtiness grade (DR)		1	1							
150	T	0	28	mCL	n	10YR4/2			2		49	49	n	n	*IV*	3b	**3b**	WE	
		28	120	C	n	10YR6/1	Fe	many	0	poor	78	55	y	y					
										Total	**127**	**104**		Subsoil-few fine sandy lenses/clay slightly sandy					
										MB	31	19							
									Droughtiness grade (DR)		1	1							
151	T	0	29	mCL	n	10YR4/2			1		52	52	n	n	*IV*	3b	**3b**	WE	
		29	40	hCL	n	10YR5/3	Fe	com	0		18	18	y	n					
		40	105	C	n	10YR6/1	Fe	many	0	poor	52	39	y	y					
		105	120	C	n	10YR6/1	Fe, red	com	2	poor	10	0	y	y					
										Total	**131**	**108**							
										MB	35	23							
									Droughtiness grade (DR)		1	1							
152	T	0	28	SCL	n	10YR4/2			2		47	47	n	n	*IV*	3b	**3b**	WE	
		28	44	SCL	n	10YR5/3	Fe	com	0		24	24	y	n					
		44	120	SC	n	10YR6/1	Fe	many	0	poor	64	34	y	y					
										Total	**135**	**105**							
										MB	39	20							
									Droughtiness grade (DR)		1	1							
153	T	0	26	mCL	n	10YR4/2			2		46	46	n	n	*IV*	3b	**3b**	WE	
		26	70	C	n	10YR6/1	Fe	many	0	poor	45	57	y	y					
		70	120	C	n	10YR6/1	Fe	com	0	poor	35	0	y	y					
										Total	**126**	**103**		LSS-Clay/SC-lenses of sand Saturated					
										MB	30	18							
									Droughtiness grade (DR)		1	1							
154	T	0	26	mCL	n	10YR4/2			1		46	46	n	n	*IV*	3b	**3b**	WE GR	
		26	120	C	n	10YR6/1	Fe	many	0	poor	80	57	y	y					

										Total	**127**	**104**		Gradient=7-8de			3b		
										MB	31	19							
									Droughtiness grade (DR)		1	1							
155	T	0	30	hCL	n	10YR4/2			1		53	53	n	n	*IV*	3b	**3b**	WE	
		30	45	hCL	n	10YR5/2	Fe	v.many	0		24	24	y	n					
		45	70	C	n	10YR6/1	Fe	many	0	poor	21	33	y	y					
		70	120	SC	n	10YR6/1	Fe	com	0	poor	40	0	y	y					
										Total	**138**	**110**		SC-clay and sandy lenses					
										MB	42	25							
									Droughtiness grade (DR)		1	1							
156	T	0	25	hCL	n	10YR4/1			0		45	45	n	n	*IV*	3b	**3b**	WE	
		25	120	C	n	10YR6/1	Fe	many	0	poor	82	59	y	y					
										Total	**126**	**104**							
										MB	30	19							
									Droughtiness grade (DR)		1	1							
157	T	0	26	mCL	n	10YR4/1			1		46	46	n	n	*IV*	3b	**3b**	WE	
		26	72	C	n	10YR6/1	Fe	many	0	poor	47	57	y	y					
		72	120	C	n	10YR6/1	Fe	many	0	poor	34	0	y	y					
										Total	**127**	**104**		LSS-some lenses of sand					
										MB	31	19							
									Droughtiness grade (DR)		1	1							
158	T	0	27	mCL	n	10YR4/2			0		49	49	n	n	*IV*	3b	**3b**	WE	
		27	77	C	n	10YR6/1, 10YR6/3	Fe	v.many	0	poor	49	56	y	y					
		77	120	SC	n	10YR6/1	Fe	com	0	poor	34	0	y	y					
										Total	**132**	**105**		Lenses of sand increasing with depth					
										MB	36	20							
									Droughtiness grade (DR)		1	1							

159	T	0	29	mCL	n	10YR4/2			0		52	52	n	n	*IV*	3b	**3b**	WE	
		29	37	hCL	n	10YR5/3	Fe	com	0		13	13	y	n					
		37	120	C	n	10YR6/1	Fe	many	0	poor	66	43	y	y					
										Total	**131**	**108**		LSS-strong clay					
										MB	35	23							
									Droughtiness grade (DR)		1	1							
163	T	0	28	mCL	n	10YR4/2	Fe	com	0		50	50	y	n	*IV*	3b	**3b**	WE GR	
		28	43	hCL	n	10YR5/2	Fe	com	0		24	24	y	n					
		43	63	SC	n	10YR6/1, 10YR5/2	Fe	many	0	m/poor	22	28	y	y					
		63	120	C	n	10YR6/1	Fe	many	0	poor	40	9	y	y					
										Total	**136**	**112**		SC-clay with sandy lenses. Heavily poached					
										MB	40	27		Gradient=7-8de		3b			
									Droughtiness grade (DR)		1	1							
164	T	0	27	hCL	n	10YR4/2	Fe	com	1		48	48	y	n	*IV*	3b	**3b**	WE MR GR	
		27	46	hCL	n	10YR5/3	Fe	few	0		30	30	n	n					
		46	120	C	n	10YR5/2	Fe	com	0	poor	54	31	y	y					
										Total	**133**	**110**		Ridge and Furrow					
										MB	37	25		3b-GR in northern corner of field					
									Droughtiness grade (DR)		1	1							
165	T	0	30	hCL	n	10YR4/2			1		53	53	n	n	*IV*	3b	**3b**	WE GR	
		30	45	hCL	n	10YR6/3	Fe	many	0		24	24	y	n					
		45	120	C	n	10YR6/1	Fe	many	0	poor	56	33	y	y					
										Total	**133**	**110**		Gradient=7-8de		3b			
										MB	37	25							
									Droughtiness grade (DR)		1	1							
166	T	0	30	mCL	n	10YR4/2			0		54	54	n	n	*II-III*	3a	**3b**	MR	
		30	62	hCL	n	10YR5/3			0		46	54	n	n					

