WHITESTONE
solar farm

WHITESTONE SOLAR FARM

Volume 6: Environmental Statement

6.20 Appendix 9.6: Agricultural Land Classification Report

Application Document ref. EN0110020/APP/6.20
Revision 01
June 2026

Planning Act (2008)
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
Regulations 5(2)(a)

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Agricultural Land Classification Soil Resource Assessment

Whitestone Solar Farm

March 2026

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Project:	ERM: Whitestone Solar Farm
Title:	Soil Resource Assessment and Agricultural Land Classification
Doc Ref:	LDC_ERM_Whitestone_Solar_ALC_Report_Rev3_04032026
Status:	Rev 3 – March 2026
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Date of issue:	10/03/2026

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1.0 BACKGROUND

1.1 Land & Drainage Consultancy (LDC) have been asked by Environmental Resources Management (ERM) to complete a semi-detailed Soil Resource and Agricultural Land Classification (ALC) assessment on approximately 1490 Ha of land straddling the M1 to the east of Sheffield, and land to the west of the M18 to the east of Rotherham.

1.2 The site, known as Whitestone Solar Farm, is located 8km east of Rotherham, within the administrative areas of the City of Doncaster Council and Rotherham Metropolitan Borough Council. The extent of the site and proposed red line planning boundary are shown on the plans at Appendix 1-3.

1.3 The site boundary is split over three main sites; the northern, central and southern sites, encompassing a total of 1480 ha. LDC were requested to survey land proposed for the placement of solar arrays and did not survey areas subject to connection works. ERM requested a survey based on a resolution of one auger boring per two hectares, this will provide a reconnaissance finding of ALC gradings across the site at a semi-detailed scale.

1.4 This report is authored by [redacted], a Soil Scientist at Land Drainage Consultancy Ltd. (LDC) and verified by [redacted] (LDC). Both are experienced soil surveyors on over 5000 Ha of agricultural land. [redacted] is qualified under the Fertiliser Adviser Certification and Training Scheme (FACTS), membership number is 20096987 and registered as an academic professional and manager under Construction Skills Certification Scheme. She is also an early career member of the British Society of Soil Science. [redacted] assists on the surveying, cartography and preparation of ES land and soil chapters within the EIA process, having worked on a variety of projects across mineral extraction, highway schemes, linear utility routes and solar developments. Soil surveys have been supported by [redacted], a soil scientist with more than 45 years' experience of delivering specialist soil science consultancy and extensive experience

2.0 REPORT OBJECTIVES

2.1 The objectives of this report are to:

- Describe the distribution of soil types over the proposed site,
- Provide a pre-working record of soil characteristics in each enclosure, and

- Determine the reconnaissance Agricultural Land Classification (ALC) grading of land within the site.

3.0 ASSESSMENT METHODOLOGY

Desktop Study

3.1 A desk study was undertaken to review data sourced from:

- Ordnance Survey 1:10,000 mapping,
- Agroclimatic datasets from the UK Met Office (1961-1988),
- Soil Survey 1:250,000, Sheet 3 Midland and Western England,
- Cranfield's LANDIS website,
- Provisional ALC data held on Defra's MAGIC website,
- British Geological Survey (BGS) Website (1:50,000 mapping),
- Aerial photographs reference from Google Earth, and
- Environment Agency flood risk information.

Field Survey

3.2 A soil survey and land quality assessments were undertaken by LDC during February-January 2026. Soils across the Application Site were examined using a hand-held Dutch auger and spade to a depth of 1.2 m, unless impenetrable.

3.3 A total of 625 auger borings were completed across the current redline boundary. 178 additional auger borings were conducted across areas encompassed within previous iterations of the redline boundaries, however results from these locations have been omitted from the reporting.

3.4 Augering borings were conducted at 200m intervals, at points predetermined by the Ordnance Survey National Grid. In some instances, auger borings were relocated to avoid features such as hedgerows, headlands and field boundaries that are considered unrepresentative of the land parcel. Auger locations were located in the field using a handheld GPS and were scanned with CAT and genny prior to excavation.

3.5 Information on topsoil and subsoil depth, soil texture, stone content and drainage characteristics were collected at each point. Four small hand dug profile pits were excavated to provide detailed information on soil profile characteristics.

3.6 Field observations were made according to the Soil Survey Field Handbook, Technical Monograph No 5, Harpenden, 1974.

Agricultural Land Classification

3.7 Soil survey information has been combined with other site information, e.g. climate and relief to grade the quality of the land in accordance with the method described in "Revised Guidelines and Criteria for Grading the Quality of Agricultural Land" (MAFF 1988). This system grades agricultural land according to the degree to which its physical characteristics impose long term limitations on agricultural use and cropping flexibility.

3.8 The principal physical factors which influence land quality and agricultural production are climate, particularly temperature and rainfall; site, including gradient, micro-relief and flood risk and soil characteristics such as texture, structure, depth, stoniness and erosion potential. These factors, including the interaction between them, form the basis of classifying land into one of five ALC grades with Grade 3 being subdivided into subgrades 3a and 3b. ALC grades 1, 2 and 3a are defined as the best and most versatile (BMV), subgrade 3b as being of moderate quality with Grade 4 land being poor and Grade 5 being of very poor quality.

Soil Sampling and Analysis

3.9 Topsoil samples were collected from each field to a depth of 0-75mm for grass and 0-150mm for arable use in accordance with the sampling procedures outlines in The Nutrient Management Guide, DEFRA/AHDB, 2022.

3.10 Samples were tested to provide detail on topsoil texture (particle size distribution by laser diffraction), organic matter content (LOI) and pH status, which are factors in assessing agricultural land quality. Topsoil samples were also tested for available phosphorus, potassium and magnesium to determine their nutritional status.

3.11 Further analysis was undertaken to determine particle size distribution and stone content in the subsoil samples collected from soil profile pits.

Testing Laboratory

3.12 Soil samples were analysed at a suitably accredited laboratory (NRM Ltd). NRM Ltd are UKAS accredited for soil, sludge and sediment analyses and participate in proficiency testing schemes including CONTEST (contaminated land soils and leachates), MCERTS, Aquacheck (waters, soils and sludges), FAPAS (nitrate in leafy vegetables) and WEPAL (nutrients in agricultural soils).

Interpretation

3.13 Soil survey information has been combined with other site information to grade the quality of the land in accordance with the method described in "Revised Guidelines and Criteria for Grading the Quality of Agricultural Land" (MAFF 1988).

3.14 Field survey information and analytical data has been used to characterise the soils on site into representative soil mapping units to inform proposals for mitigation.

Guidance

3.15 The following guidance has been used in providing this report:

- Agricultural Land Classification of England and Wales. Revised guidelines and Criteria for Grading the Quality of Agricultural Land (MAFF, 1988),
- Agricultural Land Classification: protecting the best and most versatile agricultural land: Technical Information Note TIN049, (Natural England, 2012),
- Guide to Assessing Development Proposals on Agricultural Land (Natural England, 2018),
- The Code of Practice for the Sustainable Use of Soils on Construction Sites, DEFRA 2009,
- The Soil Survey Field Handbook, Technical Monograph No 5, Harpenden, 1974,
- Good Practice Guide for Handling Soils in Mineral Workings, IQ, 2021.
- Good Practice Guide for Handling Soils, MAFF, April 2000,
- Soil Texture: Technical Information Note TIN037, (Natural England, 2008),
- The Nutrient Management Guide, ADHB/Defra. 2017,
- Guidance for Successful Reclamation of Mineral and Waste Sites (Defra, 2004),
- Protecting our Water, Soil and Air, A Code of Practice, Defra, 2009, and

- Safeguarding our Soils, A Strategy for England, Defra, 2009.

Appendices

3.16 The following appendices are included with this report

- Appendix 1: Field survey information, location of soil auger borings, profile pits and soil sampling areas
- Appendix 2.1: Distribution of soil types across the site
- Appendix 2.2: Soil profile summary descriptions
- Appendix 3: Distribution of ALC grades across the site
- Appendix 4: Description of individual soil auger borings
- Appendix 5: Soil profile pit descriptions
- Appendix 6: Individual soil sample analytical report sheets
- Appendix 7: Provisional ALC
- Appendix 8: Post 1988 Published ALC surveys
- Appendix 9: Flood risk sensitivity map
- Appendix 10: Slope extent across the site

4.0 FINDINGS

Climate and Relief

4.1 Climate data, interpolated from Met office 1965-1988 agroclimatic datasets, for a selection of auger boring points within the application site are shown in Table 1. These are to be used in the interpretation of ALC to identify the climatic and interactive, such as drought and wetness that are likely to affect cropping flexibility.

4.2 The application site has moderate annual accumulated rainfall (AAR) ranging between 626 and 718mm. The average Accumulated Temperature Above 0°C (ATO) between January and June is 1289-1398 day°C, which indicates a moderately long and mild growing season. The land is typically at field capacity, (when the land is wet and field drains would be expected to flow), for 131-158 days (i.e. 4-5 months) in a normal year. Variability will occur associated mainly with changes in altitude.

4.3 Moisture deficits (MD) represent the balance between rainfall and potential evapotranspiration calculated over a critical portion of the growing season. For ALC purposes, moisture deficits for winter wheat and potatoes are used to calculated drought limitations. On this site moisture deficits for winter wheat range from 93-108 and 81-99 for potatoes. Drought is therefore likely to be a consideration for some lighter textured soils in the area.

Table 1: Whitestone Solar Farm: Climate Data

AB Point	OS GRID reference (SK)	Altitude (m)	Accumulated Temperature (ATO) (Day °C Jan-Jun)	Average Annual Rainfall (AAR) (mm/year)	Field Capacity Days (FCD) (Days/year)	Moisture Deficits Wheat (mm)	Moisture Deficits Potatoes (mm)
6	500976	72	1347	629	131	103	93
39	501970	79	1340	640	132	102	91
92	492964	67	1354	645	133	103	93
100	509965	70	1350	642	133	103	92
174	502958	87	1331	655	135	100	90
200	513956	100	1316	645	134	99	88
254	490906	115	1301	670	140	98	86
260	435895	32	1398	626	141	108	99
396	448878	52	1375	639	144	105	95
268	440888	42	1386	633	142	107	98
264	465889	100	1320	658	142	100	89
348	465880	80	1343	648	141	102	92
388	475878	108	1311	657	142	99	88
532	465867	95	1326	651	143	100	90
469	475873	101	1319	652	141	100	89
410	489878	113	1305	657	141	99	88
566	477863	115	1303	652	142	99	88
465	497874	102	1317	649	139	101	90
504	493870	102	1318	645	139	102	91
548	488867	108	1311	646	140	101	90
581	495589	101	1319	634	138	103	93
600	510851	103	1317	634	137	103	92
618	506844	93	1329	630	137	104	94

649	492817	103	1319	673	148	100	88
659	484815	92	1332	675	149	101	90
710	473802	130	1289	718	158	93	81
719	484803	116	1305	688	151	97	85

4.4 Altitudes range from 32-130m Above Ordnance datum (AOD). There are areas of the site that are steeply sloping, with slopes exceeding 7°, in places increasing to a great as 18° related to steep valley associated with Hooton Beck (Field 1.28-1.29) along the southern perimeter of the Northern site and Ulley Brook in the central site (Field 5.3-3.14 and 5.33). Slope elevation can be seen in Appendix 10.

Geology

4.5 For the application site solid geology has been mapped by the British Geological Survey (BGS, 1:50,000 maps). A number of different formations were found across the site, with the predominant two formations being that of the Pennine Middle and Upper Coal Measures; these formations are composed of interbedded mudstone, siltstone and sandstone laid down between 318 and 308 million years ago during the Carboniferous period. The Pennine Upper formation is mapped in a banded formation with the Oaks and Mexborough sandstone formation beneath the southern site and to the west of the M1 in the Central site. The Northern site is underlain with banded distribution of the Pennine Middle formation and sandstones of the Dalton, Wickersley, Ackworth and Ravenfield formation, also laid down in the carboniferous period. The Cadeby formation of dolostone magnesium limestone is found extensively to the east of the M18 however is only mapped beneath Fields 1.01 and Field 1.38-1.39 within the site boundary.

4.6 These bedrocks are fine to medium grained, yellowish-brown sandstone with some iron rich concretions. Bedrock was not encountered within 1.20m depth in any of the auger borings undertaken.

4.7 The BGS maps show that the majority of the Application Site absent of superficial deposits. Small sections to the north of Woodall are overlain with head and alluvial deposits, characterised by a mixture of poorly sorted of sand, silt, clay, and gravel. Head deposits were laid down 2.58 Million years ago, whilst alluvial deposits were derived since the most recent glaciation, formed between 11.8 thousand years ago and the present.

These deposits are also found in an isolated area to west of Long Road in the central section.

Published Soils Information

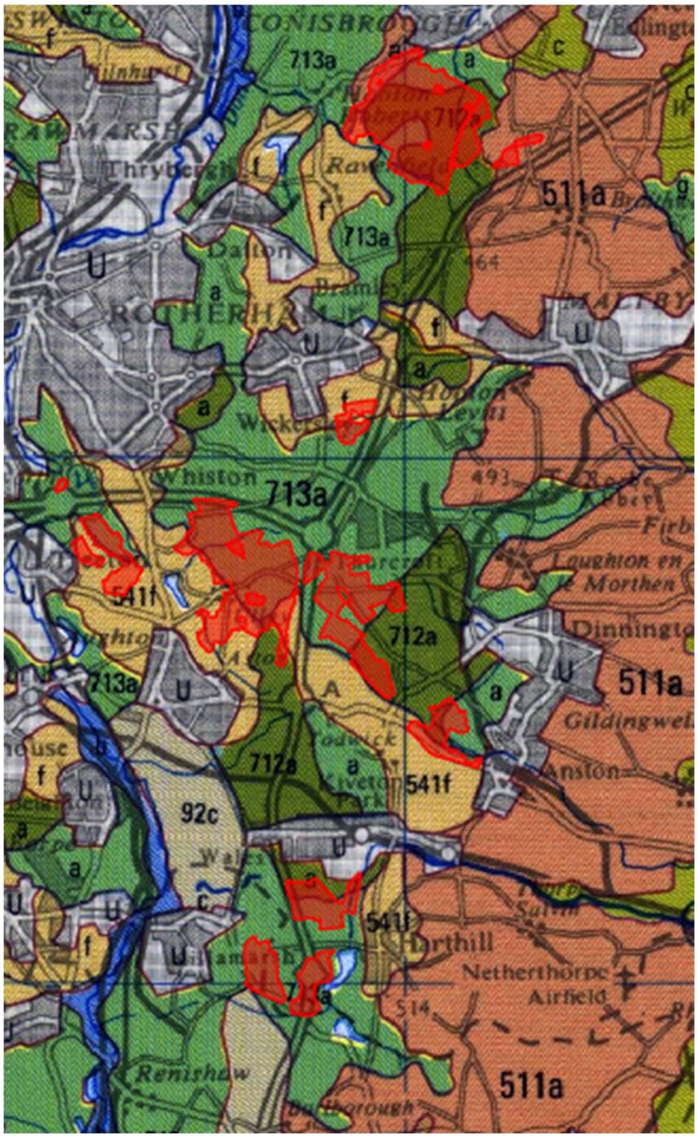
4.8 Soils in this geographical area have been mapped (1:250,000) and described by the Soil Survey of England and Wales (Sheet 3 Midland and Western England) as representative of the Bardsey, Dale, Rivington 1, and Aberford Soil Associations, ref Figure 1. Bardsey and Dale are composed clayey and fine loamy textured soils with slowly permeable subsoils, whilst Rivington 1 and Aberford are well drained and coarse loamy. Rivington soils are characterized by shallow soils over sandstone bedrock, often found on sloping land. Whilst Aberford soils are also shallow soils, however calcareous and encounter limestone brash within 80cm.

4.9 The northern site is centered over major soil group types 7 (surface-water gley soils), characterized by seasonally waterlogged soils with slowly permeable clayey subsoils. Fields 1.37, 1.38 and 1.39 located on the eastern side of the northern section are mapped as the Aberdord Association, comprising of coarse grained, permeable profiles. Fields 1.12, 1.14 and 1.15 neighbor an area of soils mapped as the Rivington 1 Association.

4.10 The central site is mapped with both contrasting soil types of the heavier textured, slowly permeable Bardsey and Dale associations to the north and north east of the site and better drained soils of the Rivington 1 Association to the south and south west.

4.11 The southern site is primarily mapped as the Bardsey Association with a smaller area of Dale association to the north east, these soils are slowly permeable and seasonally waterlogged.

Figure 1. Whitestone Solar Farm: Published Soils Information



Legend	Soil **Association**	**Typical description**
713a	**Bardsey**	Slowly permeable and seasonally waterlogged soils. Fine loamy and silty over clayey soils. Some soils are well drained and found over harder rocks.
712a	**Dale**	Slowly permeable and seasonally waterlogged soils. Fine loamy over clayey soils, some soils variably silty. Often stoneless.
541f	**Rivington 1**	Well drained coarse loamy soils over sandstone. Often affected by groundwater.
511a	**Aberford**	Shallow soils, locally brashy. Well drained and calcareous. Fine loamy brown earth soils over limestone. Some soils are found deeper in colluvium.

Source: 1:250,000 Soil Survey of England and Wales, Sheet 3: Soils of Midland and Western England.

Published ALC

4.12 ALC grades were mapped by MAFF, provisionally, in 1988 at a scale of 1:250,000. Whilst these maps are based on a now obsolete grading system, they provide an indication of potential ALC grade in this geographical area. An extract is shown at Appendix 7 and indicates that this land is likely to fall within ALC Grade 3 across the majority of the site. A small area in the northern section is allocated as ALC Grade 2 which corresponds to the better drained Aberford and Rivington 2 Associations. A small area is allocated as Grade 4 in the central site in the tributary of Ulley Resevoir, and Grade 5 in the northern section, which could be the result of slope limitations. It should be noted that these early maps are only, at best, considered indicative, have no subdivisions of Grade 3 and are based on a now obsolete ALC grading system.

4.13 A review of ALC surveys conducted post 1988 indicate that no surveys have been undertaken within the central and southern sites in recent years, In the northern site, there was a detailed ALC survey undertaken in 1994 across part of the site. This survey was conducted on 145ha of land and graded the land predominantly ALC subgrade 3b, with isolated inclusions of ALC subgrade 3a and ALC grade 2 to the north of the survey boundary. Primary limitations to the site was found to be soil wetness.

4.14 Previous surveys have also been conducted in the area surrounding the red line boundary, these are mapped resulting in similar distribution of ALC grades (a combination of Grade 2, subgrade 3a and 3b and Grade 4), and are predominantly limited by soil wetness.

Detailed Soils Description

4.15 Information collected from the site survey has been used to categorize the soils according to the soil classification for England and Wales, fully described by Avery (1980) and Clayden and Hollis (1984). This is a general-purpose classification that groups soils that behave in a similar way in response to normal management practices. A group of soils, or Soil Association, has a limited and defined range of diagnostic properties that differentiate it from other soil types. Detailed descriptions of individual soil types are outlined in 'Soils and Their Use in Northern England' (Harpenden 1984).

4.16 For the purposes of this survey six soil types have been identified based on key characteristics that impact on their behavior when being disturbed during stripping

storage, replacement, and recovery. These characteristics include soil texture, drainage characteristics, stone content and erosion risk. They are described below.

4.17 The site is occupied by four primary soil types and two secondary soil types that serve to represent transitions between the 3 primary soil types. This is reflected in the ALC grading discussed later in this Chapter.

Soil Type 1: Rivington 1 Association (123.32 Ha or 10.2 % of the Surveyed Area)

4.18 This soil type was found across all three sections of the surveyed area, predominantly the south-west peripheries of the southern and central sections, it is broadly reflective of underlying sandstone formation.

4.19 It is mapped in light yellow in Appendix 2 and a representative profile is shown in Trial Pit 3, Appendix 5 as excavated in Field 9.07.

4.20 The topsoil was very dark brown (7.5YR 2.5/3) sandy clay loam, medium clay loam or medium sandy loam textured and a mean depth across all borings of 26.4cm (18-41cm) containing very few (<1%) small sandstones. The topsoil was weakly developed and angular blocky in structure.

4.21 The subsoil was reddish brown in colour (5YR 4/4) medium sandy loam, loamy medium sand, or medium sand texture, absent of visible mottles. The subsoil contained variable numbers of stones, up to 50-60% medium, large and very large sandstones. The subsoil was apedal in structure.

4.22 Some profiles contained upper subsoils, representative of the natural reversion of topsoil to subsoils, composed of pale, lighter textured sandy loam of sandy clay loam. Upper subsoils variably contained few faint ochreous mottling, likely the result of historic ground water influence.

4.23 Soil profiles were freely draining, absent of slowly permeable layers within 0.8m (Wetness Class I-II).

Soil Type 2: Rivington 1 transitioning into Dale/Bardsey (101.69 Ha or 8.4% of the Surveyed Area)

4.24 Soil Type 2 was also found across swathes in all three sections of the site. This soil type was predominantly found between areas of lighter soil type (Soil Type 1) and the heavier soil types of the Dale and Bardsey associations (Soil Type 5). This soil types represents a transitionary area between the two contrasting soil associations as contain horizons characteristics typical of both associations.

4.25 Soils are mapped in light brown in Appendix 2, and a typical profile is described at Trial pit 2 of Appendix 5.

4.26 The topsoil was very dark greyish brown in colour (7.5YR 3/2) with fine sandy clay loam texture and a mean depth of 27.2 cm (range 16-38cm) containing few (1-2%) small and medium sandstones. The topsoil was very weakly developed sub-angular blocky in structure.

4.27 The subsoil was reddish-brown in colour (5YR 4/4) fine sandy clay loam to medium sandy loam with rare few mottles. There were many stones in this layer with 30%+ medium, large and very large sandstones. The subsoil was weakly developed prismatic in structure.

4.28 Upper subsoil layers invariably contained mottled and gleyed characteristics, the majority of profiles were considered to be deep medium textured, absent of slowly permeable layers (Wetness Class II/III). In the northern section, horizons were medium textured influenced by sandstones of the neighboring Rivington soil association, however subsoils were considered slowly permeable from 35cm, resulting in Wetness Class IV.

Soil Type 3: Aberford (4.62 Ha or 0.4 % of the Surveyed Area)

4.29 This Soil Type was found in a single isolated to the northern section of the site, across Fields 1.5N/S and 1.13. The profile is characterized by perfect to imperfect drained profiles of medium fine loamy and fine silty textures. This soil type is derived from underlying limestone bedrock, promoting calcareous soils. Soils are mapped in pale orange in Appendix 2.

4.30 Profiles were found to in greater extends in the wider survey areas and site observations corresponded closely to mapping published from the soil survey of England and Wales.

4.31 Profiles were absent of slowly permeable layers but mottling was present in some profiles within 40cm, resulting in wetness class I-II.

Soil Type 4: Aberford transitioning into Dale/Bardsey (3.08 Ha or 0.3% of the Surveyed Area)

4.32 Soil type 4 was also only found in the northern section of the site, and served as a transition layer between the permeable Aberford association and the heavier textured Dale and Bardsey Associations with impeded drainage. It is mapped in dark orange in Appendix 2.

4.33 Profiles were again concentrated to the north of field 1.01E and west of 1.06, corresponding to mapping from the soil survey of England and Wales.

4.34 Topsoils were characterized by dark greyish brown medium to heavy clay textured topsoil, overlying mottled and gleyed, slowly permeable sandy clay loam and heavy clay loam subsoil immediately below the topsoil.

4.35 The combination of slowly permeable horizons within 40cm and moderate climatic regime, resulted in profile drainage that was impeded to poor (Wetness Class III or IV).

Soil Type 5: Dale/Bardsey (959.19 Ha or 79.5 % of Surveyed Area)

4.36 Soil Type 5 is this dominant soil type across the project and is mapped in dark brown in Appendix 2. This soil type represents profiles of both the Bardsey and Dale Soil Associations, both of which are described as slowly permeable seasonally waterlogged soils with variable silt content.

4.37 These soil associations are found on undulating fields, with the Dale association found on steeper slopes. The Bardsey Association is derived from interbedded mudstone, composed of stoneless and sightly stoney fine loamy textures, whereas the Dale association is developed from clay and shale deposits results in stoneless clayey textures. Both associations are typically slowly permeable and seasonally waterlogged with clayey soils found at depth.

4.38 For the purpose of this report, and due to similar behavior of both these soil association in response to both development, differentiation into individual soil associations has not been presented on Appendix 2 and are considered a single soil type. However, trial pit 1

represents profiles of the Dale Association and trial pit 4 represents that of the Bardsey Association and are described separately below.

4.39 Dale Association profiles are characterized by very dark grey brown (10YR 3/2) clayey (heavy clay loam) textured topsoil containing few (1-5%) small and medium sandstones. The topsoil was moderately developed subangular blocky in structure.

4.40 The upper subsoil was invariable, composed very dark grayish brown (10YR 3/2) and brownish yellow (10YR 6/6) heavy clay or silty clay loam containing (5-10%) small and medium tabular sandstones. The lower subsoil was pale red (2.5YR 6/2), stoneless, clay with abundant distinct ochreous (10YR 6/8), iron, and manganese mottles. Subsoil structure was weakly developed prismatic.

4.41 The Bardsey Association, were relatively lighter composed of fine loamy (medium clay loam) brown (10YR 4/3) topsoil containing few (3-5%) small sandstones. Topsoil was moderately developed coarse sub-angular blocky in structure.

4.42 Subsoils were light yellowish brown (10YR 6/4) medium to heavy clay loam transitioning to a clay lower subsoil, with abundant ochreous (10YR 5/8) mottles and variable stone content. The lower subsoil was grey in colour (10YR 6/1) clay with abundant large distinct ochre (7.5YR 5/8) mottles. Stones were rare in lower layers with (<1%) small and medium weathered sandstones.

4.43 Soil profiles were slowly permeable with 35cm resulting in Wetness Class IV.

Soil Types	Total Area Surveyed (ha)	% Soils Surveyed
Soil Type 1: Rivington 1	123.32	10.2
Soil Type 2: Rivington 1 – Dale/Bardsey	101.69	8.4
Soil Type 3: Aberford	4.62	0.4
Soil Type 4: Aberford – Dale/Bardsey	3.08	0.3

Soil Type 5: Dale/Bardsey	959.19	79.5
No Soil Resource	13.45	1.1
Unsurveyed (woodland)	1.5	0.1
Total	1206.85	100

Topsoil Analysis

Topsoil pH

4.44 The optimum pH for mineral soils in arable use is between 6.50-8.30 and for grassland 6.00-8.30. To date 125 fields have been sampled across the site and have been sent to an accredited laboratory for testing and results have been received. A further seven fields have been sampled and results received but are no longer included in the site boundary.

4.45 Of the 116 fields sampled in the site boundary, the pH across site ranged between 5.70 to 8.10. The majority of the fields across the site are deemed satisfactory, at or above their target indices for their respective crop. A small selection of fields in arable use (Field 1.12, 1.13, 1.14, 5.07, 5.20, 5.23, 5.24, 8.03, 8.03SE and A1 N and S) had a pH below 6.50 and may benefit from a dressing of of lime. Two fields 4.02E and W, and 5.38E, were considered alkaline with a pH over 8.00.

Phosphorus, potassium and magnesium

4.46 64 of the 116 sampled fields were satisfactory (Index 2-3) in concentrations of phosphorus (P), whilst 52 of the sampled fields were considered deficient (Index 0-1). These fields would all benefit from an application of P_2O_5, the exact amounts for each field can be found on the lab sheets in Appendix 6.

4.47 105 out of 116 fields sampled measured slightly deficient (Index 1 or 2-) for levels of available potassium (K). Four fields (4.02W, 5.45, 6.39, and 6.47) had an Index of 0, considered very deficient. Only seven fields across the surveyed area returned

satisfactory Index (2+ or 3), Field 1.38S, 5.06, 5.20, 5.22, 5.38E, 6.42E, 6.52, with no further requirement for applications.

4.48 Available magnesium (Mg) was satisfactory in 39 of the 116 fields sampled (Index 2-3, 65-161mg/l). The majority of the fields (77) had high concentrations of available magnesium (Index 4-6). Magnesium levels can be naturally elevated in grassland conditions, or as a result of artificial inputs. Influence of magnesium limestone bedrock can also influence residual levels of magnesium in the soil, as mapped to the east of the M18 and beneath F1.01 and F1.38 and F1.39.

4.49 Organic matter levels were 2.8-10.3% across the site. The majority of the fields are considered mineral soils. However, limited fields contained between 8-11% organic matter, considered organic mineral soil. One of these areas encompassed fields 6.39, 6.42E, 6.43, and 6.44W. These fields reflect the management in place of horse paddocks and are typical of fields out of arable use for some time. A number of fields were considered low (<5%) for organic matter content, this is more likely to occur in sandier topsoils where retention of organic matter is decreased. The organic matter content across the site is typical for the land management in place and fits with the mapped soil associations in the area.

Particle size distribution and organic matter content

4.50 The topsoil, derived by laser diffraction, found samples across the site to contain between 15-45% clay. This was indicative of both the sandy loam textures found in Soil types 1 and 4 and heavier textured topsoils of Soil type 3 and 5. Results confirm hand texturing on site.

4.51 Trail pit analysis confirmed topsoils to have medium to heavy textured topsoil (12-28% clay).

Agricultural Land Classification

Land use

4.52 At the time of survey, the majority of the fields were in use for winter cereals or under permanent grass, with limited fields used for oil seed rape, winter beans, or left fallow or with stubble.

Climatic limitations

4.53 Climate has an overriding influence on crop production and hence land flexibility and quality. It is assessed in the ALC system by considering rainfall and the sum of daily air temperatures above 0°C between January and June (Accumulated Temperature). This area has an Accumulated Temperature (January to June) of 1289-1398 day°C and a long-term average annual rainfall of approximately 626-718mm mm. This combination of rainfall and temperature indicates a mild to slightly wet climatic regime and places no limitations on cropping flexibility in this area.

Site limitations

4.54 Gradients across the site are undulating, mostly less than 7° and therefore have no limitation on ALC grade. However there are areas of site that are locally steep with slopes in excess of 7 degrees, on occasion around exceeding 11 degrees around Ulley Brook in the central site. These slopes usually occur on small areas of fields, without run outs to the top and bottom of the slope, restricting machine access to the land; leading to an ALC limitation of subgrade 3b and 4.

4.55 In areas of slope between 7-11 degrees and where runout are available at the base of slopes, the advancement of four-wheel drive machinery means it is likely that land is being farmed beyond the slope limitations provided in the 1988 guidelines.

4.56 Interrogation of Environmental Agency flood risk maps, shown at Appendix 9, demonstrates that the majority of the site lies within Flood Zone 1 and is therefore not limited by flood risk.

4.57 Narrow tracts of land either side of watercourses (Ulley Brook, Anston Brook and Kiveton Community woodland) occupy Flood Zone 3, areas that are liable to flooding. Flood risk will therefore impose a restriction on ALC grade in these areas, however are occupied by areas of field margins.

Soil limitations

4.58 The 1:250,000 map 'Soils and their Use in Midland and Western England, Sheet 3, shows the area to be covered by soils of the Bardsey, Dale, Rivington 1, and Aberford Soil Associations. Limitations to ALC grading of Bardsey and Dale are typically soil wetness.

The primary limitation to the Rivington 1 and Aberford soil association is soil droughtiness but can also be limited by slope and stone content in the topsoil. T

4.59 Particle size distribution analysis (PSD) and hand texturing of the topsoil across the site indicated a light to heavy textured topsoil, assigned as mineral non-calcareous. Clay content exceeds 15% in the topsoil across the site, and topsoil alone does not limit ALC grade at this site. However this textural class interacts with climate and drainage to form the primary moderating influence on ALC grade at this site.

4.60 Topsoil depths across the site were good and adequate for agricultural use.

4.61 Topsoil stone content was generally low (1-10%), comprising of small and medium sandstones, flints and quartzite pebbles. Limited borings across the site, predominantly within soil types 1 and 2 contained topsoil within between 10-50% stones, exerting limitation to ALC to subgrade 3a (10-15% stone) and subgrade 3b (15-30% stones). A single boring was limited to ALC grade 5 with more than 50% stones present in the topsoil, and 20% of these stones being over 6cm, however this occurred in isolation and was not considered a mappable unit due to pattern variability.

Interactive limitations

4.62 The physical limitations which result from the interactions between climate, site and soil are profile wetness, droughtiness and erosion. This area has a moderate annual average rainfall, and the soil will typically be at field capacity, when land drains would normally be expected to flow, for 131-158 days, or 4-5 months, in a typical year.

4.63 Soil wetness expresses the extent to which excess water imposes restrictions on crop growth, workability and cultivation. The occurrence of slowly permeable layers immediately below the topsoil in Soil Type 4 and 5 result in Wetness Class III/IV dependent on Field capacity days, exhibiting a wetness limitation to ALC subgrade 3b. Where slowly permeable layers occurred within 80cm, but below 60-70cm, profiles may be cable of Wetness Class III/II.

4.64 Soil Type 1 and 3 consisted of profiles largely absent of slowly permeable layers, leading to freely draining soil water regimes of Wetness Class I and II, imposing no overriding wetness limitation to crop productivity in this soil type. Isolated borings of Soil type 3,

contained slowly permeable layers that resulted in Wetness Class of III/IV, reflective of the influence of surface-water gley soils.

4.65 Soil droughtiness is the degree to which a shortage of soil water influences the range of crops that may be grown, and the level of yield which may be achieved. Summer moisture deficits at this site are 93-108mm for wheat and 81-99mm for potatoes. The sandy texture in the topsoil and subsoil of Soil types 1, 3 and in part Soil type 2, together with moderate stone content indicates that a drought limitation to crop growth is likely to have a limiting effect, moderating the ALC grade to Grade 2 and in some places subgrade 3a.

4.66 The presence of high gradients means that soil erosion through water and wind activity is of a moderate risk as a result of medium topsoil texture and moderate slope which compounds limitation to ALC grade in isolated areas.

Agricultural Land Classification Grades

4.67 The site is occupied by five grades and subgrades which are detailed below.

Grade 1: Excellent Quality Agricultural Land (12.90 Ha or 1.1% of Surveyed Area)

4.68 This grade of land occupied approximately 12.90 Ha or 1.1% of the surveyed area. It is found at two isolated locations across the application site. It is mapped in dark blue in Appendix 3.

4.69 This grade occupied profiles containing fine sandy clay loams to depth. Fine sands have high easily available and total available water holding capacity, offsetting the inherent drought risk associated with coarse textured sandy soils.

4.70 Grade 1 was also mapped in the central section at Field 5.37 and in the southern section in Fields 9.07 and 9.08. This grade occurs in isolated areas within larger land parcels means it is unlikely that this grade could be reasonably farmed separately.

4.71 This grade is occupied by soils from soil type 1 (Rivington 1 Association). Profiles were near stoneless, were absent of slowly permeable layers, absent of gleying within 40cm, and composed of medium textured loams to depth. The loamy textures, combined with

the moderate to high field capacity days, resulted in land absent of limitations or restrictions.

4.72 This land is of excellent quality and of Best and Most Versatile (BMV) status. It is land with no or very minor limitations to agricultural use, capable of producing consistently high yields of a wide range of agricultural and horticultural crops including top fruit, soft fruit, salad crops and winter harvested vegetables.

Grade 2: Very Good Quality Agricultural Land (101.6 Ha or 8.4% of Surveyed Area)

4.73 This grade of land occupied approximately 101.6 Ha or 8.4% of the surveyed area. It is found across the application site. It is mapped in light blue in Appendix 3.

4.74 This grade of land is occupied predominantly by Soil Type 1 and Soil Type 2 and a few occasions occupied by Soil Type 3. It is found in limited areas across the site, to the western periphery of the northern section, Field 1.28, 1.32, the entirety of 2.01 and in scattered occurrences throughout the central section (4.03, 5.13-5.15, 5.21, 5.24-25, 5.33, 5.33, 5.38, 5.40, 7.02 and 7.06) and to the north of field 9.07 in the southern section.

4.75 The grade is occupied predominantly by soils of the Rivington 1 association and transition to the Bardsey/Dale association. Land is slightly limited by both droughtiness and wetness.

4.76 The Rivington 1 soil series is very porous, developed from shallow sandstone that reduce the overall water holding capacity of the profiles. Due to an annual rainfall of 850mm in this geographical area; this soil type is particularly susceptible to droughty conditions, especially under grassland.

4.77 However, profiles of this grade have a relatively deeper depth of medium textured soil overlying sandstone/limestone, which provides adequate available water capacity for most crops under this climatic regime. On occasion these soils were considered slowly permeable, influenced by heavier material from neighboring Dale/Barsdey soils, also resulting in a slight limitation by wetness.

4.78 This land is good quality and BMV. It is capable of producing consistently high yields of a wide range of agricultural crops including cereals, oilseed rape, root crops and/or grass and will be suited to spring cropping. In drier years the land may pose moderate to high drought risk to grass and moderate drought risk to arable cropping. In wetter years the land may exhibit difficulty in workability and require appropriate timeliness of cultivation.

Subgrade 3a: Good Quality Agricultural Land (128.30 Ha or 10.6% of Surveyed Area)

4.79 This grade of land is occupied by approximately 128.30 Ha or 10.6% of the surveyed area. This grade of land is occupied by all five main soil types and across all areas of the site in isolated patches within wider tracts of ALC subgrade 3b, but is found primarily in the central areas. It is mapped in dark green in Appendix 3.

4.80 Within soil type 1 or 3 (Rivington 1 association or Aberford association) this grade is limited by soil droughtiness, as a result of light textured subsoils with moderate water holding capacity and moderate stone content reducing the overall holding capacity of the profiles.

4.81 Land of this grade, occupied by soil type 2, 4 or 5 (transitionary soil types and that of the Bardsey/Dale association) are limited by soil wetness. Subsoils are commonly mottling and gleying, however absent of slowly permeable subsoils in the upper subsoil, resulting in imperfect to impeded, Wetness Class II or III. Which in combination with moderate climate and medium textured topsoil results in an ALC subgrade 3a.

4.82 This land is good quality and BMV. It is capable of producing consistently high yields of a wide range of agricultural crops including cereals, oilseed rape, root crops and/or grass and will be suited to spring cropping. In drier years the land may pose very high drought risk to grass and moderate drought risk to arable cropping. In wetter years the land may exhibit difficulty in workability and require appropriate timeliness of cultivation.

Subgrade 3b: Moderate Quality Agricultural Land (945.4 Ha or 78.3% of Surveyed Area)

4.83 This grade of land is the dominant grade found across the site, occupying over 75% of the soils the surveyed area, and over 60% of the total site application area. It is mapped in light green in Appendix 3.

4.84 This grade of land is occupied predominantly heavy textured fine loamy and clayey soils, Soil Type 4. This grade land is limited primarily by soil wetness. It is occupied by Bardsey Soil Association with minor areas of the Dale Soil Association.

4.85 A small number of borings, occupied by Soil Type 1-2 are limited by either slope >7 e degrees and/or stone content in the topsoil as exceed 35% stone content, of which 20% exceed 6cm in size.

4.86 Land within subgrade 3b is of moderate quality and suited to a relatively narrow range if mainly winter sown combinable crops and grassland. In wet years, this land will be less flexible than subgrade 3a and crops are likely to suffer damage from surface waterlogging and require careful timing of cultivations. The yield and quality of combinable crops are likely to be good in most years.

Grade 4: Poor Quality Agricultural Land (3.7 Ha or 0.3% of Surveyed Area)

4.87 This grade of land occupies a small area of the surveyed area found across the site and is limited solely on gradient. It is mapped in yellow in Appendix 3 and found on land sloping towards watercourses of Hooton Beck and Ulley Brook, around the edges of the red line boundary. This has slopes of between 11 and 18 degrees, as mapped using LIDAR, and resulting in severe restrictions to accessing the areas safely with machinery, as a result are limited to ALC grade 4.

4.88 Only small areas of these fields were limited by gradient. Improvements in farming technology, beyond the scope of the 1988 ALC revised guidelines along with cross slope cultivations has meant these areas were currently being farmed within the remainder of the field absent of slope limitations. It is likely that these areas, in practice, are capable or better grading, however in the absent of modern technology and in accordance with the current ALC guidelines have been allocated as ALC grade 4.

4.89 By definition, this land is of poor quality with severe limitations, primarily suited to grass of which yields may be moderate to high, however are difficult to utilise.

Urban: No Soil Resource (13.45 Ha or 1.1 % of Surveyed Area)

4.93 This category of land occupies areas of the route that crosses roads, railways, and tracks along the route. It occupies 1.8 ha of land in total and is coloured in red in Appendix 2.

Non-Agricultural (1.50 Ha or 0.1% of Surveyed Area)

4.94 This category of land occupies areas of the route that are not used for agricultural practices and occupied by woodland.

4.95 The distribution of ALC grades on the proposed Whitestone Solar Farm is shown in Table 3.

Table 3: Whitestone Solar Farm: Summary of ALC grades

ALC Grades	Total Area (ha)	% Surveyed
Grade 1	12.9	1.1
Grade 2	101.6	8.4
Subgrade 3a	128.3	10.6
Subgrade 3b	945.4	78.3
Grade 4	3.7	0.3
Urban	13.45	1.1
Non Agricultural	1.5	0.1
Total	**1206.85**	**100**

5.0 CONCLUSIONS

Soils

5.1 The proposal site has the potential to impact 1489 Ha of land of which 1191 Ha have been surveyed to date.

5.2 The site is occupied by four different soil associations: Rivington 1, Aberford, Bardsey and Dale, however for the purpose of this assessment five soil types have been identified; reflective of their behavior in response to soil handling and development. Soil types identified include light sandstone derived soils of the Rivington 1 soil association, calcareous medium textured soils of the Aberford soils association, heavy textured surface water gley soils of the Dale/Bardsey soil association and an additional two soil types; as representative of transitionary areas between heavier textured soils and those of the medium and lighter soil associations.