		62	120	C	n	10YR5/3	Femn	v.many	0		poor	39	8	y	y					
											Total	**139**	**116**		Ridge and Furrow					
											MB	43	31							
										Droughtiness grade (DR)		1	1							
167	T	0	27	hCL	n	10YR4/2			1			48	48	n	n	///	3b	**3b**	WE	
		27	50	hCL	n	10YR5/2, 10YR6/3	Fe	many	0			37	37	y	n					
		50	120	C	n	N5/	Fe	many	0		poor	49	26	y	y					
											Total	**134**	**111**							
											MB	38	26							
										Droughtiness grade (DR)		1	1							
168	T	0	28	hCL	n	10YR4/2			0	5		48	48	n	n	//	3a	**3a**	WE	
		28	45	hCL	n	10YR5/3	Femn	com	0	0		27	27	y	n					
		45	70	C	n	10YR5/4	mn	many	0	3		23	39	n	n					
		70	120	C	n	10YR5/4	mn	few	0	15		34	0	n	n					
											Total	**132**	**114**							
											MB	36	29							
										Droughtiness grade (DR)		1	1							
169	T	0	29	SCL	n	10YR4/2			0	0		49	49	n	n	//	2	**2**	WE	
		29	45	SCL	n	10YR5/3	Fe	com	0	0		24	24	y	n					
		45	120	C	n	10YR5/3	Fe	com	0	0		64	40	y	n					
											Total	**137**	**113**		USS-faintly mottled					
											MB	41	28							
										Droughtiness grade (DR)		1	1							
170	T	0	28	SCL	n	10YR4/2			0	0		48	48	n	n	/V	3b	**3b**	WE	
		28	44	SCL	n	10YR5/3	Fe	com	0	0		24	24	y	n					
		44	120	C	n	10YR5/2	Fe	many	0	0	poor	57	34	y	y					
											Total	**128**	**105**		LSS- some sandy patches					

											MB	32	20						
										Droughtiness grade (DR)		1	1						
171	T	0	25	hCL	calc	10YR4/2			20	0		37	37	n	n	*I*	2	**3a**	DR
		25	35	hCL	calc	10YR5/3			40	0		10	10	n	n				
		35	45	hCL	calc	10YR5/3			40	0		10	10	n	n				
		45	120	Lstone								23	10	n	n				
											Total	**80**	**67**						
											MB	-16	-19						
										Droughtiness grade (DR)		3a	3a						
172	T	0	27	mCL	n	10YR4/2			1	0		48	48	n	n	*IV*	3b	**3b**	WE
		27	70	C	n	10YR6/1	Fe	many	0	0	poor	44	56	y	y				
		70	120	SC	n	10YR5/2	Femn	com	0	0	poor	40	0	y	y				
											Total	**132**	**104**						
											MB	36	19						
										Droughtiness grade (DR)		1	1						
173	T	0	25	mCL	n	10YR4/2			0	0		45	45	n	n	*III*	3a	**3b**	MR
		25	45	mCL	n	10YR5/3			0	0		32	32	n	n				
		45	60	hCL	n	10YR5/3	Femn	com	0	0		18	24	y	n				
		60	120	C	n	2.5Y5/3	Femn	many	0	0	poor	42	13	y	y				
											Total	**137**	**114**		Ridge and furrow-north of field				
											MB	41	29						
										Droughtiness grade (DR)		1	1						
174	T	0	27	hCL	n	10YR4/3			0	5		46	46	n	n	*I*	2	**3a**	DR DP
		27	38	hCL	mod	10YR5/4			0	10		16	16	n	n				
		38	120	Lstone								26	13	n	n				
											Total	**88**	**75**						
											MB	-8	-10						

							Droughtiness grade (DR)			3a	3a								
175	T	0	28	hCL	mod	7.5YR4/3	0	23		39	39	n	n	/	2	**3a**	DR		
		28	45	hCL	calc	7.5YR4/4	0	30		19	19	n	n						
		45	120	Lstone						23	10	n	n						
									Total	**81**	**68**		TS stone- 10/10/3						
									MB	-15	-17								
							Droughtiness grade (DR)			3a	3a								
176	T	0	28	hCL	mod	7.5YR4/3	0	33		34	34	n	n	/	2	**3b**	DR ST		
		28	45	hCL	calc	7.5YR4/4	0	40		16	16	n	n						
		45	120	Lstone						23	10	n	n						
									Total	**73**	**60**		TS stone- 10/15/7-Locally very stony						
									MB	-23	-25								
							Droughtiness grade (DR)			3b	3a								
177	T	0	28	hCL	mod	7.5YR4/3	0	22		39	39	n	n	/	2	**3a**	DR DP		
		28	43	hCL	calc	7.5YR4/4	0	30		17	17	n	n						
		43	120	Lstone						24	11	n	n						
									Total	**80**	**67**		TS stone- 10/10/2-varied locally in field Saturated/boggy in corner of field (poor crop growth)						
									MB	-16	-18								
							Droughtiness grade (DR)			3a	3a		Edge of flood zone- corner of field wet.						
178	T	0	28	C	mod	7.5YR4/3	0	20		38	38	n	n	/	2	**3b**	DR		
		28	35	hCL	calc	7.5YR4/4	0	30		8	8	n	n						
		35	42	hCL	calc	7.5YR4/4	0	40		7	7	n	n						
		42	120	Lstone						24	11	n	n						
									Total	**77**	**64**		TS stone- 10/10/0-varied locally in field Patches of 3b stone between 32/33						
									MB	-19	-21								
							Droughtiness grade (DR)			3a	3a								
179	T	0	29	hCL	mod	7.5YR4/3	0	22		41	41	n	n	/	2	**3b**	DR		

		29	35	hCL	calc	7.5YR4/4			0	30		7	7	n	n					
		35	120	Lstone								27	14	n	n					
											Total	**74**	**61**		TS stone- 10/10/2-varied locally in field Patches of 3b stone between 32/33					
											MB	-22	-24							
											Droughtiness grade (DR)	3b	3a							
180	T	0	27	hCL	trace	7.5YR4/3			7	4		43	43	n	n	*I*	2	**3a**	DR	
		27	42	C	v.sli	7.5YR4/4			0	0		24	24	n	n					
		42	60	C	v.sli	7.5YR4/4	Fe	com	10	0		19	26	n	n					
		60	120	Lstone								18	4	n	n					
											Total	**104**	**98**		LSS stone hard pebble					
											MB	8	13							
											Droughtiness grade (DR)	2	1							
181	T	0	27	hCL	n	7.5YR4/3			5	2		45	45	n	n	*III*	3b	**3b**	WE	
		27	45	hCL	n	10YR5/3	Fe	few	3	0		28	28	n	n					
		45	60	C	n	10YR5/2	Fe	com	0	0		16	24	y	n					
		60	120	C	n	10YR6/1	Fe	many	0	0	poor	42	13	y	y					
											Total	**131**	**110**		Few thin <5cm clayey lenses of calc stone from 60+ Boggy underfoot					
											MB	35	25							
											Droughtiness grade (DR)	1	1							
182	T	0	27	hCL	n	7.5YR4/3			0	12		43	43	n	n	*I*	2	**3a**	DR DP	
		27	35	hCL	mod	7.5YR4/4			0	12		11	11	n	n					
		35	45	hCL	mod	7.5YR4/4			0	30		11	11	n	n					
		45	120	Lstone								23	10	n	n					
											Total	**88**	**75**							
											MB	-8	-10							
											Droughtiness grade (DR)	3a	2							
183	T	0	28	hCL	n	10YR4/2			2	0		49	49	n	n	*III*	3b	**3b**	WE	

		28	40	hCL	n	10YR5/3			0	0		19	19	n	n				
		40	62	C	n	10YR5/3	Femn	com	0	0	poor	21	29	y	y				
		62	120	C	n	10YR6/1	Femn	v.many	0	0	poor	41	10	y	y				
											Total	**131**	**108**		Boggy underfoot				
											MB	35	23		62+ slightly sandy				
											Droughtiness grade (DR)	1	1						
184	T	0	25	hCL	calc	10YR4/1			0	15		38	38	n	n	*I*	2	**3b**	DR DP
		25	29	hCL	calc	10YR6/3			0	30		4	4	n	n				
		29	120	Lstone								29	16	n	n				
											Total	**72**	**59**		Stopped x3				
											MB	-24	-26						
											Droughtiness grade (DR)	3b	3a						
185	T	0	27	hCL	n	10YR4/2			1	0		48	48	n	n	*IV*	3b	**3b**	WE
		27	40	C	n	10YR6/1	Fe	many	0	0	poor	17	17	y	y				
		40	120	C	n	10YR6/1	Fe	com	0	0	poor	62	39	y	y				
											Total	**127**	**104**		Boggy underfoot				
											MB	31	19						
											Droughtiness grade (DR)	1	1						
186	T	0	34	mSL		10YR4/2			1	0		57	57	n	n	*II*	2	**2**	WE
		34	60	SCL		10YR5/3	Fe	com	0	0		34	39	y	n				
		60	80	SCL		10YR5/3	Fe	com	0	0		20	15	y	n				
		80	120	SCL					0	0	poor	32	0	y	y				
											Total	**143**	**111**						
											MB	47	26						
											Droughtiness grade (DR)	1	1						
187	T	0	34	mSL		10YR4/2			1	0	-	57	57	n	n	*I*	1	**2**	DR
		34	70	LmS		2.5Y5/3	Fe	com	0	0		26	32	y	n				