5.3 Topsoil analysis indicates that the soils are fairly typical of agricultural land with a near neutral to slightly alkaline pH and low to satisfactory concentrations of available plant nutrients. Available magnesium, however, was found to be above satisfactory in the majority of the fields, which could speak to the underlying geology of the site. Soil analysis results remain acceptable for grassland and arable use within the scope of the proposed development.

5.4 Soils will be retained in situ for the 35-year throughout the duration of the development , after which solar panels are to be decommissioned and returned to productive agricultural use.

5.5 Positive benefits are likely to accrue in terms of soil structure, organic matter, soil biodiversity and carbon sequestration due to longer term grassland establishment and in the absence of cultivations.

5.6 The development will not lead to the permanent loss of soil resources but has the potential to create short term impacts during construction, operation, decommissioning and aftercare.

5.7 A move towards less intensive grassland use can provide significant offsets in terms of carbon footprint with reduced emissions, lower agricultural inputs/outputs and resultant resource efficiencies.

5.8 Due to the majority of the site being occupied by poorly drained, heavy textured soils, it will be extremely important to ensure that any soil handling is undertaken during drier periods of the year, usually between April and October and to an agreed plan. Compliance with legislation, guidance and the adoption of good practice guidance and techniques during construction, operation and decommissioning will help mitigate many of the issues associated with soils handling.

5.9 It remains important that mitigation is appropriately secured, implemented and monitored. In this instance, this can be achieved through a combination of legislative compliance supported by planning conditions, site working practices and oversight by trained personnel employed by the applicant.

Agricultural Land Classification

5.10 Of the area surveyed, 20.1% (242.8 ha) is comprised of best and most versatile (BMV) land.

5.11 Of which 12.90 ha is of excellent quality ALC Grade 1, 101.6 ha of very good quality ALC Grade 2 and 128.3 ha of good quality ALC subgrade 3a. in the majority of instances better quality grades show high spatial variability within larger areas of ALC subgrade 3b. With the exception of the following fields that were entirely occupied by “Best and most versatile” land 2.01-2.02 , 7.05, 9.07 and were majority occupied by better quality land in fields 5.24-5.25, 5.32-5.33, 5.35.

5.12 The remainder of the site that has been surveyed has been graded as ALC subgrade 3b (945.4 ha) or grade 4 (3.7 ha).

5.13 The primary limitations to ALC grading on this site are imposed by soil wetness and workability caused by medium and heavy textured slowly permeable soils. Stone content and lighter textured subsoils exerted slight to moderate drought limitation to coarse textured soil types.

5.14 Small areas with limited to ALC grade 4 as a result of steep slopes around the periphery of the site.

5.15 With appropriate soil handling the proposal considered, by the author, as a reversible development that will allow the current ALC grading to be carried through to decommissioning and thereafter.

5.16 The site is occupied by land fairly typical of the geographical area. The proportion of BMV is roughly 21% of the land that has been surveyed on the site and is less than would be reasonably expected for a site of this size and in this location and at similar proportions to local, region and National statistics.

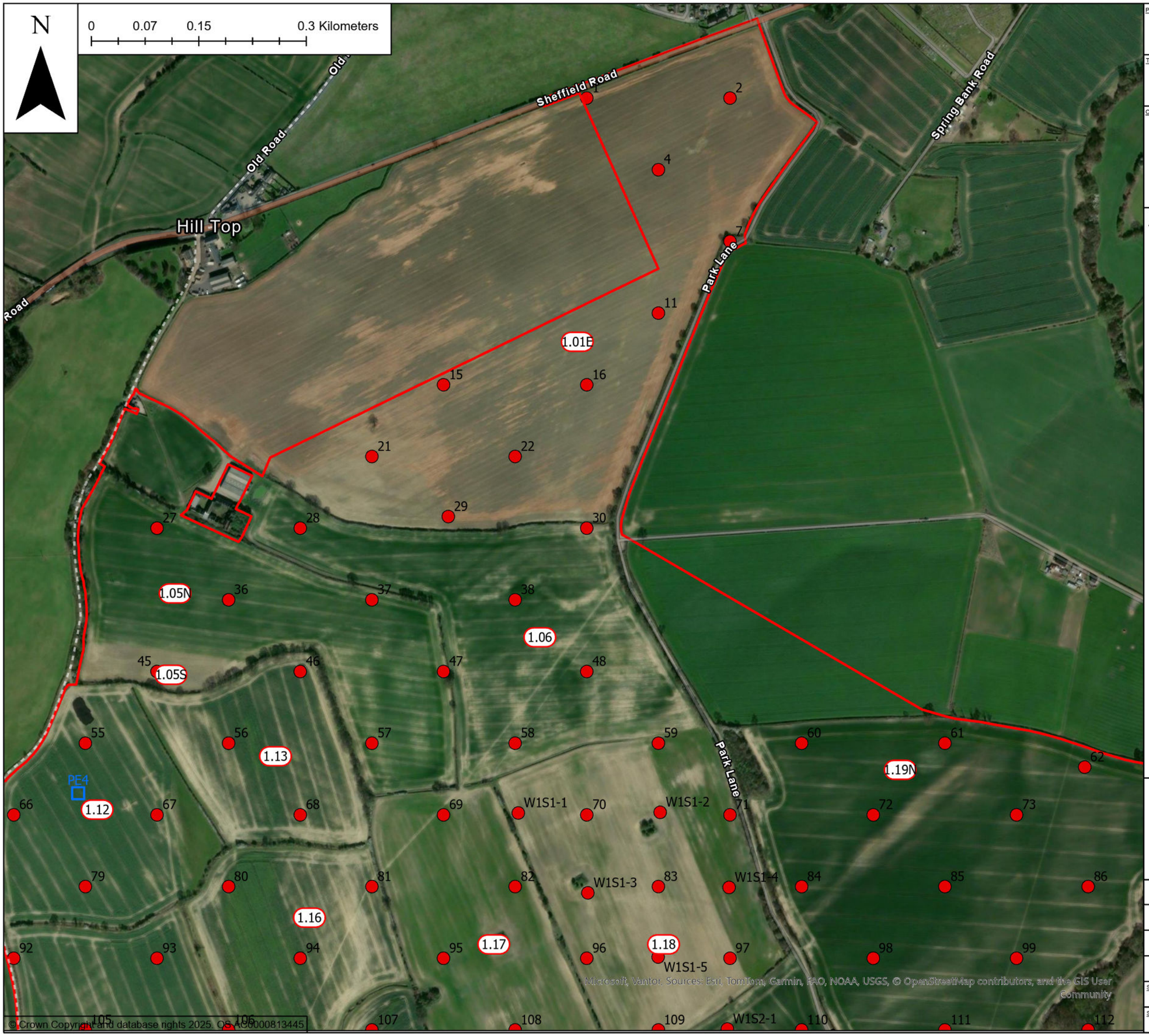
5.17 National and local policy affords the 242.8 Ha of BMV land a degree of protection from development, to promote local food production and necessitating a high standard of soil management and re-instatement to its previous state. This will protect and conserve the soil resource BMV status of this land.

5.18 The policy objective of avoiding BMV land has not achieved across the current boundary but the development is considered to be temporary and reversible.

Soil and Vegetation Management

5.19 The development will require agricultural land to be removed from arable production but will not preclude use of the land for grazing smaller animals, grass cutting for conservation nor establishment of a biodiversity or pollination area for the duration of the scheme. Impacted land will remain capable of maintaining a basic agricultural function that can be sympathetically managed for the lifetime of development.

5.20 It is recommended that a land and soil management plan be formulated and implemented for the duration of the scheme and for a minimum of five years after decommissioning. This will ensure that the land/vegetation is managed in a sympathetic manner leading to suitable soil profiles and healthy plant growth in the longer term.



Project:

WHITESTONE

Title:

APPENDIX 1:
SURVEY INFORMATION

Client:

ERM

Key:

- Order Limits
- Trial Pit
- Auger Boring Location
- Sample/Field Number

LDC
Land & Drainage Consultancy

Revision	Amendments	Date
1	First Issue	13/06/2025
2	Second Issue	11/07/2025
3	Third Issue	10/03/2026

Size:	Drawn:	Checked:	Approved:
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0 0.07 0.15 0.3 Kilometers

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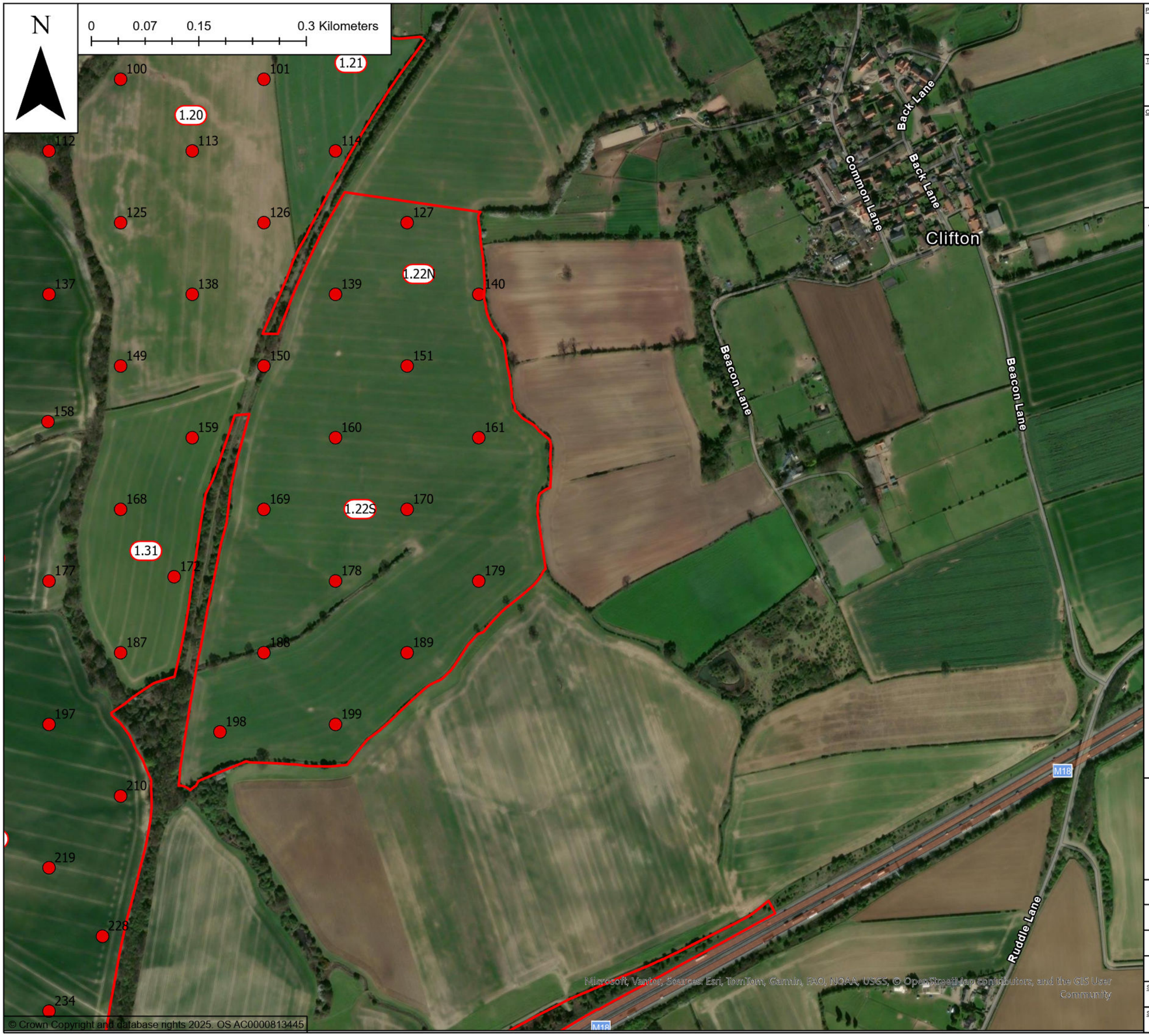
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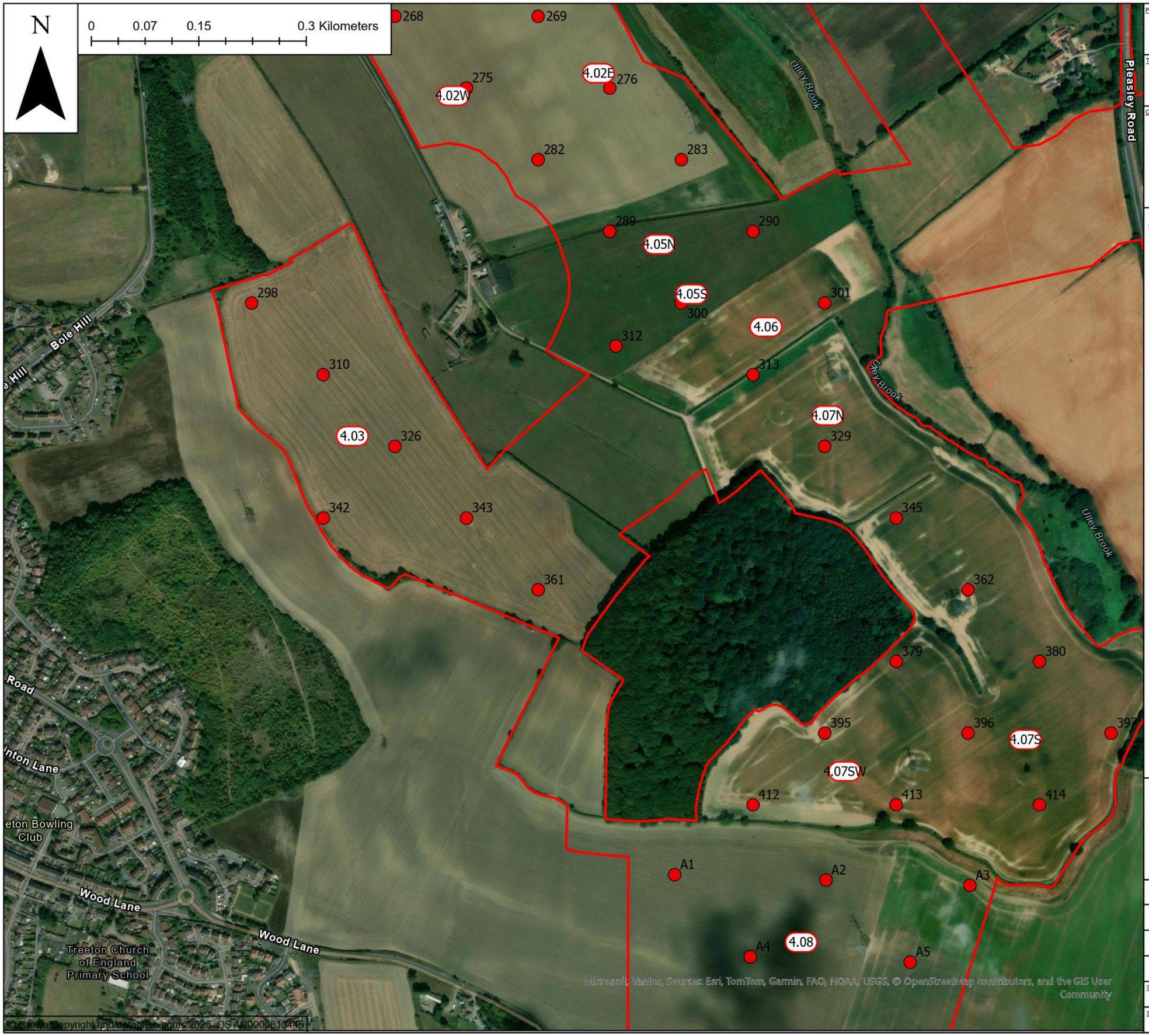
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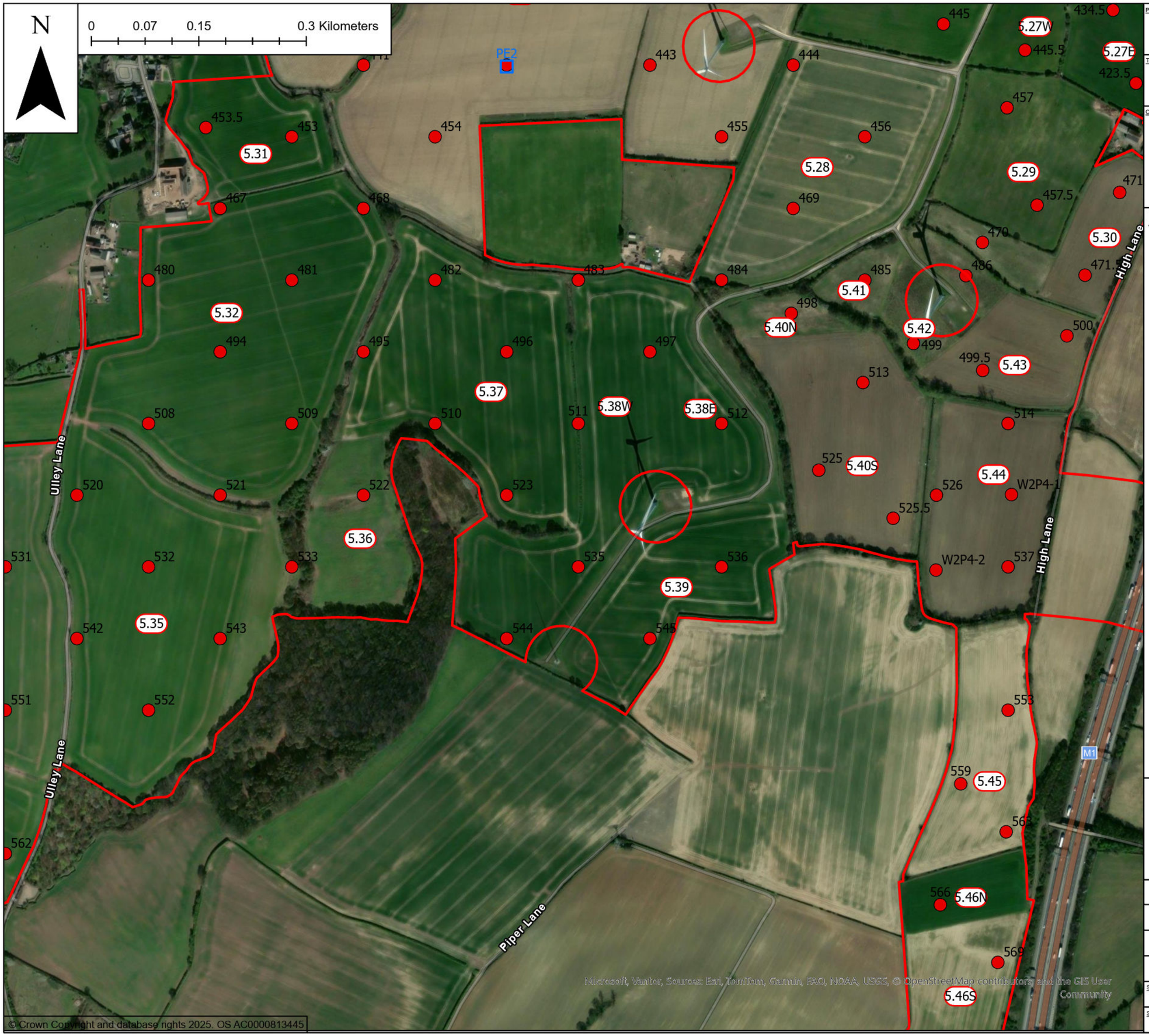
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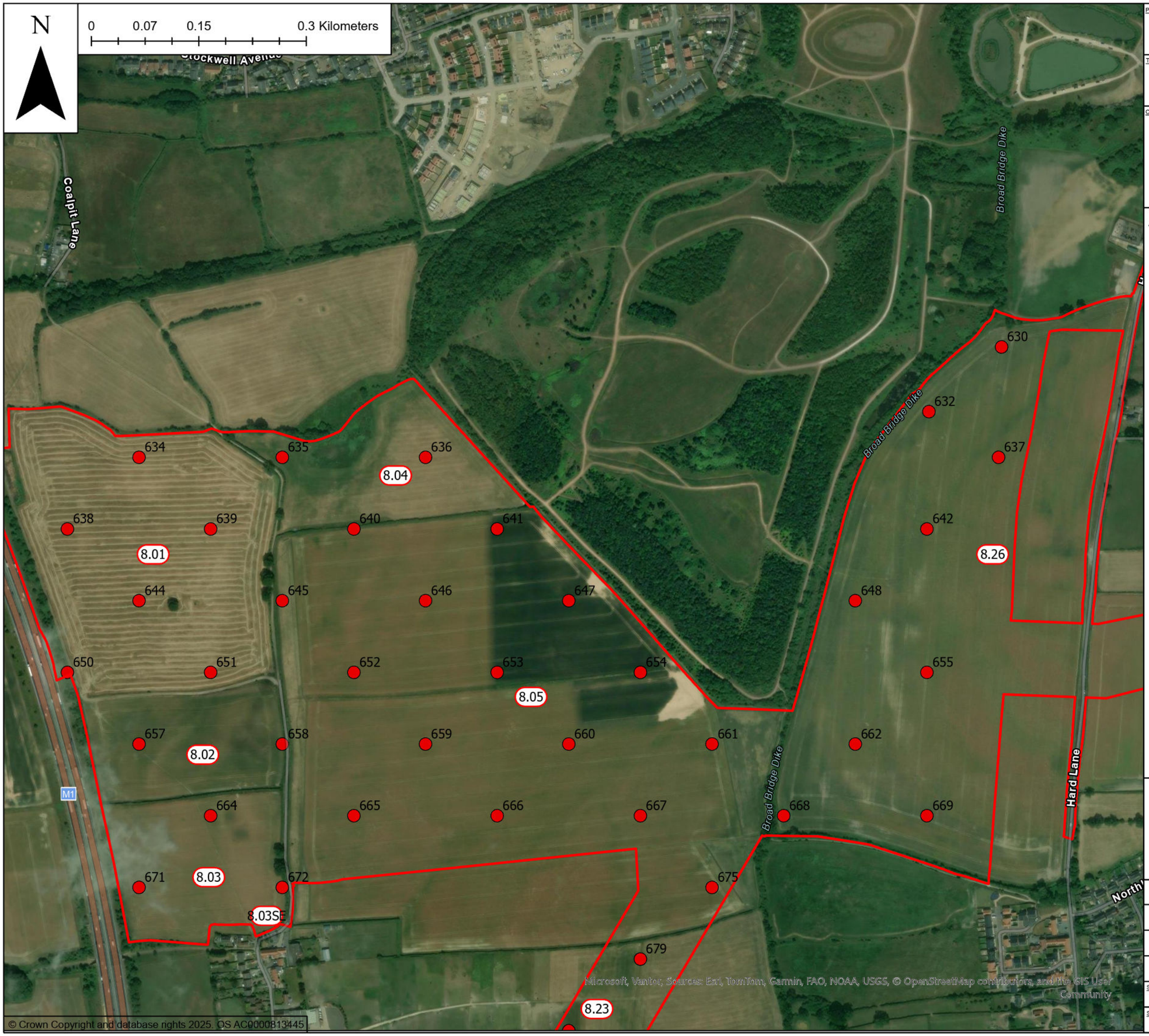
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Project:

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Title:

APPENDIX 2.1: SOIL TYPE DISTRIBUTION ACROSS PROPOSED SOLAR FARM & AGI AREAS

Client:

ERM

Key:

- Order Limits
- Sample/Field Number
- Auger Boring Locations

Soil Type Distribution:

Soil Type Distribution

- Soil Type 1: Rivington 1 Soil Association
- Soil Type 2: Rivington1 transitioning to Bardsey/Dale Soil Association
- Soil Type 3: Aberford Soil Association
- Soil Type 4: Aberford transitioning to Dale Soil Association
- Soil Type 5: Bardsey/Dale Soil Association
- No Soil Resource
- Unsurveyed
- Auger Boring Locations

Soil Profile Information:

AB Number
TS Depth & Texture
SS1 Depth & Texture
SS2 Depth & Texture
Wetness Class
Soil Erosion Risk

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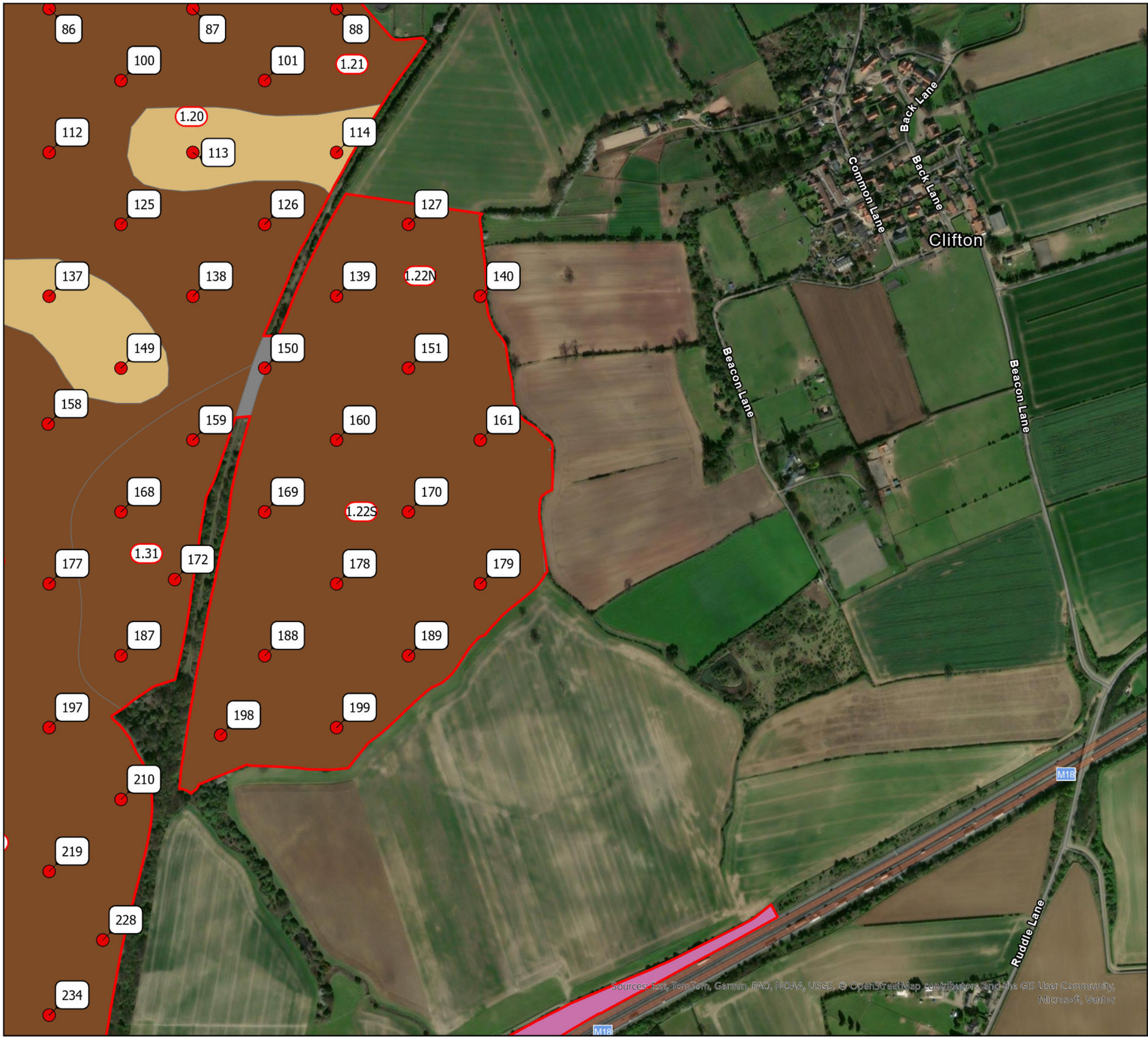
AB Number
TS Depth & Texture
SS1 Depth & Texture
SS2 Depth & Texture
Wetness Class
Soil Erosion Risk

LDC Land & Drainage Consultancy

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2	Second Issue	11/07/2025
3	Third Issue	10/03/2026

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Client:

ERM

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- Order Limits
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- Soil Type 4: Aberford transitioning to Dale Soil Association
- Soil Type 5: Bardsey/Dale Soil Association
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- Unsurveyed
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Soil Profile Information:

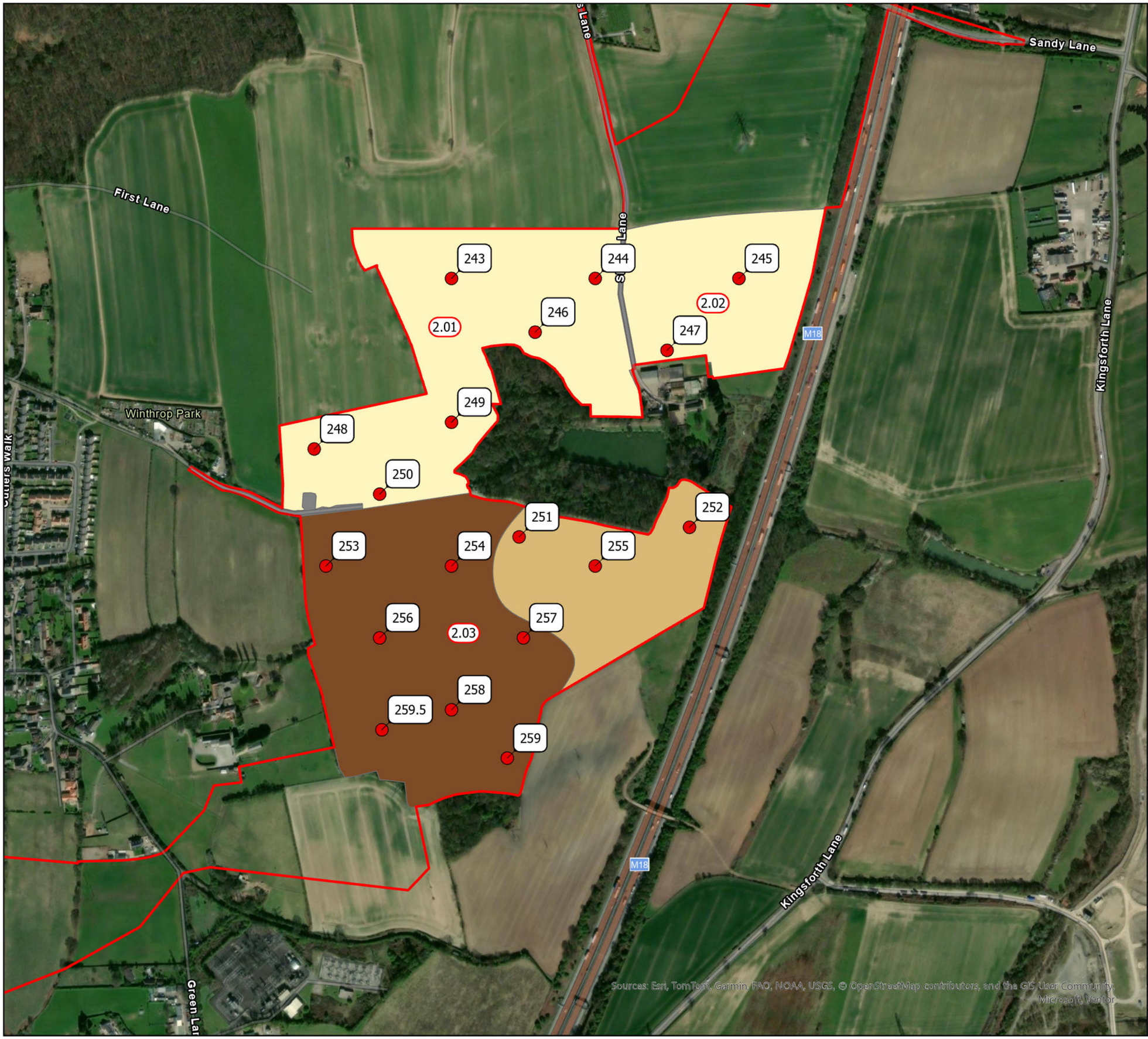
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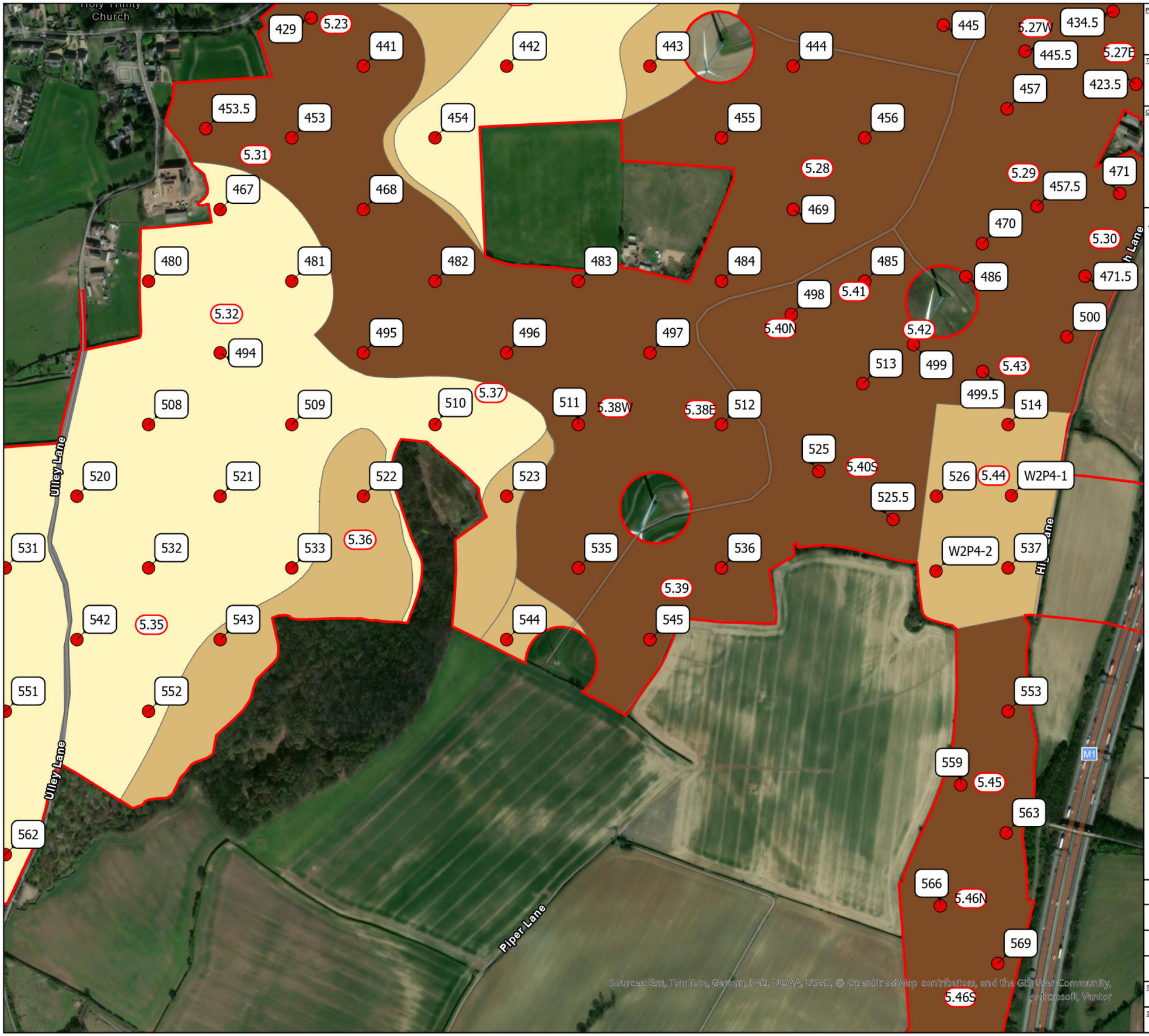
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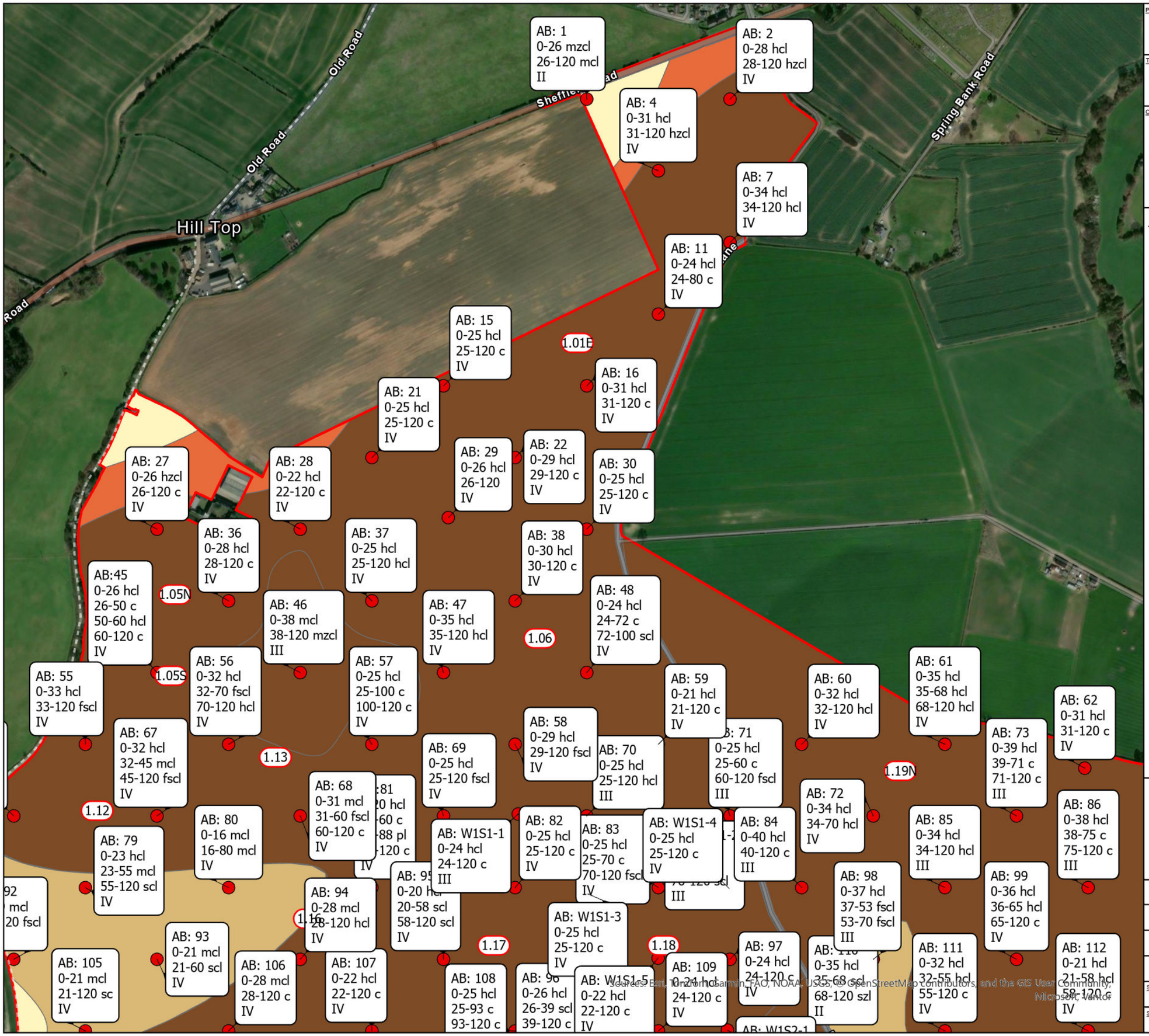
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Hooton Brook
Arbour Lane
Arbour Lane