		70	120	LmS	2.5Y5/3	Fe	com	0	0		30	0	y	n					
										Total	**114**	**90**							
										MB	18	5							
										Droughtiness grade (DR)	2	2							
188	T	0	40	mSL	10YR4/2			1	0	-	67	67	n	n	//	2	**2**	WE	
		40	60	SCL	10YR5/3	Fe	many	0	0		25	30	y	n					
		60	120	SCL	10YR5/3	Fe	many	0	0		60	15	y	n					
										Total	**152**	**112**							
										MB	56	27							
										Droughtiness grade (DR)	1	1							
189	T	0	40	LmS	10YR4/2			1	0	-	52	52	n	n	///	2	**2**	WE DR TX	
		40	60	mSL	10YR5/3	Fe	com	0	0		26	30	y	n					
		60	120	SC	10YR5/3	Fe	com	0	0	poor	48	13	y	y					
										Total	**126**	**95**							
										MB	30	10							
										Droughtiness grade (DR)	1	2							
190	T	0	35	mSL	10YR4/2			1	0	-	59	59	n	n	/	1	**1**		
		35	65	mSL	10YR5/3	Fe	com	0	0		39	45	y	n					
		65	120	mSL	10YR5/3	Fe	com	0	0	poor	44	6	y	n					
										Total	**142**	**109**							
										MB	46	24							
										Droughtiness grade (DR)	1	1							
191	T	0	32	LmS	10YR4/2			1	0	-	41	41	n	n	//	1	**2**	TX	
		32	80	SCL	2.5Y5/3	Fe	com	0	0		57	57	y	n					
		80	120	SCL	2.5Y5/3	Fe	com	0	0		40	0	y	n					
										Total	**138**	**98**							
										MB	42	13							

								Droughtiness grade (DR)			1	1							
192	T	0	32	SZL	10YR4/2			1	0	-	60	60	n	n	*I*	1	**1**		
		32	70	mSL	10YR5/3	Fe	com	0	0		49	57	y	n					
		70	120	mS	2.5Y5/3	Fe	com	0	0		25	0	y	n					
										Total	**134**	**117**							
										MB	38	32							
								Droughtiness grade (DR)			1	1							
193	T	0	30	mCL	10YR4/2			1	0	-	53	53	n	n	*II*	2	**2**	WE	
		30	60	SCL	2.5Y5/3	Fe	com	0	0		40	45	y	n					
		60	120	SCL	2.5Y5/3	Fe	com	0	0	m/poor	54	14	y	n					
										Total	**147**	**112**							
										MB	51	27							
								Droughtiness grade (DR)			1	1							
194	T	0	29	mCL	10YR4/2			1	0	-	52	52	n	n	*II*	2	**2**	WE	
		29	62	SCL	2.5Y5/3	Fe	com	0	0		44	50	y	n					
		62	120	SCL	2.5Y5/3	Fe	com	0	0	m/poor	52	11	y	n					
										Total	**147**	**112**							
										MB	51	27							
								Droughtiness grade (DR)			1	1							
195	T	0	39	SZL	10YR4/2			1	0	-	75	75	n	n	*II*	1	**1**		
		39	60	SCL	10YR5/3	Fe	com	0	0		25	30	y	n					
		60	120	mS	2.5Y5/2	Fe	com	0	0		30	7	y	n					
										Total	**130**	**112**							
										MB	34	27							
								Droughtiness grade (DR)			1	1							
196	T	0	38	mSL	10YR4/2			1	0	-	64	64	n	n	*IV*	3a	**3a**	WE	

		38	120	SC	10YR5/3	Fe	com	0	0	poor	72	42	y	y						
										Total	**136**	**106**								
										MB	40	21								
										Droughtiness grade (DR)	1	1								
197	T	0	40	mSL	10YR4/2			1	0	-	67	67	n	n	*III*	2	**2**	WE		
		40	120	SC	10YR5/3	Fe	com	0	0	poor	69	39	y	y						
										Total	**136**	**106**								
										MB	40	21								
										Droughtiness grade (DR)	1	1								
198	T	0	41	mCL	10YR4/2			1	0	-	73	73	n	n	*III*	3a	**3a**	WE		
		41	55	SC	10YR5/3	Fe	com	0	0	m/poor	17	20	y	n						
		55	120	SC	10YR5/3	Fe	com	0	0	m/poor	59	21	y	y						
										Total	**149**	**114**								
										MB	53	29								
										Droughtiness grade (DR)	1	1								
199	T	0	30	hCL	10YR4/2			1	0	-	53	53	n	n	*IV*	3b	**3b**	WE		
		30	70	C	10YR5/3	Fe	com	0	0	poor	40	52	y	y						
		70	120	C	10YR5/3	Fe	com	0	0	poor	35	0	y	y						
										Total	**128**	**105**								
										MB	32	20								
										Droughtiness grade (DR)	1	1								
200	T	0	30	hCL	10YR4/2			1	0	-	53	53	n	n	*IV*	3b	**3b**	WE		
		30	70	SC	10YR5/3	Fe	com	0	0	poor	42	52	y	y						
		70	120	SC	10YR5/3	Fe	com	0	0	poor	40	0	y	y						
										Total	**135**	**105**								
										MB	39	20								
										Droughtiness grade (DR)	1	1								