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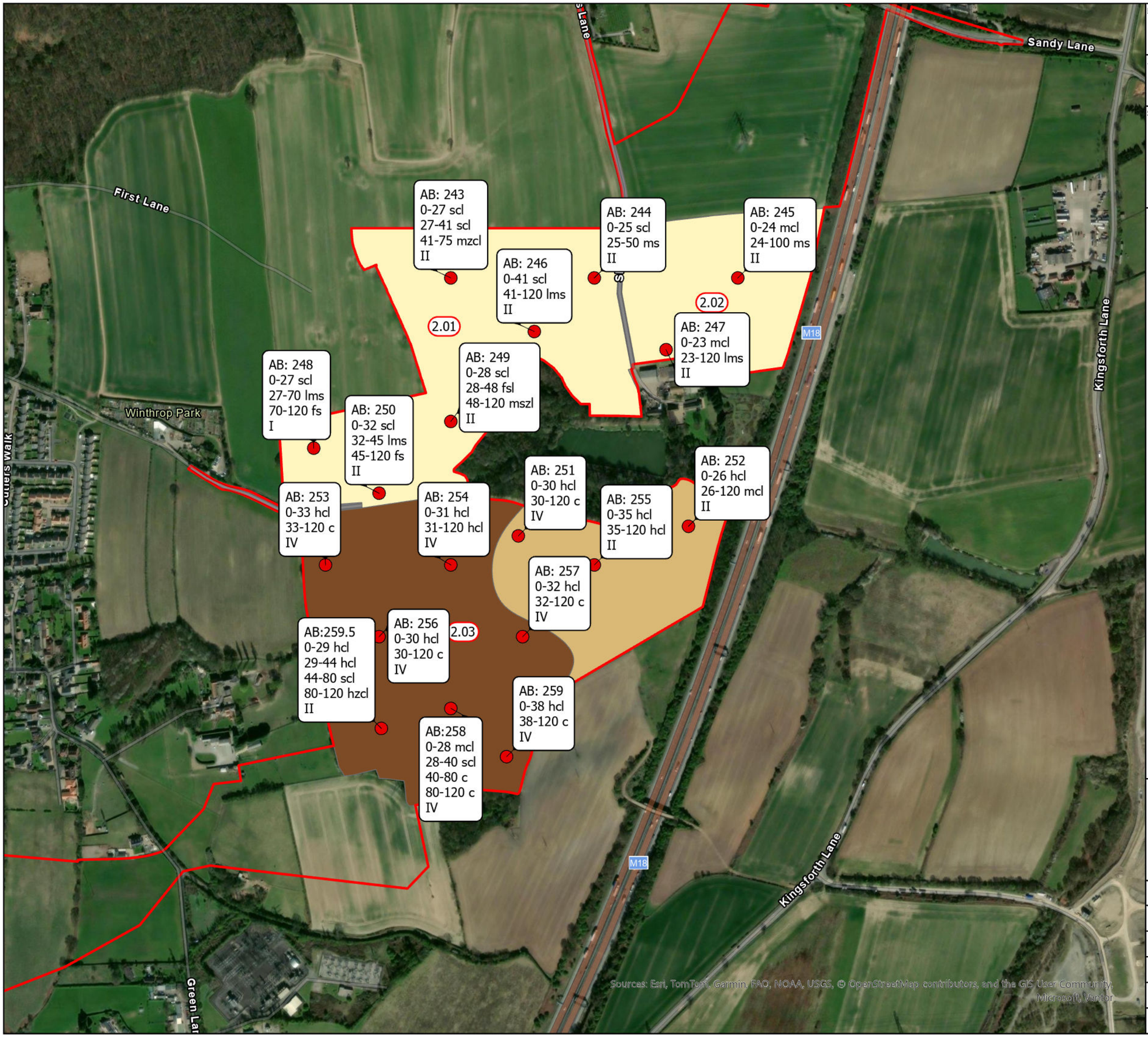
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AB: 268
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30-60 mcl
60-120 scl
I

AB: 275
0-34 mcl
34-60 hcl
60-90 hcl
III

4.02W

AB: 269
0-34 hzcl
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III

4.02E

AB: 276
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29-48 hcl
48-60 c
IV

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AB: 282
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II

AB: 289
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4.05N

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IV

4.05S

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56-70 c
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104-120 c
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46-79 c
79-120 c
IV

AB: A4
0-33 hcl
33-52 hcl
52-120 c
IV

4.08

Long
Bole Hill
Ulley Brook
Pleasley Road
Grey Brook
Road
Wood Lane
Treeton Bowling Club
Treeton Church of England Primary School

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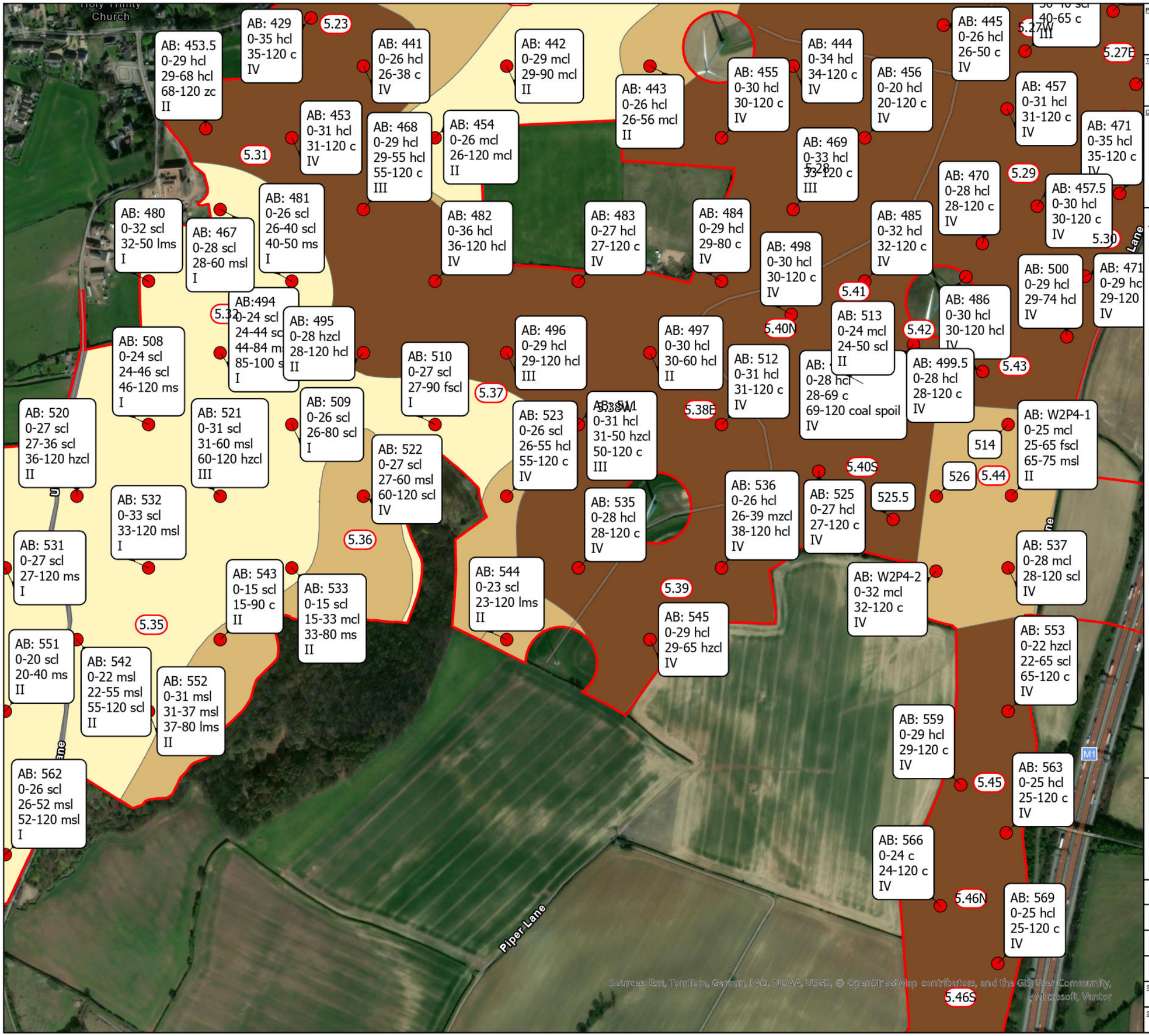
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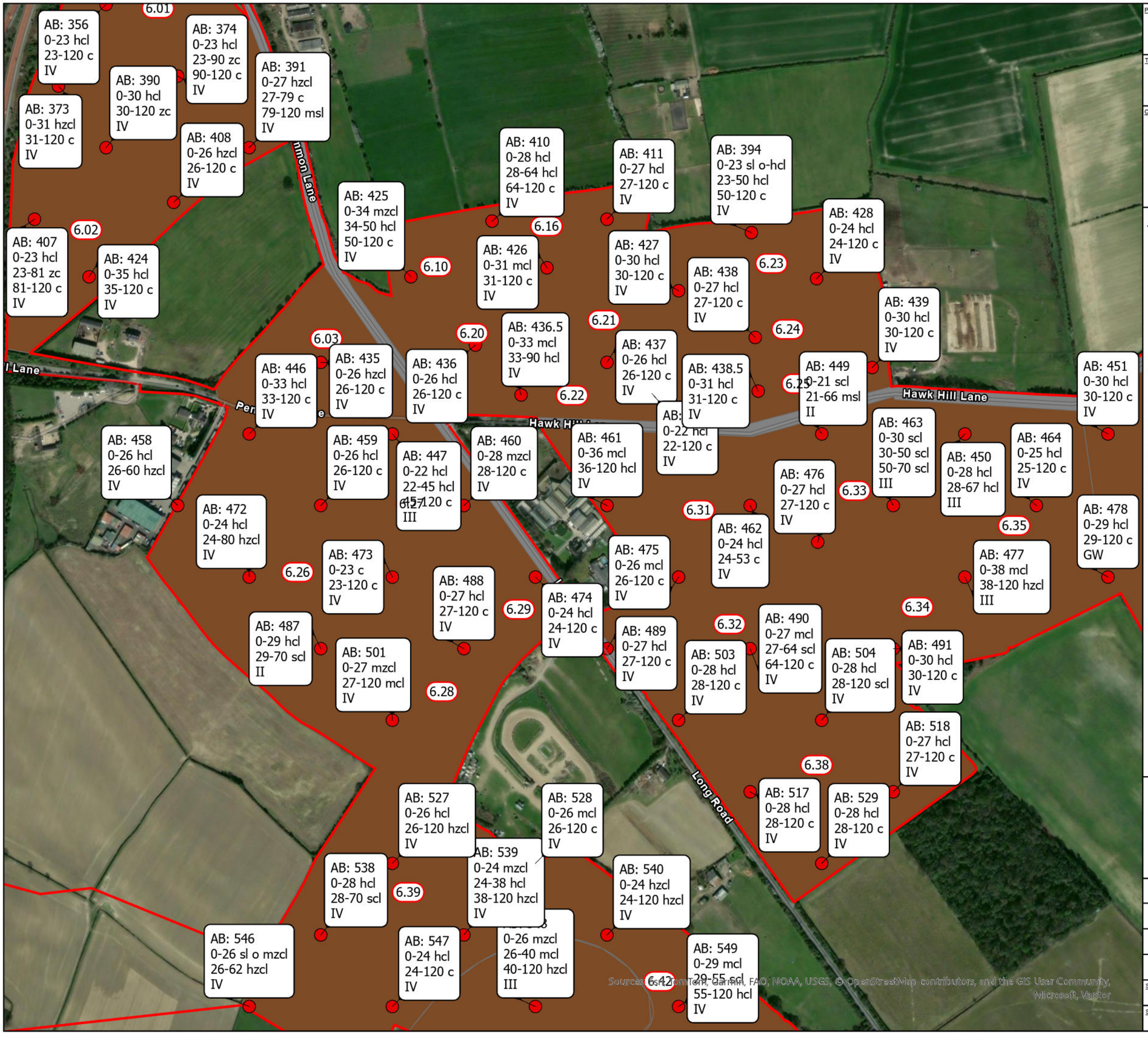
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SS1 Depth & Texture
SS2 Depth & Texture
Wetness Class
Soil Erosion Risk

LDC Land & Drainage Consultancy

Revision	Amendments	Date
1	First Issue	13/06/2025
2	Second Issue	11/07/2025
3	Third Issue	10/03/2026

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A3	NS	AS	AS
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Project:

WHITESTONE

Title:

APPENDIX 2.1: SOIL TYPE DISTRIBUTION ACROSS PROPOSED SOLAR FARM & AGI AREAS

Client:

ERM

Key:

- Auger Boring Locations
- Order Limits
- Sample/Field Number

Soil Type Distribution:

Soil Type Distribution

- Soil Type 1: Rivington 1 Soil Association
- Soil Type 2: Rivington1 transitioning to Bardsey/Dale Soil Association
- Soil Type 3: Aberford Soil Association
- Soil Type 4: Aberford transitioning to Dale Soil Association
- Soil Type 5: Bardsey/Dale Soil Association
- No Soil Resource
- Unsurveyed

Soil Profile Information:

AB Number
TS Depth & Texture
SS1 Depth & Texture
SS2 Depth & Texture
Wetness Class
Soil Erosion Risk

LDC Land & Drainage Consultancy

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Soil Profile Information:

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AB: 596
0-22 hcl
22-52 hcl
52-120 hcl
III

AB: 599
0-28 scl
28-58 scl
58-120 hcl
IV

AB: 597
0-24 scl
24-50 scl
50-120 hcl
IV

7.02

AB: 600
0-26 hzcl
26-42 scl
I

AB: 598
0-26 scl
26-60 sc
60-80 ms
II

AB: 601
0-26 hcl
26-38 hcl
38-120 hcl
III

AB: 602
0-25 mcl
25-48 hcl
48-120 zc
IV

AB: 603
0-30 hcl
30-120 hcl
III

AB: 605
0-23 hcl
23-55 hcl
55-120 scl
IV

AB: 606
0-29 scl
29-90 msl
II

AB: 608
0-23 hcl
23-79 hcl
79-120 fscl
IV

AB: 604
0-23 mzcl
23-60 hcl
IV

AB: 610
0-20 sl o hcl
20-120 hcl
III

AB: A12
0-32 hcl
32-120 c
IV

7.03

AB: A14
0-28 hcl
28-120 c
IV

AB: 611
0-27 scl
27-120 scl
II

AB: 612
0-23 scl
23-50 msl
I

AB: A13
0-34 hcl
34-120 c
IV

AB: 609
0-28 mzcl
28-65 hcl
65-120 c
IV

AB: 613
0-33 mcl
33-120 hcl
IV

7.04

AB: 615
0-23 msl
23-70 msl
I

7.06

AB: A15
0-29 hcl
29-66 hcl
66-120 c
III

AB: 614
0-30 scl
30-69 scl
69-120 ms
II

AB: 616
0-20 scl
20-120 ms
II

AB: 617
0-33 msl
33-80 msl
II

AB: 619
0-39 scl
39-55 scl
55-120 msl
I

AB: 618
0-25 scl
25-72 scl
72-120 ms
III

7.05

AB: 621
0-25 scl
25-62 msl
62-120 msl
II

AB: 620
0-26 mcl
26-120 scl
III

AB: 623
0-33 scl
33-70 scl
70-120 ms
II

AB: 624
0-22 scl
22-29 mcl
29-50 msl
II

AB: 625
0-28 scl
28-45 scl
45-120 csl
II

AB: 622
0-30 mcl
30-65 mcl
65-120 hcl
III

AB: 626
0-29 mcl
29-42 mcl
42-120 hcl
III

Cramfit Road
Penny Piece Lane
Quarry Lane
New Road
New Road
Penny Piece Lane
Sheffield Road
Sheffield Road
Sheffield Road
Brook
Wilberfo

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Microsoft, Vantor

Project:

WHITESTONE

Title:
APPENDIX 2.1: SOIL TYPE DISTRIBUTION ACROSS PROPOSED SOLAR FARM & AGI AREAS

Client:

ERM

Key:

- Auger Boring Locations
- Order Limits
- Sample/Field Number

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- No Soil Resource
- Unsurveyed

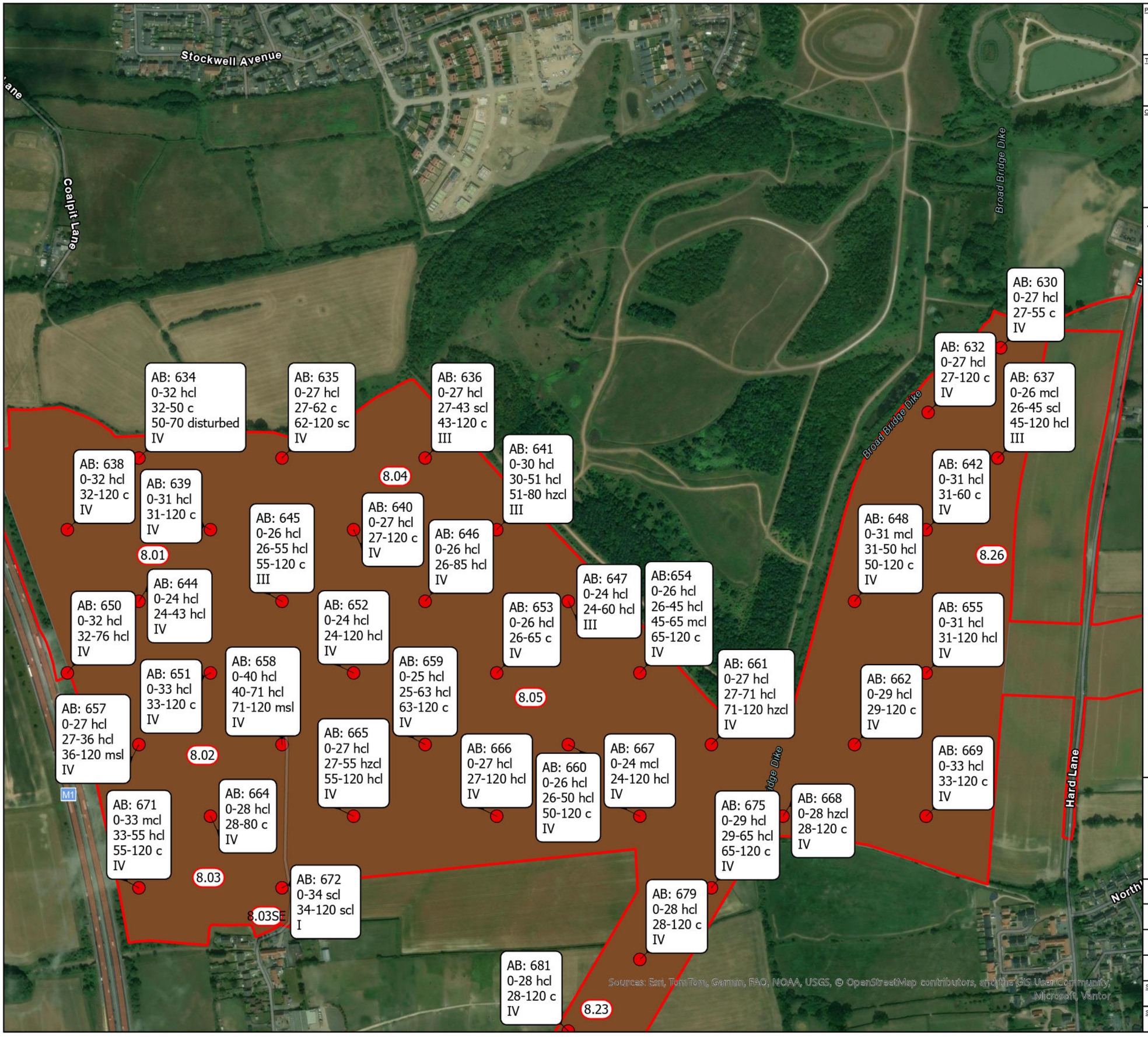
Soil Profile Information:

AB Number
TS Depth & Texture
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SS2 Depth & Texture
Wetness Class
Soil Erosion Risk

LDC
Land & Drainage Consultancy

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Soil Profile Information:

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SS2 Depth & Texture
Wetness Class
Soil Erosion Risk

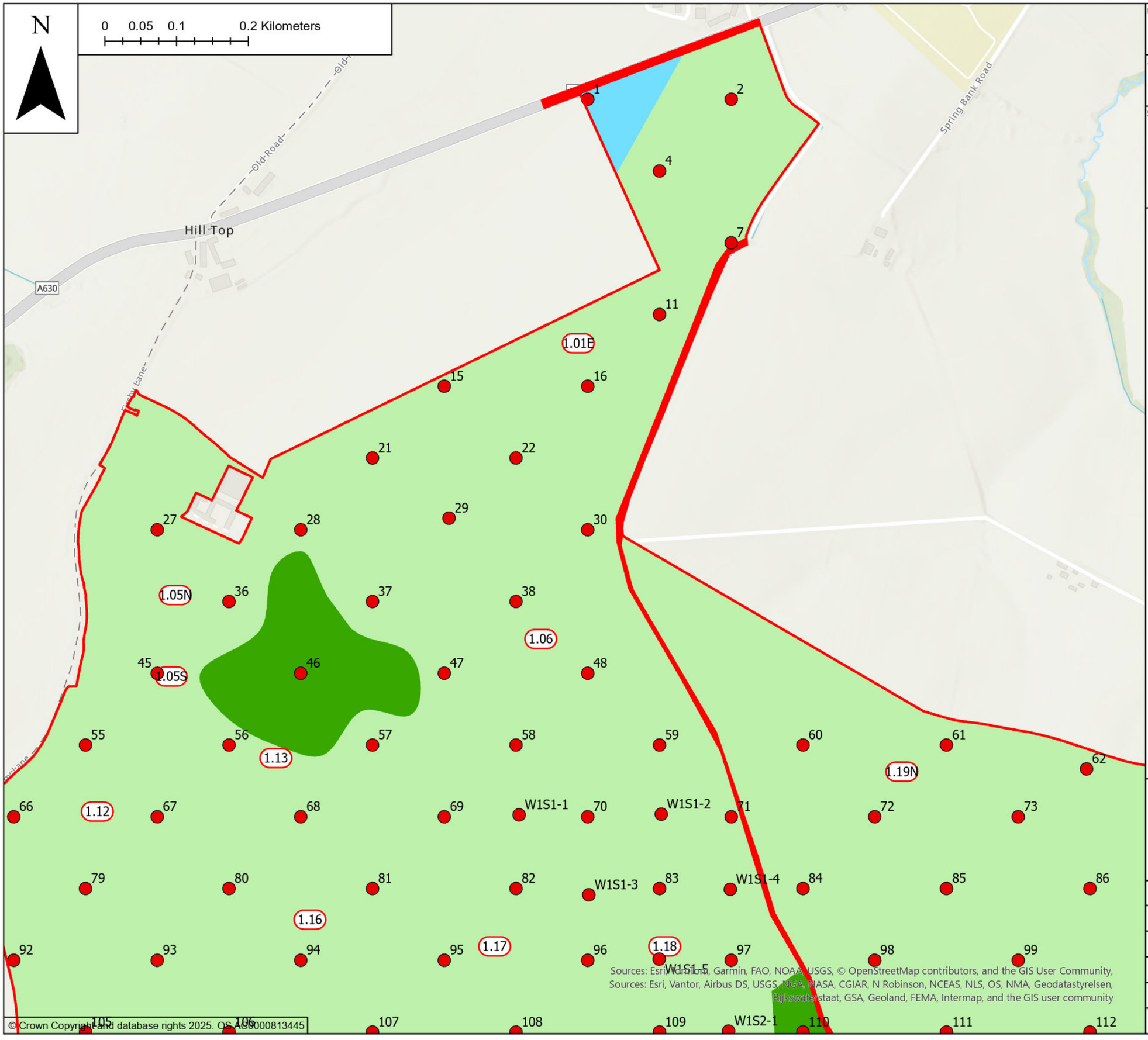
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Project:

WHITESTONE

Title:

APPENDIX 3: AGRICULTURAL LAND CLASSIFICATION DISTRIBTUTION ACROSS PROPOSED SOLAR FARM & AGI AREAS

Client:

ERM

Key:

- Auger Boring Locations
- Order Limits
- Sample/Field Number

ALC Grade:

LDC_ERM_Whitestone_ALC

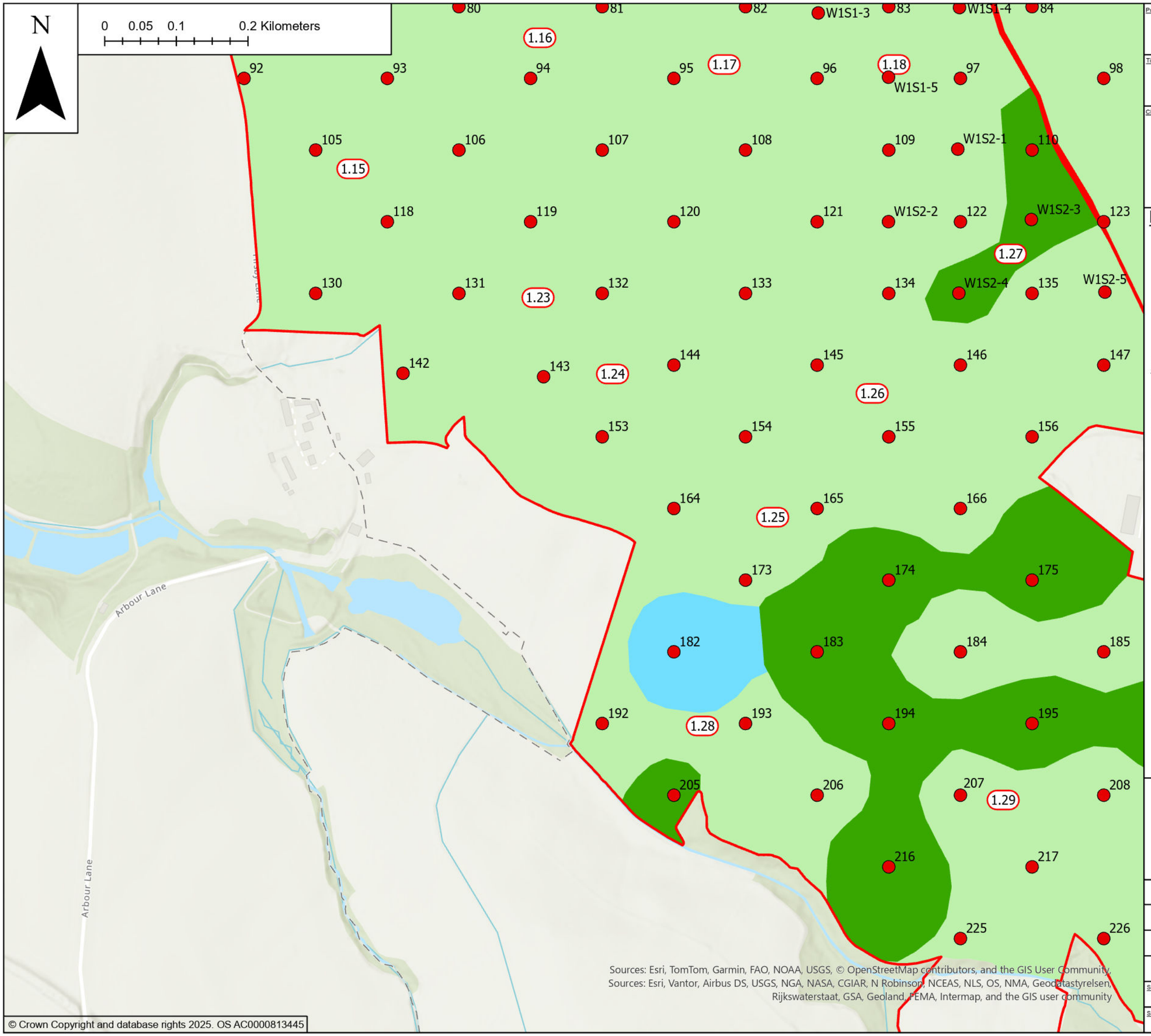
ALC

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- Unsurveyed

LDC Land & Drainage Consultancy

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Project:

WHITESTONE

Title:

APPENDIX 3: AGRICULTURAL LAND CLASSIFICATION DISTRIBTUTION ACROSS PROPOSED SOLAR FARM & AGI AREAS

Client:

ERM

Key:

- Auger Boring Locations
- Order Limits
- Sample/Field Number

ALC Grade:

LDC_ERM_Whitestone_ALC

ALC

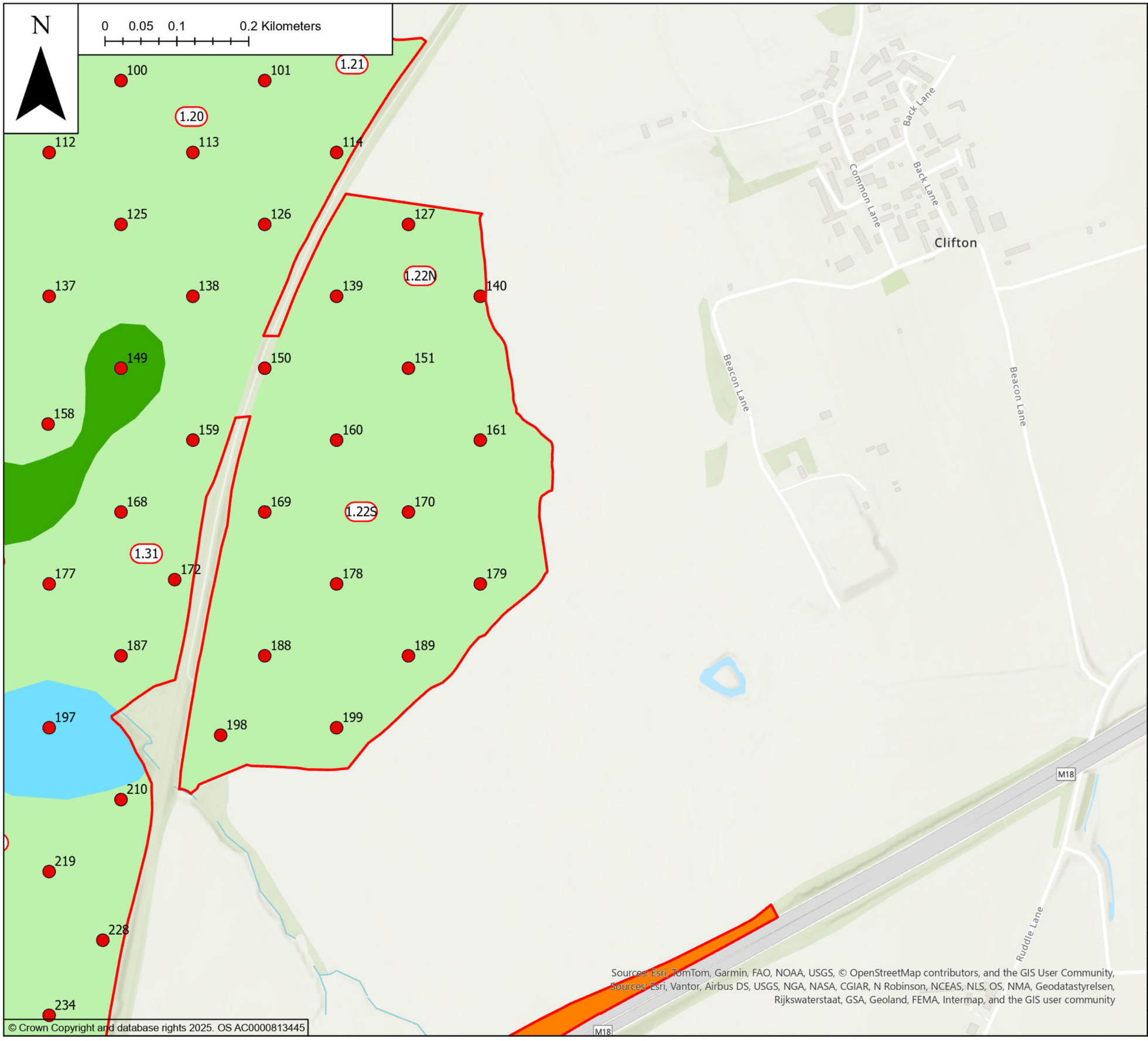
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APPENDIX 3: AGRICULTURAL LAND CLASSIFICATION DISTRIBTUTION ACROSS PROPOSED SOLAR FARM & AGI AREAS

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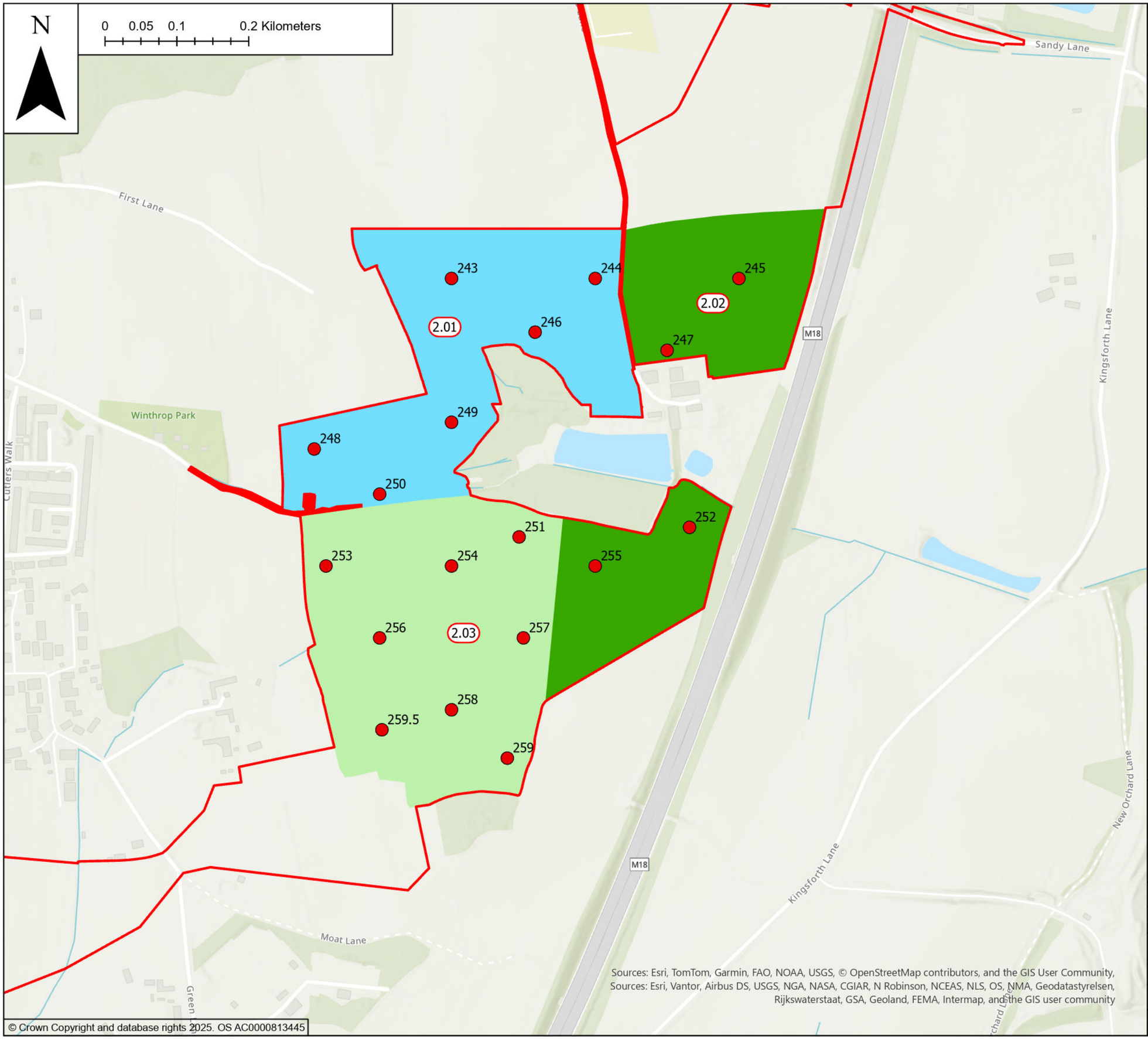
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N

0 0.05 0.1 0.2 Kilometers

Project:

WHITESTONE

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APPENDIX 3: AGRICULTURAL LAND CLASSIFICATION DISTRIBTUTION ACROSS PROPOSED SOLAR FARM & AGI AREAS

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LDC Land & Drainage Consultancy

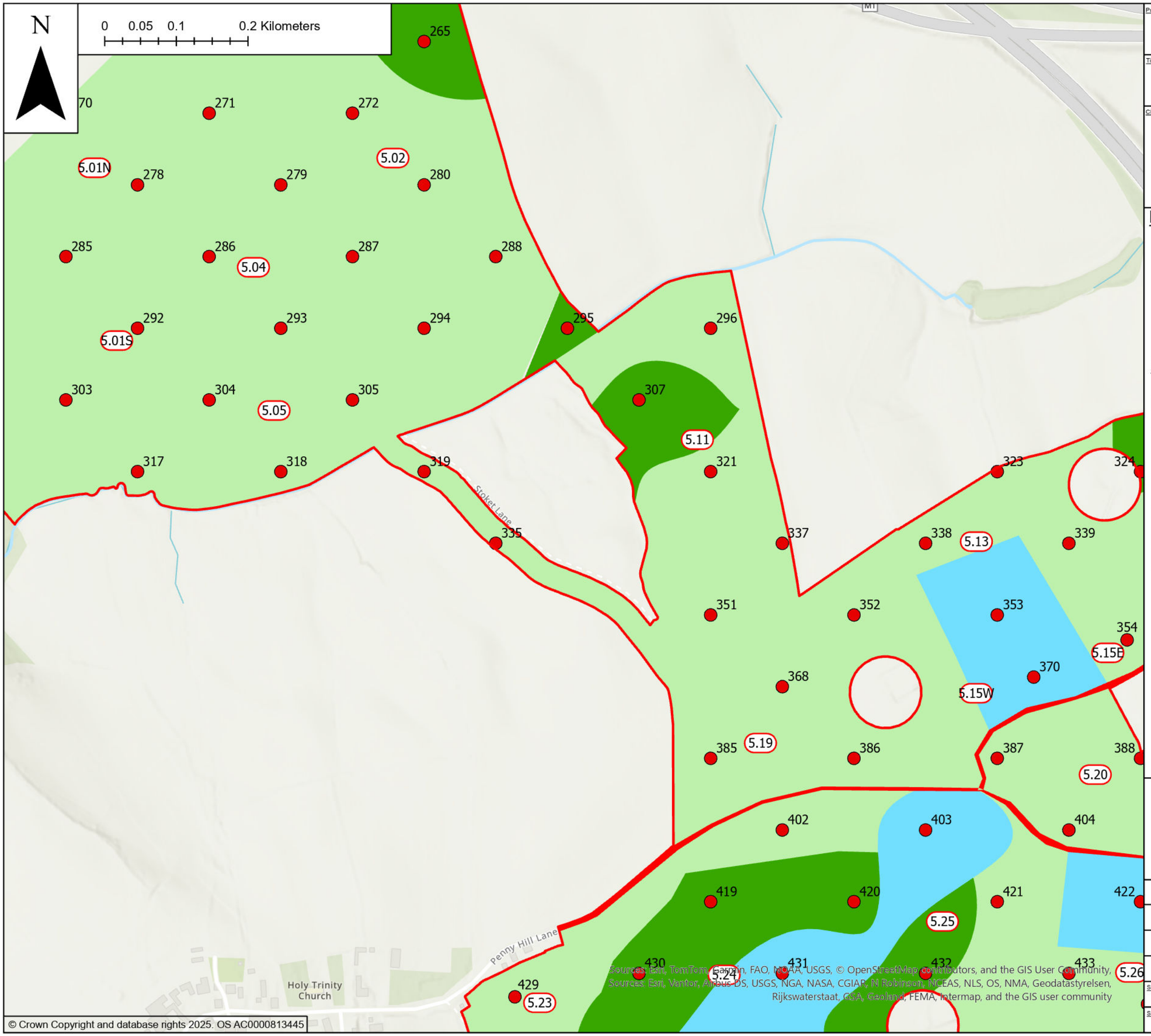
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Project:

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Title:

APPENDIX 3: AGRICULTURAL LAND CLASSIFICATION DISTRIBTUTION ACROSS PROPOSED SOLAR FARM & AGI AREAS

Client:

ERM

Key:

- Auger Boring Locations
- Order Limits
- Sample/Field Number

ALC Grade:

LDC_ERM_Whitestone_ALC

ALC

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LDC Land & Drainage Consultancy

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N

0 0.05 0.1 0.2 Kilometers

Project:

WHITESTONE

Title:

APPENDIX 3: AGRICULTURAL LAND CLASSIFICATION DISTRIBTUTION ACROSS PROPOSED SOLAR FARM & AGI AREAS

Client:

ERM

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ALC Grade:

LDC_ERM_Whitestone_ALC

ALC

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LDC Land & Drainage Consultancy

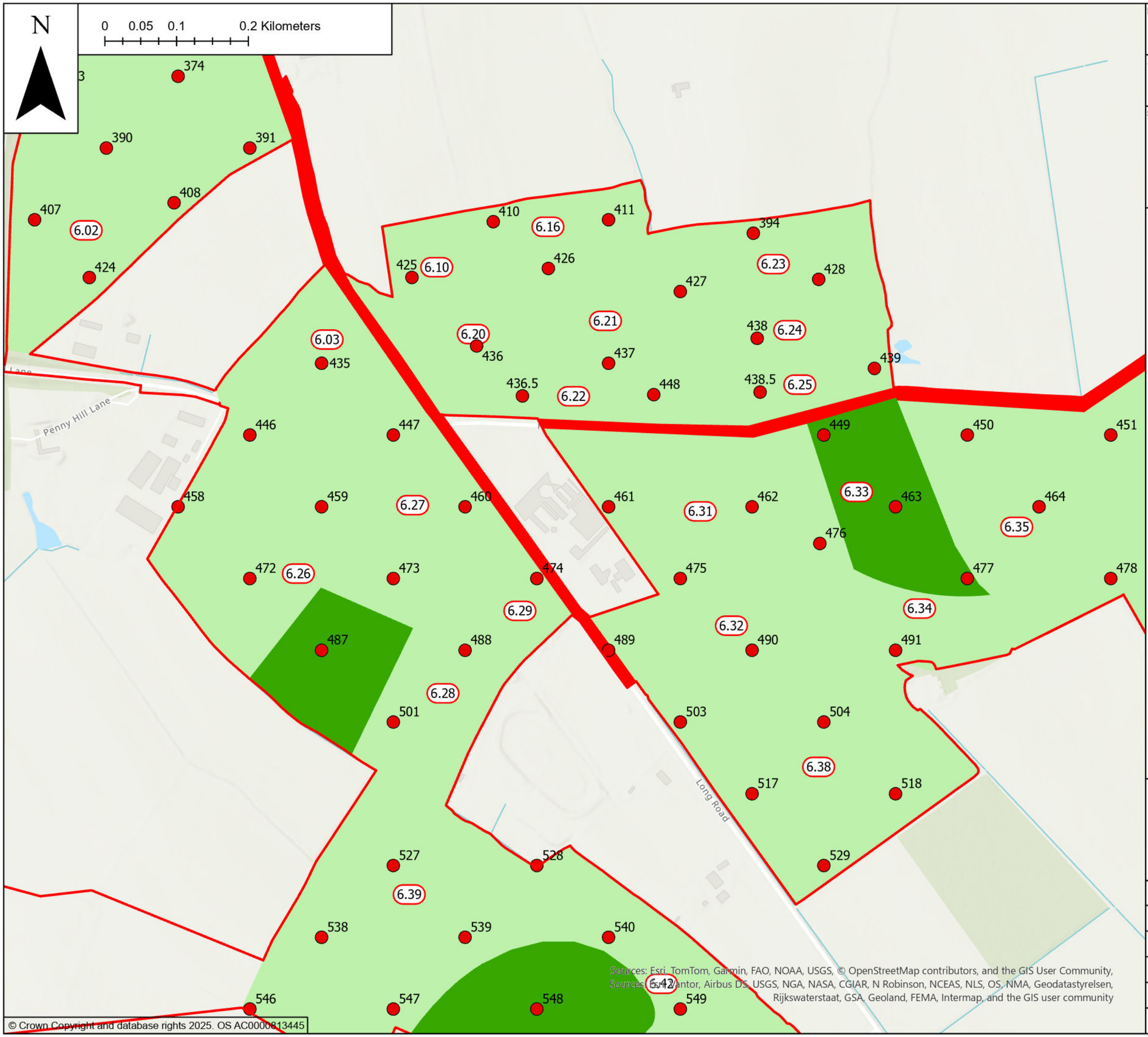
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Project:

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APPENDIX 3: AGRICULTURAL LAND CLASSIFICATION DISTRIBTUTION ACROSS PROPOSED SOLAR FARM & AGI AREAS

Client:

ERM

Key:

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- Order Limits
- Sample/Field Number

ALC Grade:

LDC_ERM_Whitestone_ALC

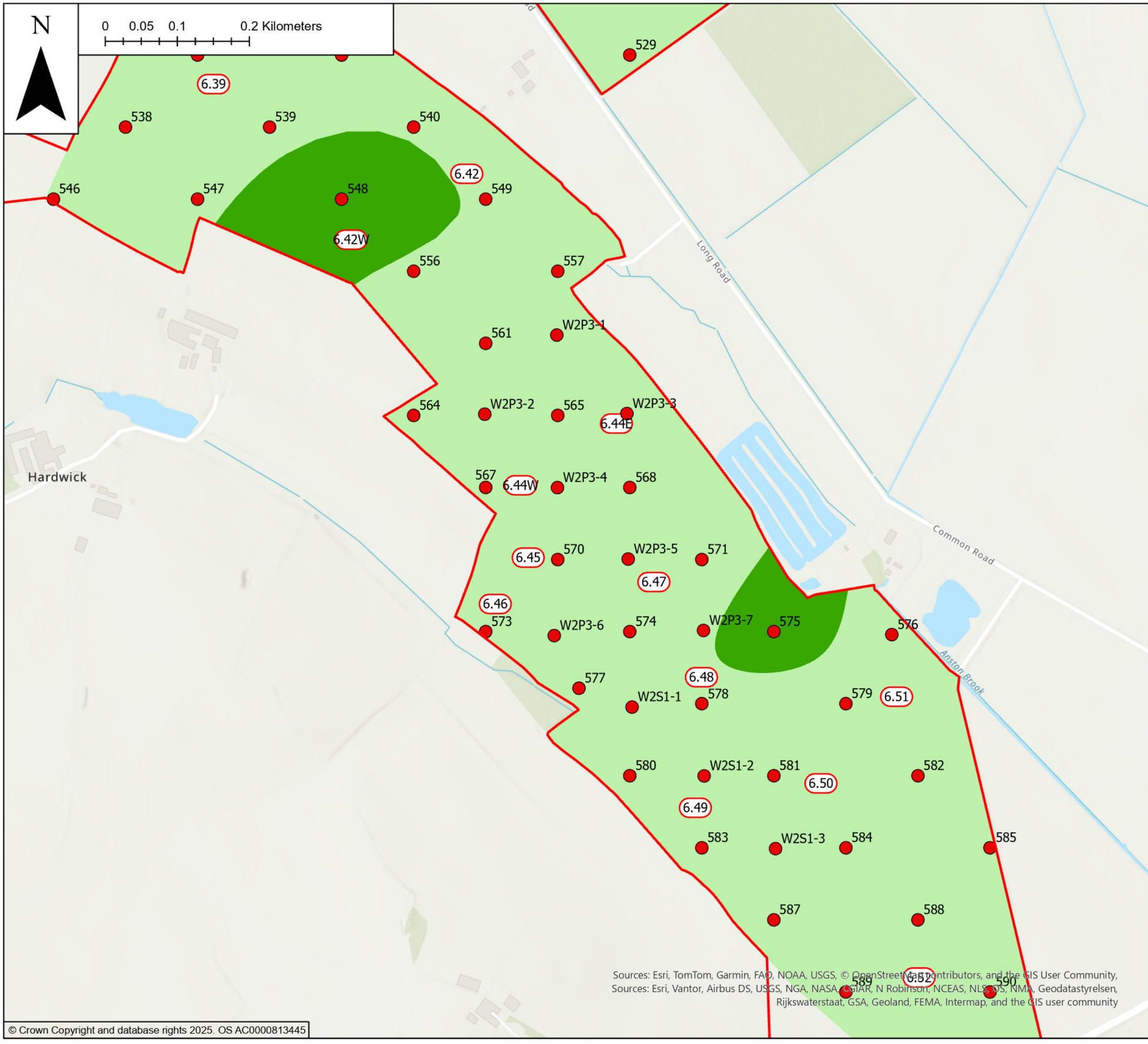
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LDC Land & Drainage Consultancy

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Title: APPENDIX 3: AGRICULTURAL LAND CLASSIFICATION DISTRIBTUTION ACROSS PROPOSED SOLAR FARM & AGI AREAS

Client: ERM

Key:

- Auger Boring Locations
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- Sample/Field Number

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LDC_ERM_Whitestone_ALC

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Scale: 1:5,000	Revision: 3	Date: 10/03/2026	Page 9 of 12

N

0 0.05 0.1 0.2 Kilometers

596 597 598 599 600 601 602 603 604 605 606 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626

7.02 7.03 7.04 7.05 7.06

A12 A13 A14 A15

Cramfit Road New Road Penny Piece Lane Quarry Lane Mill Lane A57

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Project: WHITESTONE

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Key:

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- Sample/Field Number

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LDC_ERM_Whitestone_ALC

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- ALC Grade 2 (101.6 Ha or 8.4% of proposed area)
- ALC Subgrade 3a (128.3 Ha or 10.6% of proposed area)
- ALC Subgrade 3b (945.4 Ha or 78.3% of proposed area)
- ALC Grade 4 (3.7 Ha or 0.3% of proposed area)
- Urban (13.45 Ha or 1.1% of proposed area)
- Non Agricultural (1.5 Ha or 0.1% of proposed area)
- Unsurveyed

LDC Land & Drainage Consultancy

Revision	Amendments	Date
1	First Issue	13/06/2025
2	Second Issue	11/07/2025
3	Third Issue	10/03/2026

Size:	Drawn:	Checked:	Approved:
A3	NS	LW	AS
Scale: 1:5,000	Revision: 3	Date: 10/03/2026	Page 10 of 12

N

0 0.05 0.1 0.2 Kilometers

Stockwell Avenue

Coalpit Lane

M1

Hard Lane

634 635 636 638 639 640 641 642 644 645 646 647 648 650 651 652 653 654 655 657 658 659 660 661 662 664 665 666 667 668 669 671 672 675 679 681

630 632 637

8.01 8.02 8.03 8.03SE 8.04 8.05 8.23 8.26

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community,
Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community

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Project:

WHITESTONE

Title: APPENDIX 3: AGRICULTURAL LAND CLASSIFICATION DISTRIBTUTION ACROSS PROPOSED SOLAR FARM & AGI AREAS

Client: ERM

Key:

- Auger Boring Locations
- Order Limits
- Sample/Field Number

ALC Grade:

LDC_ERM_Whitestone_ALC

ALC

- ALC Grade 1 (12.9 Ha or 1.1% of proposed area)
- ALC Grade 2 (101.6 Ha or 8.4% of proposed area)
- ALC Subgrade 3a (128.3 Ha or 10.6% of proposed area)
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LDC Land & Drainage Consultancy

Revision	Amendments	Date
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A3	NS	LW	AS

Scale:	Revision:	Date:	
1:5,000	3	10/03/2026	Page 11 of 12

N

0 0.05 0.1 0.2 Kilometers

Project:

WHITESTONE

Title:

APPENDIX 3: AGRICULTURAL LAND CLASSIFICATION DISTRIBTUTION ACROSS PROPOSED SOLAR FARM & AGI AREAS

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LDC Land & Drainage Consultancy

Revision	Amendments	Date
1	First Issue	13/06/2025
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A3	NS	LW	AS

Scale:	Revision:	Date:	
1:5,000	3	10/03/2026	Page 12 of 12

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community

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ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
1	450100, 397700	STB	26	mzcl	10YR 4/2			<1	sst, q	26	no spl	II	2	WETNESS	Medium	Aberford	Questionable if slowly permeable.
			120	mcl	10YR 5/6	o, Mn	r	<1	wdsst								
2	450300, 397700	STB	28	hcl	10YR 4/2			3-5	sst, f	28	35	IV	3b	WETNESS	Heavy	Dale	
			120	hzcl	7.5R 4/4	o, Mn	ab	5-10	sst, f								
4	450200, 397600	STB	31	hcl	10YR 4/2			5-10	sst, f, q pebbles	31	35	IV	3b	WETNESS	Heavy	Dale	Likely slowly permeable, matrix colour may be masking obvious mottling. AB moved slightly due to services.
			120	hzcl	7.5R 4/4	o, Mn	ab	5-10	sst, f, q pebbles								
7	450300, 397500	STB	34	hcl	10YR 4/2			3-5	sst	34	35	IV	3b	WETNESS	Heavy	Dale	Matrix colour is masking mottles. Location updated on field maps.
			120	hcl	7.5R 4/6	o, Mn	ab	<1	wdsst								
11	450200, 397400	STB	24	hcl	10YR 4/2			3-5	sst	24	35	IV	3b	WETNESS	Heavy	Dale	Stone content increasing to 3-5 after 55cm. Impenetrable at 80cm.
			80	c	10YR 5/4	o, g, Mn	ab	1-2	wdsst								
15	449900, 397300	STB	25	hcl	10YR 4/2			3-5	sst	25	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/6	o, g, Mn	ab	1-2	sst								
16	450100, 397300	STB	31	hcl	10YR 4/2			3-5	sst	31	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/6	o, g, Mn	ab	1-2	wdsst								
21	449800, 397200	STB	25	hcl	10YR 4/2			3-5	sst	25	35	IV	3b	WETNESS	Heavy	Dale	Slightly wet area of field, slight slope <7°.
			120	c	10YR 5/6	o, g, Mn	ab	1-2	sst								
22	450000, 397200	STB	29	hcl	10YR 4/2			3-5	sst	29	35	IV	3b	WETNESS	Heavy	Dale	Clay becoming grey with depth.
			120	c	10YR 5/6	o, g, Mn	ab	<1	sst								
27	449500, 397100	WW	26	hzcl	10YR 4/2			<1	hdst, sst	26	35	IV	3b	WETNESS	Heavy	Dale	Flat field. Areas of blue grey clay in subsoil.
			120	c	10YR 5/4	o, g, Mn	ab	3-5	wdsst								
28	449700, 397100	WW	22	hcl	10YR 4/2			1-2	sst, hdst	22	35	IV	3b	WETNESS	Heavy	Dale	10cm band of hcl. Mottled at 48cm. Darker grey clay with depth.
			120	c	7.5YR 7/1	o, g, Mn	ab	3-5	wdsst								
29	449907, 397116	STB	26	hcl	10YR 4/2			1-2	sst	26	35	IV	3b	WETNESS	Heavy	Dale	Auger boring moved slightly off headland.
			120	zc	10YR 5/4	o, g, Mn	ab	1-2	wdsst								
30	450100, 397100	STB	25	hcl	10YR 4/2			3-5	sst	25	35	IV	3b	WETNESS	Heavy	Dale	Auger boring moved away from hedge.
			120	c	10YR 5/6	o, g, Mn	ab	<1	sst								
35	451100, 397100	PGR	32	hcl	10YR 4/2			1-2	wsst	32	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	2.5YR 3/6	mn, pg	fw	1-2	wsst								
36	449600, 397000	WW	28	hcl	10YR 4/2	Mn	fw	1-2	hdst	28	35	IV	3b	WETNESS	Heavy	Dale	Yellow to grey clay with depth.
			120	c	10YR 6/3	o, g, Mn	ab	1-2	wdsst								
37	449800, 397000	WW	25	hcl	10YR 4/2	Mn	fw	1-2	hdst	35	35	IV	3b	WETNESS	Heavy	Dale	Variable textures. Lumps of grey clay, sandy pockets, cumbly hcl.
			120	hcl	GLEY 6/1	o, g, Mn	ab	1-2	wdsst, coal								
38	450000, 397000	WW	30	hcl	10YR 4/2			1-2	sst, hdst	30	35	IV	3b	WETNESS	Heavy	Dale	Appreciable sand in subsoil. sc?
			120	c	7.5YR 7/1	o, g, Mn	ab	3-5	wdsst								
43	451026, 396983	PGR	32	hcl	10YR 4/2			<1	hdst	32	35	IV	3b	WETNESS	Heavy	Dale	5m from ditch, bottom of slope. Varied subsoil texture, bands of clay and fine sands.
			120	hcl	10YR 5/2	o, Mn, rd	cm	<1	hdst								
44	451200, 397000	PGR	31	mcl	10YR 4/2			1-2	hdst	31	35	IV	3b	WETNESS	Medium-Heavy	Dale	Red & yellow sandstones.
			70	gritty hcl	2.5YR 3/6	Mn	cm	1-2	sst, grvl								
			120	c	2.5YR 3/6	Mn	m	1-2	wsst								
45	449500, 396900	PLGH	26	hcl	10YR 4/2			1-2	hdst	26	35	IV	3b	WETNESS	Heavy	Dale	Ploughed area of field.
			50	c	10YR 5/4	o, g, Mn	ab	<1	hdst								
			60	hcl	5YR 5/3	o, Mn	ab	<1	hdst								
			120	c	GLEY 6/1	o, g, Mn	ab	<1	hdst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
46	449700, 396900	OSR	38	mcl	7.5YR 3/2			1-2	hdst	38	38	III	3a	WETNESS	Medium	Aberford/Dale	Auger boring located near tramlines.
			120	mzcl	10YR 5/4	o, g, Mn	ab	<1	hdst								
47	449900, 396900	WW	35	hcl	10YR 4/2	Mn	fw	1-2	hdst	35	35	IV	3b	WETNESS	Heavy	Dale	2 degree slope in field. Heavy subsoil, hcl marginal c.
			120	hcl	GLEY 6/1	o, g, Mn	ab	1-2	wdsst								
48	450100, 396900	WW	24	hcl	10YR 4/2	Mn	cm	1-2	sst, hdst	24	35	IV	3b	WETNESS	Medium-Heavy	Dale	Appreciably sandy in upper subsoil. sc? Slight slope in field.
			72	c	7.5YR 7/1	o, g, Mn	ab	3-5	wdsst								
			100	scl	7.5YR 6/6	Mn	cm	1-2	wthd zst								
53	451104, 396921	PGR	28	mcl	10YR 4/2			<1	wsst	28	35	IV	3b	WETNESS	Medium-Heavy	Dale	5m from field margin
			35	hcl	10YR 4/6	o, Mn	ab	<1	wsst								
			120	c	2.5YR 3/6	Mn	cm	1-2	wsst								
54	451300, 396900	PGR	33	hcl	10YR 4/2			1-2	hdst	33	35	IV	3b	WETNESS	Heavy	Dale	
			120	hcl	10YR 5/2	o, g	ab	<1	hdst								
55	449400, 396800	OSR	33	hcl	7.5YR 3/2			3-5	brick	33	35	IV	3b	WETNESS	Medium-Heavy	Dale	Brick in top layers, stops after 47cm.
			120	fscl	10YR 5/4	g, Mn	ab	3-5	brick								
56	449600, 396800	OSR	32	hcl	10YR 4/2			<1	hdst	32	35	IV	3b	WETNESS	Medium-Heavy	Dale	Slightly silty.
			70	fscl	10YR 5/4	o, g, Mn	ab	<1	hdst								
			120	hcl	7.5YR 7/1	o, g, Mn	ab	<1	hdst								
57	449800, 396800	WW	25	hcl	10YR 4/2			1-2	sst, hdst	25	35	IV	3b	WETNESS	Heavy	Dale	Bottom of slight slope. Coal dust below 100cm .
			100	c	7.5YR 7/1	o, g, Mn	ab	1-2	wdsst								
			120	c	10YR 2/1			20-30	coal								
58	450000, 396800	TGR	29	hcl	10YR 4/2			1-2	sst, hdst	30	35	IV	3b	WETNESS	Medium-Heavy	Dale	Bottom of slight slope. Winter barley volunteers.
			120	fscl	7.5YR 7/1	o, g, Mn	ab	1-2	wdsst								
59	450200, 396800	CULT	21	hcl	10YR 5/2			<1	hdst	21	35	IV	3b	WETNESS	Heavy	Dale	Top of gentle slope.
			120	c	7.5YR 7/1	o, br, Mn	ab	<1	hdst								
60	450400, 396800	WW	32	hcl	10YR 4/2				hdst	32	35	IV	3b	WETNESS	Heavy	Dale	
			120	hcl	7.5YR 5/8	o, pg	ab	<1	sst								
61	450600, 396800	WW	35	hcl	10YR 4/2			<1	wsst	35	35	IV	3b	WETNESS	Heavy	Dale	
			68	hcl	7.5YR 5/8	o	ab	<1	wsst								
			120	hcl	7.5YR 5/8	o	ab	3-5	wsst								
62	450795, 396767	WW	31	hcl	10YR 4/2			<1	sst	31	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 6/1	o	ab	<1	sst								
63	451000, 396800	Fodder beet	28	hcl	10yr 42			<1	sst	28	35	IV	3b	WETNESS	Heavy	Dale	Sheep fodder beet crop. 1-3 deg slope. Large sandstones in lower subsoil.
			120	c	2.5YR 3/6	o, pg, rd, Mn	ab	<1	hdst								
64	451200, 396800	PGR	19	hcl	10YR 4/2				t	19	35	IV	3b	WETNESS	Heavy	Dale	Yield has been grazed down.
			70	hcl	10YR 4/6	o, Mn	ab	3-5	wdsst								
			120	c	10YR 5/1	o, Mn	ab		wdsst								
65	451400, 396800	PGR	29	hcl	10YR 4/2			1-2	wdsst	29	35	IV	3b	WETNESS	Heavy	Dale	
			76	c	5YR 4/4	o, br, g	ab	<1	wdsst								
			120	c	10YR 6/1	o, Mn, rd	ab		wdsst								
66	449300, 396700	OSR	26	hcl	10YR 3/3			1-2	hdst	26	35	IV	3b	WETNESS	Medium-Heavy	Dale	Auger boring located at top of hill.
			70	mcl	10YR 7/6	g	ab	<1	hdst								
			120	scl	7.5YR 7/1	o, g	ab	<1	hdst								
67	449500, 396700	OSR	32	hcl	7.5YR 3/2			1-2	hdst	32	35	IV	3b	WETNESS	Medium-Heavy	Dale	Bottom of gentle slope. Impenetrable at 60 due to stones
			45	mcl	10YR 7/6	g	ab	1-2	hdst								
			120	fscl	7.5YR 7/1	o, g	ab	1-2	hdst								
			31	mcl	7.5YR 3/2			1-2	hdst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
68	449700, 396700	OSR	60	fscl	10YR 5/4	o, g, Mn	ab	<1	hdst	31	35	IV	3b	WETNESS	Medium-Heavy	Dale	Transitionary 5cm above clay layer.
			120	c	10YR 3/1	o, bl	ab	<1	hdst								
69	449900, 396700	TGR	25	hcl	10YR 4/2	Mn	fw	1-2	hdst	25	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			120	fscl	10YR 6/3	o, g, Mn	ab	<1	wdsst, coal								
W1S1-1	450004, 396703	CC	24	hcl	10YR 3/3			<1	hdst	24	35	III	3b	WETNESS	Heavy	Dale	Cover crop, surface water saturation.
			120	c	10YR 5/4->5/1	o, g	ab	<1	hdst								
70	450100, 396700	CULT	25	hcl	10YR 5/2			<1	hdst	25	35	III	3b	WETNESS	Heavy	Dale	Gentle slope. Subsoil boarderline clay.
			120	hcl	7.5YR 7/1	o, br, Mn	ab	<1	hdst								
W1S1-2	450202, 396704	CC	26	hcl	10YR 3/3			<1	hdst	26	35	III	3b	WETNESS	Medium-Heavy	Dale	Weathered sandstone increasing with depth. Cover crop.
			76	c	10YR 5/4->5/1	o, g	ab	1-2	wdsst								
			120	scl	10YR 6/4			1-2	wdsst								

ERM Whitestone Solar Farm

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FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
71	450300, 396700	CULT	25	hcl	10YR 5/2			<1	hdst	25	35	III	3b	WETNESS	Medium-Heavy	Dale	Top of gentle slope.
			60	c	7.5YR 7/1	o, br, Mn	ab	<1	hdst								
			120	fscl	7.5YR 7/1	o, br, Mn	ab	<1	hdst								
72	450500, 396700	WW	34	hcl	10YR 4/2			1-2	sst, f	34	35	IV	3b	WETNESS	Heavy	Dale	impenetrable at 70cm. Mid 3° slope and high sand content in subsoil due to wdsst. Gritty hcl subsoil.
			70	hcl	10YR 6/2	o, fw mn	m	3-5	sst, grvl								
73	450700, 396700	WW	39	hcl	10YR 4/2			<1	sst	39	39	III	3b	WETNESS	Heavy	Dale	Fine sands in upper subsoil.
			71	c	7.5YR 5/8	o	ab	1-2	wsst								
			120	c	10YR 6/1	o, mn	ab	<1	sst								
74	450900, 396700	WW	44	hcl	10YR 4/2			<1	sst	44	44	III	3b	WETNESS	Heavy	Dale	Auger boring located 10m from ditch, bottom of slope. Building rubble on soil surface. High fine sand content in upper subsoil.
			82	hcl	7.5YR 5/8	o	ab	1-2	wsst								
			120	c	10YR 6/1	o, mn	ab	<1	sst								
75	451100, 396700	SGR B	25	hcl	10YR 4/2			<1	sst	25	35	IV	3b	WETNESS	Medium-Heavy	Rivington/Dale	Auger boring located at top of slope.
			51	hcl	10YR 4/6	mn, o	ab	3-5	wdsst								
			120	msl	10YR 5/1	o,mn	ab	<1	sst								
76	451392, 396722	PGR	36	hcl	10YR 4/2			1-2	hdst	36	36	IV	3b	WETNESS	Heavy	Dale	Grazed field.
			120	c	10YR 5/2	g, mn, dg	ab	<1	wdsst								
79	449400, 396600	OSR	23	hcl	7.5YR 3/2			1-2	hdst	26	35	IV	3b	WETNESS	Medium-Heavy	Rivington/Dale	Auger boring located at bottom of hill.
			55	mcl	10YR 7/6	g	ab	<1	hdst								
			120	scl	7.5YR 7/1	o, g	ab	<1	hdst								
80	449600, 396600	OSR	16	mcl	10YR 4/2			<1	hdst	16	35	IV	3b	WETNESS	Medium	Rivington/Dale	Auger boring located near tramlines. Stopped at 80 due to compaction
			80	mcl	10YR 5/4	o, g, Mn	ab	<1	hdst								
81	449800, 396600	OSR	20	hcl	10YR 4/3			<1	hdst	20	35	IV	3b	WETNESS	Mineral-Organic	Dale	Dry peat.
			60	c	7.5YR 7/1	o, g, Mn	ab	<1	hdst								
			88	pl	10YR 2/1			<1	hdst								
			120	c	10YR 3/1			<1	hdst								
82	450000, 396600	TGR	24	hcl	10YR 4/2	Mn	fw	1-2	hdst	24	35	IV	3b	WETNESS	Mineral-Organic	Dale	Pale yellow to pale grey in clay in the subsoil.
			80	c	10YR 8/6	o, g, Mn	ab	<1	wdsst, coal								
			120	pl	10YR 2/1			<1	hdst								
W1S1-3	450102, 396591	CC	25	hcl	10YR 4/2			1-2	hdst	25	35	IV	3b	WETNESS	Heavy	Dale	Sandy lenses in subsoil. Cover crop of mustard, raddish and fodder beat.
			120	c	10YR 5/1	o	ab	<1	hdst								
83	450200, 396600	CULT	25	hcl	10YR 5/2			1-2	hdst	25	35	IV	3b	WETNESS	Medium-Heavy	Dale	Gentle slope.
			70	c	7.5YR 7/1	o, Mn, br	ab	<1	hdst								
			120	fscl	7.5YR 7/1			<1	hdst								
W1S1-4	450299, 396599	CC	25	hcl	10YR 4/2			1-2	hdst	25	35	IV	3b	WETNESS	Heavy	Dale	Sandy lenses in subsoil. Cover crop of mustard, raddish and fodder beet.
			120	c	10YR 5/1	o	ab	<1	hdst								
84	450400, 396600	WW	40	hcl	10YR 4/2				hdst	40	40	III	3b	WETNESS	Heavy	Dale	Top of 2° slope, fine sands in subsoil.
			120	c	7.5YR 4/6	o, g, Mn		1-2	sst, f								
85	450600, 396600	WW	34	hcl	10YR 4/2			<1	sst	40	40	III	3b	WETNESS	Heavy	Dale	
			120	hcl	7.5YR 4/6	o	cm	<1	sst								
86	450800, 396600	WW	38	hcl	10YR 4/2			<1	sst	38	38	III	3b	WETNESS	Heavy	Dale	Flat area in undutating field.
			75	c	7.5YR 5/8	o	ab	1-2	wsst								
			120	c	10YR 6/1	o, Mn	ab	<1	sst								
87	451000, 396600	TGR	30	hcl	10YR 4/2			1-2	hdst	30	35	IV	3b	WETNESS	Heavy	Dale	Top of 2-4% slope.
			120	c	10YR 5/2	g, Mn	ab	<1	wdsst								
		PGR	30	hcl	10YR 4/2				wdsst	30	35	IV	3b	WETNESS	Heavy	Dale	
			62	hcl	10YR 4/6	o, Mn	ab	3-5	wdsst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
88	451200, 396600		120	c	10YR 5/1	o, Mn	ab		wdsst								
92	449300, 396500	OSR	29	mcl	10YR 4/2			<1	hdst	29	35	IV	3b	WETNESS	Medium	Rivington/Dale	Auger boring located near hedge.
			120	fscl	10YR 5/4	o, g, Mn	ab		hdst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
93	449500, 396500	OSR	21	mcl	10YR 4/2			<1	hdst	21	35	IV	3b	WETNESS	Medium	Rivington/Dale	Impenetrable at due to flint stone in three places.
			60	scl	10YR 5/4	o, g, Mn	ab	3-5	f								
94	449700, 396500	OSR	28	mcl	10YR 4/2	Mn	r	1-2	hdst	28	35	IV	3b	WETNESS	Medium-Heavy	Dale	Cluster of Mn concretions at base of topsoil.
			120	hcl	10YR 5/4	o, g, Mn	ab	1-2	f								
95	449900, 396500	TGR	20	hcl	10YR 4/2	Mn	r	<1	hdst	20	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			58	scl	10YR 4/4	o, g, Mn	ab	<1	hdst								
			120	scl	7.5YR 7/1	o, g	ab	<1	hdst								
96	450100, 396500	CULT	26	hcl	10YR 4/2			1-2	hdst	21	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			39	scl	10YR 4/4	o, g, Mn	ab	<1	hdst								
			120	c	7.5YR 7/1	o, Mn	ab	<1	hdst								
W1S1-5	450200, 396502	CC	22	hcl	10YR 4/2			1-2	hdst	22	35	IV	3b	WETNESS	Heavy	Dale	Standing water across field.
			120	c	10YR 5/1	o, Mn	ab	<1	hdst								
97	450300, 396500	CULT	24	hcl	10YR 5/2			1-2	hdst	24	35	IV	3b	WETNESS	Heavy	Dale	Auger boring located in area field with little to no crop surface fissures present. Clay turns pale grey at 70cm.
			120	c	10YR 4/4	g, Mn, br	ab	<1	hdst								
98	450500, 396500	WW	37	hcl	10YR 4/2	Mn	r	<1	sst	37	37	III	3b	WETNESS	Heavy	Rivington/Dale	Impenetrable at 70cm due to compact sands.
			53	mcl	10YR 4/6	o, pg	cm	3-5	wdsst								
			70	fscl	10YR 6/1	o	cm	1-2	wdsst								
99	450700, 396500	WW	36	hcl	10YR 3/3			<1	sst	36	36	IV	3b	WETNESS	Heavy	Dale	
			65	hcl	7.5YR 5/8	o, pg	ab	<1	sst								
			120	c	7.5YR 5/8	o, pg	ab	<1	sst								
100	450900, 396500	TGR	26	hcl	10YR 4/2			1-2	sst	26	35	IV	3b	WETNESS	Heavy	Dale	Pockets of weathered sandstone in lower subsoil.
			51	c	10YR 4/2	o, Mn	ab	1-2	sst								
			120	hcl	10YR 3/3	o, g, Mn	ab	3-5	wdsst								
101	451100, 396500	TGR	35	hcl	10YR 4/2			<1	wdsst	35	35	IV	3b	WETNESS	Heavy	Dale	
			120	hcl	10YR 5/1	o	ab	1-2	wdsst								
105	449400, 396400	OSR	21	mcl	10YR 4/2			<1	hdst	29	35	IV	3b	WETNESS	Medium-Heavy	Rivington/Dale	Auger boring located near hedge.
			120	sc	10YR 5/4	o, g, Mn	ab	<1	hdst								
106	449600, 396400	OSR	28	mcl	10YR 4/2	Mn	r	1-2	hdst	21	35	IV	3b	WETNESS	Medium-Heavy	Dale	Auger boring located near ditch. Cluster of Mn concreations at base of topsoil.
			120	c	10YR 5/4	o, g, Mn	ab	1-2	f								
107	449800, 396400	OSR	22	hcl	10YR 4/2			<1	sst	22	35	IV	3b	WETNESS	Heavy	Dale	2 degree slope area. Increasingly grey with depth.
			120	c	GLEY 6/1	o, g, Mn	ab	<1	sst								
108	450000, 396400	TGR	25	hcl	10YR 4/2			<1	hdst	25	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			93	c	7.5YR 7/1	o, g	ab	<1	hdst								
			120	scl	10YR 4/4	o, g, Mn		<1	hdst								
109	450200, 396400	CULT	24	hcl	10YR 5/2			1-2	hdst	24	35	IV	3b	WETNESS	Heavy	Dale	Auger boring located in area of field with little to no crop surface fissures present. 10cm band of dark brown scl at 84cm.
			120	c	7.5YR 7/1	o, Mn, br	ab	<1	hdst								
W1S2-1	450296, 396401	WW	37	hcl	10YR 3/3			1-2	hdst	37	37	III	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/4->5/1	o, g, Mn	m	1-2	hdst								
110	450400, 396400	WW	35	hcl	10YR 4/2			1-2	hdst	35	no spl	II	3a	WETNESS	Medium-Heavy	Dale	Standing water across field in tramlines.
			68	scl	10YR 5/4	g	cm	<1	hdst								
			120	szl	10YR 5/4	g	m	<1	hdst								
W1S2-2	450200, 396300	WW	45	hcl	10YR 4/2	Mn	fw	1-2	hdst	38	45	III	3b	WETNESS	Heavy	Dale	Residues at 20cm.
			120	c	10YR 4/6	o, g, Mn	ab	<1	hdst								
111	450600,396400	WW	32	hcl	10YR 4/2			<1	sst	32	35	IV	3b	WETNESS	Heavy	Dale	Mid gentle slope. Some fine sands in subsoil.
			55	hcl	10YR 6/6	o, g, Mn	ab		sst								
			120	c	10YR 6/6	o, g, Mn	ab		sst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
		PGR	21	hcl	10YR 3/3			1-2	hdst	20	35	IV	3b	WETNESS	Heavy	Dale	1-3% subsoil in topsoil.
			58	hcl	10YR 4/2	o, g	cm	3-5	coal								
112	450800,396400		120	c	10YR 5/1	o	ab	<1	hdst								

ERM Whitestone Solar Farm

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LDC Land Drainage Consultancy Ltd

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FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
113	451000,396400	TGR	28	mcl	10YR 3/3			1-2	sst	28	35	IV	3b	WETNESS	Medium	Rivington/Dale	Impenetrable below 65cm due to stone.
			50	mcl	10YR 4/3	o, Mn	ab	1-2	sst								
			65	fscl	10YR 3/3	o, g, Mn	ab	3-5	wdsst								
114	451200,396400	PGR	28	c	10YR 3/3			1-2	hdst	28	35	IV	3b	WETNESS	Heavy	Rivington/Dale	
			64	c.	10YR 4/2	o, g	cm	3-5	coal								
			120	fscl	10YR 5/1	o	ab	<1	hdst								
118	449500,396300	OSR	21	mcl	10YR 4/2	Mn	r	<1	hdst	21	35	IV	3b	WETNESS	Medium-Heavy	Dale	Relatively flat field. C has appreciable fs.
			120	c	10YR 5/4	o, g, Mn	ab	<1	hdst								
119	449700,396300	OSR	22	mcl	10YR 4/2			<1	sst	22	35	IV	3b	WETNESS	Medium-Heavy	Dale	Very dry crumbly subsoil.
			120	hcl	10YR 4/4	o, g, Mn	ab	<1	sst								
120	449900,396300	TGR	35	hcl	10YR 4/2			1-2	hdst	35	35	IV	3b	WETNESS	Heavy	Dale	Indistinct topsoil subsoil colour change .
			120	hcl	10YR 5/2	o, g, Mn	ab	<1	hdst								
121	450100,396300	TGR	37	mcl	10YR 4/2			<1	hdst	37	37	III	3b	WETNESS	Medium-Heavy	Dale	Mid slope on gentle slope.
			57	fscl	10YR 4/4	o, g, Mn	ab	<1	hdst								
			120	c	10YR 5/2	o, g, Mn	ab	<1	hdst								
122	450300,396300	WW	35	hcl	10YR 3/3			<1	hdst	35	35	III	3b	WETNESS	Heavy	Dale	Topsoil saturation, grey mottles increasing with depth
			120	c	10YR 4/6	o, g	m	1-2	wdsst								
W1S2-3	450399, 396303	WW	37	hzcl	10YR 4/2			1-2	hdst	37	no spl	II	3a	WETNESS	Medium-Heavy	Rivington/Dale	
			56	szl	10YR 5/4	g	cm	<1	hdst								
W1S2-4	450298, 396200	WW	42	hcl	10YR 4/2			1-2	hdst	42	no spl	II	3a	WETNESS	Medium-Heavy	Rivington/Dale	Black spoil beneath subsoil turning into grey mixed spoil with soil.
			50	c	10YR 5/4	o, g, Mn	ab	<1	hdst								
			70	spoil	10YR 2/1			<1	hdst								
			120	spoil	10YR 2/1			<1	hdst								
123	450500, 396300	WW	32	hcl	10YR 4/2	Mn	r	<1	sst	33	35	IV	3b	WETNESS	Heavy	Dale	Variable subsoil texture, pockets of weathered sst. Bands of fine sands throughout subsoil.
			120	c	10YR 6/6	o, pg	ab	<1	sst								
124	450700, 396300	WW	34	hcl	10YR 3/3			1-2	hdst	34	35	IV	3b	WETNESS	Heavy	Dale	
			66	hcl	5YR 4/4	g, Mn	cm	3-5	coal								
			120	c	10YR 5/6	o, rd	ab	<1									
125	450900, 396300	TGR	27	hcl	10YR 4/2			1-2	hdst	27	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/6	g, Mn	ab	<1									
126	451100, 396300	TGR	28	hcl	10YR 4/2			1-2	sst	28	35	IV	3b	WETNESS	Heavy	Dale	
			50	hcl	10YR 4/3	o, Mn	ab	1-2									
			65	c	7.5YR 4/4	o g mn	ab	3-5	wdsst								
127	451300, 396300	PGR	28	hcl	10YR 4/2	Mn	r	<1	sst	28	35	IV	3b	WETNESS	Heavy	Dale	2-4 deg slope.
			120	c	GLEY1 6/1	o, g, Mn	ab	<1	wdsst								
130	449400, 396200	OSR	31	mcl	10YR 4/2	Mn	r	1-2	hdst	29	35	IV	3b	WETNESS	Medium-Heavy	Dale	Auger boring located in area of poor crop. Large surface fissures present.
			40	mcl	10YR 4/2	Mn	r	3-5	brick								
			120	c	10YR 5/4	o, g, Mn	ab	1-2	hdst								
131	449600, 396200	OSR	20	hcl	10YR 4/2			<1	sst	20	35	IV	3b	WETNESS	Heavy	Dale	Bottom of slope, increasingly grey with depth.
			37	hcl	10YR 5/4	o, g, Mn	cm	<1	wth sst, coal								
			120	c	7.5YR 7/1	o, g, Mn	ab	<1	wdsst, coal								
132	449800, 396200	OSR	26	hcl	10YR 4/2			<1	wdsst	26	35	IV	3b	WETNESS	Heavy	Dale	5 degree slope area. Increasingly grey with depth.
			120	c	10YR 6/2	o, g, Mn	ab	1-2	coal								
133	450000, 396200	TGR	23	hcl	10YR 4/2	Mn	r	<1	hdst	21	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/4	o, g, Mn	ab	<1	hdst								
			35	hcl	10YR 4/2			1-2	hdst								

ERM Whitestone Solar Farm
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Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
134	450200, 396200	WW	61	hcl	10YR 6/1	o, dg, Mn	ab	<1	hdst	35	35	IV	3b	WETNESS	Medium-Heavy	Rivington/Dale	Auger boring located at bottom of slope near ditch.
			120	fscl	10YR 6/1	o	ab	1-2	wdsst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

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FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
135	450400,396200	WW	34	hcl	10YR 3/3			<1	hdst	34	35	III	3b	WETNESS	Medium-Heavy	Dale	Pockets of sandstone with depth.
			120	c	10YR 5/4	o, g	m	3-5	hdst, wdsst								
W1S2-5	450502, 396202	WW	42	hzcl	10YR 4/2			1-2	hdst	42	42	III	3b	WETNESS	Heavy	Dale	
			120	c	10YR 4/1	o	ab	<1	hdst								
136	450600,396200	WW	34	hcl	10YR 4/2			<1	sst, f	34	35	IV	3b	WETNESS	Medium-Heavy	Rivington/Dale	
			55	c	7.5YR 5/8	o, pg	ab	<1	sst, f								
			80	fscl	7.5YR 5/8	o, pg	ab	<1	sst, f								
			120	c	7.5YR 5/8	o, pg	ab	<1	sst, f								
137	450800,396200	WW	40	hcl	10YR 3/3	Mn	fw	<1	sst	40	40	III	3b	WETNESS	Medium-Heavy	Rivington/Dale	Auger boring located mid slight slope, hummocks in field.
			65	c	7.5YR 4/6	o,g, Mn	ab	<1	sst								
			120	fscl	7.5YR 4/6	o, g, Mn	ab	<1	sst								
138	451000,396200	TGR	26	hcl	10YR 4/2			1-2	hdst	27	35	IV	3b	WETNESS	Heavy	Dale	Pockets of sandstone in subsoil.Top of slope 7-11 degrees?
			120	c	10YR 5/6	g, Mn	ab	<1	wdsst								
139	451200,396200	PGR	24	hcl	10YR 4/2	Mn, Fe	fw	1-2	shale	24	35	IV	3b	WETNESS	Heavy	Dale	Pockets red weathered sandsrone, mixed subsoil with clay lumps, sand, hcl. Thin band of black coal stained hcl.
			33	hcl	10YR 2/1			10-20	coal								
			120	c	5YR 3/3	o, g, Mn	ab	3-5	wsst, coal rare								
140	451400,396200	PGR	26	hcl	10YR 4/2	Mn	r	<1	sst	26	35	IV	3b	WETNESS	Heavy	Dale	Marfinal hcl/c in upper subsoil. Increasingly grey with depth.
			48	hcl	5YR 3/3	o, g, Mn	ab	<1	sst								
			120	c	7.5YR 7/1	o, Mn	ab	<1	sst								
142	449500,396100	OSR	22	mcl	10YR 4/2			<1	sst	22	35	IV	3b	WETNESS	Medium-Heavy	Dale	10 degree slope. Limited on slope and wetness.
			75	hcl	10YR 5/4	o, g, Mn	ab	<1	sst								
			120	hcl	10YR 2/1			30-50	coal								
143	449700,396100	OSR	21	mcl	10YR 4/2			<1	sst	21	35	IV	3b	WETNESS	Medium-Heavy	Dale	10 degree slope. High fine sand content in subsoil. Limited on wetness and slope.
			120	hcl	10YR 5/4	o, g, Mn	ab	<1	sst								
144	449900,396100	TGR	25	mcl	10YR 4/2			<1	hdst	25	35	IV	3b	WETNESS	Medium-Heavy	Dale	Mid 4-7% slope. Sparsely cropped field. Large surface fissures
			120	c	10YR 5/4	o, g, Mn	ab	<1	hdst								
145	450100,396100	WW	38	hcl	10YR 4/2			1-2	hdst	32	35	IV	3b	WETNESS	Heavy	Dale	
			80	c	10YR 5/6	g, Mn	ab	<1	hdst								
			120	hcl	10YR 5/4	o br	ab	1-2	wdsst								
146	450300,396100	WW	35	hcl	10YR 3/3	o	fw	1-2	hdst	35	35	III	3b	WETNESS	Heavy	Dale	Auger boring located near ditch, coal and iron deposits increasing with depth.
			120	c	10YR 5/4	o, g	m	3-5	hdst, coal, iron, wdsst								
147	450500, 396100	NON AGRI	32	hcl	10YR 4/2			3-5	coal, hdst, wdsst	32	35	IV	3b	WETNESS	Heavy	Dale	
			70	hcl	10YR 4/4	g, Mn	cm	1-2	hdst								
			120	c	10YR 5/1	o	m	1-2	hdst								
148	450700, 396100	WW	34	hcl	10YR 3/3	Mn	r	<1	sst	34	35	IV	3b	WETNESS	Heavy	Dale	Auger boring located at top of gentle slope, fine sands in lower subsoil.
			46	hcl	10YR 4/1	Mn	cn	<1	sst								
			120	c	7.5YR 5/8	o, g, Mn	ab	<1	sst								
149	450900, 396100	TGR	24	hcl	10YR 4/2				sst	24	NO SPL	II	3a	WETNESS	Medium-Heavy	Rivington/Dale	Wet at 60cm.
			49	scl	10YR 3/3	Mn	fw	1-2	hdst, coals								
			120	hcl	10YR 4/6	g, Mn, dbr	fw	5-10	gravels								
150	451100, 396100	PGR	22	hcl	10YR 4/2	o, Mn	r	1-2	shales, f, sst	22	35	IV	3b	WETNESS	Heavy	Dale	Near field entrance. Flat area.
			65	c	10YR 5/2	o, g, Mn, Fe	ab	3-5	shales								
			120	c	7.5YR 7/1	o, Mn, Fe	m	<1	sst, shale								
151	451300, 396100	PGR	20	hcl	10YR 4/2	Mn	r	<1	sst	20	35	IV	3b	WETNESS	Heavy	Dale	On slight slope 3 degrees?
			120	c	10YR 4/1	o, Mn, Fe	ab	1-2	sst, shale								
		TGR	22	mcl	10YR 4/2			<1	hdst	22	35	IV	3b	WETNESS	Medium-	Dale	Flat area top of slope Sparsely cropped field.