Groundwater at 50cm

201	T	0	30	mSL	10YR4/2			1	0	-	51	51	n	n	*II*	1	**3a**	DR WE/GW
		30	50	mS	10YR5/3	Fe	com	0	0		14	14	y	n				
		50	120	mS	10YR5/3	Fe	com	0	0		35	14	y	n				
										Total	**100**	**79**			Groundwater at 40cm			
										MB	4	-6						
										Droughtiness grade (DR)	3a	2						
202	T	0	34	SZL	10YR4/2			1	0	-	64	64	n	n	*III*	2	**2**	WE
		34	120	SCL	2.5Y5/2	Fe	com	0	0	m/poor	85	50	y	(y)				
										Total	**149**	**114**						
										MB	53	29						
										Droughtiness grade (DR)	1	1						
203	T	0	36	mSL	10YR4/2			0	0	-	61	61	n	n	*I*	1	**2**	DR
		36	120	mS	10YR5/3	Fe	com	0	0		45	24	y	n				
										Total	**106**	**85**						
										MB	10	0						
										Droughtiness grade (DR)	2	2						
204	T	0	36	mSL	10YR4/2			0	0	-	61	61	n	n	*I*	1	**2**	DR
		36	120	mS	10YR5/3	Fe	com	0	0		45	24	y	n				
										Total	**106**	**85**						
										MB	10	0						
										Droughtiness grade (DR)	2	2						
205	T	0	30	hCL	10YR5/2			0	0	-	54	54	n	n	*IV*	3b	**3b**	WE
		30	60	C	2.5Y5/3	Fe	com	0	0	poor	33	39	y	y				
		60	120	C	2.5Y5/3	Fe	com	0	0	poor	42	13	y	y				
										Total	**129**	**106**						
										MB	33	21						

										Droughtiness grade (DR)	1	1					
206	T	0	32	hCL	10YR5/2			0	0	-	58	58	n	n	*IV*	3b	**3b**	WE
		32	50	ZC	10YR5/3	Fe	com	0	0	poor	22	22	y	y				
		50	120	ZC	10YR5/3	Fe	com	0	0	poor	49	24	y	y				
										Total	**128**	**103**						
										MB	32	18						
										Droughtiness grade (DR)	1	1					
207	T	0	25	hCL	10YR5/2			0	0	-	45	45	n	n	*IV*	3b	**3b**	WE
		25	60	C	10YR5/3	Fe	com	0	0	poor	40	46	y	y				
		60	120	C	10YR5/3	Fe	com	0	0	poor	42	13	y	y				
										Total	**126**	**104**						
										MB	30	19						
										Droughtiness grade (DR)	1	1					
208	T	0	20	mSL	10YR4/2			0	0	-	34	34	n	n	*IV*	3b	**3b**	WE
		20	120	SC	10YR5/3	Fe	com	0	0	poor	95	65	y	y				
										Total	**129**	**99**			Groundwater			
										MB	33	14						
										Droughtiness grade (DR)	1	1					
209	T	0	40	mSL	10YR4/2			0	0	-	68	68	n	n	*II*	2	**2**	WE DR
		40	60	LmS	10YR5/3	Fe	com	0	0		15	18	y	n				
		60	120	LmS	10YR5/3	Fe	com	0	0		36	9	y	n				
										Total	**119**	**95**			Wet from groundwater			
										MB	23	10						
										Droughtiness grade (DR)	2	1					
210	T	0	22	fSZL	10YR4/2			0	0	-	48	48	n	n	*IV*	3a	**3a**	WE
		22	50	ZC	10YR5/3	Fe	com	0	0	poor	34	34	y	y				

		50	120	ZC	10YR5/3	Fe	com	0	0	poor	49	24	y	y					
										Total	**131**	**106**							
										MB	35	21							
										Droughtiness grade (DR)	1	1							
211	T	0	25	SCL	10YR4/2			0	0	-	43	43	n	n	*IV*	3a	**3a**	WE	
		25	50	SC	10YR5/3	Fe	com	0	0	poor	33	33	y	y					
		50	120	SC	10YR5/3	Fe	com	0	0	poor	56	26	y	y					
										Total	**131**	**101**							
										MB	35	16							
										Droughtiness grade (DR)	1	1							
216	T	0	20	mCL	10YR4/2			1	0	-	36	36	n	n	*IV*	3b	**3b**	WE	
		20	50	C	10YR5/3	FeMn	com	0	0	poor	39	39	y	y					
		50	120	C	10YR5/3	FeMn	com	0	0	poor	49	26	y	y					
										Total	**124**	**101**							
										MB	28	16							
										Droughtiness grade (DR)	2	1							
217	T	0	20	mCL	10YR4/2			1	0	-	36	36	n	n	*IV*	3b	**3b**	WE	
		20	50	C	10YR5/3	FeMn	com	0	0	poor	39	39	y	y					
		50	120	C	10YR5/3	FeMn	com	0	0	poor	49	26	y	y					
										Total	**124**	**101**							
										MB	28	16							
										Droughtiness grade (DR)	2	1							
218	T	0	28	hCL	slight	10YR4/2			0	15	-	45	45	n	n	*I*	2	**3a**	DR	
		28	40	C	very				0	40		13	13	n	n					
		40	120	Lstone								25	12	n	n					
										Total	**83**	**70**							
										MB	-13	-15							