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FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
153	449800, 396000	[illegible]	120	c	10YR 6/3	o, g, Mn	ab	<1	hdst	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Heavy	[illegible]	Large surface fissures.
154	450000, 396000	WW	30	mcl	10YR 4/2			1-2	hdst	30	35	IV	3b	WETNESS	Medium	Rivington	Fine sand content increasing with depth. Impenetrable below 55cm, hit pipe or large stone.
			55	fscl	10YR 6/1	o	ab	<1	hdst								

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Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
155	450200, 396000	WW	33	hcl	10YR 4/2			1-2	hdst	32	35	IV	3b	WETNESS	Heavy	Dale	Subsoil turns grey with depth.
			120	c	10YR 5/6	g, Mn	ab	<1	hdst								
156	450400, 396000	NON AGRI	44	hcl	10YR 4/2			3-5	coal, hdst, wdsst	44	44	III	3b	WETNESS	Medium-Heavy	Rivington/Dale	Auger boring located near pond.
			70	hcl	10YR 4/6	g, Mn	ab	3-5	coal, hdst, wdsst								
			120	fscl	10YR 5/1	o	ab	1-2	hdst, wdsst								
157	450615, 396021	WW	34	hcl	10YR 4/2			1-2	sst, building rubble	34	35	IV	3b	WETNESS	Disturbed	Disturbed	Auger boring located near farm building, impenetrable after 40cm due to rubble.
			40	hcl	10YR 4/1	o, g, Mn	ab	<1	sst								
158	450799, 396022	WW	37	hcl	10YR 4/2			<1	sst, f	37	37	III	3b	WETNESS	Heavy	Aberford/Dale	Gently sloping. Silt in subsoil, still heavy texture.
			120	zc	10YR 7/1	o, g	ab	<1	f								
159	451000, 396000	PGR	32	hcl	7.5YR 3/2			<1	sst	32	35	IV	3b	WETNESS	Medium-Heavy	Dale	Pockets of sand in clay.
			52	fscl	5YR 3/3	o, Mn	ab	<1	sst								
			120	c	10YR 5/4	o, Mn	ab	1-2	wdsst								
160	451200, 396000	PGR	24	hcl	10YR 4/2	Mn	r	<1	hdst	25	35	IV	3b	WETNESS	Heavy	Dale	Subsoil marginal clay/hcl. Sand from weathered sandstone.
			120	hcl	10YR 5/4	o, g, Fe	ab	<1	shale								
161	451400, 396000	PGR	20	hcl	10YR 4/2	Mn	r	<1	sst	20	35	IV	3b	WETNESS	Medium-Heavy	Dale	Pale grey sand with depth. Top of 5 degree slope.
			55	c	10YR 6/3	o, g, Mn	ab	<1	sst								
			120	scl	10YR 5/4	o, g, Mn	ab	<1	wdsst								
164	449900, 395900	WW	30	hcl	10YR 4/2			3-5	hdst, brck	30	35	IV	3b	WETNESS	Heavy	Dale	Subsoil very dry below 60cm.
			120	c	10YR 6/1	o, g	ab	<1	hdst								
165	450100, 395900	WW	32	mcl	10YR 4/2			3-5	hdst	32	35	IV	3b	WETNESS	Medium-Heavy	Dale	At 80cm, 8cm band of dark yellow hcl.
			120	hcl	10YR 5/6	g	fw	<1	hdst								
166	450300, 395900	WW	36	mcl	10YR 4/2			1-2	wdsst	34	36	IV	3b	WETNESS	Medium	Rivington/Dale	
			57	fscl	10YR 4/6	g, Mn	cm	3-5	wdsst, hdst								
			80	scl	2.5Y 7/8	g	cm	3-5	wdsst, hdst								
167	450700, 395900	WW	36	mcl	10YR 5/2			3-5	coal, hdst, brck, sst	38	38	III	3a	WETNESS	Medium-Heavy	Rivington/Dale	Topsoil contains 3-5% subsoil.
			80	hcl	10YR 5/6	g	m	1-2	wdsst								
			120	fscl	10YR 5/6	g	cm	1-2	wdsst								
168	450900, 395900	PGR	30	mcl	7.5YR 3/2				hdst	30	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			120	hcl	5YR 3/3	o, Mn	ab	3-5	wthd hdst								
169	451100, 395900	PGR	24	hcl	10YR 4/2			<1	hdst	24	35	IV	3b	WETNESS	Medium-Heavy	Dale	Mid slope.
			58	fscl	10YR 5/4	g, Mn	ab	1-2	hdst								
			70	c	10YR 5/6	g, Mn	ab	<1	hdst								
			120	scl	10YR 5/4	g, Mn	ab	3-5	wdsst								
170	451300, 395900	PGR	30	hcl	10YR 5/4	Mn	r	<1	sst	30	35	IV	3b	WETNESS	Heavy	Dale	Higher area in slightly undulating field.
			120	c	7.5YR 7/1	o, g, Mn	ab	<1	wdsst								
172	450975, 395806	PGR	22	hcl	7.5YR 3/2				sst	22	35	IV	3b	WETNESS	Heavy	Dale	Top of gentle slope more red with depth.
			120	hcl	5YR 3/3	o, Mn	ab	3-5	wdsst								
173	450000, 395800	WW	35	hcl	10YR 4/2	Mn	fw	3-5	hdst, brck	31	35	IV	3b	WETNESS	Medium-Heavy	Aberford/Dale	Subsoil becomes grey (10YR 6/1) at 75cm.
			120	fscl	10YR 6/6	o, g, Mn	ab	1-2	hdst								
174	450200, 395800	WW	40	hcl	10YR 4/2			<1	hdst	40	40	III	3a	WETNESS	Heavy	Dale	
			120	c	10YR 5/6	o, g	ab	<1	hdst								
175	450400, 395800	WW	33	mcl	10YR 4/2			<1	hdst	33	58	III	3a	WETNESS	Medium	Rivington	
			58	msl	10YR 6/3	o, g	ab	<1	hdst								
			120	scl	10YR 6/3	o, g	ab	<1	hdst								
176	450636, 395798	WW	33	hcl	10YR 5/2				hdst	Discarded				Disturbed			Auger boring moved into field. Impenetrable at 40cm. Auger boring located near shed base disturbed.
			40	hcl	10YR 2/2			5-10	coal, hdst, concrete								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
177	450800, 395800	WW	38	mcl	10YR 5/2			3-5	coal, hdst, brck, sst	38	38	III	3a	WETNESS	Medium-Heavy	Dale	Topsoil contains 3-5% subsoil. Auger boring located near field edge. Grass strip before woodland.
			120	cl	10YR 5/6	g	ab		hdst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

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FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
178	451200, 395800	PGR	24	hcl	7.5YR 3/2			<1	sst	24	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 4/3	o, g, Mn	ab	<1	sst								
179	451400, 395800	PGR	26	hcl	10YR 4/2	Mn	r	<1	sst	26	35	IV	3b	WETNESS	Heavy	Dale	Flat area.
			120	c	7.5YR 7/1	o, g, Fe	ab	<1	shale								
182	451400, 395800	WW	38	mcl	10YR 4/2			1-2	hdst	38	no spl	II	2	WETNESS	Medium-Heavy	Dale	
			120	hcl	10YR 5/6	g	fw	<1	hdst								
183	450100, 395700	WW	42	hcl	10YR 4/4			1-2	hdst, brck	42	42	III	3a	WETNESS	Heavy	Dale	Subsoil becomes grey (10YR 6/1) at 74cm.
			120	c	10YR 6/6	o, g	ab	3-5	hdst								
184	450300, 395700	WW	32	hcl	10YR 4/2			<1	hdst	32	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 6/1	o	ab	<1	hdst								
185	450500, 395700	WW	36	hcl	10YR 4/2			<1	hdst	36	36	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 6/1	o, pb	ab	1-2	hdst								
186	450700, 395700	WW	36	mcl	10YR 3/2			<1	hdst	36	36	IV	3b	WETNESS	Medium	Aberford/Dale	Stopped by a clay pipe at 70cm. High proportion of fine sands in the lower subsoil.
			54	mzcl	10YR 4/2	o, g, Mn	ab	<1	hdst								
			70	zcl	10YR 5/4	o, g	ab	<1	hdst								
187	450900, 395700	PGR	28	hcl	7.5YR 3/2			<1	hdst	28	35	IV	3b	WETNESS	Heavy	Dale	
			120	hcl	5YR 3/3	o, Mn	ab	3-5	wthd hdst								
188	451100, 395700	PGR	25	hcl	10YR 4/2			<1	wthd hdst	25	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			120	scl	10YR 4/4	g, Mn	ab	1-2	wdsst								
189	451300, 395700	PGR	27	hcl	10YR 4/2	Mn	r	<1	shale sst	27	35	IV	3b	WETNESS	Heavy	Dale	Gently undulating field. Shale/wsst band between topsoil and subsoil.
			120	c	7.5YR 7/1	o, mn, Fe	ab	<1	sst								
192	449800, 395600	WW	32	mcl	10YR 4/2			1-2	hdst	32	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			120	hcl	10YR 5/4	o, br	ab	<1	hdst								
193	450000, 395600	WW	38	hcl	10YR 4/2			1-2	hdst	38	38	IV	3b	WETNESS	Heavy	Dale	Bottom of 7-11° slope. Subsoil marginal hcl.
			120	c	10YR 4/6	o, br	ab	<1	hdst								
194	450200, 395600	WW	38	hcl	10YR 4/2			1-2	hdst, hdsst	38	38	III	3a	WETNESS	Heavy	Dale	Fine sand inclusions below 85cm. Topsoil wet, some standing water on soil surface. Subsoil becomes grey (10YR 6/1) at 75cm.
			120	c	10YR 5/6 -> 6/1	o	ab	<1	hdst								
195	450400, 395600	WW	30	mzcl	10YR 4/2			3-5	hdst	30	42	III	3a	WETNESS	Medium	Rivington/Dale	
			120	scl	10YR 4/6	o, Mn	m	1-2	hdst								
196	450600, 395600	WW	34	hcl	10YR 4/2			<1	hdst	34	no spl	II	3a	WETNESS	Medium-Heavy	Rivington/Dale	Top of slope, 2-4 degrees. Impenetrable below 82 due to stone.
			56	hcl	10YR 4/6	o, Mn	cm	<1	hdst								
			82	scl	10YR 4/6	g	fw	3-5	wdsst								
197	450800, 395600	WW	32	mcl	10YR 4/2			1-2	wdsst	32	no spl	II	2	WETNESS	Medium	Rivington/Dale	
			80	scl	10YR 4/6	g, Mn	cm	3-5	wdsst								
198	451039, 395590	PGR	23	hcl	10YR 4/2			1-2	wdsst	23	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			120	scl	10YR 5/4	o, g, Mn	ab	1-2	wdsst								
199	451200, 395600	PGR	25	hcl	10YR 4/2			<1	hdst	25	35	IV	3b	WETNESS	Heavy	Dale	A void was reached at 90cm then continued until 115cm.
			90	hcl	10YR 5/2	o, g, Mn	ab	1-2	hdst								
205	449900, 395500	WW	41	mcl	10YR 4/2			<1	wdsst, hdst	41	41	III	3a	WETNESS	Medium	Rivington/Dale	
			120	scl	10YR 4/6	o	fw	3-5	wdsst								
206	450100, 395500	WW	40	hcl	10YR 4/2			1-2	hdst	40	40	III	3b	WETNESS	Heavy	Dale	
			55	hcl	10YR 4/4	o br	ab	1-2	wdsst								
			120	c	10YR 4/6	o, br	ab	<1	hdst								
207	450300, 395500	WW	34	hcl	10YR 4/2			1-2	hdst	34	35	IV	3b	WETNESS	Heavy	Dale	Mid slope 2-4°
			120	c	10YR 6/1	o, br	ab	<1	hdst								
			33	hcl	10YR 4/2			<1	hdst								

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BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
		WW	87	c	10YR 5/6	o	ab	<1	hdst	33	35	IV	3b	WETNESS	Heavy	Dale	
208	450500, 395500		120	hcl	10YR 4/6			<1	hdst								

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LDC Land Drainage Consultancy Ltd

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BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
209	450700, 395500	WW	33	hcl	10YR 4/2			1-2	hdst, coal	33	35	IV	3b	WETNESS	Heavy	Rivington/Dale	
			43	hcl	10YR 5/6	o, g, Mn	ab	<1	hdst, coal								
			53	cl	10YR 4/6	g	ab	<1	hdst								
			70	scl	10YR 5/6	g	ab	<1	hdst								
210	450900, 395500	WW	34	mcl	10YR 4/2	o, Mn	cm	<1	hdst	24	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			120	hcl	10YR 6/4	o, g, pb	ab	<1	hdst								
216	450200, 395400	WW	34	mcl	10YR 4/2	Mn	fw	1-2	hdst	29	49	III	3a	WETNESS	Medium-Heavy	Dale	Fine sand inclusions below 88cm.
			49	hcl	10YR 5/2	o, Mn	cm	1-2	hdst								
			120	c	10YR 6/1	o	ab	<1	hdst								
217	450400, 395400	WW	31	hcl	10YR 4/2	Mn, pb	cm	<1	hdst	25	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/6	o, pg, pb	ab	<1	hdst								
218	450600, 395400	WW	36	hcl	10YR 4/2			1-2	hdst	36	36	IV	3b	WETNESS	Heavy	Dale	Auger boring located near tramlines.
			120	c	10YR 4/6	o, br	ab	<1	hdst								
219	450800, 395400	WW	38	hcl	10YR 4/2			1-2	hdst, coal	38	38	III	3b	WETNESS	Heavy	Dale	Auger boring located mid gentle slope.
			120	cl	10YR 6/1	o	ab	<1	hdst,coal								
225	450300, 395300	WW	35	hcl	10YR 4/2			1-2	hdst, tile	35	35	IV	3b	WETNESS	Heavy	Dale	At 67cm, 7cm band of coal stained c. Crop residue at 29cm. Saturated c from 55cm.
			82	c	10YR 4/6	o, br	ab	<1	hdst								
			120	hcl	10YR 5/8	o, br	ab	1-2	coal, wdsst								
226	450500, 395300	PGR	38	hcl	10YR 4/2			1-2	hdst	38	38	III	3b	WETNESS	Medium-Heavy	Rivington/Dale	Volunteer willows in field.
			120	scl	10YR 5/6	g	ab	1-2	wdsst								
227	450700, 395300	WW	33	hcl	10YR 4/6			1-2	hdst, tile	33	35	IV	3b	WETNESS	Heavy	Dale	Crop residue at 29cm. Saturated c from 55cm.
			120	c	10YR 4/6	o, br	ab	<1	hdst								
228	450875, 395304	WW	32	mcl	10YR 4/2			<1	hdst	32	35	IV	3b	WETNESS	Medium	Rivington/Dale	Very dry subsoil. Impenetrable below 60cm.
			60	scl	10YR 5/4	o	ab	<1	hdst								
233	450600, 395200	WW	38	hcl	10YR 4/2			1-2	hdst	38	38	III	3b	WETNESS	Heavy	Dale	
			120	hcl	10YR 5/6	g	ab		hdst								
234	450800, 395200	WW	30	hcl	10YR 3/2			<1	hdst	30	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 6/1	o	ab	<1	hdst								
238	450700, 395100	PGR	30	hcl	10YR 3/2	o, Mn	cm	<1	hdst	22	35	IV	3b	WETNESS	Medium-Heavy	Rivington/Dale	2-3 degree slope towards steep wooded area and stream 15m away.
			50	hcl	10YR 4/2	o, g, Mn	ab	<1	hdst								
			120	scl	10YR 6/4	o, g	ab	<1	hdst								
W2P2-1	446108, 389189	CC	32	hcl	10YR 4/2			3-5	hdst	32	35	IV	3b	WETNESS	Heavy	Dale	
			120	hcl	10YR 5/6	o, g	ab	1-2	wdsst								
A6	446197, 389191	PGR	29	hcl	10YR 4/2			1-2	sst	29	35	IV	3b	WETNESS	Heavy	Dale	Pockets of sandy material. Stone at 70cm.
			70	c	10YR 4/3	o, g	ab	3-5	wdsst								
W2P2-2	446306, 389193	CC	32	mcl	10YR 4/2			3-5	sst, wdsst	32	35	IV	3b	WETNESS	Medium	Rivington/Dale	2-4 % slope northerly aspect.
			44	mcl	10YR 3/3	o, rd	m	1-2	wdsst								
			120	fscl	10YR 3/4	y	ab	3-5	wdss								
A7	446403, 389196	CC	32	hcl	10YR 5/2			3-5	hdst	32	35	IV	3b	WETNESS	Heavy	Dale	
			120	hcl	10YR 5/6	o, g	ab	1-2	wdsst								
W2P2-3	446511, 389193	CC	33	hcl	10YR 5/2			1-2	hdst	33	35	IV	3b	WETNESS	Medium-Heavy	Rivington/Dale	5m from large trial trench (down slope). 2-4% incline northerly aspect. Compacted soils.
			78	scl	10YR 5/6	o, g, rd	ab	5-10	sst, wdsst								
			120	c	10YR 6/1	o, Mn	ab	1-2	sst								
W2P2-4	446207, 389101	CC	34	hcl	10YR 5/1			3-5	hdst	34	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			120	c	10YR 5/4	o, g	ab	1-2	wdsst								
			32	hcl	10YR 5/2			3-5	hdst								

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BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
A8	446310, 389102	CC	48	hcl	10YR 5/2	o, g	ab	1-2	wdsst	32	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			120	c	10YR 5/4	o, g, Mn	ab	1-2	wdsst								

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Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

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BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
W2P2-5	446407, 389104	CC	31	mcl	10YR 5/2			3-5	hdst	27	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			120	hcl	10YR 5/4	o, g	ab	1-2	wdsst								
A9	446512, 389099	CC	30	mcl	10YR 5/2			3-5	hdst	30	35	IV	3b	WETNESS	Medium-Heavy	Dale	Auger boring located near archeology pit. Compacted ground impenetrable 55cm
			55	hcl	10YR 5/4	o, g	ab	1-2	wdsst								
W2P2-6	446617, 389103	CC	34	mcl	10YR 5/2			3-5	hdst	34	35	IV	3b	WETNESS	Medium-Heavy	Dale	Becomes grey at 90cm. Boring located near archaeology pit which is full of water and has a pump nearby. Digging tracks present across field.
			120	c	10YR 5/4	o, g	ab	1-2	wdsst								
A10	446713, 389103	CC	27	mcl	10YR 5/2			3-5	hdst	27	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			120	hcl	10YR 5/4	o, g	ab	1-2	wdsst								
W2P2-7	446796, 389103	CC	28	mcl	10YR 5/2			3-5	hdst	28	35	IV	3b	WETNESS	Medium-Heavy	Rivington/Dale	
			70	fscl	10YR 5/4	o, g	ab	1-2	wdsst								
W2P2-8	446210, 389017	TGR	31	hcl	10YR 5/2			3-5	hdst	32	35	IV	3b	WETNESS	Medium-Heavy	Rivington/Dale	Located on temporary grass with 5 to 10% bear ground and yellow in colour .
			70	scl	10YR 5/4	o, g, Mn	ab	3-5	wdsst								
			120	c	10YR 4/1	o, g, Mn	ab	3-5	wdsst								
W2P2-9	446321, 389004	CC	32	hcl	10YR 5/2			3-5	hdst	32	35	IV	3b	WETNESS	Medium-Heavy	Rivington/Dale	Boring impenetrable to hand held tools due to stone. Rare >20cm sandstone at surface. Tried in three places but localised due to ground clearance restrictions.
			51	scl	10YR 5/4	o, g, Mn	ab	5-10	wdsst								
A11	446410, 389000	CC	31	mcl	10YR 5/2			3-5	hdst	31	35	IV	3b	WETNESS	Medium-Heavy	Dale	Becomes dark grey at 80 cm. Auger boring located near hedge. Cover crop drilled into stubble field. Saturated.
			120	c	10YR 6/1	o, Mn	ab	1-2	wdsst								
W2P2-10	446508, 389017	CC	29	mcl	10YR 5/2			3-5	hdst	29	35	IV	3b	WETNESS	Medium-Heavy	Dale	Auger boring located in disturbed area 2m from archaeology trench suspected subsoil pile as large quantity on top source surface boring not sampled with the rest of the field. Auger boring located near hedge.
			120	c	10YR 5/4	o, g, Mn	ab	1-2	wdsst								
243	449000, 391000	WW	27	scl	10YR 4/2			3-5	sst	27	no spl	II	2	DROUGHT	Medium	Rivington	Silty layer at 41-45cm grey colour. Impenetrable at 75cm.
			41	scl	10YR 5/4	Mn	ab	3-5	wdsst								
			75	mzcl	10YR 5/6	Mn	ab	3-5	wdsst								
244	449200, 391000	WW	25	scl	10YR 4/2			1-2	wdsst	25	no spl	II	2	DROUGHT	Light-Medium	Rivington	Visible sand on topsoil surface. Compacted sand at 50cm. Mottling historical. Drought calc conducted.
			50	ms	10YR 7/4	g, Mn	fw	<1	sst								
245	449400, 391000	WW	24	mcl	10YR 4/2			1-2	wdsst	24	no spl	II	3a	DROUGHT	Light-Medium	Rivington	Slight 2 degree slope in field. Compacted sand from 50cm. Drought calc conducted.
			100	ms	10YR 7/4	g, Mn	fw	<1	sst								
246	449116, 390925	WW	41	scl	10YR 4/2	Mn	cm	1-2	sst	30	no spl	II	2	DROUGHT	Light-Medium	Rivington	Very deep topsoil, bottom of 4-7° slope. Leaf litter on ground contributing to deep topsoil. Drought calc conducted.
			120	lms	10YR 5/4			3-5	wdsst								
247	449300, 390900	WW	23	mcl	10YR 42			1-2	wdsst	23	no spl	II	3a	DROUGHT	Light-Medium	Rivington	Dry sand. Stopped by stones at 65cm. Drought calc conducted.
			120	lms	10YR 7/4	g	cm	<1	sst								
248	448809, 390763	WW	27	scl	7.5YR 4/2	rd	r	1-2	wdsst, f	no gleying	no spl	I	2	DROUGHT	Light-Medium	Rivington	Increased compaction at 70cm. Some different colours in subsoil due to weathered sandstones yellow and red. Drought calc conducted.
			70	lms	7.5YR 5/3			1-2	wdsst								
			120	fs	7.5R 5/2			1-2	wdsst								
249	449000, 390800	WW	28	scl	10YR 4/2			3-5	sst	28	no spl	II	2	DROUGHT	Medium	Rivington	Subsoil becoming paler with depth, slightly moist.
			48	fsl	10YR 5/6	o	cm	<1	sst								
			120	mszl	10YR 5/6	o, Mn	fw	1-2	wdsst								
250	448900, 390700	WW	32	scl	10YR 3/3	Mn	fw	3-5	wdsst, coal, f	32	no spl	II	2	DROUGHT	Light-Medium	Rivington	Drought calc conducted.
			45	lms	10YR 5/6	o, g	ab	<1	wdsst, coal, f								
			120	fs	7.5YR 4/1	o	cm	<1	wdsst, coal, f								
251	449094, 390640	TRNP	30	hcl	10YR 4/2			1-2	sst	30	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	7.5YR 5/6	o, g, Mn	ab	<1	sst								
		TRNP	26	hcl	10YR 4/2			1-2	sst	26	no spl	II	3a	WETNESS	Medium-	Rivington/Dale	

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
252	449331, 390654	[illegible]	120	mcl	7.5YR 5/6	o, Mn	m	3-5	wdsst	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Heavy	[illegible]	

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
253	448825, 390600	TGR	33	hcl	10YR 4/2			<1	sst	33	35	IV	3b	WETNESS	Heavy	Dale	Perched water table at 5cm, increasingly grey with depth, slight slope.
			120	c	10YR 5/6	o, g	ab	<1	sst								
254	449000, 390600	TRNP	31	hcl	10YR 4/2			1-2	sst	31	35	IV	3b	WETNESS	Heavy	Dale	Clay greyer with depth. Slope around 4 degrees.
			120	c	7.5YR 5/4	o, g, Mn	ab	<1	sst								
255	449200, 390600	TRNP	35	hcl	10YR 4/2			1-2	sst	35	no spl	II	3a	WETNESS	Heavy	Rivington/Dale	
			120	hcl	10YR 4/3	Mn	fw	1-2	wdsst								
256	448900, 390500	TRNP	30	hcl	10YR 4/2			1-2	sst	30	35	IV	3b	WETNESS	Heavy	Dale	Subsoil is very dry past 70cm.
			120	c	10YR 4/3	o, g, Mn	ab	<1	sst								
257	449100, 390500	CC	32	hcl	10YR 4/2			1-2	sst	32	35	IV	3b	WETNESS	Heavy	Dale	7-11 deg slope. Erosion gully feature.
			120	c	10YR 7/4	o, g, Mn	ab	<1	sst								
258	449000, 390400	CC	28	mcl	10YR 4/2			3-5	sst	28	35	IV	3b	WETNESS	Medium-Heavy	Dale	4-7 degree slope. Marginal topsoil texture. 3rd horizon clay mixed with sandy loam from crushed sandstone.
			40	scl	10YR 5/6	Fe, Mn	cm	3-5	sst								
			80	c	10YR 5/6	o, g, Mn	ab	20-30	sst								
			120	c	7.5YR 4/1	o	ab	3-5	sst								
259	449078, 390333	PGR	38	hcl	10YR 4/1			<1	sst	38	35	IV	3b	WETNESS	Heavy	Dale	1-3 degree slope.
			120	c	10YR 7/4	o, g, Mn	ab	<1	sst								
259.5	448903, 390372	TRNP	29	hcl	10YR 4/2			1-2	sst	29	no spl	II	3b	WETNESS	Medium-Heavy	Dale	Slope 7-11 degrees.
			44	hcl	10YR 4/3	Mn	cm	1-2	wdsst								
			80	scl	10YR 4/3	o, Mn	cm	3-5	wdsst								
			120	hzcl	7.5YR 4/6	o, Mn	cm	1-2	wdsst								
261	446600, 389000	STB	26	hcl	10YR 4/3			1-2	sst	26	35	IV	3b	WETNESS	Heavy	Dale	Top of long 3-5 degree slope, adjacent to headland.
			65	hcl	10YR 4/4	o, g, Mn	ab	<1	sst								
			120	hcl	10YR 3/3	o, Mn, br	fw	<1	sst								
263	446300, 388900	STB	29	mzcl	10YR 4/2			1-2	sst	29	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			60	hcl	10YR 5/6	o, g, Mn	ab	1-2	wdsst								
			90	fscl	10YR 5/6	o, g, Mn	ab	1-2	wdsst								
			120	c	10YR 6/1	o, g, Mn	ab	1-2	wdsst								
264	446500, 388900	WW	23	hcl	10YR 4/2			<1	wdsst	23	35	IV	3b	WETNESS	Heavy	Dale	Field sloping 10 degrees. Pockets of weathered sandstone.
			55	hcl	7.5YR 5/3	o, g, Mn	ab	1-2	coal, wdsst								
			96	c	7.5YR 5/1	o, Mn	ab	<1	coal, wdsst								
			120	c	10YR 1/1			<1	coal, wdsst								
268	446500, 388900	OSR	30	mcl	10YR 4/2			3-5	sm sst	60	no spl	I	3b	SLOPE	Medium	Dale	Sand content due to weathered sandstone. 4-7 degree slope in field.
			60	mcl	10YR 4/6			5-10	sst								
			120	scl	10YR 7/3	Mn	r	30-50	wdsst								
269	444200, 388800	OSR	34	hzcl	10YR 4/2			1-2	wdsst	34	59	III	3b	WETNESS	Heavy	Dale	Pockets of weathered sandstone. 4-7 degree slope.
			59	hcl	10YR 4/6	o, g, Mn	cm	1-2	sst								
			120	hzcl	7.5YR 4/1	g, Mn	ab	1-2	sst								
270	446200, 388800	STB	28	hzcl	10YR 4/2			<1	sst	28	35	IV	3b	WETNESS	Heavy	Dale	Rolling landscape, 4-7° slope. Impenetrable at 80cm.
			80	hzcl	10YR 5/6	o, g, Mn	ab	5-10	wdsst								
271	446400, 388800	STB	31	hcl	10YR 4/2			1-2	sst	31	35	IV	3b	WETNESS	Heavy	Dale	Some silt in subsoil. Impenetrable at 45cm.
			45	c	10YR 5/6	o, g, Mn	ab	5-10	sst								
272	446600, 388800	WW	24	hcl	10YR 4/2			1-2	wdsst	52	52	III	3b	WETNESS	Heavy	Dale	Middle of field with 10 degree slope. Auger boring moved, both impenetrable at 60cm. Very dry and compact subsoil. No mottles till 52cm.
			60	hcl	10YR 5/6	o, g, Mn	ab	1-2	wdsst								
275	444100, 388700	OSR	34	mcl	10YR 4/1			3-5	sm & med sst	55	55	III	3a	WETNESS	Medium-Heavy	Dale	Stopped by stone at 90cm. 4-7 degree slope.
			60	hcl	10YR 4/3	g	fw	3-5	sst								
			90	hcl	5YR 3/6	o, g	ab	10-20	sst, grvl								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
			29	hcl	10YR 3/3			3-5	sm & med sst								
		OSR	48	hcl	7.5YR 5/3	o, g, Mn	ab	3-5	wdsst	35	35	IV	3b	WETNESS	Heavy	Dale	Stopped by stone 60cm.
276	444300, 388700		60	c	10YR 6/3	o, Mn	ab	3-5	wdsst								
			27	hcl	10YR 4/2			<1	sst								
		STB	80	c	7.5YR 6/1	o, g, Mn	ab	1-2	wdsst	27	35	IV	3b	WETNESS	Heavy	Dale	Lower subsoil over burden contaminated with coal. Possibility of disturbance due to coal mining.
277	446100, 388700		120	c	7.5YR 3/1			<1	sst								
		STB	30	hcl	10YR 4/2			1-2	sst, f	30	35	IV	3b	WETNESS	Heavy	Dale	7-11° slope.
278	446300, 388700		120	hcl	10YR 5/6	o, g, Mn	ab	1-2	sst								
		WB	34	hcl	10YR 4/3			1-2	sst	34	35	IV	3b	WETNESS	Heavy	Dale	Pottery / refuse on surface nearby. Small band of coal 84-90cm.
279	446500, 388700		120	c	7.5YR 5/6	o, g, Mn	ab	<1	sst								
			32	hcl	10YR 4/2	Mn	r	<1	wdsst								
		WW	43	hcl	10YR 4/4	o, Mn	cm	<1	wdsst	43	43	III	3b	WETNESS	Heavy	Dale	Increasingly grey with depth.
280	446700, 388700		120	c	10YR 5/6	o, g, Mn	ab	<1	wdsst								
			32	hzcl	10YR 4/2			1-2	sm sst								
		OSR	75	hzcl	10YR 5/6	Mn	r	1-2	sm sst	75	75	II	3a	WETNESS	Heavy	Dale	10YR 4/3 to yellow 10YR 4/3 transition in upper subsoil. On a 4-7 degree slope.
282	444200, 388600		120	hzcl	10YR 6/3	g	cm	<1	sst								
		OSR	33	hcl	10YR 4/1	o, g	fw	1-2	sm sst, shale	33	35	IV	3b	WETNESS	Heavy	Dale	Bottom of slope. At 60cm becomes grey and 10YR 1/1 with weathered coal fragments, less distinct mottles. Pottery, concrete and plastic fragments in field.
283	444400, 388600		120	hcl	7.5YR 4/1	o, g, Mn	ab	1-2	coal								
		WB	30	hcl	10YR 4/2			3-5	sst, brick	30	35	IV	3b	WETNESS	Heavy	Dale	
284	446000, 388600		120	c	7.5YR 5/6	o, g, Mn	ab	<1	sst, brick								
		STB	27	hcl	10YR 4/2	o	cm	1-2	sst	27	35	IV	3b	WETNESS	Heavy	Dale	Incredibly dry boring. Undulating field. Subsoil becoming grey with depth.
285	446200, 388600		120	c	10YR 5/6	o, g, Mn	ab	3-5	wdsst								
		WB	32	hcl	7.5YR 5/6			3-5	small sst	32	35	IV	3b	WETNESS	Heavy	Dale	
286	446400, 388600		55	hcl	7.5YR 5/6	o, g, Mn	ab	3-5	wdsst								
			120	c	7.5YR 5/6	o, g, Mn	ab	3-5	wdsst								
		STB	34	hcl	10YR 4/3			1-2	sst	34	35	IV	3b	WETNESS	Heavy	Dale	Coal content increases with depth, staining the matrix colour darker.
287	446600, 388600		48	hcl	10YR 5/4	o, g, Mn	ab	<1	sst								
			120	c	10YR 3/2	o, g, Mn	ab	3-5	coal, sst								
		WW	32	hcl	10YR 4/2			<1	wsst	42	42	III	3b	WETNESS	Heavy	Dale	
288	446800, 388600		65	hcl	10YR 5/6	o, g, Mn	ab	<1	sst								
			120	c	7.5YR 4/1	o, Mn	ab	<1	sst								
		PGR	23	mcl	10YR 4/2			<1	sst	23	35	IV	3b	WETNESS	Medium	Dale	Poaching from horses. Middle of slight slope.
289	444300, 388500		120	mzcl	10YR 5/4	o, g, Mn	ab	<1	sst								
		PGR	29	hcl	10YR 4/2	o	cm	<1	sst	29	35	IV	3b	WETNESS	Heavy	Dale	Very dry subsoil. Poaching, slight slope in field. Horse field.
290	444500, 388500		120	hzcl	10YR 5/4	o, g, Mn	ab	<1	sst								
		WB	20	hcl	10yr 4/2			5-10	sst	20	35	IV	3b	WETNESS	Heavy	Dale	Check lidar for slope. Impenetrable at 50cm.
291	446100, 388500		50	c	7.5YR 5/1	o, g, Mn	ab	<1	sst								
		STB	28	hcl	10YR 4/2			1-2	sst	28	35	IV	3b	WETNESS	Heavy	Dale	Mid slope, <7°.
292	446300, 388500		120	hzcl	10YR 5/6	o, g, Mn	ab	3-5	wdsst								
		WB	33	hcl	10YR 4/2			1-2	sst	33	35	IV	3b	WETNESS	Heavy	Dale	Localised areas of abundant sandstone gravels nearby.
293	446500, 388500		120	c	7.5YR 5/1	o, g, Mn	ab	<1	sst								
			34	hcl	10YR 4/3			1-2	sst								
		STB	45	hcl	10YR 5/4	o, g, Mn	ab	<1	sst	34	35	IV	3b	WETNESS	Medium-Heavy	Dale	Marginal mcl/hcl topsoil texture and sc, lower, impenetrable at 65cm due to rock.
294	446700, 388500		75	mcl	10YR 5/8	o, g	m	<1	sst								
			30	hcl	10YR 4/2			1-2	wdsst								

ERM Whitestone Solar Farm

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FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
295	446900, 388500	WW	100	hcl	10YR 5/6	o, g, Mn	ab	<1	wdsst	52	52	II	3a	WETNESS	Heavy	Dale	
			120	c	10YR 4/2	Mn	fw	<1	wdsst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
296	447100, 388500	W Beans	21	hcl	10YR 4/2			3-5	sst grvl, med sst	21	35	IV	3b	WETNESS	Medium-Heavy	Dale	Coarse sand increases at 70cm. 5 degree slope.
			120	fscl	10YR 4/6	o, g, Mn	ab	1-2	wdsst								
298	443800, 388400	WW	27	scl	5YR 4/3			5-10	sst	35	>70	II	3b	SLOPE	Medium	Rivington	Slope 7-11 degrees. Check lidar.
			70	mcl	5YR 5/8	o, g, br	fw	5-10	sst								
300	444400, 388400	PGR	30	mcl	10YR 4/2	o	cm	<1	sst	15	35	IV	3b	WETNESS	Medium-Heavy	Dale	Horse field, poaching.
			120	c	10YR 4/1	o, g, Mn	ab	<1	sst								
301	444600, 388400	WW	30	hcl	10YR 4/2			<1	sst	30	35	IV	3b	WETNESS	Heavy	Dale	Impenetrable at 70cm due to hard stones. Bean volunteers in field.
			56	hzcl	10YR 4/1	o, g, Mn	ab	1-2	sst								
			70	c	10YR 4/1	o, g, Mn	ab	1-2	sst								
302	446000, 388400	WB	33	hcl	10YR 4/2			3-5	sst	33	35	IV	3b	WETNESS	Heavy	Dale	Clay greyer with depth.
			120	c	7.5YR 4/6	o, g, Mn	ab	<1	sst								
303	446200, 388400	WB	30	hcl	10YR 4/2			3-5	sm sst	30	35	IV	3b	WETNESS	Heavy	Dale	Clay is incredibly dry. Impenetrable at 58cm.
			58	c	7.5YR 4/1	o, g, Mn	ab	<1	sm sst								
304	446400, 388400	WB	31	hcl	10YR 4/2			3-5	sst	31	63	III	3b	WETNESS	Medium-Heavy	Dale	
			63	mcl	10YR 4/4	Mn	fw	1-2	wdsst								
			120	c	7.5YR 4/6	o, g, Mn	ab	<1	wdsst								
305	446600, 388400	WB	30	hcl	10YR 4/2			3-5	sm sst	30	35	IV	3b	WETNESS	Heavy	Dale	Coal band at 70-85cm.
			120	c	7.5YR 4/1	o, g, Mn	ab	<1	sm sst								
307	447000, 388400	W Beans	27	hcl	10YR 4/2			1-2	sst	39	no spl	II	3a	WETNESS	Medium-Heavy	Rivington/Dale	Compacted sand at 70cm, impenetrable to handheld tools. 10YR 1/1 clay loam layer- coal dust? Sloping field.
			39	hcl	10YR 1/1			<1	sst								
			70	lms	7.5YR 4/1	o	cm	<1	sst								
309	447800, 388400	STB	24	scl	10y4/3			<1	sst	24	no spl	II	3a	WETNESS	Medium	Rivington	Stopped by stone at 70cm.
			70	msl	10yr5/4	o	cm	3-5	sst								
310	443900, 388300	WB	25	msl	5YR 3/4			1-2	sst	no gleying	no spl	I	3b	DROUGHT	Light-Medium	Rivington	Drought calc conducted.
			55	lms	10R 3/4			5-10	v sm grvl								
312	444309, 388340	WW	30	mcl	10YR 4/1			<1	wdsst	30	35	IV	3b	WETNESS	Medium-Heavy	Dale	Impenetrable due to stones at 90cm. At top of 5 degree slope. Bean volunteers.
			90	hzcl	10YR 5/6	o, g, Mn	ab	<1	wdsst								
313	444500, 388300	PGR	27	hcl	10YR 4/2			<1	wdsst	27	35	IV	3b	WETNESS	Heavy	Dale	Coal layer from 50-60cm.
			120	c	5YR 4/1	o, g, Mn	ab	1-2	sst								
316	446100, 388300	WB	26	hcl	10YR 4/2			3-5	sst	26	35	IV	3b	WETNESS	Heavy	Dale	Check lidar for slope approximately 4-5 degrees.
			120	c	7.5YR 6/1	o, g, Mn	ab	<1	sst								
317	446300, 388300	WB	28	hcl	10YR 4/2			1-2	sst	28	35	IV	3b	WETNESS	Heavy	Dale	Approximatelty 5% subsoil inclusions in topsoil.
			120	c	7.5YR 4/6	o, g, Mn	ab	<1	sst								
318	446500, 388300	WB	27	hcl	10YR 4/2			3-5	sst	27	35	IV	3b	WETNESS	Heavy	Dale	Impenetrable at 95cm.
			58	hzcl	7.5YR 4/6	o, g, Mn	ab	<1	sst								
			95	c	7.5YR 4/6	o, g, Mn	ab	<1	sst								
319	446700, 388300	W Beans	30	hcl	10YR 4/2			1-2	sst	30	35	IV	3b	WETNESS	Heavy	Dale	7-11 degree slope.
			120	c	10YR 7/4	o, g	ab	<1	sst								
321	447100, 388300	W Beans	29	mcl	10YR 4/2			1-2	sst	29	35	IV	3b	WETNESS	Medium	Rivington/Dale	Compacted sst at 55cm.
			55	scl	10YR 5/6	o	cm	50+	sst, shale								
323	447500, 388300	PGR	34	hcl	10YR 3/2			1-2	sst	34	35	IV	3b	WETNESS	Heavy	Dale	Slope 7-11. Inclusions of clay with depth.
			120	hcl	10YR 5/2	o, Mn	ab	3-5	sst								
324	447700, 388300	STB	33	hcl	10YR 4/2			3-5	sst	33	no spl	III	3a	WETNESS	Medium-Heavy	Dale	Unsure on SPL. Auger boring stopped at 50cm due to stone, tried in three locations.
			50	mzcl	10YR 5/6	Mn	m	3-5	wdsst								
325	447900, 388300	STB	31	mcl	10YR 3/2			<1	sst	31	35	IV	3b	WETNESS	Medium	Rivington/Dale	Assumption scl is poor structure due to compaction. If not no SPL.
			120	scl	10YR 5/6	o, Mn	cm	5-10	sst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
326	444000, 388200	WB	25	msl	5YR 3/4			3-5	sst	no gleying	no spl	I	3b	SLOPE	Light-Medium	Rivington	Field likely to be limited by slope. Drought calc conducted.
			120	lms	10R 5/6			5-10	v sm grvl								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
329	444600, 388200	WB	32	c	10YR 4/2			<1	sst	32	35	IV	3b	WETNESS	Heavy	Dale	4-7 degree slope, very compact. Large pockets of clay infused with coal dust in lower subsoil.
			60	hcl	10YR 5/4	o, g, Mn	ab	1-2	sst								
			120	c	10YR 3/2			10-20	shale, coal								
335	446800, 388200	W Beans	28	hcl	10YR 4/2			3-5	sst, rubble	25	35	IV	3b	WETNESS	Heavy	Dale	Standing water, 2-5 degree slope.
			120	c	10YR 5/6	o, g, Mn	ab	<1	sst, rubble								
337	447200, 388200	W Beans	26	hcl	10YR 4/2			5-10	sst, shale	26	35	IV	3b	WETNESS	Medium-Heavy	Dale	4 to 7 degree slope. Marginal mcl/hcl topsoil.
			65	mzcl	10YR 5/6	o, g	m	10-20	sst, shale								
			120	c	7.5YR 4/1	o, Mn	ab	<1	sst, shale								
338	445800,388200	PGR	24	hcl	10YR 3/2			<1	sst	24	35	IV	3b	WETNESS	Heavy	Dale	Subsoil sand from ground up stones. Stopped at 50cm
			50	scl	10YR 5/4	g	cm	50+	wth sst								
339	447600, 388200	STB	30	hcl	10YR 4/2			1-2	sst	30	64	III	3b	WETNESS	Medium-Heavy	Dale	Check topsoil PSD.
			64	mzcl	10YR 5/6	o	cm	3-5	wdsst								
			120	c	10YR 5/4	o, g, Mn	ab	3-5	wdsst								
340	447800, 388200	STB	29	hcl	10YR 4/2			1-2	sst	29	35	IV	3b	WETNESS	Heavy	Dale	Check topsoil PSD.
			120	hcl	10YR 5/6	o, Mn	ab	3-5	wdsst								
342	443900, 388100	WB	30	msl	10YR 4/3			5-10	lge sst	no gleying	no spl	I	3b	SLOPE	Medium	Rivington	Many large sandstones, impenetrable at 50cm.
			50	scl	5YR 4/4	10YR 7/4	fw	5-10	sst								
343	444100, 388100	WB	26	msl	7.5R 3/4			3-5	sst	no gleying	no spl	I	3a	DROUGHT	Light-Medium	Rivington	Very compact subsoil. Drought calc conducted.
			120	lms	10R 4/2			5-10	sst								
345	444700, 388100	WB	37	hcl	10YR 4/2	Mn	fw	3-5	sst	37	37	IV	3b	WETNESS	Heavy	Dale	
			120	hcl	10YR 4/4	o, g, Mn	ab	1-2	sst								
351	447100, 388100	W Beans	26	hzcl	10YR 4/2			3-5	wdsst	26	35	IV	3b	WETNESS	Heavy	Dale	1 to 3 degree slope.
			60	hzcl	10YR 5/6	o, Mn	ab	3-5	wdsst								
			120	c	7.5YR 4/1	o, Mn	ab	3-5	wdsst								
352	447300, 388100	W Beans	32	hcl	10YR 4/2			3-5	sst	32	35	IV	3b	WETNESS	Heavy	Dale	Sand pockets in subsoil.
			80	c	10YR 5/6	o, g, Mn	ab	10-20	wdsst								
353	447500, 388100	STB	28	mcl	10YR 4/2			1-2	sst	28	no spl	II	2	WETNESS	Medium	Rivington/Dale	Not deep enough to see if slowly permeable. incredibly dry subsoil.
			53	scl	10YR 5/4	o	cm	3-5	wdsst								
354	447681, 388065	PGR	28	mcl	10YR 4/3			<1	sst	28	35	IV	3b	WETNESS	Medium-Heavy	Dale	Subsoil very dry. Field drain at 90cm.
			90	hcl	10YR 6/5	o, Mn	ab	3-5	grvl								
355	447900, 388100	PLGH	28	hcl	10YR 4/2			1-2	sst	28	no spl	II	2	DROUGHT	Medium-Heavy	Rivington/Dale	
			50	mszl	10YR 5/4			<1	sst								
356	448300, 388100	WW	23	hcl	10YR 4/2			1-2	sst	23	35	IV	3b	WETNESS	Heavy	Dale	High silt content in subsoil. Auger boring located at top of slope.
			120	c	10YR 5/4	g, Mn	ab	<1	sst								
361	444200, 388000	WB	25	scl	5YR 4/3			3-5	sst	54	55	II	2	WETNESS	Medium-Heavy	Rivington	Lower subsoil yellowish 10YR 4/3 with dark purple red clay inclusions.
			54	scl	5YR 4/4			10-20	wdsst								
			120	hcl	10YR 5/4	o	cm	1-2	sst								
362	444800, 388000	WB	33	hcl	10YR 4/2	o, g, Mn	fw	<1	sst	33	33	IV	3b	WETNESS	Heavy	Dale	
			120	hcl	2.5YR 6/1	o, g, Mn	ab	<1	sst								
368	447200, 388000	STB	29	hcl	10YR 4/2			5-10	sst, coal	29	35	IV	3b	WETNESS	Heavy	Dale	Coal fragments on topsoil surface. 5% subsoil inclusions on topsoil surface. Wet underfoot. Very dry subsoil. Weathered sandstone in the subsoil increases with depth.
			120	hzcl	10YR 5/4	o, g, Mn	m	1-2	wdsst								
370	447551, 388013	PGR	26	sl o mcl	10YR 4/3			<1	sst	26	no spl	II	2	WETNESS	Medium	Rivington/Dale	Stopped by stone at 70cm.
			70	msl	10YR 5/4	o, Mn	fw	5-10	wdsst								
371	447800, 388000	PLGH	24	hzcl	10YR 4/2			<1	shale	24	35	IV	3b	WETNESS	Heavy	Dale	Dry cracked surface. In field with wind turbine. 2 degree slope.
			120	c	GLEY1 6/1	o, Mn	ab	<1	shale								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
372	448000, 388000	PLGH	31	hzcl	10YR 4/2			1-2	sst	35	35	IV	3b	WETNESS	Heavy	Dale	10m from field edge with drop onto M1 ROAD. Flat area in field. Dry cracked surface. Very dry subsoil.
			90	hzcl	10YR 5/4	o, g, Mn	m	1-2	f, shale sst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

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FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
373	448233, 387986	WB	31	hzcl	10YR 4/2	o	cm	1-2	wdsst	29	35	IV	3b	WETNESS	Heavy	Dale	Clay apparent silt with depth, mottling increasing from 40cm abundant.
			120	c	5YR 4/3	o, g, Mn	ab	3-5	wdsst								
374	448400, 388000	WW	23	hcl	10YR 4/2			1-2	sst	23	35	IV	3b	WETNESS	Heavy	Dale	
			90	zc	10YR 4/4	o, g, Mn	ab	<1	sst								
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
379	444700, 387900	WW	31	hcl	10YR 4/2			1-2	sst	31	35	IV	4	SLOPE	Heavy	Dale	17 degree slope, check lidar for field.
			120	c	10YR 5/1	o, g, Mn	ab	1-2	sst								
380	444900, 387900	WB	34	hcl	10YR 4/3	Mn	fw	<1	sst	34	35	IV	3b	WETNESS	Heavy	Dale	Increasingly orange with depth impenetrable at 75cm. Sand content in subsoil.
			80	hcl	2.5YR 4/4	o, g, Mn	ab	<1	sst								
385	447100, 387900	BC	32	hcl	10YR 4/2			1-2	sst	32	35	IV	3b	WETNESS	Heavy	Dale	Bird cover.
			120	c	10YR 5/4	o, g, Mn	ab	1-2	wdsst								
386	447300, 387900	W Beans	28	hcl	10YR 4/2			1-2	sst	28	35	IV	3b	WETNESS	Heavy	Dale	Standing water in area of field.
			120	c	10YR 5/4	o, g, Mn	ab	1-2	sst								
387	447500, 387900	W Beans	27	mcl	10YR 4/2			1-2	wsst	27	35	IV	3b	WETNESS	Medium	Dale	Very gravelly topsoil/subsoil boundary >20% sst grvl. Wet subsoil with sanding water.
			120	fscl	7.5YR 5/8	o, g, Mn	m	5-10	sst grvl, wsst								
388	447700, 387900	W Beans	29	hcl	10YR 4/2			3-5	sst	29	35	IV	3b	WETNESS	Heavy	Dale	10m off hedge and ditch. Perched water table at topsoil/subsoil boundary.
			120	c	10YR 7/4	o, g, Mn	ab	3-5	sst								
389	447900, 387900	PLGH	28	hcl	10YR 4/2			<1	sst	28	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
390	448300, 387900	WW	30	hcl	10YR 4/2			1-2	sst	30	35	IV	3b	WETNESS	Heavy	Dale	Impenetrable due to stone at 30cm on first attempt moved 1m east.
			120	zc	7.5YR 4/8	o, g, Mn	ab	1-2	wdsst								
391	448500, 387900	WW	27	hzcl	10YR 4/2	o	fw	1-2	wdsst	27	35	IV	3b	WETNESS	Medium-Heavy	Dale	Clay apparent clay with depth.
			79	c	5YR 6/3	o, g, Mn	m	3-5	wdsst								
			120	msl	5YR 5/3	o, g	cm	<1	wdsst								
394	449202, 387781	PGR	23	sl o-hcl	10YR 3/1			<1	wdsst	23	35	IV	3b	WETNESS	Heavy	Dale	Mixing in ss, clay lumps, brick, dist? Black peaty material in with clay blow 50cm, wet after 50cm.
			50	hcl	5YR 4/3	o, g, Mn	ab	<1	coal								
			120	c	10YR 8/6	o, g, Mn	ab	<1	wdsst, coal								
395	444600, 387800	WW	23	hcl	10YR 4/2	Mn	r	<1	wdsst	23	35	IV	3b	WETNESS	Heavy	Dale	Terminated on stone. Increasingly grey with depth.
			82	c	7.5YR 6/2	o, Mn	ab	<1	sst								
396	444800, 387800	WW	30	hcl	10YR 4/2			10-20	sst	30	35	IV	3b	SLOPE	Heavy	Dale	Very dry subsoil. 7-11 degree slope, check lidar. Bean volunteers in field.
			120	c	7.5YR 6/2	o, g, Mn	ab	20-30	sst								
397	445000, 387800	WB	33	hcl	5YR 4/3			3-5	wdsst	34	40+	III	3b	WETNESS	Medium-Heavy	Dale	Better drained, impenetrable at 90cm due to stone, increasing sandstone influence as move up hill. Increased sand content due to augering of weathered sandstones.
			80	mcl	10YR 4/4	o, g, Mn	cm	3-5	wdsst								
402	447200, 387800	CULT	32	hcl	10YR 5/6			<1	sst	32	35	IV	3b	WETNESS	Heavy	Dale	8cm transitionary layer, true clay from 40cm. 5% subsoil inclusions in topsoil.
			120	c	10YR 4/2	g, Mn	ab	<1	sst								
403	447400, 387800	CULT	28	mcl	10YR 4/2			10-20	sst	28	no spl	II	2	DROUGHT	Medium	Rivington	Wind turbines in field, slaked surface, building rubble. Gleying would be hidden by colour.
			80	msl	10R 3/6	Mn	cm	10-20	wdsst								
404	447600, 387800	W Beans	27	hcl	10YR 4/2			1-2	sst	27	35	IV	3b	WETNESS	Heavy	Dale	10m off hedge and ditch. Perched water table at topsoil/subsoil boundary.
			120	c	10YR 7/4	o, g, Mn	ab	1-2	sst								
405	447800, 387800	Unmanaged	40	hcl	10YR 4/2			<1	sst	40	40	III	3b	WETNESS	Heavy	Dale	Unmanaged section of field. 15m from turbine.
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
406	448000, 387800	PLGH	27	hzcl	10YR 4/2			1-2	wdsst, f	27	no spl	II	3a	WETNESS	Heavy	Rivington/Dale	Dry cracked ground, wind turbine field. 2 degree slope.
			120	hcl	10YR 5/4	o	r	<1	wdsst								
		WW	23	hcl	10YR 4/2			1-2	sst	30	35	IV	3b	WETNESS	Heavy	Dale	Bottom of 2 degree slope.
			81	zc	7.5YR 4/8	o, g, Mn	ab	1-2	wdsst								

ERM Whitestone Solar Farm

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FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
407	448200, 387800		120	c	10YR 4/4	o, g, Mn	ab	1-2	wdsst								
408	448394, 387824	WW	26	hzcl	10YR 4/2	o	fw	<1	sst	26	35	IV	3b	WETNESS	Heavy	Dale	Clay with apparent silt below 70cm relatively flat field, mottles abundant below 40cm.
			120	c	5YR 4/3	o, g, Mn	ab	1-2	wdsst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

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FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
410	448839, 387797	PGR	28	hcl	10YR 4/2			<1	sst	28	35	IV	3b	WETNESS	Heavy	Dale	Likely slowly permeable at 35cm, check surrounding borings. Definitely slowly permeable at 64cm. Poached field.
			64	hcl	10YR 5/4	g, Mn	m	<1	sst								
			120	c	10YR 6/1	o, Mn	ab	<1	sst								
411	449000, 387800	PGR	27	hcl	10YR 4/2			<1	sst	27	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	7.5YR 6/1	o, g, Mn	ab	<1	sst								
412	444500, 387700	WW	30	hzcl	10YR 4/2	Mn	r	<1	sst	30	35	IV	3b	WETNESS	Heavy	Dale	Discrete bands of coal from 73 to 120cm.
			120	c	7.5YR 6/2	o, Mn	ab	<1	sst								
413	444700, 387700	WW	33	mcl	10YR 4/3			3-5	sst	33	no spl	II	3b	SLOPE	Medium	Dale	Bean volunteers, likely ALC Grade 3a on slope or stone content. Impenetrable at 95cm.
			95	scl	10YR 4/4	g	cm	1-2	sm sst								
414	444900, 387700	WW	30	hcl	10YR 4/2			<1	sst	35	35	IV	3b	WETNESS	Heavy	Dale	7-11 degree slope.
			45	hcl	10YR 7/4	o, g	ab	1-2	wdsst								
			120	c	10YR 6/1	o, g	ab	<1	wdsst								
419	447100, 387700	PLGH	31	hcl	5YR 2.5/2			5-10	sst	31	no spl	II	3a	WETNESS	Heavy	Rivington/Dale	Very stony side of field.
			120	hcl	5YR 4/3	Mn	m	10-20	sst								
420	447300, 387700	CULT	27	mcl	7.5YR 3/4			5-10	lge sst	no gleying	no spl	I	3a	STONE CONTENT	Medium	Rivington/Dale	3 locations tried all stopped at 45cm due to stone.
			45	scl	10YR 5/6			10-20	sst								
421	447500, 387700	PLGH	29	hcl	10YR 4/2			5-10	sst	29	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/4	o, g, Mn	ab	1-2	sst								
422	447700, 387700	PGR	18	mcl	10YR 4/3			<1	sst	18	no spl	II	2	WETNESS	Medium	Rivington	Clay pockets in lms. Stopped by stone at 60cm.
			60	lms	10YR 6/4	o	cm	5-10	wdsst								
423	447900, 387700	PLGH	25	hcl	10YR 4/2			1-2	sst	25	35	IV	3b	WETNESS	Heavy	Dale	Topsoil sitting wet, subsoil very dry.
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
423.5	447972, 387490	PGR	25	hcl	10YR 4/2			<1	sst	25	35	IV	3b	WETNESS	Heavy	Dale	Quite close to a farm yard. Slightly lighter subsoil than surrounding borings.
			73	hzcl	10YR 5/4	g, Mn	ab	3-5	wdsst, coal								
424	448276, 387720	WW	35	hcl	10YR 4/2			1-2	sst	35	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 4/6	o, g, Mn	ab	1-2	wdsst								
425	448700,387700	PGR	34	mzcl	10YR 3/2			<1	sst	34	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			50	hcl	10YR 5/4	g	cm	1-2	sst								
			120	c	10YR 6/1	o, g, Mn	ab	1-2	sst								
425.5	447625, 386872	STB	30	hcl	10YR 4/2			3-5	sst, hdst	30	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/4	o. g, Mn	ab	1-2	wdsst								
426	448916, 387732	PGR	31	mcl	10YR 4/3	o	fw	<1	sst	31	35	IV	3b	WETNESS	Medium-Heavy	Dale	Subsoil colour very mixed.
			120	c	10YR 4/4	g, o	ab	<1	sst								
427	449100, 387700	PGR	30	hcl	10YR 4/2			<1	sst	30	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
428	449293, 387717	PGR	24	hcl	10YR 4/2	o, Mn	r	<1	coal	24	35	IV	3b	WETNESS	Heavy	Dale	Increasingly grey with depth, coal lumps in subsoil.
			120	c	GLEY1 6/1	o, Mn	ab	1-2	coal, wsst								
429	446827, 387567	PLGH	35	hcl	10YR 4/2			1-2	sst	35	35	IV	3b	WETNESS	Heavy	Dale	<7° slope.
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
430	447000, 387600	PLGH	28	hcl	5YR 2.5/2			5-10	sst	28	no spl	II	3a	WETNESS	Heavy	Rivington/Dale	Hard to tell SPL, red colour of soil is masking mottling.
			120	hcl	5YR 4/3	g, Mn	ab	5-10	sst								
431	447200, 387600	CULT	25	mcl	10YR 4/2			3-5	wsst	25	no spl	II	2	DROUGHT	Medium	Rivington	Slaked surface.
			120	scl	10YR 5/6	Mn	r	3-5	wsst								
432	447400, 387600	PLGH	30	hcl	10YR 4/2			10-20	sst	30	no spl	II	3a	WETNESS	Medium-Heavy	Rivington/Dale	
			50	hcl	10YR 5/4	Mn	cm	10-20	sst, wdsst								
			120	msl	10YR 6/4			5-10	wdsst								

ERM Whitestone Solar Farm
Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
433	447600, 387600	PGR	29	hcl	10YR 4/3			<1	sst	29	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 6/4	o, Mn	ab	<1	sst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

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FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
434	447853, 387617	PGR	26	hcl	10YR 4/2			<1	sst	26	35	IV	3b	WETNESS	Heavy	Dale	Subsoil turning dark grey with depth, almost black.At 1m could be influenced by colliery spoil.
			120	c	10YR 5/4	o, g, Mn	ab	1-2	wdsst								
434.5	447900, 387500	PGR	23	hcl	10YR 4/2			<1	sst	23	35	IV	3b	WETNESS	Heavy	Dale	Subsoil becoming more grey and drier with depth. Definitely slowly permeable.
			120	c	10YR 5/6	g, Mn	ab	<1	sst								
435	448600, 387600	PGR	26	hzcl	10YR 4/2	o	fw	1-2	wdsst	26	35	IV	3b	WETNESS	Heavy	Dale	Clay with small bands if silt below 70cm.
			120	c	5YR 6/3	o, Mn	ab	1-2	wdsst								
436	448816, 387624	PGR	26	hcl	10YR 4/2			<1	sst	26	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 6/1	o, Mn		<1	sst								
436.5	448880, 387554	PGR	33	mcl	10YR 3/3			<1	sst	33	35	IV	3b	WETNESS	Heavy	Dale	Stone below 60cm, stopped at 90cm.
			90	hcl	10YR 6/1	o, Mn	ab	1-2	hdst								
437	449000, 387600	PGR	26	hcl	10YR 4/2			<1	sst	27	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	7.5YR 6/1	o, g, Mn	ab	<1	sst								
438	449207, 387635	PGR	27	hcl	10YR 4/2	o	cm	<1	wdsst	27	35	IV	3b	WETNESS	Heavy	Dale	5m from ditch with water. Increasingly grey with depth.
			120	c	10YR 5/4	o, g	ab	1-2	sst, coal								
438.5	449211, 387560	PGR	31	hcl	10YR 3/3			<1	sst	31	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 6/1	o	ab	<1	sst								
439	449371, 387593	PGR	30	hcl	10YR 4/2			<1	sst	30	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/4	o, g	ab	<1	sst								
440	449800, 387600	WW	28	hcl	10YR 4/2			3-5	f, sst	28	35	IV	3b	WETNESS	Heavy	Dale	
			50	hcl	7.5R 4/6	o, g, Mn	ab	1-2	f, sst								
			120	scl	10YR 5/6	o, g, Mn	ab	3-5	f, sst								
441	446900, 387500	PLGH	26	hcl	5YR 3/2			10-20	lge sst	26	35	IV	3b	WETNESS	Heavy	Dale	
			38	c	5YR 4/3	g, Mn	ab	3-5	sst								
442	447100, 387500	CULT	29	mcl	10YR 4/2			1-2	wsst	29	no spl	II	2	DROUGHT	Medium	Rivington/Dale	Gradient 4-7 degrees. Hit stone at 90cm. Subsoil locally scl due to weathered sandstones.
			90	mcl	7.5YR 5/6	pink	fw	5-10	wsst								
443	447300, 387500	PLGH	26	hcl	10YR 4/2			10-20	sst	26	no spl	II	3a	WETNESS	Medium-Heavy	Rivington/Dale	
			56	mcl	10YR 5/4	Mn	cm	10-20	sst, wdsst								
444	447500, 387500	W Beans	34	hcl	10YR 4/2			1-2	sm sst	34	35	IV	3b	WETNESS	Heavy	Dale	Top 10cm is wet. Some standing water on surface. Getting greyer with depth.
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
445	447800, 387600	PGR	26	hcl	10YR 4/3			<1	sst	26	35	IV	3b	WETNESS	Heavy	Dale	Sandy pockets around wthd sst. Stopped by stone at 50cm.
			50	c	10YR 6/4	o, Mn	ab	3-5	wdsst								
445.5	447799, 387525	PGR	30	hcl	10YR 4/2			<1	sst	30	40	III	3b	WETNESS	Medium-Heavy	Dale	Silt in the topsoil. Within lower subsoil there is a lot of topsoil present. Possibly disturbed?
			40	scl	10YR 5/4	Mn	fw	1-2	wdsst								
			65	c	10YR 5/4	o, g, Mn	ab	1-2	wdsst, sst								
446	448500, 387500	PGR	33	hcl	10YR 4/2			<1	sst	33	35	IV	3b	WETNESS	Heavy	Dale	Standng water in field. Water filling up boring from sides, definitely slowly permeable.
			120	c	10YR 6/1	o, Mn	ab	<1	sst								
447	448700, 387500	PGR	22	hcl	10YR 4/2			<1	sst	22	45	III	3b	WETNESS	Medium-Heavy	Dale	Sheep in field. Auger boring moved away from hedge.
			45	hcl	10YR 5/3	g, Mn	cm	<1	sst								
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
448	449063, 387556	PGR	22	hcl	10YR 4/2			<1	sst	22	35	IV	3b	WETNESS	Heavy	Dale	Perched water table, water in boring from 10cm.
			120	c	10YR 6/1	o., Mn	ab	<1	sst								
449	449200, 387600	STB	21	scl	10YR 4/4			3-5	sst	no gleying	no spl	II	2	WETNESS	Medium	Rivington	Stone at 66cm. Sandy inclusions with depth.
			66	msl	10YR 6/6			3-5	sst								
450	449500, 387500	PGR	28	hcl	10YR 4/2			<1	sst	28	35	III	3b	WETNESS	Heavy	Dale	Gritty gravel reached at 67cm turning slightly lighter, could be due to the weathered sandstone. Sheep in field. Incredibly saturated topsoil. Auger boring filling up.
			67	hcl	10YR 5/4	o, g, Mn	ab	1-2	wdsst								

ERM Whitestone Solar Farm
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FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
451	449700, 387500	WW	30	hcl	10YR 4/2			1-2	f	30	35	IV	3b	WETNESS	Heavy	Dale	High proportion of silt in the subsoil.
			120	c	10YR 4/6	o, g, Mn	ab	<1	f								

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BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
452	449900, 387500	WW	30	hcl	10YR 4/2			10-20	sst	30	no spl	II	3a	WETNESS	Heavy	Dale	Impenetrable at 40cm due to sst.
			40	sc	10YR 5/6	o, Mn	cm	10-20	sst								
453	446800, 387400	WB	31	hcl	10YR 4/2			5-10	blast furnance slag	31	35	IV	3b	WETNESS	Heavy	Dale	Standing water in wheelings.
			120	c	7.5YR 7/1	o	ab	<1	sst								
453.5	446689, 387431	WB	29	hcl	10YR4/2			3-5	sst	29	68	II	3a	WETNESS	Heavy	Dale	Standing water in wheelings.
			68	hcl	10YR 4/3	Mn	cm	1-2	wdsst								
			120	zc	5YR 6/3	o, g, Mn	ab	1-2	wdsst								
454	447000, 387400	CULT	26	mcl	10YR 3/4			1-2	sm sst	26	no spl	II	2	DROUGHT	Medium	Rivington	Cultivated field, slaked surface. Sandy pockets of weathered sandstone below 50cm.
			120	mcl	10YR 3/6	Mn	fw	1-2	wdsst								
455	447400, 387400	PLGH	30	hcl	10YR 4/2			3-5	sst	30	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/4	o, g, Mn	ab	1-2	sst								
456	447600, 387400	W Beans	20	hcl	10YR 4/3			5-10	sst	20	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	GLEY1 6/1	o, g, Mn	ab	<1	sst								
457	447799, 387440	PGR	31	hcl	10YR 4/2			<1	sst	31	35	IV	3b	WETNESS	Heavy	Dale	Crest of slight gentle slope.
			120	c	10YR 5/4	o, Mn	ab	<1	wdsst								
457.5	447832, 387302	PGR	30	hcl	10YR 4/2			<1	sst	30	35	IV	3b	WETNESS	Heavy	Dale	Incredibly saturated boring. Subsoil remaining dry, definitely slowly permeable.
			120	c	10YR 5/4	o, Mn	ab	1-2	wdsst								
458	448400, 387400	PGR	26	hcl	10YR 4/2			<1	sst	26	35	IV	3b	WETNESS	Heavy	Dale	Top of slight slope, no standing water in this area of the field. Likely slowly permeable.
			60	hzcl	10YR 5/4	o, Mn	cm	3-5	wdsst								
459	448600, 387400	PGR	26	hcl	10YR 4/2			<1	sst	26	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 6/1	o, Mn	ab	<1	sst								
460	448800, 387400	PGR	28	mzcl	10YR 4/3			<1	sst	28	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			120	c	10YR 6/1	o, Mn	ab	<1	sst								
461	449300, 387500	PGR	36	mcl	10YR 4/3			<1	sst	36	36	IV	3b	WETNESS	Medium-Heavy	Dale	Perched watertable at topsoil/subsoil boundary. High fine sand content in subsoil.
			120	hcl	10YR 6/1	o	ab	<1	sst								
462	449200, 387400	PGR	24	hcl	10YR 4/2			<1	sst	24	35	IV	3b	WETNESS	Heavy	Dale	Sheep in field. Stopped at 53cm due to very gritty gravel. Could be pf? But PGR field not likely to be drained?
			53	c	10YR 6/1	o, Mn	ab	<1	sst								
463	449400, 387400	STB	30	scl	10YR 4/3			<1	sst	30	50	III	3a	WETNESS	Medium	Rivington	Stone at 70cm.
			50	scl	10YR 4/4	o, Mn	cm	<1	sst								
			70	scl	10YR 5/2	o, g, Mn	ab	1-2	sst								
464	449600, 387400	PGR	25	hcl	10YR 4/2			<1	sst	25	35	IV	3b	WETNESS	Heavy	Dale	Very saturated boring. Sheep in field. Subsoil remaining dry besides the fissures, definitely slowly permeable.
			120	c	10YR 6/1	o, Mn	ab	<1	sst								
465	449800, 387400	WW	29	hcl	10YR 4/2			1-2	f	29	35	GW	3b	WETNESS	Heavy	Dale	
			120	c	10YR 4/6	o, g, Mn	ab	<1	f								
466	449986, 387400	WW	30	hcl	10YR 4/2			1-2	f	30	35	GW	3b	WETNESS	Heavy	Dale	Auger boring located on edge on field, uncropped strip.
			120	c	10YR 4/6	o, g, Mn	ab	<1	f								
467	446700, 387300	WB	28	scl	5YR 3/2			3-5	sst	no gleying	no spl	I	3a	DROUGHT	Light-Medium	Rivington	Topsoil/subsoil boundary compact. Subsoill dry and compact. Impenetrable at 60cm. Colour masking gleying. Drought calculation needed.
			60	msl	5YR 5/2			5-10	sm sst gravels								
468	446900, 387300	WB	29	hcl	10YR 4/2	Mn	fw	1-2	wdsst	29	55	III	3b	WETNESS	Heavy	Dale	Clay is very dry.
			55	hcl	10YR 4/3	Mn	cm	<1	sst								
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								

ERM Whitestone Solar Farm

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FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
469	447500, 387300	W Beans	33	hcl	10YR 4/3			3-5	sst, brick	33	48	III	3b	WETNESS	Heavy	Dale	Building rubble mixed in topsoil.
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
470	447800, 387400	Discarded	28	hcl	10YR 4/3			<1	sst	28	35	iv	3b	WETNESS	Heavy	Dale	
			120	c	10YR 6/1	o, Mn	ab	<1	sst								
471	447956, 387322	STB	35	hcl	10YR 4/2			1-2	sst	35	35	IV	3b	WETNESS	Heavy	Dale	Bottom of slight 3° slope.
			120	c	10YR 5/4	g, Mn	ab	<1	wdsst								

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BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
471.5	447907, 387209	STB	29	hcl	10YR 4/2			1-2	sst	29	35	IV	3b	WETNESS	Heavy	Dale	Crest of 3° slope.
			120	hcl	10YR 5/4	g, Mn	ab	1-2	wdsst								
472	448500, 387300	PGR	24	hcl	10YR 4/2			1-2	sst	24	35	IV	3b	WETNESS	Heavy	Dale	Incredibly sticky boring. Crest of slight hill. Surface is dry, soil very sticky and moist.
			80	hzcl	10YR 5/4	g, Mn	ab	1-2	wdsst								
473	448700,387300	PGR	23	c	10YR 4/3			<1	sst	23	35	IV	3b	WETNESS	Heavy	Dale	Extremely heavy.
			120	c	10YR 6/1	o, Mn	ab	<1	sst								
474	448900, 387300	PGR	24	hcl	10YR 4/2			<1	hdst	24	35	IV	3b	WETNESS	Heavy	Dale	Dry at depth.
			120	c	10YR 5/4	o, g	ab	<1	hdst								
475	449100, 387300	PGR	26	mcl	10YR 4/3			<1	hdst	26	35	IV	3b	WETNESS	Medium-Heavy	Dale	Topsoil/subsoil boundary gradual.
			120	c	10YR 6/1	o, Mn	ab	<1	hdst								
476	449294, 387349	BC	27	hcl	10YR 4/2			<1	hdst	27	35	IV	3b	WETNESS	Heavy	Dale	Area of field in bird cover.
			120	c	10YR 6/1	o, Mn	ab	<1	hdst								
477	449500, 387300	PGR	38	mcl	10YR 4/2			<1	hdst	38	50	III	3a	WETNESS	Medium-Heavy	Dale	Slightly lighter material, half way up slight slope. Sticking with theme of light material at crest of slopes.
			120	hzcl	10YR 4/3	o, Mn	cm	<1	hdst								
478	449700, 387300	WW	29	hcl	10YR 4/2			1-2	f	29	35	GW	3b	WETNESS	Heavy	Dale	Auger boring located in uncropped part of the field. Localised area of standing water.
			120	c	10YR 4/6	o, g, Mn	ab	<1	f								
479	449900, 387300	WW	29	hcl	10YR 4/2			1-2	f	29	35	GW	3b	WETNESS	Heavy	Dale	Auger boring located on slight slope.
			120	c	10YR 4/6	o, g, Mn	ab	<1	f								
480	446600, 387200	WB	32	scl	10YR 3/2			1-2	sst	no gleying	no spl	I	3a	DROUGHT	Light-Medium	Rivington	Field has localised stoney areas. Very compacted at topsoil/subsoil boundary. Impenetrable at 50cm. Drought calculation resolved ALC subgrade 3a.
			50	lms	5YR 6/2			10-20	sst gravels								
481	446800, 387200	WB	26	scl	10R 3/4			1-2	sst	no gleying	no spl	I	3a	DROUGHT	Light-Medium	Rivington	Compacted sand below 50cm. Auger boring moved, both stopped at 50cm. Sloping field, check slope.
			40	scl	10R 4/4			3-5	sst								
			50	ms	10R 3/6			20-30	sst								
482	447000, 387200	WB	36	hcl	10YR 4/2			1-2	large sst	36	36	IV	3b	WETNESS	Heavy	Dale	
			120	hcl	10YR 3/2	o, g, Mn	ab	<1	sst								
483	447200, 387200	WB	27	hcl	10YR 3/2			1-2	large sst	27	35	IV	3b	WETNESS	Heavy	Dale	Clay getting grey with depth.
			120	c	10YR 5/4	o, g, Mn	ab	1-2	coal								
484	447400, 387200	W Beans	29	hcl	10YR 4/2			1-2	sst	29	35	IV	3b	WETNESS	Heavy	Dale	Wet corner of field, water on topsoil/subsoil boundary. Coal bands at 80cm to depth.
			80	c	7.5YR 6/1	o, g, Mn	ab	<1	sst								
485	447600, 387200	PGR	32	hcl	10YR 4/2			<1	sst	32	35	IV	3b	WETNESS	Heavy	Dale	Ochre mottles get darker with depth.
			120	c	10YR 6/1	o, Mn	ab	3-5	hdst								
486	447741, 387206	PGR	30	hcl	10YR 4/3			<1	hdst	30	35	IV	3b	WETNESS	Heavy	Dale	Subsoil has clay inclusions with depth.
			120	hcl	10YR 5/1	o, Mn	ab	<1	hdst								
487	448600, 387200	PGR	29	hcl	10YR 4/3			<1	hdst	29	no spl	II	3a	WETNESS	Medium	Dale	scl free draining, very dry. Stopped by stone at 70.
			70	scl	10YR 6/2	g, Mn	cm	<1	hdst								
488	448800, 387200	PGR	27	hcl	10YR 4/2			<1	coal	27	35	IV	3b	WETNESS	Heavy	Dale	Slightly wet at surface. Slightly grey with depth and getting very sticky.
			120	c	10YR 5/4	o, g, Mn	ab	<1	f								
489	449000, 387200	PGR	27	hcl	10YR 4/2			<1	coal	27	35	IV	3b	WETNESS	Heavy	Dale	Standing water on surface, bottom of a 4° slope.
			120	c	10YR 5/4	o, g, Mn	ab	<1	f								
490	449200, 387200	PGR	27	mcl	10yr3/2			<1	hdst	27	35	IV	3b	WETNESS	Medium-Heavy	Dale	Subsoil very compact.
			64	scl	10yr5/4	o, Mn	cm	<1	hdst								
			120	c	10yr6/1	o, Mn	ab	<1	hdst								
491	449400, 387200	PGR	30	hcl	10YR 4/2			<1	hdst	30	35	IV	3b	WETNESS	Heavy	Dale	Sheep in field, very dry subsoil. Compact topsoil.
			120	c	10YR 6/1	o, Mn	ab	<1	hdst								

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BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
492	449800, 387200	WW	31	hcl	10YR 4/2			1-2	f	31	35	IV	3b	WETNESS	Heavy	Dale	Water standing in wheelings.
			120	c	10YR 4/6	o, g, Mn	ab	<1	f								