							Droughtiness grade (DR)			3a	3a							
219	T	0	25	mCL	10YR4/2			1	0	-	45	45	n	n	*IV*	3b	**3b**	WE
		25	50	C	10YR5/3	FeMn	com	0	0	poor	33	33	y	y				
		50	120	C	10YR5/3	FeMn	com	0	0	poor	49	26	y	y				
										Total	**126**	**103**						
										MB	30	18						
							Droughtiness grade (DR)				1	1						
220	T	0	17	hCL	10YR4/1			0	15	-	27	27	n	n	*I*	2	**3a**	DR
	T	17	25	hCL	10YR4/1			0	15		13	13	n	n				
		25	40	C				0	40		17	17	n	n				
		40	120	Lstone							25	12	n	n				
										Total	**82**	**69**						
										MB	-14	-16						
							Droughtiness grade (DR)				3a	3a						
221	T	0	32	hCL	10YR4/2			0	0	-	58	58	n	n	*IV*	3b	**3b**	WE
		32	63	C	2.5Y5/3	FeMn	many	0	0	poor	33	40	y	y				
		63	120	C	2.5Y5/3	FeMn	many	0	0	poor	40	9	y	y				
										Total	**130**	**107**						
										MB	34	22						
							Droughtiness grade (DR)				1	1						
222	T	0	25	hCL	10YR4/2			0	0	-	45	45	n	n	*II*	2	**3a**	DR
		25	33	C	2.5Y5/3	Fe	com	0	5	m/poor	11	11	y	n				
		33	55	C	2.5Y5/3	Fe	com	0	25	m/poor	23	26	y	n				
		55	120	Lstone							20	6	n	n				
										Total	**99**	**88**						
										MB	3	3						
							Droughtiness grade (DR)				3a	2						

223	T	0	25	mCL	10YR4/2			0	0	-	45	45	n	n	*IV*	3b	**3b**	WE
		25	60	C	2.5Y5/3	Fe	com	0	0	poor	40	46	y	y				
		60	120	C	2.5Y5/3	Fe	com	0	0	poor	42	13	y	y				
										Total	**126**	**104**						
										MB	30	19						
										Droughtiness grade (DR)	1	1						

Groundwater

Cable Route Corridor - North

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

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

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

Stone types		
%	TAv	Eav
hard	1	0.5
Lstone	4	3

hard flint & pebble

Climate Data	
MDwheat	89
MDpotato	77
FCD	187

Wetness Class Guidelines	*II*	*III*	*IV*	*V*
SPL within 80cm, gleying within 40cm	>79cm	51-79cm	<51cm	
SPL within 80cm, gleying at 40-70cm	>67cm	<67cm		
No SPL but gleying within 40cm	coarse subsoil	*I*	other cases	*II*

Maximum depth of auger penetration is underlined

Site No.		Depth cm		Texture	$CaCO_3$	Colour	Mottle colour	abund-ance	stone% hard	stone% Lstone	Struct-ure	APwheat mm	AP potato mm	Gley	SPL	WC	Wetness grade WE	Final Grade	Limiting Factor(s)
410	T	0	26	hZCL		10YR4/2			5	0	-	49	49	n	n	*IV*	4	**4**	WE
		26	58	C		2.5Y5/2	Fe	com	0	5	poor	36	40	y	y				
		58	80	C	mod	2.5Y5/2	Fe	com	0	25	poor	13	13	y	y				
		80	120	LStone								0	0	n	n				

										Total	**98**	**102**						
										MB	9	25						
									Droughtiness grade(DR)		2	1						
411	T	0	36	hZCL	10YR4/3			1	0	-	68	68	n	n	*IV*	4	**4**	WE
		36	**60**	C	10YR5/3	Fe	com	0	0	poor	25	31	y	y				
		60	**85**	C	10YR5/4	FeMn	com	0	0	poor	18	13	n	y				
		85	**120**	C	10YR5/4	FeMn	com	10	0	poor	22	0	n	y				
										Total	**133**	**112**						
										MB	44	35						
									Droughtiness grade(DR)		1	1						
412	T	0	30	hZCL	10YR4/3			15	0	-	49	49	n	n	*II*	3a	**3a**	WE DR ST
		30	**45**	C	10YR5/3	Fe	com	25	0		18	18	y	n				
		45	**120**	Lstone				0	0		23	10	n	n				
										Total	**90**	**77**						
										MB	1	0						
									Droughtiness grade(DR)		3a	2						
413	T	0	28	mZCL	10YR4/2			2	0	-	52	52	n	n	*I*	2	**2**	WE DR
		28	**35**	hZCL	10YR4/3			0	15		11	11	n	n			**3a**	DP
		35	**45**	hZCL	10YR4/3			0	25		14	14	n	n				
		45	**120**	Lstone				0	0		23	10	n	n				
										Total	**99**	**86**						
										MB	10	9						
									Droughtiness grade(DR)		2	2						
414	T	0	19	mZCL	10YR4/2			2	0	-	52	52	n	n	*I*	2	**3a**	DP
		19	**25**	hZCL	10YR4/3			0	15		11	11	n	n				

		25	40	hZCL		10YR4/3			0	25		14	14	n	n					
		40	120	Lstone					0	0		23	10	n	n					
											Total	99	86							
											MB	10	9							
											Droughtiness grade(DR)	2	2							
415	T	0	15	mZCL	sli	10YR4/2			2	0	-	52	52	n	n	I	2	3a	DP	
		15	25	hZCL		10YR4/3			0	15		11	11	n	n					
		25	40	hZCL		10YR4/3			0	25		14	14	n	n					
		40	120	Lstone					0	0		23	10	n	n					
											Total	99	86							
											MB	10	9							
											Droughtiness grade(DR)	2	2							
416	T	0	22	mZCL		10YR4/3			1	0	-	41	41	n	n	IV	3b	3b	WE	
		22	47	C		10YR5/3	FeMn	com	0	0		40	40	y	n					
		47	60	C		2.5Y5/2	FeMn	com	0	0	poor	11	17	y	y					
		60	75	C	mod	5Y6/2	FeMn	com	0	2	poor	10	13	y	y					
		75	120	C	mod	10Y6/1	Fe	com	0	2	poor	31	0	y	y					
											Total	134	111							
											MB	45	34							
											Droughtiness grade(DR)	1	1							
417	T	0	24	hZCL		10YR4/2			0	0	-	46	46	n	n	IV	4	4	WE	
		24	56	ZC		10YR5/2	Fe	com	0	0	poor	35	38	y	y					
		56	88	ZC		2.5Y4/3	Fe	com	0	0	poor	22	17	y	y					
		88	120	C	mod	10Y6/1	Fe	com	0	2	poor	22	0	y	y					
											Total	126	101							
											MB	37	24							

Droughtiness grade(DR)	1	1

Cable Corridor – South

Stone types		
%	TAv	Eav
hard	1	0.5
Lstone	4	3

Climate Data	
MDwheat	97
MDpotato	87
FCD	175

Wetness Class Guidelines	II	III	IV	V
SPL within 80cm, gleying within 40cm	>75cm	48-75cm	<48cm	
SPL within 80cm, gleying at 40-70cm	>62cm	<62cm		
No SPL but gleying within 40cm	coarse subsoil	I	other cases	II

hard flint & pebble

Maximum depth of auger penetration is underlined

Site No.		Depth cm		Texture	$CaCO_3$	Colour	Mottle colour	abund-ance	stone% hard	stone% Lstone	Struct-ure	APwheat mm	AP potato mm	Gley	SPL	WC	Wetness grade WE	Final Grade	Limiting Factor(s)
418	T	0	20	mZCL	sli	10YR4/4			18	0	-	32	32	n	n	I	1	3a	DR DP
		20	45	hZCL	sli	10YR4/3			0	30		33	33	n	n				
		45	120	Lstone					0	0		23	10	n	n				
											Total	87	74						
											MB	-10	-13						
											Droughtiness grade(DR)	3a	3a						
419	T	0	29	mZCL	sli	10YR4/4			18	0	-	46	46	n	n	I	1	3a	DR DP
		29	45	hZCL	sli	10YR4/3			0	30		21	21	n	n				
		45	120	Lstone					0	0		23	10	n	n				
											Total	90	77						
											MB	-7	-10						
											Droughtiness grade(DR)	3a	3a						
419	T	0	20	mZCL	sli	10YR4/4			18	0	-	32	32	n	n	I	1	3a	DR DP
		20	45	hZCL	sli	10YR4/3			0	30		33	33	n	n				
		45	120	Lstone					0	0		23	10	n	n				
											Total	87	74						
											MB	-10	-13						

							Droughtiness grade(DR)			3a	3a								
420	T	0	22	mZCL	sli	10YR4/3	15	0	-	36	36	n	n	/	1	**3a**	DR DP		
		22	45	hZCL	sli	10YR4/3	0	30		30	30	n	n						
		45	120	Lstone			0	0		23	10	n	n						
									Total	**89**	**76**								
									MB	-8	-11								
							Droughtiness grade(DR)			3a	3a								
421	T	0	26	mZCL	sli	10YR4/3	15	0	-	42	42	n	n	/	1	**3a**	DR DP		
		26	45	hZCL	sli	10YR4/3	0	30		25	25	n	n						
		45	120	Lstone			0	0		23	10	n	n						
									Total	**90**	**77**								
									MB	-7	-10								
							Droughtiness grade(DR)			3a	2								
422	T	0	19	mZCL	sli	10YR4/4	18	0	-	30	30	n	n	/	1	**3a**	DR DP		
		19	45	hZCL	sli	10YR4/3	0	30		34	34	n	n						
		45	120	Lstone			0	0		23	10	n	n						
									Total	**87**	**74**								
									MB	-10	-13								
							Droughtiness grade(DR)			3a	3a								
423	T	0	21	mZCL	sli	10YR4/3	15	0	-	34	34	n	n	/	1	**3a**	DR DP		
		21	45	hZCL	sli	10YR4/3	0	30		31	31	n	n						
		45	120	Lstone			0	0		23	10	n	n						
									Total	**89**	**76**								
									MB	-8	-11								
							Droughtiness grade(DR)			3a	3a								