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BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
493	450000, 387200	WW	30	hcl	10YR 4/2			<1	f	30	35	IV	3b	WETNESS	Heavy	Dale	Slight slope.
			120	c	10YR 4/6	o, g, Mn	ab	<1	f								
494	446700, 387100	WB	24	scl	2.5YR 3/4			<1	sst	no gleying	no spl	I	3a	DROUGHT	Light-Medium	Rivington	Impenetrable below 100cm. Drought calc conducted, Subgrade 3a.
			44	scl	10R 4/4	g	r	3-5	sst grvl								
			82	ms	7.5R 4/6	g	r	1-2	sst grvl								
			100	scl	10R 3/6			1-2	sst								
495	446900, 387100	WB	28	hzcl	10YR 4/2			1-2	wsst	28	no spl	II	3a	WETNESS	Heavy	Dale	At base of sloping field, 4-7degrees.
			120	hcl	10YR 3/2	g, Mn	r	1-2	wsst								
496	447100, 387100	WB	29	hcl	10YR 4/2			3-5	lge sst	29	55	III	3b	WETNESS	Heavy	Dale	4-7° slope.
			120	hcl	10YR 5/4	o, g, Mn	ab	<1	sst								
497	447300, 387100	WB	30	hcl	10YR 4/2			3-5	sst	30	no spl	II	3a	WETNESS	Heavy	Dale	Pottery on surface. Many stones on surface nearby. Impenetrable at 60cm. Slope of 3-4 degrees.
			60	hcl	10YR 4/4	o, Mn	cm	10-20	sst gravel								
498	447000,387200	PGR	30	hcl	10YR 4/2			<1	hdst	30	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 6/1	o, Mn	ab	<1	hdst								
499	447200,387200	PGR	28	hcl	10YR 4/2			<1	hdst	28	35	IV	3b	WETNESS	Heavy	Dale	Coal spoil below 70cm.
			69	c	10YR 6/1	o	ab	<1	hdst								
			120	coal spoil	10yr2/1			<1	hdst								
499.5	447771, 387071	STB	28	hcl	10YR 4/2			1-2	hdst	28	35	IV	3b	WETNESS	Heavy	Dale	Slightly wet on surface.
			120	c	10YR 5/4	o, g, Mn	ab	<1	hdst								
500		STB	29	hcl	10YR 4/2			1-2	hdst	29	35	IV	3b	WETNESS	Heavy	Dale	Weathered sandstone increases with depth, stopped at 74cm. Subsoil very dry.
			74	hcl	10YR 5/4	g, Mn	ab	3-5	wdsst								
501	448700,387100	PGR	27	mzcl	10YR 4/3			<1	hdst	27	35	IV	3b	WETNESS	Heavy	Dale	Subsoil mixed, possibly disturbed, bands of lighter and heavier material.
			120	hcl	10YR 4/3	o, g, Mn	ab	<1	hdst								
501.5	447882, 387122	PGR	40	mzcl	10YR 4/3	Mn	fw	<1	hdst	40	40	IV	3b	WETNESS	Heavy	Dale	
			120	hzcl	10YR 5/4	o, g, Mn	ab	<1	hdst								
503	449100, 387100	PGR	28	hcl	10YR 4/2			<1	coal	28	35	IV	3b	WETNESS	Heavy	Dale	Standing water on surface, bottom of a 4° slope. Strip of field left for wildlife. Very dry subsoil.
			120	c	10YR 5/4	o, g, Mn	ab	<1	f								
504	449300, 387100	PGR	28	hcl	10YR 4/3			<1	f	28	35	IV	3b	WETNESS	Heavy	Dale	Compact subsoil.
			120	scl	10YR 5/4	o, g, MN	ab	<1	f								
505	449900, 387100	WW	32	hcl	10YR 4/2			1-2	f	32	35	IV	3b	WETNESS	Heavy	Dale	Upper subsoil photo taken. Auger boring in headland of field.
			45	hcl	7.5R 4/6	o, g, Mn	ab	<1	f								
			120	c	10YR 4/6	o, g, Mn	ab	<1	f								
506	450053, 387133	WW	29	hcl	10YR 4/2			<1	f	29	35	IV	3b	WETNESS	Heavy	Dale	Auger boring located in headland, has been moved on field maps out of hedge. Saturated profile from topsoil. Bottom of slope.
			120	c	7.5YR 5/1	o, g, Mn	ab	<1	f								
508	446600, 387000	WB	24	scl	10YR 3/4			1-2	sst	46	no spl	I	3a	DROUGHT	Light-Medium	Rivington	Slope in field. Yellow sand at 75cm. Drought calc conducted, Subgrade 3a.
			46	scl	10YR 3/6	g	fw	1-2	sst								
			120	ms	10YR 7/4	g	cm	1-2	sst								
509	446800, 387000	WB	26	scl	10YR 3/4			3-5	med sst	no gleying	no spl	I	1		Medium	Rivington	Subsoil becomes yellow brown from 70cm, Impenetrable from 80cm. Slope in field. Drought calc conducted, Grade 1.
			80	scl	10YR 3/6			3-5	sst grvl								
510	447000, 387000	WB	27	scl	10YR 3/4			3-5	wsst	no gleying	no spl	I	1		Medium	Rivington	Gets paler with depth. Sloping field 4-7 degrees. Drought calc. conducted, Grade 1.
			90	fscl	10YR 3/6	o, Mn	fw	1-2	wsst								
511	447200, 387000	WB	31	hcl	10YR 4/2			1-2	sst	31	50	III	3b	WETNESS	Heavy	Dale	<7° slope. Check lab topsoil.
			50	hzcl	10YR 5/4	o, Mn	m	<1	sst								
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
		WB	31	hcl	10YR 4/2			1-2	sst	31	35	IV	3b	WETNESS	Heavy	Dale	Localised areas of lots of stones. Past 70cm stone

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
512	447400, 387000	[illegible]	120	c	10YR 5/4	o, g, Mn	ab	<1	sst	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	content 1-2 of weathered sandstones.
513	447597, 387057	STB	24	mcl	10YR 4/2			3-5	wdsst	24	no spl	II	2	WETNESS	Medium	Rivington	Subsoil layer gradient into weathered sandstone at 50cm.
			50	scl	10YR 5/4	o	cm	50+	wdsst								

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FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
514	447800, 387000	Unsurveyed															
517	449200, 387000	PGR	28	hcl	10YR 4/2			<1	f	28	35	IV	3b	WETNESS	Heavy	Dale	Standing water on surface, bottom of a 4° slope. Strip of field left for wildlife.
			120	c	10YR 5/4	o, g, Mn	ab	<1	f								
518	449400,387000	WW	27	hcl	10YR 4/3			<1	f	27	35	IV	3b	WETNESS	Heavy	Dale	Surface saturated, subsoil compact.
			120	c	10YR 5/1	o, g, Mn	ab	<1	f								
519	449200, 387000	WB	23	msl	5YR 4/3			5-10	sst	no gleying	no spl	I	2	DROUGHT	Light-Medium	Rivington	Check lidar for field, auger boring attempted in multiple locations, impenetrable at 43cm. Check topsoil analysis. Drought calc needed. Drought calc conducted, Grade 2.
			43	msl	7.5YR 6/1			5-10	sst								
520	446500, 386900	WB	27	scl	5YR 4/3			1-2	sst	27	no spl	II	2	DROUGHT	Light-Medium	Rivington	Red soil could be masking mottles. Impenetrable at 60cm. Drought calc needed.
			36	scl	5YR 4/3	Mn	fw	1-2	sst								
			60	msl	2.5YR 5/6			5-10	sst								
521	446700, 386900	WB	31	scl	5YR 3/3			1-2	sst	60	60	III	3a	WETNESS	Medium-Heavy	Rivington	Compact down to 40cm.
			60	msl	2.5YR 5/6			3-5	wdsst, sst								
			120	hzcl	2.5YR 5/6	g, Mn	ab	<1	wdsst								
522	446900, 386900	Unmanaged	27	scl	10YR 2/2			<1	wdsst	27	35	IV	3b	WETNESS	Medium	Rivington	Next to area of standing water. Increasingly grey and sandy with depth.
			60	msl	10YR 3/3	g	ab	<1	wdsst								
			120	scl	10R 3/6	o, g, Mn	ab	<1	wdsst								
523	447100, 386900	WB	26	scl	10YR 4/2			1-2	wdsst	26	35	IV	3b	WETNESS	Medium-Heavy	Rivington/Dale	Increasingly grey with depth. Top of slope.
			55	hcl	10R 5/6	o, Mn	ab	1-2	wdsst								
			120	c	10YR 5/3	o, g, Mn	ab	<1	wdsst								
525	447536, 386935	STB	27	hcl	10YR 4/2			1-2	sst	27	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 7/1	Mn	ab	5-10	wdsst, coal								
526	447700, 386900	Unsurveyed															
W2P4-1	447805, 386901	STB	25	mcl	10YR 4/2			3-5	sst	25	no spl	II	2	WETNESS	Medium	Rivington	Subsoil compact and dry. Middle of 2 degree slope. Terminated at 75cm.
			65	fscl	10YR 4/3	o, g	fw	<1	sst								
			75	msl	10YR 4/3	o, g	fw	<1	sst								
W2P4-2	447699, 386795	STB	32	mcl	10YR 5/2			3-5	hdst	32	35	IV	3b	WETNESS	Medium-Heavy	Rivington/Dale	Surface water present. Auger boring located on 2° slope. Game cover strip to west of field.
			120	c	10YR 5/4	o, g, Mn	ab	1-2	wdsst								
527	447000, 387000	PGR	26	hcl	10YR 4/3			1-2	sst	26	35	IV	3b	WETNESS	Heavy	Dale	Impenetrable at 60cm.
			60	hzcl	10YR 5/4	o, g, Mn	ab	5-10	sst								
528	448900, 386900	PGR	26	mcl	10YR 4/2	o	cm	<1	sst	24	35	IV	3b	WETNESS	Heavy	Dale	Organic matter in top 5cm, slight slope. Severely poached. Silty subsoil.
			120	c	7.5YR 5/1	o, g, Mn	ab	<1	sst								
529	449300, 386900	WW	28	hcl	10YR 4/2			<1	f	28	35	IV	3b	WETNESS	Heavy	Dale	Standing water on surface. Area of poor crop.
			120	c	10YR 5/4	o, g, Mn	ab	<1	f								
531	446400, 386800	WB	27	scl	10R 5/3			1-2	sst	50	no spl	I	2	DROUGHT	Light-Medium	Rivington	Very compact from 50cm. Flatter area in sloping field. Drought calc conducted.
			120	ms	10R 4/8	g	cm	1-2	wdsst								
532	446600, 386800	WB	33	scl	5YR 3/3			1-2	small sst	no gleying	no spl	I	2	SLOPE	Light-Medium	Rivington	Stones increasing with depth to around 5%. Slight slope around 5 degrees. Check lidar. Drought calc conducted, grade 1.
			120	msl	5YR 4/3			1-2	wdsst								
533	446800, 386800	Grass Margin	15	scl	10R 4/4			1-2	sst	15	no spl	II	3b	SLOPE	Light-Medium	Rivington	Grass edge of field boundary. Moved on maps further into field. Sloping 15 deg check. impen at 80cm. Drought calc conducted.
			33	mcl	10YR 7/3	g	r	1-2	sst								
			80	ms	10R 4/4			5-10	sst								

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Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
535	447200, 386800	WB	28	hcl	10YR 4/2			<1	wdsst	28	35	IV	3b	WETNESS	Heavy	Dale	Slight 3 degree slope. Wind turbines in field.
			120	c	10YR 5/6	o, g, Mn	ab	<1	wdsst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
		WB	26	hcl	10YR 4/2			1-2	sst								
			39	mzcl	10YR 5/4	Mn	cm			26	39	IV	3b	WETNESS	Medium-Heavy	Dale	
536	447400, 386800		120	hcl	10YR 5/4	o, g, Mn	ab										
		STB	28	mcl	10YR 4/2			3-5	hdst								
537	447800, 386800		120	scl	10YR 5/6	g, Mn	cm	5-10	sst, wdsst	28	40	IV	3b	WETNESS	Medium	Rivington/Dale	Near top of 1-2 degree slope.
		PGR	28	hcl	10YR 4/3			1-2	sst								
538	448600, 386800		70	scl	10YR 4/3	o, Mn	ab	10-20	sst	28	35	IV	3b	WETNESS	Medium-Heavy	Dale	Impenetrable at 70cm due to bedded sst.
		PGR	24	mzcl	10YR 3/3	o, y	fw	<1	sst								
			38	hcl	10YR 5/6	o, y, Mn	cm	<1	sst	24	38	IV	3b	WETNESS	Heavy	Dale	Well structured upper subsoil, not slowly permeable.
539	448800, 386800		120	hzcl	7.5YR 4/1	o, g, Mn	ab	<1	sst								
		PGR	24	hzcl	10YR 4/2	o	cm	<1	sst								
540	449000, 386800		120	hzcl	7.5YR 5/1	o, g	ab	<1	sst	26	35	IV	3b	WETNESS	Heavy	Dale	Localised surface standing water, severely poached. 25m from ditch. Slight slope 4-7°.
		WB	24	scl	10R 3/4			1-2	wdsst								
541	446300, 386700		90	ms	7.5R 5/4	g	cm	1-2	wdsst	60	no spl	I	3b	SLOPE	Light-Medium	Rivington	Well structured, gleying historical or ground water? In middle of sloping hill, 10 degrees. Drought calc conducted.
		WB	22	msl	5YR 4/3			1-2	sst								
			55	msl	2.5YR 5/6	Mn	fw	1-2	sst	22	no spl	II	2	WETNESS	Light-Medium	Rivington	Drought calc needed.
542	446500, 386700		120	scl	2.5YR 5/6	Mn	fw	3-5	sst								
		WB	15	scl	7.5R 5/4			1-2	wdsst								
543	446700, 386700		90	c	7.5R 4/6	g	fw	3-5	wdsst	15	no spl	II	3b	SLOPE	Medium-Heavy	Rivington/Dale	Clay and scl bands to depth. Pockets of sand from wsst.
		WB	23	scl	10YR 4/2			1-2	wdsst								
544	447100, 386700		120	lms	10R 3/4	Mn	fw	1-2	wdsst	23	no spl	II	2	WETNESS	Light-Medium	Rivington/Dale	Mottles possibly hidden due to red colour.
		WB	29	hcl	5YR 3/3	Mn	fw	3-5	lge sst								
545	447300, 386700		65	hzcl	10YR 5/4	o, g, Mn	ab	<1	sst	29	35	IV	3b	WETNESS	Heavy	Dale	Impenetrable at 65cm.
		PGR	26	sl o mzcl	10YR 5/2			1-2	sst								
546	448500, 386700		62	hzcl	10YR 5/4	o, g, Mn	ab	1-2	sst	26	35	IV	3b	WETNESS	Medium-Heavy	Dale	Siltstone influence on top of hill, 62cm impenetrable.
		PGR	24	hcl	10YR 4/2			<1	sst								
547	448700, 386700		120	c	7.5YR 5/1	o, g, Mn	ab	<1	sst	24	35	IV	3b	WETNESS	Heavy	Dale	
		PGR	26	mzcl	10YR 5/2	o	r	<1	sst								
			40	mcl	10YR 5/6	o, Mn	cm, r	<1	sst	26	40	III	3a	WETNESS	Medium-Heavy	Dale	4 degree slope at least. Shale band at 70cm, narrow band.
548	448900, 386700		120	hzcl	7.5YR 4/1			<1	sst								
		PGR	29	mcl	10YR 4/2	o	fw	<1	wdsst								
549	449100, 386700		55	scl	10YR 5/4	o, g, Mn	ab	<1	wdsst	29	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			120	hcl	7.5YR 6/1	o, Mn	ab	1-2	wdsst								
		WB	23	scl	5YR 4/3			5-10	sst								
550	446200, 386600		120	msl	7.5YR 7/1			3-5	sst	no gleying	no spl	I	4	SLOPE	Light-Medium	Rivington	<18° slope
		WB	20	scl	10R 3/3			3-5	sst								
551	446400, 386600		40	ms	10R 3/6	pg	fw	30-50	sst	20	no spl	II	3b	DROUGHT	Light-Medium	Rivington	Auger boring moved 4 times, 40cm is greatest depth without hitting stone. Slightly sloping field 3-5 degrees. Drought calculation resolved ALC subgrade 3b.
		WB	31	msl	5YR 3/3			1-2	sst								
			37	msl	5YR 4/3	Mn	cm	3-5	sst	31	no spl	II	3a	DROUGHT	Light-Medium	Rivington	Slope >7 degrees. Compact all the way. Impenetrable 80cm. Drought calc needed, Subgrade 3a.
552	446600, 386600		80	lms	10R 6/1			3-5	wdsst								
		WW	22	hzcl	10YR 4/2			1-2	sm grvl								
			65	scl	10YR 5/6	o, g	ab	1-2	grvl	22	35	IV	3b	WETNESS	Medium-Heavy	Dale	Late sown WW, severally slaked. Anaerobism around ploughed in crop residue.
553	447800, 386600		120	c	7.5YR 4/1	o, g, Mn	ab	<1	sst								
		PGR	24	hzcl	10YR 4/2			<1	sst								
			50	hzcl	10YR 4/4	o, g, Mn	ab	<1	sst	24	35	IV	3b	WETNESS	Heavy	Dale	Horses in field.

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
556	449000, 386600		120	c	7.5YR 5/1	o, g, Mn	ab	<1	sst								
557	449200, 386600	PGR	27	hcl	10YR 4/2			<1	sst	27	35	IV	3b	WETNESS	Heavy	Dale	Perched water table at topsoil/subsoil interface. Horses in field.
			120	c	7.5YR 5/1	o, g, Mn	ab	<1	sst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
558	446300, 386500	WB	26	scl	7.5R 4/4			1-2	sst	35	35	IV	3b	WETNESS	Medium-Heavy	Rivington	Auger boring moved 3 times due to stone in topsoil. 10cm band of sand at topsoi/subsoil boundary due to auguring of sst. Appreciable sand from weathered sandstones.
			120	c	7.5R 5/4	o, g	m	3-5	sst								
559	447734, 386497	WW	29	hcl	10YR 4/2			1-2	sst	29	35	IV	3b	WETNESS	Heavy	Dale	Coal bands from 70cm.
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
561	449100, 386500	PGR	29	mcl	10YR 6/2			<1	wdsst	29	35	IV	3b	WETNESS	Medium	Dale	Dry crumbly subsoil. Horses in field.
			120	mcl	7.5YR 4/1	o	ab	<1	mudstone								
W2P3-1	449199, 386511	Unsurveyed															
562	446400, 386400	WB	26	scl	2.5YR 4/6			5-10	sst	no gleying	no spl	I	4	SLOPE	Light-Medium	Rivington	Slope limiting factor of field. Check lidar.
			52	msl	2.5YR 6/6			3-5	sst								
			120	msl	7.5YR 6/1			3-5	sst								
563	447797, 386430	TGR	25	hcl	10YR 4/2	Mn	r	<1	wdsst	25	35	IV	3b	WETNESS	Heavy	Dale	Very wet topsoil. <7 degree slope.
			120	c	7.5YR 5/1	o, Mn	ab	<1	sst								
564	449000, 386400	WW	22	mcl	10YR 6/2			3-5	wdsst	22	35	IV	3b	WETNESS	Medium	Dale	Medium earthworms in lower subsoil.
			120	mcl	7.5YR 4/1	o	ab	1-2	sst, mudstone								
W2P3-2	449099, 386402	Unsurveyed															
565	449200, 386400	TGR	20	hcl	10YR 4/3			1-2	sst gvl	20	35	IV	3b	WETNESS	Heavy	Dale	Better drained, dry friable siltstone influenced subsoil increasingly 10YR 7/3 with depth.
			120	hzcl	2.5YR 5/3	o, g, Mn	ab	<1	wthd zst								
W2P3-3	449296, 386403	CULT	32	hcl	10YR 4/2	rd	r	1-2	chlk, sst	32	35	IV	3b	WETNESS	Heavy	Dale	Cultivated area with 40% grass volunteers. Check psd borderline medium: 1-2% subsoil on topsoil.
			120	c	10YR 5/6	g, Mn	ab	<1	sst								
566	447705, 386329	TGR	24	c	10YR 4/2	o, Mn	r	<1	sst	24	35	IV	3b	WETNESS	Heavy	Dale	Increasingly grey with depth. Marginal medium/heavy subsoil.
			120	c	10YR 5/6	o, g, Mn	ab	1-2	sst shale								
567	449100, 386300	CULT	26	mcl	10YR 4/3			1-2	small sst gvl	26	35	IV	3b	WETNESS	Medium-Heavy	Dale	Change to reddish soils topsoil for field 6.46.
			120	hzcl	2.5Y 5/3	o, g, Mn	ab	<1	wthd zst								
W2P3-4	449296, 386403	WW	28	mcl	10YR 4/2			<1	sst	28	35	IV	3b	CLIMATE	Medium-Heavy	Dale	
			76	hcl	10YR 4/6	o, g, Mn	ab	<1	sst								
			120	zc	10YR 6/2	o	ab	<1	sst								
568	449300, 386300	PGR	26	hcl	10YR 4/2			<1	sst	26	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 4/6	o, g, Mn	ab	<1	sst								
569	447786, 386248	WW	25	hcl	10YR 5/2	Mn	fw	3-5	sst grvl	25	35	IV	3b	WETNESS	Heavy	Dale	Slight slope. Standing water in field.
			120	c	10YR 4/6	o, g, Mn	ab	1-2	wdsst								
570	449200, 386200	WW	29	mcl	10YR 5/2			<1	sst	29	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			120	hcl	10YR 6/2	o	ab	<1	sst								
W2P3-5	449298, 386201	WW	32	hcl	10YR 4/2			1-2	sst	32	35	IV	3b	WETNESS	Heavy	Dale	Stones vary greatly across field with localised points of 5-10%.
			120	zcl	10YR 4/6	g, Mn, rd	ab	<1	sst								
571	449400, 386200	WB	27	hcl	10YR 4/2			1-2	sst	27	35	IV	3b	WETNESS	Heavy	Dale	
			120	hzcl	10YR 4/6	o, g, Mn	ab	1-2	f, sst								
572	447700, 386100	WW	20	hcl	10YR 4/3	Mn	fw	5-10	sm sst	19	35	IV	3b	WETNESS	Heavy	Dale	Sand in topsoil from weathered sandstone, grinding by auger. Bottom of 3 degree slope.
			32	scl	10YR 4/6	o, g, Mn	ab	30-40	wdsst								
			120	c	7.5YR 4/1	o, g, mn	ab	1-2	wdsst								
		STB	30	hcl	10YR 4/3			1-2	wdsst	30	35	IV	3b	WETNESS	Heavy	Dale	OSR STB in field. Base of slope, offset from field headland. Absent of siltstone influence

ERM Whitestone Solar Farm
Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
573	449100, 386100	[illegible]	120	hcl	10YR 4/4	o, g, Mn	ab	sst	wdsst	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] increasingly orange with depth.

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
W2P3-6	449195, 386094	WW	27	mcl	10YR 4/2			1-2	sst	27	35	IV	3b	WETNESS	Medium-Heavy	Rivington/Dale	Perm cut/short grass strip 20m to the west. perched water table. half stones >6cm.
			65	hcl	10YR 5/6	g, Mn	cm	1-2	sst								
			120	c	10YR 7/1	o	ab	<1	sst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
		WB	31	hcl	10YR 4/2			1-2	sst, f	31	35	IV	3b	WETNESS	Heavy	Dale	Wet area of field.
			60	hcl	10YR 4/6	o, g, Mn	ab	<1	sst, f								
574	449300, 386100		120	c	7.5YR 5/1	o,g, Mn	ab	<1	sst, f								
		WW	29	mcl	10YR 4/2			1-2	sst, f	29	35	IV	3b	WETNESS	Medium-Heavy	Rivington/Dale	10m from standwater area. Bottom of 2 degree slope.
			70	c	5YR 5/8	o, g, Mn	ab	<1	sst								
W2P3-7	449402, 386102		120	scl	5YR 5/8	o, g	ab	<1	sst								
		TGR	27	mcl	10YR 4/2	Mn	fw	1-2	sst	27	63	III	3a	WETNESS	Medium-Heavy	Dale	True clay at depth, edge of field. Sandier upper subsoil.
			63	scl	10YR 5/8	o	cm	1-2	sst								
575	449500, 386100		120	c	10YR 5/2	o, g, Mn	ab	<1	sst								
		PGR	24	hcl	10YR 4/2			<1	sst	24	35	IV	3b	WETNESS	Heavy	Dale	
576	449664, 386096		120	hcl	10YR 5/6	o, g, Mn	ab	<1	sst								
		PGR	30	hcl	10YR 4/1	o	cm	<1	wdsst	30	35	IV	3b	WETNESS	Heavy	Dale	Near field entrance. Auger boring location changed on maps.
577	449229, 386021		120	c	7.5YR 4/1	o, Mn	ab	<1	wdsst								
		PGR	29	mcl	10YR 4/2			<1	wsst	29	35	IV	3b	WETNESS	Medium	Rivington/Dale	Middle of 2 degree slope.
W2S1-1	449303, 385995		120	scl	5YR 4/6	o, g, Mn	ab	<1	wsst								
		STB	28	hcl	10YR 4/2			1-2	f, sst	28	35	IV	3b	WETNESS	Heavy	Dale	
578	449400, 386000		120	c	10YR 5/6	o, g, Mn	ab	1-2	f, sst								
		PGR	23	hcl	10YR 5/2	o	fw faint	<1	mudstone	23	35	IV	3b	WETNESS	Heavy	Dale	Impenetrable below 85cm. Gets drier and crumbly with depth.
			43	hcl	10YR 3/2	o, g, Mn	ab	<1	mudstone								
579	449600, 386000		85	c	GLEY1 6/1	o, Mn	ab	<1	mudstone								
		TGR	23	hcl	10YR 4/3			1-2	sst	23	35	III	3b	WETNESS	Heavy	Dale	Check topsoil lab analysis, yellowish 10YR 4/3 upper subsoil underlain with red.
			32	hcl	10YR 5/3	o, g, Mn	cm	1-2	sst								
			90	scl	2.5Y 5/3	o, g, Mn	ab	<1	sst								
580	449300, 385900		120	c	10YR 4/4			<1	sst								
		PGR	25	hcl	10YR 4/2			<1	sst	25	35	IV	3b	WETNESS	Heavy	Dale	Electric fence surround, possible livestock. Mottles increasingly faint with depth.
W2S1-2	449403, 385900		120	hcl	10YR 5/4	o, g, Mn	ab	<1	sst								
		WB	28	hcl	10YR 4/2			1-2	f, sst	28	35	IV	3b	WETNESS	Heavy	Dale	Auger boring becoming grey with depth. Subsoil becoming slightly silty / fine sandy past 90cm.
581	449500, 385900		120	c	10YR 5/6	o, g, Mn	ab	1-2	f, sst								
		PGR	28	hzcl	10YR 4/2			<1	f, sst	28	35	IV	3b	WETNESS	Heavy	Dale	
582	449700, 385900		120	hzcl	10YR 5/4	o, g	m	1-2	wthd zst								
		TGR	28	hcl	10YR 5/2	Mn	fw	<1	wdsst	28	35	IV	3b	WETNESS	Heavy	Dale	
583	449400, 385800		120	hcl	GLEY1 6/1	o	ab	<1	wdsst								
		PGR	32	hcl	10YR 4/2			<1	wdsst	32	35	IV	3b	WETNESS	Heavy	Dale	1% slope to NE. Mn comes in at 50cm.
			50	hcl	10YR 5/4	o	fw	<1	wdsst								
W2S1-3	449502, 385799		120	c	10YR 7/1	o, Mn, rd	ab	<1	wdsst								
		WB	26	hcl	10YR 4/2			1-2	sst	26	35	IV	3b	WETNESS	Heavy	Dale	Auger boring moved into field 6.52. Offset from waste mound.
584	449600, 385800		120	c	10YR 4/6	o, g, Mn	ab	3-5	sst								
		PGR	32	hcl	10YR 4/2			<1	sst	32	55	III	3b	WETNESS	Medium-Heavy	Dale	
			55	hcl	10YR 4/6	o, g, Mn	ab	<1	sst								
585	449800, 385800		120	c	10YR 4/3	o, g, Mn	ab	<1	sst								
		TGR	28	hcl	10YR 4/3			3-5	sst	28	35	IV	3b	WETNESS	Heavy	Dale	
587	449500, 385700		120	hzcl	2.5Y 5/3	o, g, Mn	m	<1	zlst								
		WW	27	hcl	10YR 4/2			1-2	f, sst	27	no spl	II	3b	WETNESS	Heavy	Dale	Impenetrable at 35 due to sst, tried in 3 locations. Subsoil scl but could be heavier without the localised sst.
588	449700, 385700		35	scl	10YR 5/6	Mn	cm	5-10	sst								
		WW	28	hcl	10YR 4/3			3-5	sst, brick	28	38	III	3b	WETNESS	Heavy	Dale	Subsoil influenced by siltstone.
589	449600, 385600		120	hzcl	2.5Y 5/3	o, g, Mn	m	<1	sst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
590	449800, 385600	WW	28	hcl	10YR 4/2			1-2	f, sst	28	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/6	o, g, Mn	ab	<1	sst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
592	449700, 385500	WW	22	hcl	10YR 4/1			<1	wdsst	22	35	IV	3b	WETNESS	Heavy	Dale	Auger boring at bottom of slight slope in field.
			120	c	GLEY1 6/1	o	ab	<1	wdsst								
593	450900, 385400	WW	23	hcl	10YR 4/3			3-5	c sst	43	43	III	3b	WETNESS	Medium-Heavy	Dale	WW failed crop. Mixed topsoil subsoil next to old railway. Zone of disturbance in upper layers.
			34	hcl	10YR 4/4	o, g	ab	1-2	c								
			43	fscl	10YR 4/4	Mn	fw	<1	c								
			120	fscl	10YR 5/4			<1	c								
594	450800, 385300	WW	24	hcl	10YR 5/4			1-2	sst c	24	no spl	II	3b	PATTERN	Heavy	Dale	Absent of true SPL at base of 1-2' slope colluvium fine sand.
			120	hcl	10YR 5/4	o, Mn	fw	1-2	mst								
595	451000, 385300	TGR	20	hcl	10YR 4/1			1-2	gvl sst	20	35	IV	3b	WETNESS	Heavy	Dale	Transitional red clay for 10cm between upper and lower subsoil.
			45	hcl	7.5R 4/6	g, Mn	cm	<1	wdsst								
			120	c	7.5YR 4/1	y, Mn	cm	<1	wdsst								
596	450700, 385200	F	22	hcl	10YR 5/4			1-2	sst, q, coal	22	52	III	3b	WETNESS	Heavy	Dale	
			52	hcl	10YR 5/4	o, g, Mn	m	<1	sst, q, coal								
			120	hcl	10YR 4/3	g, Mn	ab	<1	sst, q, coal								
597	450900, 385200	WW	24	scl	10YR 4/1			1-2	sst grvl	28	35	IV	3b	WETNESS	Medium-Heavy	Dale	
			50	scl	7.5R 4/6	o, g, Mn	cm	<1	wsst								
			120	hcl	7.5R 4/6	g, Mn	cm	<1	wsst								
598	451100, 385200	WW	26	scl	10YR 4/2			3-5	grvl wsst	26	no spl	II	2	WETNESS	Light-Medium	Rivington/Dale	Impenetrable below 80cm.
			60	sc	7.5R 4/6	Mn	fw	1-2	wsst								
			80	ms	7.5R 4/4			1-2	wsst								
599	450800, 385100	WW	28	scl	10YR 4/2			1-2	wdsst, grvl	28	35	IV	3b	WETNESS	Medium-Heavy	Dale	Coal lumps.
			58	scl	7.5R 4/6	g, Mn, y	ab	<1	wdsst, grvl								
			120	hcl	10YR 1/1	g	cm	<1	wdsst, grvl								
600	451000, 385100	WW	26	hzcl	10YR 5/4			1-2	sst grvl	no gleying	no spl	I	2	WETNESS	Medium-Heavy	Rivington/Dale	Top of slope in field. Auger boring moved 4 times. 42cm deepest before hitting stone.
			42	scl	10YR 5/6			50+	wdsst								
601	451200, 385100	F	26	hcl	10YR 4/3			5-10	sst, coal	38	60	III	3b	WETNESS	Heavy	Dale	2nd layer relic topsoil prior to railway reinstatement. Slightly anaerobic.
			38	hcl	10YR 3/2			1-2	sst								
			120	hcl	10YR 5/6	Mn	cm	1-2	hdst								
602	450300, 385000	WW	25	mcl	5YR 4/6			1-2	sst, brick	25	35	IV	3b	WETNESS	Medium-Heavy	Dale	Auger boring located on field corner, evidence of standing water and crop failure in field, adjacent to beck, possible flood risk, bottom of slope.
			48	hcl	10YR 5/6	o, y	ab	<1	sst								
			120	zc	10YR 6/1	o, y	ab	1-2	wthd zst								
603	450700, 385000	CULT	30	hcl	10YR 4/3			1-2	hdsst, q	30	42	III	3b	WETNESS	Medium-Heavy	Dale	Soft cracked ground surface, dry friable siltstone subsoil.
			120	hcl	2.5Y 5/3	o, g, Mn	m	1-2	sst								
604	450900, 385000	WW	23	mzcl	10YR 4/2			3-5	wdsst, q, hdst	23	35	IV	3b	WETNESS	Heavy	Dale	Auger boring moved twice, stopped by stone at 60cm.
			60	hcl	7.5R 4/4	g, Mn	ab	1-2	wdsst, q, hdst								
605	451100, 385000	WW	23	hcl	10YR 4/3			1-2	sst, q	23	35	IV	3b	WETNESS	Medium-Heavy	Dale	Fine sand surface erosion features. Lowest layer is mixed at depth.
			55	hcl	10YR 4/6	o, g, Mn	ab	1-2	sst, q								
			120	scl	10YR 4/3	o, g, Mn	ab	1-2	wdsst								
606	450200, 384900	WW	29	scl	5YR 5/4			3-5	sst	29	no spl	II	2	WETNESS	Light-Medium	Rivington	Soft weathered sandstone, ochreous staining, increasing number of gravels at depth. Possible moist ground water at 85cm. Drought calc
			90	msl	7.5R 4/4	o, Mn	fw	3-5	wdsst								
608	450800, 384900	WW	23	hcl	10YR 4/3			3-5	sst, q	23	35	IV	3b	WETNESS	Medium-Heavy	Dale	Check topsoil lab analysis, increasing fine sand with depth.
			79	hcl	2.5Y 5/3	o, g, Mn	ab	<1	sst								
			120	fscl	2.5Y 5/3	o, g	m	<1	sst								
609	451000, 384900	WW	28	mzcl	10YR 4/1	Mn	r	1-2	wdsst, q, hdst	28	35	IV	3b	WETNESS	Medium-Heavy	Dale	20% yellow weathered sandstone below 80cm.
			65	hcl	7.5R 4/6	g, Mn	ab	<1	wdsst								
			120	c	7.5R 4/4	g, Mn	ab	<1	wdsst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
610	451200, 384900	PGR	20	sl o hcl	10YR 4/3			<1	sst	40	60	III	3b	WETNESS	Heavy	Dale	Increasing gravel and ferruginous nodules.
			120	hcl	10YR 5/8	o, Mn	cm	3-5	sst grvl								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
611	450300, 384800	WW	27	scl	7.5YR 4/2			<1	wdsst	27	50	II	2	WETNESS	Light-Medium	Rivington	Transitional 15cm dark 7.5YR 4/6 scl layer at upper/lower subsoil boundary, lower subsoil getting paler with depth.
			120	scl	10YR 6/3	Mn	ab	<1	sst								
612	450500, 384800	WW	23	scl	5YR 4/3			5-10	sst lrge & med	no gleying	no spl	I	2	DROUGHT	Light-Medium	Rivington	Impenetrable stone between 30-50cm, widespread across area, adjacent to chanel and slightly sloping.
			50	msl	5YR 5/6			3-5	sst								
613	451100, 384800	WW	33	mcl	10YR 4/3			3-5	sst	33	35	IV	3b	WETNESS	Medium-Heavy	Dale	Increasingly gleyed with depth. Base of 2-3 degrees slope
			120	hcl	2.5Y 5/3	o, g, Mn	ab	<1	sst								
614	450400, 384700	WW	30	scl	7.5YR 4/2			1-2	wsst	35	52	II	2	WETNESS	Light-Medium	Rivington	Pockets purple and yellow sand in upper subsoil. Auger boring moved on maps.
			69	scl	7.5YR 4/4	g, Mn	cm	<1	sst								
			120	ms	7.5R 4/2	g	fw	<1	sst								
615	450600, 384700	WW	23	msl	5YR 4/3			1-2	sst, coal	65	no spl	I	2	DROUGHT	Light-Medium	Rivington	Compact soil at 70cm. Drought calc needed. Drought calc concudcted, Grade 2.
			70	msl	5YR 4/6	o, Mn	r	1-2	sst								
616	450500, 384600	WW	20	scl	7.5YR 4/2			5-10	wdsst	25	no spl	II	3a	DROUGHT	Light-Medium	Rivington	Location updated on field maps. Near crest of slope, 10m from very stoney 30% large stones, westhered sandstone. Drought calculation resolved ALC subgrade 3a.
			120	ms	7.5R 4/2	g	cm	1-2	sst								
617	450700, 384600	WW	33	msl	5YR 4/3			1-2	sst	33	no spl	II	2	DROUGHT	Light-Medium	Rivington	Banded subsoil with heavier lenses, pale reddish 10YR 4/3 at depth, perched water table. Impenetrable at 80cm due to compact sands.
			80	msl	5YR 4/6	g	fw	1-2	sst								
618	450600, 384500	WW	25	scl	7.5YR 4/2			<1	sst	31	55	III	3a	WETNESS	Light-Medium	Rivington/Dale	Pockets of red, yellow sand in subsoil. Gleying increases with depth.
			72	scl	7.5YR 3/4	g, Mn	ab	1-2	sst, q								
			120	ms	7.5R 4/2	g, Mn	ab	<1	sst								
619	450800, 384500	WW	39	scl	5YR 4/3			1-2	sst	55	no spl	I	2	DROUGHT	Light-Medium	Rivington	Absent of mottling and gleying. increasing pale reddish 10YR 4/3 with depth. Drought calc needed.
			55	scl	5YR 4/6			<1	sst								
			120	msl	5YR 5/6	o	r	1-2	sst								
620	450700, 384400	WW	26	mcl	7.5YR 4/2			<1	sst, q	38	55	III	3a	WETNESS	Medium	Rivington/Dale	Very fine sand in lower subsoil.
			120	scl	7.5YR 3/4	g, Mn	cm	<1	sst								
621	450900, 384400	WW	25	scl	5YR 4/3			3-5	sst	25	no spl	II	2	WETNESS	Light-Medium	Rivington	Possibly drought risk.
			62	msl	5YR 4/6	Mn	fw	1-2	sst								
			120	msl	5YR 5/6	br	fw	1-2	sst								
622	450800, 384300	WW	30	mcl	7.5YR 4/2			1-2	sst	35	45	III	3a	WETNESS	Medium-Heavy	Rivington/Dale	Clay content increase with depth. Auger boring moved on field maps.
			65	mcl	7.5R 4/6	g, Mn, rd	cm	<1	sst								
			120	hcl	10YR 6/4	g, Mn	ab	<1	sst								
623	451000, 384300	WW	33	scl	7.5YR 4/2	Mn	r	<1	sst	33	no spl	II	2	DROUGHT	Light-Medium	Rivington	Pockets yellow 7.5R 4/2 sand. On crest of slight slope. Drought calc needed. Drought calc conducted, Grade 2.
			70	scl	7.5YR 3/4	Mn	r	1-2	wdsst								
			120	ms	7.5R 3/2			<1	sst								
624	451200, 384300	WW	22	scl	5YR 4/4			3-5	sst small	29	>50	II	2	DROUGHT	Light-Medium	Rivington	Different soil type to 26. Impenetrable dry compact soft weathered sst from 22cm, repeated in several locations. slightly sloping.
			29	mcl	5YR 4/8			<1	sst								
			50	msl	7.5YR5/6	o	cm	3-5	sst small								
625	451300, 384200	WW	28	scl	7.5YR 4/2	Mn	r	<1	sst	66	66	II	2	WETNESS	Light-Medium	Rivington	Pockets of sand in lss, increased sand content with depth, and gets increasingly coarse.
			45	scl	7.5YR 3/4	Mn	fw	<1	sst								
			120	csl	7.5YR 3/4	g, Mn	cm	<1	sst								
626	451500, 384200	WW	29	mcl	7.5YR 4/2	Mn	fw	1-2	sst,	29	42	III	3a	WETNESS	Medium-Heavy	Rivington/Dale	10YR 1/1 streaking in subsoil. increasingly grey with depth, more clay content in lower subsoil.
			42	mcl	10YR 5/4	Mn	cm	<1	sst								
			120	hcl	10YR 5/4	o, g	ab	<1	sst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
630	449204, 382054	STB	27	hcl	10YR 4/2			1-2	sst	27	35	IV	3b	WETNESS	Heavy	Dale	Common weathered sandstone in clay subsoil almost making it a sandy clay. Bottom of 4° slope. Auger boring moved off headland into field.
			55	c	10YR 5/4	o, g, Mn	m	5-10	wdsst								
632	449103, 381964	STB	27	hcl	10YR 4/2			1-2	sst	27	35	IV	3b	WETNESS	Heavy	Dale	Water sitting in topsoil/subsoil interface definitely slowly permeable. Evidence of coal history in subsoil.
			120	c	10YR 5/4	o, g, Mn	ab	3-5	wdsst, coal								
634	448000, 381900	WW	32	hcl	10YR 4/2			3-5	f, hdst, brick	32	35	IV	3b	WETNESS	Disturbed		Possibly disturbed boring. High volume of brick, near tram lines but no other signs of disturbance.
			50	c	10YR 4/6	o, g, Mn	ab	1-2	brick								
			70	disturbed	10YR 2/3			3-5	brick								