423	T	0	20	hZCL	sli	7.5YR4/3	18	0	-	32	32	n	n	/	2	**3a**	DR DP		
		20	45	hZCL	sli	10YR4/3	0	30		33	33	n	n						
		45	120	Lstone			0	0		23	10	n	n						
									Total	**87**	**74**								
									MB	-10	-13								
									Droughtiness grade(DR)	3a	3a								
424	T	0	13	hZCL	sli	7.5YR4/3	18	0	-	20	20	n	n	/	2	**3a**	DR DP		
	T	13	25	hZCL	sli	7.5YR4/3	18	0		19	19	n	n						
		25	45	hZCL			0	30		26	26	n	n						
		45	120	Lstone			0	0		23	10	n	n						
									Total	**89**	**76**						Tramline compaction		
									MB	-8	-11								
									Droughtiness grade(DR)	3a	3a								
425	T	0	15	hCL	sli	10YR4/2	20	0	-	22	22	n	n	/	2	**3a**	DR DP		
	T	15	25	hCL	sli	10YR4/2	20	0		15	15	n	n						
		25	45	hCL			0	30		25	25	n	n						
		45	120	Lstone			0	0		23	10	n	n						
									Total	**84**	**71**								
									MB	-13	-16								
									Droughtiness grade(DR)	3a	3a								
426	T	0	15	hCL	sli	10YR4/2	18	0	-	22	22	n	n	/	2	**3a**	DR DP		
	T	15	25	hCL	sli	10YR4/2	18	0		15	15	n	n						
		25	45	hCL			0	30		25	25	n	n						
		45	120	Lstone			0	0		23	10	n	n						

												Total	**85**	**72**						
												MB	-12	-15						
												Droughtiness grade(DR)	3a	3a						
427	T	0	15	hCL	sli	10YR4/2			18	0	-	22	22	n	n	*I*	2	**3a**	DR DP	
	T	15	25	hCL	sli	10YR4/2			18	0		15	15	n	n					
		25	45	hCL					0	30		25	25	n	n					
		45	120	Lstone					0	0		23	10	n	n					
												Total	**85**	**72**						
												MB	-12	-15						
												Droughtiness grade(DR)	3a	3a						
427	T	0	24	hCL	sli	10YR4/1			12	0	-	38	38	n	n	*I*	2	**3a**	DR DP	
		24	45	hCL	sli	10YR4/2			0	30		26	26	n	n					
		45	120	Lstone					0	0		23	10	n	n					
												Total	**87**	**74**						
												MB	-10	-13						
												Droughtiness grade(DR)	3a	3a						
428	T	0	20	mZCL		10YR4/2			0	0	-	38	38	n	n	*II*	2	**2**	WE	
		20	45	fSZL		10YR4/3			0	0		53	53	n	n					
		45	120	SC		10YR5/3	Fe	com	0	0	m/poor	70	35	y	(y)					
												Total	**160**	**126**						
												MB	63	39						
												Droughtiness grade(DR)	1	1						
429	T	0	28	hZCL		10YR3/2			0	0	-	53	53	n	n	*IV*	3b	**3b**	WE	

		28	65	ZC	10YR5/2	Fe	com	0	0	poor	37	44	y	y					
		65	75	ZC	2.5Y5/4	Fe	many	0	0	poor	7	6	y	y					
		75	120	ZC	5GY6/1	Fe	com	0	0	poor	32	0	y	y					
										Total	**129**	**104**							
										MB	32	17							
										Droughtiness grade(DR)	1	1							
430	T	0	19	SZL	10YR4/2			0	0	-	36	53	n	n	*IV*	3a	**3a**	WE	
		19	30	mSL	10YR5/3	Fe	com	0	0		17	44	y	n					
		30	58	SC	10YR5/3-5/4	Fe	com	0	0	poor	32	6	y	y					
		58	70	SC	5GY5/1	Fe	com	0	0	poor	10	0	y	y					
		70	120	SCL	10YR5/4	Fe	com	0	0		50	0	n	n					
										Total	**145**	**104**							
										MB	48	17							
										Droughtiness grade(DR)	1	1							
431	T	0	30	SZL	10YR4/3			0	0	-	57	57	n	n	*III*	2	**2**	WE	
		30	42	mSL	10YR5/3	Fe	com	0	0		18	18	y	n					
		42	50	mSL	10YR5/3	Fe	com	15	0		10	10	y	n					
		50	70	SC	5GY5/1	Fe	com	0	0	poor	16	26	y	y					
		70	120	SCL	10YR5/4	Fe	com	0	0		50	0	n	n					
										Total	**151**	**111**							
										MB	54	24							
										Droughtiness grade(DR)	1	1							
435	T	0	28	C	10YR5/3			0	0	-	48	48	n	n	*IV*	3b	**3b**	WE	
		28	77	C	10YR5/2	FeMn	com	0	0	poor	48	55	y	y					
		77	120	C	10YR5/4	Fe	com	0	0		34	0	n	n					

										Total	**130**	**102**							
										MB	24	4							
									Droughtiness grade(DR)		2	2							
436	T	0	40	hCL	10YR4/3			0	0	-	72	72	n	n	*II*	3a	**3a**	WE	
		40	**52**	C	10YR5/3	Fe	com	0	0	poor	14	16	y	n					
		52	**75**	mSL	10YR5/4	Fe	com	10	0		23	24	n	n					
		75	**120**	mSL	10YR5/4	Fe	com	10	0		45	0	n	n					
										Total	**154**	**112**							
										MB	48	14							
									Droughtiness grade(DR)		1	1							
437	T	0	35	C	10YR5/3			0	0	-	60	60	n	n	*IV*	3b	**3b**	WE	
		35	**90**	C	10YR5/2	FeMn	com	0	0	poor	48	46	y	y					
		90	**120**	C	10YR5/1	FeMn	com	0	0	poor	21	0	y	y					
										Total	**128**	**105**							
										MB	22	7							
									Droughtiness grade(DR)		2	2							

Annex C Soil pit photographs

Pit 1

Pit 2

Pit 3

Pit 4

Pit 5

Pit 6

Pit 7

Pit 8