ERM Whitestone Solar Farm

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BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
			27	hcl	10YR 4/2			<1	sst								
		PGR	62	c	7.5YR 5/1	o, g, Mn	ab	<1	sst	27	35	IV	3b	WETNESS	Heavy	Dale	
635	448200, 381900		120	sc	10YR 4/1	o, g, Mn	ab	<1	sst								
			27	hcl	10YR 4/2			<1	sst								
		PGR	43	scl	10YR 5/6			<1	sst	43	43	III	3b	WETNESS	Medium-Heavy	Dale	Very gritty upper subsoil. Crest of slight hill.
636	448400, 381900		120	c	7.5YR 5/1	o, g, Mn	ab	<1	sst								
			26	mcl	10YR 4/2			1-2	sst								
		STB	45	scl	10YR 5/4	g, Mn	cm	3-5	wdsst	26	45	III	3a	WETNESS	Medium-Heavy	Dale	Crest of slight hill, sandier than other borings in the field, gritty upper subsoil, could be from weathered sandstone. Well structured lower subsoil, can't confirm SPL.
637	449200, 381900		120	hcl	10YR 6/1	o, Mn	m	3-5	wdsst								
		WW	32	hcl	10YR 4/2			3-5	f, sst	32	35	IV	3b	WETNESS	Heavy	Dale	Top of slight hill <3°.
638	447900, 381800		120	c	10YR 4/6	o, g, Mn	ab	3-5	sst								
		WW	31	hcl	10YR 4/2			3-5	f, hdst	31	35	IV	3b	WETNESS	Heavy	Dale	
639	448100, 381800		120	c	7.5YR 5/1	o, g, Mn	ab	<1	f, hdst								
		PGR	27	hcl	10YR 4/2			<1	sst	27	35	IV	3b	WETNESS	Heavy	Dale	Localised areas of standing water.
640	448300, 381800		120	c	7.5YR 5/1	o, g, Mn	ab	<1	sst								
		WW	30	hcl	10YR 4/2			1-2	sst								
			51	hcl	10YR 4/3	o, Mn	cm	<1	sst	30	51	III	3b	WETNESS	Heavy	Dale	Deeper SPL, dry friable at depth impenetrable at 80cm.
641	448500, 381800		80	hzcl	10YR 5/8	o, g, Mn	ab	<1	sst								
		STB	31	hcl	10YR 5/3			<1	sst	31	35	IV	3b	WETNESS	Heavy	Dale	Stopped by stone at 60. Very dry subsoil.
642	449100,381800		60	c	10YR 6/1	o, Mn	ab	1-2	sst								
		WW	24	hcl	10YR 4/2			3-5	f, sst, hdst	24	35	IV	3b	WETNESS	Heavy	Dale	Impenetrable at 43cm, possibly disturbed.
644	448000, 381700		43	hcl	10YR 4/6	o, g, Mn	ab	3-5	sst, brick								
			26	hcl	10YR 4/2	Mn		1-2	sst								
		Grass Margin	55	hcl	10YR 4/3	o, Mn	cm	<1	sst	26	51	III	3b	WETNESS	Heavy	Dale	True clay at depth.
645	448200, 381700		120	c	10YR 6/1	o, g, Mn	ab	<1	sst								
		WW	26	hcl	10YR 5/3			<1	grvl, sst	26	35	IV	3b	WETNESS	Heavy	Dale	Dry subsoil, impenetrable from 85cm. Greyer with depth.
646	448400, 381700		85	hcl	GLEY1 6/1	o, g, Mn	ab	<1	sst								
		WW	24	hcl	10YR 4/2			1-2	sst br	24	40	III	3b	WETNESS	Heavy	Dale	Marginal hcl texture. Apparent fine sand in the subsoil.
647	448600, 381700		60	hcl	2.5Y 5/8	o, Mn	ab	<1	sst								
		STB	31	mcl	10YR 4/3			<1	sst	31	35	IV	3b	WETNESS	Heavy	Dale	
648	449000,381700		50	hcl	10yr5/6	o, Mn	Ab	<1	sst								
			120	c	10yr6/1	o, Mn	ab	<1	sst								
		WW	32	hcl	10YR 4/2			3-5	sst	32	35	IV	3b	WETNESS	Heavy	Dale	Slightly disturbed boring, located 15m from M1. Whole field likely to be disturbed.
650	447900, 381600		76	hcl	10YR 4/6	o, g, Mn	ab	3-5	sst, brick, rubble								
		WW	33	hcl	10YR 4/2			3-5	sst	33	35	IV	3b	WETNESS	Heavy	Dale	Eastern side of the field less disturbed.
651	448100, 381600		120	c	7.5R 4/6	o, g, Mn	ab	3-5	sst								
		WW	24	hcl	10YR 5/3			1-2	grvl, sst	24	35	IV	3b	WETNESS	Heavy	Dale	Top of slope. Grey increases with depth.
652	448300, 381600		120	hcl	GLEY1 6/1	o, g, Mn	ab	<1	sst								
		WW	26	hcl	10YR 5/3			1-2	grvl, sst	26	35	IV	3b	WETNESS	Heavy	Dale	Impenetrable from 65cm, very dry subsoil.
653	448500, 381600		65	c	10YR 5/4	o, g, Mn	ab	<1	sst								
			26	hcl	10YR 4/2	Mn		1-2	sst								
		WW	45	hcl	10YR 4/4	o, Mn	ab	<1	sst	26	35	IV	3b	WETNESS	Medium-Heavy	Dale	Aadjacent to open cast spoil heap wooded.
			65	mcl	10YR 5/8	o, Mn	cm	<1	sst								
654	448700, 381600		120	c	10YR 3/2	Mn	ab	5-10	coal								
		STB	31	hcl	10YR 4/3			<1	sst	31	35	IV	3b	wetness	heavy	Dale	Fine sand in subsoil. 70%+ mottles.
655	449100,381600		120	hcl	10YR 5/6	o, Mn	ab	3-5	sst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
			27	hcl	10YR 4/2			3-5	f, sst								
		WW	36	hcl	10YR 4/6	o, g, Mn	ab	1-2	f, sst	27	35	IV	3b	WETNESS	Medium-Heavy	Dale	
657	448000, 381500		120	msl	10YR 6/3			3-5	brick								
			40	hcl	10YR 4/2			3-5	f, sst								
		WW	71	hcl	10YR 4/6	o, g, Mn	ab	1-2	f, sst	40	40	IV	3b	WETNESS	Medium-Heavy	Dale	Auger boring located on headland, slightly disturbed, becoming gritty sandy at depth.
658	448200, 381500		120	msl	7.5YR 5/1			3-5	brick								
			25	hcl	10YR 4/2			<1	sst								
		WW	63	hcl	10YR 4/4	o, g, Mn	ab	1-2	sst	25	35	IV	3b	WETNESS	Heavy	Dale	Mid slope.
659	448400, 381500		120	c	10YR 6/2	o, g, Mn	ab	1-2	sst								
			26	hcl	10YR 5/2			<1	wdsst								
		WW	50	hcl	10YR 4/4	o, pgr, Mn	m	<1	wdsst	26	35	IV	3b	WETNESS	Heavy	Dale	Dry friable subsoil. Increasingly grey with depth. Field sloping, auger boring at bottom of slope.
660	448600, 381500		120	c	7.5YR 4/1	o, Mn	ab	<1	wdsst								
			27	hcl	10YR 4/2			<1	wdsst								
		WW	71	hcl	10YR 4/4	o, g	ab	<1	coal	28	35	IV	3b	WETNESS	Heavy	Dale	Increasingly orange with depth, band of coal concretions at 70cm.
661	448800, 381500		120	hzcl	10YR 5/8	o, g, Mn	ab	3-5	coal								
		STB	29	hcl	10YR 4/2			1-2	sst	29	35	IV	3b	WETNESS	Heavy	Dale	Grass and wheat volunteers in field.
662	449000, 381500		120	c	10YR 5/4	o, g, Mn	ab	1-2	wdsst, coal								
		WW	28	mcl	10YR 4/2			3-5	sst	28	35	IV	3b	WETNESS	Medium-Heavy	Dale	Localised sandstone deposits on ridge. Stony layer at 55cm. Impenetrable at 80cm.
664	448100, 381400		80	c	10YR 5/6	o, g, Mn	ab	3-5	wdsst								
			27	hcl	10YR 4/2			1-2	wdsst								
		WW	55	hzcl	10YR 5/4	o, g, Mn	ab	<1	wdsst	27	35	IV	3b	WETNESS	Heavy	Dale	Top of slope possibly better drained.
665	448300, 381400		120	hcl	10YR 5/8	o, g, Mn	ab	<1	wdsst								
		WW	27	hcl	10YR 5/2			<1	sst, coal	27	35	IV	3b	WETNESS	Heavy	Dale	Pale grey clay bands from 50cm. Friable subsoil structure. Coal lumps in subsoil.
666	448500, 381400		120	hcl	10YR 6/3	o, g, Mn	ab	<1	coal								
		WW	24	mcl	10YR 3/2	Mn	r	1-2	sst, f	30	35	IV	3b	WETNESS	Medium-Heavy	Dale	Dry friable subsoil. Increasingly grey with depth. Field sloping, auger boring at bottom of slope. Sandy band at 80cm to 90cm.
667	448700, 381400		120	hcl	10YR 5/4	o, g, Mn	ab	<1	wdsst								
		STB	28	hzcl	10YR 4/3			<1	f, sst	28	35	IV	3b	WETNESS	Heavy	Dale	
668	448900,381400		120	c	10YR 5/6	o, Mn	cm	<1	sst								
		STB	33	hcl	10YR 4/2			<1	f, sst	33	35	IV	3b	WETNESS	Heavy	Dale	Particularly heavy part of the field, bottom of a 4° slope.
669	449100, 381400		120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
			33	mcl	7.5R 4/2			1-2	sst								
		WW	55	hcl	10YR 3/4	o, Mn	cm	1-2	sst	33	55	III	3b	WETNESS	Medium-Heavy	Dale	
671	448000, 381300		120	c	7.5YR 5/1	o, g, Mn	ab	<1	sst								
		WW	34	scl	10YR 4/2			<1	sst	no gleying	no spl	I	3b	SLOPE	Medium	Dale	7-11° slope. 3m drop onto road 10m away. sediment loss in wheelings. risk of erosion.
672	448200, 381300		120	scl	7.5R 4/4			5-10	wdsst								
		WW	29	hcl	10YR 4/2			1-2	sst	28	35	IV	3b	WETNESS	Heavy	Dale	Headland, wet dual slope, grass margin extended. Dark coal clay at depth neighbouring open cast.
675	448800, 381300		65	hcl	10YR 5/6	o, g, Mn	ab	<1	sst								
			120	c	10YR 3/1	Mn	ab	3-5	coal								
		PGR	28	hcl	10YR 4/2			<1	sst	28	35	IV	3b	WETNESS	Heavy	Dale	
679	448700, 381200		120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
		PGR	28	hcl	10YR 4/2			<1	sst	28	35	IV	3b	WETNESS	Heavy	Dale	
681	448600, 381100		120	c	7.5YR 5/1	o, g, Mn	ab	<1	sst								
		WB	29	hcl	10YR 4/2			<1	sst	29	35	IV	3b	WETNESS	Heavy	Dale	Better drained area of the field. Slight slope, but higher ground.
683	447207, 380848		120	c	10YR 5/4	o, g, Mn	ab	1-2	sst								
		WB	27	hcl	10YR 4/2			1-2	sst	27	35	IV	3b	WETNESS	Heavy	Dale	Wet area of field, some evidence of water erosion. Slope around 7°. Water on topsoil/subsoil interface.
684	447122, 380763		120	c	10YR 5/4	o, g, Mn	ab	<1	sst								

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FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
685	447463, 380798	WB	29	hcl	10YR 4/2			<1	sst	29	35	IV	3b	WETNESS	Heavy	Dale	Slight slope, high signs of water erosion.
			120	c	10YR 5/4	o, g, Mn	ab	1-2	sst								

ERM Whitestone Solar Farm

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LDC Land Drainage Consultancy Ltd

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FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
686	447200, 380700	WB	25	hcl	10YR 4/2			1-2	sst	25	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
687	447400, 380700	WB	27	hcl	10YR 4/2			1-2	sst	27	35	IV	3b	WETNESS	Heavy	Dale	Slight slope, water erosion.
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
688	447100, 380600	WB	26	hcl	10YR 4/2			1-2	sst	26	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
689	447300, 380600	WB	20	hcl	10YR 4/2			1-2	sst	20	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
690	447500, 380600	WB	25	hcl	10YR 4/2			3-5	sst	25	35	IV	3b	WETNESS	Heavy	Dale	Maybe slightly better structured subsoil.
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
691	448500, 380600	WW	29	scl	10YR 4/2	Mn	fw	<1	sst	29	35	IV	3b	WETNESS	Medium-Heavy	Dale	Red weathered sandstones in subsoil. Dark grey 10YR 1/1 clay from 90cm, coal dust?
			75	scl	7.5R 4/6	o, g	ab	3-5	wdsst, coal								
			120	c	7.5YR 4/1	o, Mn	ab	1-2	sst, coal								
693	447200, 380500	WB	27	hcl	10YR 4/2			1-2	sst	27	35	IV	3b	WETNESS	Heavy	Dale	<7° slope, poor crop in field. Standing water nearby.
			120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
694	447400, 380500	WB	22	hcl	10YR 4/2			3-5	sst	22	55	III	3b	WETNESS	Heavy	Dale	
			55	hzcl	10YR 4/4	Mn	cm	1-2	wdsst								
			120	c	10YR 4/4	o, g, Mn	ab	<1	sst								
695	447600, 380500	WB	27	hcl	10YR 4/2			1-2	sst	27	35	IV	3b	WETNESS	Heavy	Dale	Impenetrable at 50cm. Slight slope 4-5 degrees.
			50	c	7.5YR 7/1	o, g, Mn	ab	3-5	wdsst								
696	448400, 380500	WW	22	scl	10YR 4/2			1-2	wdsst	22	no spl	II	2	DROUGHT	Light-Medium	Rivington	Mid slope 3 degrees. pockets of yellow sand from 55cm.
			60	scl	10R 4/6	rd	ab	5-10	wdsst								
			120	lms	7.5R 5/4			1-2	wdsst								
697	448600, 380500	WW	25	scl	10YR 4/2			1-2	sst	25	no spl	II	2	DROUGHT	Light-Medium	Rivington	Mild slope. Check texture from lab analysis.
			120	lms	10R 3/6	y	cm	3-5	wdsst								
700	447500, 380400	WB	25	hcl	10YR 4/2			3-5	sst	25	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 5/4	o, g, Mn	ab	1-2	wdsst								
701	448300, 380400	WW	24	hcl	10YR 4/2			3-5	sst, f	24	no spl	II	3a	WETNESS	Medium-Heavy	Rivington	Top of slight slope. Compacted subsoil.
			35	scl	10R 4/6	o, Mn	fw	3-5	wdsst								
			90	lms	10YR 5/6	g	fw	1-2	wdsst								
702	448500, 380400	WW	29	scl	10YR 4/2			<1	sst	no gleying	no spl	I	3a	DROUGHT	Light-Medium	Rivington	Below 40cm turned dark pinkish red lms due to crushed stone by auger. Drought calc needed. Drought calc conducted, Grade 2.
			120	msl	7.5YR 5/4			50+	wdsst								
704	447400, 380300	WW	18	mcl	10YR 4/2			10-20	sst	18	no spl	II	3a	STONE CONTENT	Medium-Heavy	Dale	7-11 degree slope. Impenetrable stones below 35cm, auger boring moved 4 times. Wet clay, less stoney area between 704 and 716.
			35	c	10YR 6/4	o, Mn	ab	50+	sst								
705	447600, 380300	WB	20	hcl	10YR 4/3	Mn	fw	1-2	sst	20	35	IV	3b	WETNESS	Heavy	Dale	Spring in field between 695 and 705.
			120	c	7.5YR 7.1	o, g, Mn	ab	1-2	wdsst								
706	448200, 380300	WW	34	scl	10YR 4/2	o	fw	1-2	wdsst	34	no spl	II	3a	DROUGHT	Light-Medium	Rivington	Some ochreous mottling near topsoil/subsoil boundary. Increased sand content in topsoil near subsoil. Impenetrable due to compaction at 75cm.
			75	ms	10YR 7/3	o	fw	<1	sst								
707	448400, 380300	WW	32	msl	10YR 4/2			3-5	sst	no gleying	no spl	I	3b	SLOPE	Light-Medium	Rivington	7-11 degree slope.
			80	lms	7.5R 4/6			20-30	wdsst								
708	448600, 380300	WW	26	scl	10YR 4/2			1-2	sm sst, f	26	no spl	II	3a	DROUGHT	Light-Medium	Rivington	Slight slope 3 degrees. Compacted sand in lower subsoil. scl 10cm band where topsoil and subsoil mix. Drought calc conducted, Subgrade 3a.
			51	lms	10YR 5/6	o	fw	<1	sst								
			120	ms	10YR 7/3	pg	cm	<1	sst								
			28	hcl	10YR 4/2			3-5	sst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
711	447500, 380200	WB	37	hcl	10YR 4/4	Mn	m	1-2	wdsst	28	37	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 4/4	o, g, Mn	ab	<1	sst								
712	448100, 380200	WW	26	mcl	10YR 4/2			<1	sst	26	35	IV	3b	WETNESS	Medium-Heavy	Dale	4-7 degree slope.
			120	c	10YR 7/4	o, g	ab	<1	sst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

LDC Land Drainage Consultancy Ltd

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
713	448300, 380200	WW	29	scl	10YR 4/6			1-2	sst	no gleying	no spl	I	1		Medium	Rivington	4-7 degree slope. Drought calc conducted, Grade 1.
			40	scl	10YR 3/6			1-2	sst								
			120	msl	10YR 5/6			1-2	sst								
714	448500, 380200	WW	26	scl	10YR 3/3			3-5	sst	46	no spl	I	1		Medium	Rivington	4-7 degree slope.
			120	scl	10YR 5/6	Mn	cm	5-10	wdsst								
716	447400, 380100	WW	27	mcl	10YR 2/2			10-20	sst	no gleying	no spl	I	3a	STONE CONTENT	Medium	Rivington/Dale	4-7 degree slope. >10% large (>6cm) stones.
			85	scl	10YR 4/4			30-40	wdsst								
717	447600, 380100	WB	26	hcl	10YR 4/2			3-5	sst	26	35	IV	3b	WETNESS	Heavy	Dale	8cm transition layer. Weathered sandstone increase to 3-5% with depth. At 90cm, it becomes grey
			120	c	10YR 5/4	o, g, Mn	ab	1-2	wdsst								
718	448200, 380100	WW	27	hcl	10YR 4/2			1-2	sst	27	35	IV	3b	WETNESS	Heavy	Dale	4-7 degree slope.
			120	c	10YR 7/4	o, g, Mn	ab	1-2	wdsst								
719	448400, 380100	WW	25	hcl	10YR 4/2			1-2	sst	25	35	IV	3b	WETNESS	Heavy	Dale	Clay bands in subsoil. Fe and Mn below 80cm.
			120	hcl	7.5YR 4/1	o, g	ab	<1	sst								
720	448600, 380100	WW	27	scl	10YR 4/3			<1	sm sst	no gleying	no spl	I	1		Medium	Rivington	4-7 degree slope. Increasingly yellow with depth.
			120	scl	10YR 4/6			<1	sst								
723	447500, 380000	STB	25	hcl	10YR 4/2			5-10	sst	25	35	IV	3b	WETNESS	Heavy	Dale	Wet, moderately severe poaching from sheep.
			40	c	7.5YR 5/1	o, g, Mn	ab	<1	sst								
			120	c	10YR 4/6	o, g, Mn	ab	5-10	sst								
724	447700, 380000	TGR	29	c	10YR 4/2	o, Mn	cm	<1	sst	10	35	IV	3b	WETNESS	Heavy	Dale	Standing water near auger boring, valley feature east west, 50% coal and shale fragments at 50cm, possibly disturbed.
			60	c	10YR 5/6	o, g	ab	<1	sst								
			120	c	10YR 4/1	o, g	ab	30-40	coal								
725	448100, 380000	CC	29	hcl	10YR 4/2			1-2	sst	29	35	IV	3b	WETNESS	Medium-Heavy	Dale	Slightly better structured and lighter textured subsoil.
			120	mcl	10YR 5/4	o, Mn	cm	3-5	wdsst								
726	448300, 380000	WW	31	hzcl	10YR 4/2			<1	sst	31	35	IV	3b	WETNESS	Heavy	Dale	Wet subsistence depression 25m south. 4-7 degree slope. Standing water 10m from auger boring.
			60	c	7.5YR 4/1	o, yb	ab	<1	sst								
			120	hcl	7.5R 4/3	o, yb	ab	<1	sst								
728	447400, 379900	STB	20	hcl	10YR 4/2			5-10	sst	20	35	IV	3b	WETNESS	Heavy	Dale	4-7° slope. Top of hill.
			80	hcl	10YR 4/2	o, g, Mn	ab	5-10	sst								
			120	hcl	7.5YR 5/1	o, g, Mn	ab	1-2	sst								
729	447600, 379900	STB	28	hcl	10YR 4/2			3-5	sst	28	35	IV	3b	WETNESS	Heavy	Dale	4-7 degree slope. >50cm large wsst. In valley/subsided hole.
			120	c	7.5YR 4/1	o, Mn	ab	3-5	sst								
731	448200, 379900	CC	33	hcl	10YR 3/2			1-2	sst	33	35	IV	3b	WETNESS	Heavy	Dale	Check land use. Very dry subsoil.
			120	c	10YR 3/1	o, Mn	ab	1-2	wdsst								
732	447500, 379800	STB	27	hcl	10YR 4/2	Mn	r	1-2	sst	27	35	IV	3b	WETNESS	Heavy	Dale	Auger boring moved 3 times due to stones in top 20cm, and slight slope in field.
			120	c	10YR 5/6	o, g, Mn	ab	3-5	wdsst								
733	447700, 379800	STB	35	hzcl	10YR 4/2	o, Mn	fw	<1	sst	25	35	IV	3b	WETNESS	Heavy	Dale	Subsoil discrete pockets of sand from weathered sandstones.
			120	c	10YR 4/6	o, g	cm	3-5	coal, sst								
734	448100, 379800	CC	31	hcl	10YR 4/2			1-2	sst	31	35	IV	3b	WETNESS	Heavy	Dale	Slight slope <7°.
			120	c	10YR 4/3	o, g, Mn	ab	1-2	wdsst								
735	448300, 379800	WW	31	mcl	10YR 4/2			1-2	sst	31	60	III	3a	WETNESS	Medium	Rivington/Dale	4-7 degree slope.
			50	mcl	10YR 4/3	Mn	r	1-2	sm sst								
			120	mcl	10YR 6/3	g, mn	cm	3-5	sst, shale								
736	447600, 379700	STB	21	hcl	10YR 4/2			<1	sst	25	35	IV	3b	WETNESS	Heavy	Dale	Standing water, poorly drained, slope in field.
			120	c	7.5YR 4/1	o, g, Mn	ab	1-2	coal								
737	448000, 379700	CC	30	hcl	10YR 3/2			1-2	sst	30	35	IV	3b	WETNESS	Heavy	Dale	
			120	c	10YR 3/1	o, Mn	ab	1-2	wdsst								

ERM Whitestone Solar Farm
Appendix 4: Description of Individual Soil Auger Borings

Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
738	448200, 379700	CC	27	hcl	10YR 3/2			3-5	sst	27	35	IV	3b	WETNESS	Heavy	Dale	Very gleyed subsoil.
			120	c	10YR 3/1	Mn	ab	<1	sst								

ERM Whitestone Solar Farm

Appendix 4: Description of Individual Soil Auger Borings

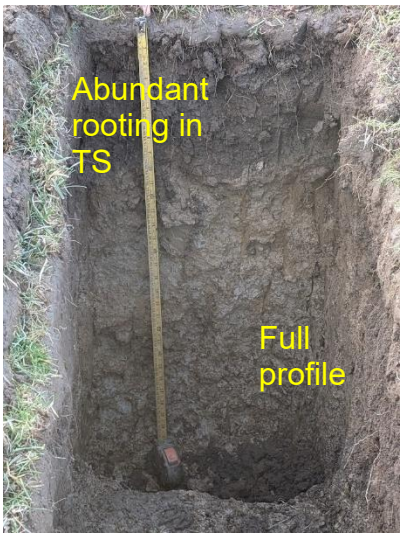
Updated: 10/03/2026 Survey Date: 12/10/2023-22/01/2026 Assessor: AS, NS, PM, SH, CP, LW

FCD= 131-158 MDWheat = MDWheat = 93-101 MDPots = 81-99

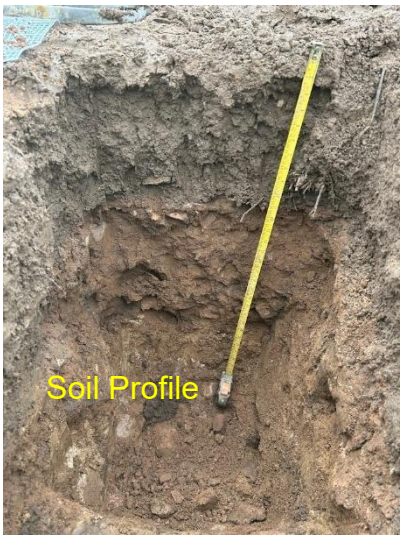
BORE NO.	OS GRID REF	LAND USE	DEPTH (cm)	TEXTURE	Soil Colour	MOTTLES		Stones		DEPTH TO GLEYING (cm)	DEPTH TO SPL (cm)	WETNESS CLASS	ALC	ALC Limitation	SOIL TYPE	SOIL ASSOCIATION	COMMENTS
					Munsell	Musell	Ab.	Total	Type								
		STB	25	hcl	10YR 4/2			<1	sst	25	35	IV	3b	WETNESS	Heavy	Dale	Very dry area of field, spl questionable. Subsoil dry and crumbly.
			35	hcl	10YR 5/4	o	cm	<1	sst								
739	447900, 379600		120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
		STB	28	hcl	10YR 3/2			1-2	sst	28	35	IV	3b	WETNESS	Heavy	Dale	
740	448100, 379600		70	c	10YR 3/1	o, Mn	ab	1-2	wdsst, coal								
		STB	41	hcl	10YR 4/2			1-2	sst	27	41	IV	3b	WETNESS	Heavy	Dale	
741	448300, 379600		120	c	10YR 3/1	o, Mn	ab	1-2	wdsst								
		STB	25	hcl	10YR 4/2			<1	sst	25	no spl	II	3b	WETNESS	Heavy	Dale	Very dry area of field, spl questionable. Subsoil dry and crumbly.
742	448000, 379500		120	c	10YR 5/4	o	cm	<1	sst								
		STB	24	hcl	10YR 3/2			1-2	sst	24	35	IV	3b	WETNESS	Heavy	Dale	
743	448200, 379500		120	c	10YR 3/1	o, Mn	ab	1-2	wdsst								
		STB	27	hcl	10YR 4/2			1-2	sst	27	35	IV	3b	WETNESS	Heavy	Dale	Slope 7-11°. Very dry subsoil.
744	448400, 379500		120	c	10YR 3/1	o, Mn	ab	1-2	wdsst								
		STB	26	hcl	10YR 4/2			<1	sst	26	no spl	II	3b	WETNESS	Heavy	Dale	Very dry area of field, SPL questionable. Subsoil dry and crumbly.
745	448100, 379400		120	c	10YR 5/4	o	cm	<1	sst								
		STB	24	hcl	10YR 4/2			1-2	sst	24	41	III	3b	WETNESS	Heavy	Dale	Steep slope 7-11°.
			41	hcl	10YR 4/3	o	cm	1-2	wdsst								
746	448300, 379400		120	c	10YR 5/4	o, g, Mn	ab	<1	sst								
		W Beans	31	hcl	10YR 4/2			3-5	hdst	31	35	IV	3b	WETNESS	Heavy	Dale	Mid gentle slope.
A1	444400, 387600		49	c	10YR 5/4	g, Mn	ab	1-2	wdsst								
		W Beans	26	hcl	10YR 4/2			3-5	hdst	25	35	IV	3b	WETNESS	Heavy	Dale	Bottom of slope.
A2	444600, 387600		120	c	10YR 4/4	g, Mn	ab	1-2	wdsst								
		W Beans	27	hcl	10YR 4/2			1-2	hdst	27	35	IV	3b	WETNESS	Heavy	Dale	Becomes more pale at 115cm.
			46	scl	10YR 6/1			1-2	wdsst								
			79	c	10YR 6/1	Mn, rd	ab	<1	wdsst								
A3	444800, 387600		120	c	10YR 3/1			<1	wdsst								
		W Beans	33	hcl	10YR 4/2			1-2	hdst	33	45	IV	3b	WETNESS	Heavy	Dale	At 66cm stone content increases to 35+.
			52	hcl	10YR 6/2	o, g, Mn	fw	1-2	hdst								
A4	444500, 387500		120	c	7.5YR 7/1	o, g, Mn	ab	<1	wdsst								
		W Beans	25	hcl	10YR 4/2			1-2	hdsst	25	35	IV	3b	WETNESS	Heavy	Dale	
			75	scl	10YR 5/3	o, g, Mn	fw	1-2	wdsst, hdsst								
			93	lp	10YR 2/1			<1	sst								
			104	pl	10YR 4/4			<1	sst								
A5	444700, 387500		120	c	10YR 3/1			<1	sst								
		WW	32	hcl	10YR 4/2			1-2	f	32	35	IV	3b	WETNESS	Heavy	Dale	
A12	450600, 384900		120	c	10YR 5/4	o, g, Mn	ab	<1	f								
		WW	34	hcl	10YR 3/2			<1	hdst	34	35	IV	3b	WETNESS	Heavy	Dale	
A13	450700, 384800		120	c	10YR 5/1	o, Mn	ab	3-5	coal								
		WW	28	hcl	10YR 3/2			<1	hdst	28	35	IV	3b	WETNESS	Heavy	Dale	
A14	450900, 384800		120	c	10YR 6/1	o, Mn	ab	<1	hdst								
		WW	29	hcl	10YR 4/2			1-2	hdst	29	66	III	3b	WETNESS	Heavy	Dale	
			66	hcl	10YR 5/6	g, Mn	cm	5-10	wdsst								
A15	450800, 384700		120	c	10YR 5/6	g, Mn	m	3-5	wdsst								

ERM: Whitestone Solar Farm
Soil Profile Pit Description

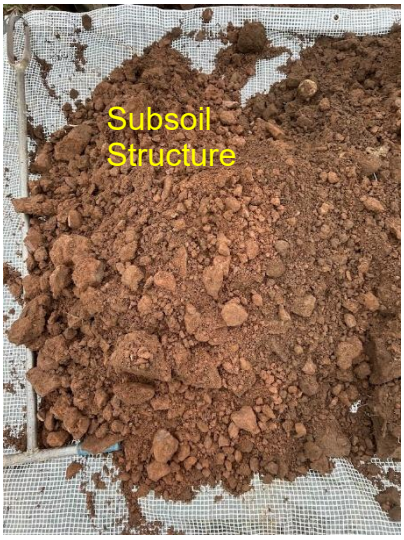
Profile Pit TP1	
Location:	**Field 6.51**
OS Grid Reference:	**449779, 385787**
Land Use:	**Agriculture – permanent grass**
Aspect:	Near Level
Soil type 5:	Dale – lightly stoney heavy clay loam topsoil overlying mottled and gleyed clay with a silty upper subsoil layer. Moderately developed topsoil over weakly developed subsoils.
Land Quality:	ALC Grade 3b, (Wetness Class IV).

Soil Profile	Depth (m)	Description
	**0-0.26** **(topsoil)**	Very dark grey brown (10YR 3/2) heavy clay loam; with no visible mottles; rare (1-2%) small and medium subangular sandstones. Moist, moderately developed medium and coarse subangular blocky. Compound peds are present in the top 5cm. moderate packing density; slightly friable soil strength. Moderate plasticity; moderate stickiness. Few medium and fine fissures; few fine and rare medium pores; many fine fibrous roots in top 5cm then rare roots to 26cm. Common small and few medium earthworms. Non calcareous, abrupt wavy boundary. Pit has been dug 10m from hedge.
	**0.26– 0.40** **(subsoil)**	Mixed very dark grey brown (10YR 3/2) and brownish yellow (10YR 6/6) heavy silty clay loam; common faint ochreous (10YR 5/8) and grey (10YR 6/1) mottles. Common (5-10%) small and medium angular and tabular sandstones. Moist; weakly developed medium prismatic structure; no compound peds; moderate packing density; moderate soil strength. Moderate plasticity; moderate stickiness; few fine fissures; rare fine fibrous roots; rare large earthworms. Non calcareous; clear smooth boundary. Band of stones present from 27-34cm, could be manmade influence or natural deposits.
	0.40– 1.2 **(subsoil)**	Light brownish grey (2.5Y 6/2) clay; abundant distinct ochreous (10R 6/8), fe and mn mottles; common large sharp sandstones from 85cm, small and medium sandstones throughout horizon. Slightly moist; weakly developed, coarse prismatic structure; no compound peds present; moderate packing density; firm soil strength. High plasticity; high stickiness; rare fine fissures; few fine and very fine pores; very rare fine fibrous roots; rare soil fauna, some medium and large earthworm channels. Non calcareous.

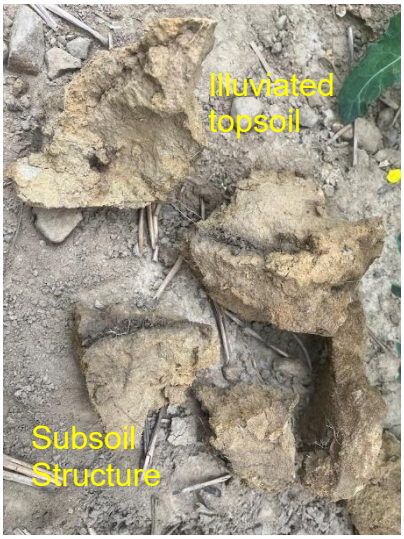
Profile Pit TP2	
Location:	**Field 5.24**
OS Grid Reference:	**447100, 387498**
Land Use:	**Agriculture - cultivated**
Aspect:	1-3° slope
Soil type 2:	Rivington-Dale – Lightly stoney fine sandy clay loam topsoil with no visible mottles overlying stoney fine sandy clay loam to depth with rare faint manganese mottles. Weakly developed fine sandy clay loam overlaid with very weakly developed fine sandy clay loam topsoil.
Land Quality:	ALC Grade 2, (Wetness Class II).

Soil Profile	Depth (m)	Description
	**0-0.27 (topsoil)**	Dark brown (7.5YR 3/2) fine sandy clay loam; with no visible mottles; rare (1-2%) small and medium sandstones. Wet in the first 4m then moist to bottom of the topsoil. Cultivated, very weakly developed fine and medium subangular blocky; no compound peds present; moderate packing density; weakly friable. Moderate plasticity; moderate stickiness; few fine and rare medium fissures; few medium and large and common fine pores; few fine fibrous roots, no crop present. Rare small and medium earthworms; non calcareous; abrupt smooth boundary. Stubble from previous crop at 27cm.
	**0.27– 1.20 (subsoil)**	Reddish brown (5YR 4/4) fine sandy clay loam, no significant mottles, rare faint manganese mottles, topsoil present from earthworms; many (30%) medium, large and very large sandstones. Moist to depth; weakly developed medium prismatic structure; no compound peds present. Moderate packing density; friable soil strength; moderate plasticity; moderate stickiness. Few fine and rare medium fissures; rare fine fibrous roots to 60cm; common large vertical earthworm channels with topsoil. Non calcareous. Colour change at 60cm to brown (7.5YR 4/4) with coarse grained sand.

Profile Pit TP3	
Location:	**Field 9.07**
OS Grid Reference:	**448495, 380400**
Land Use:	**Agriculture – winter wheat**
Aspect:	4-7° slope
Soil type 1:	Rivington 1 – almost stoneless medium sandy loam topsoil overlying abundantly stony loamy medium sand with no visible mottles throughout profile. Weakly developed topsoil over apedal subsoil.
Land Quality:	ALC Grade 2, (Wetness Class II).

Soil Profile	Depth (m)	Description
	**0-0.27 (topsoil)**	Very dark brown (7.5YR 2.5/3) medium sandy loam; no visible mottles; very rare (<1%) small sandstones; moist. Cultivated; weakly developed coarse angular blocky breaking to fine subangular blocky; moderate compound peds are present. Low packing density; friable soil strength; moderate plasticity; low stickiness. Rare fine fissures; few fine and rare medium pores; few fine fibrous roots to 15cm. Few small earthworms. Non calcareous, clear smooth boundary. Surface is moderately slaked.
	**0.27– 0.90 (subsoil)**	Reddish brown (5YR 4/4), loamy medium sand becoming reddish brown (2.5YR 4/4) past 60cm, no visible mottles; abundant (50-60%) medium and large sandstones and rare very large sandstones; moist. Apedal structure; moderate to high packing density; weak soil strength; very low plasticity; low stickiness. Rare large and few fine pores; very rare, very fine fibrous roots; rare medium and large earthworm channels. Non calcareous. Stone content is variable across horizon.

Profile Pit TP4	
Location:	**Field 1.12**
OS Grid Reference:	**549379, 396704**
Land Use:	**Agriculture – OSR**
Aspect:	0-3° slope
Soil type 4:	Bardsey – Lightly stoney medium clay loam topsoil, overlying mottled and gleyed clay loam with increased stone content. Weak to moderately developed topsoil over moderately well developed subsoil.
Land Quality:	ALC Grade 3b, (Wetness Class III).

Soil Profile	Depth (m)	Description
	**0-0.27 (topsoil)**	Brown (10YR 4/3) medium clay loam, rare distinct manganese mottles; few (3-5%) small and medium hardstones; dry. Weak to moderate development, coarse subangular blocky structure. No compound peds present. High packing density; very firm soil strength; plastic; high stickiness. Few fine fissures, large surface fissures; 1% very fine, fine and medium pores; common fine fibrous roots. Medium earthworm channels; mycorrhizal network in top 10cm. Non calcareous, clear smooth boundary.
	**0.27– 0.80 (subsoil)**	Light yellowish brown (10YR 6/4) medium to heavy clay loam; abundant ochreous and manganese mottles; common (15-20%) medium and coarse weathered sandstones and hardstones; slightly moist. Moderately well developed; coarse angular blocky; compound peds present, breaking to medium. High packing density; very firm soil strength; very plastic; very sticky. Few fine fissures; 1% very fine and fine pores; few fine fibrous roots; few medium and large earthworm channels filled with topsoil. Non calcareous. Stone content increases with depth.

Appendix 6

ANALYSIS REPORT

Contact :	LDCL LTD COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY Tel. : 01377 236010
Client :	WHITESTONE-ROTHERHAM TOPSOIL 0-20CM 05-02-2025

J143

Please quote the above code for all enquiries

Sample Matrix : Agricultural Soil

Laboratory Reference

Card Number 64668/25

Date Received	12-Feb-25
Date Reported	21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350843/25	1	**1.1E T/S 0-20CM** *Into Other Crop*	**7.1**	**2**	**1**	**5**	**19.6**	**106**	**292**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64668/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350843	1	1.1E T/S 0-20CM	5.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64668/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64668/350843/25** Field Name: **1.1E T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	38	
Silt (0.063 - 0.002mm) %	33	
Clay (< 0.002mm) %	29	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64668/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.1E T/S 0-20CM	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
350843 / Medium		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
20-01-2026

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64505/26

Date Received 12-Feb-26
Date Reported 19-Feb-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
349686/26	1	**FIELD 1.04E** *Into Perm Pasture*	**7.7**	**0**	**1**	**4**	**7.4**	**108**	**240**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] On behalf of NRM Date 19/02/26

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64505/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
349686	1	FIELD 1.04E	6.5

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64505/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64505/349686/26** Field Name: **FIELD 1.04E**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	28	
Silt (0.063 - 0.002mm) %	53	
Clay (< 0.002mm) %	19	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th February 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64505/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 1.04E	**Not Given / P Pasture**	*Units/Acre*	**64**	**24**		*T/Ac*	**0**
349686 / Medium		*Kg/Ha*	**80**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	19th February 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026
SAMPLED BY	
Report reference	64505/26

LDCL LTD
COWSLIP OFFICE
FIMBER
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
20-01-2026

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64505/26

Date Received 12-Feb-26
Date Reported 19-Feb-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
349688/26	1	**FIELD 1.04S** *Into Perm Pasture*	**7.5**	**3**	**3**	**4**	**29.8**	**283**	**229**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 19/02/26.....

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64505/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
349688	1	FIELD 1.04S	12.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64505/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64505/349688/26** Field Name: **FIELD 1.04S**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	27	
Silt (0.063 - 0.002mm) %	51	
Clay (< 0.002mm) %	22	
Textural Classification	Organic Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th February 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64505/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 1.04S	**Not Given / P Pasture**	*Units/Acre*	**0**	**0**		*T/Ac*	**0**
349688 / Organ.		*Kg/Ha*	**0**	**0**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	19th February 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026
SAMPLED BY	
Report reference	64505/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
20-01-2026

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64505/26

Date Received 12-Feb-26
Date Reported 19-Feb-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
349687/26	1	**FIELD 1.04W** *Into Perm Pasture*	**7.7**	**2**	**2-**	**4**	**17.6**	**162**	**236**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 19/02/26

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64505/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
349687	1	FIELD 1.04W	5.9

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64505/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64505/349687/26** Field Name: **FIELD 1.04W**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	32	
Silt (0.063 - 0.002mm) %	41	
Clay (< 0.002mm) %	27	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th February 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64505/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 1.04W	**Not Given / P Pasture**	*Units/Acre*	**16**	**0**		*T/Ac*	**0**
349687 / Medium		*Kg/Ha*	**20**	**0**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	19th February 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026
SAMPLED BY	
Report reference	64505/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-14-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 68620/25

Date Received 23-Apr-25
Date Reported 29-Apr-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
368027/25	1	**1.05N TS 0-20CM** *Into Winter Wheat*	**6.8**	**2**	**2-**	**3**	**19.2**	**133**	**107**
368028/25	2	**1.05S TS 0-20CM** *Into Ploughed/Fallow*	**6.8**	**2**	**1**	**3**	**21.4**	**113**	**161**
368029/25	3	**1.06 TS 0-20CM** *Into Winter Wheat*	**6.9**	**0**	**1**	**6**	**9.4**	**65**	**391**
368030/25	4	**1.11 TS 0-20CM** *Into Grassland*	**7.3**	**2**	**2-**	**4**	**18.6**	**129**	**196**
368031/25	5	**1.12 TS 0-20CM** *Into Oilseed Rape*	**5.8**	**3**	**1**	**4**	**26.6**	**93**	**202**
368032/25	6	**1.13 TS 0-20CM** *Into Oilseed Rape*	**6.3**	**1**	**2-**	**4**	**14.6**	**127**	**240**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 29/04/25.....

ANALYSIS REPORT

DATE **29th April 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68620/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
368027	1	1.05N TS 0-20CM	4.0
368028	2	1.05S TS 0-20CM	4.2
368029	3	1.06 TS 0-20CM	5.2
368030	4	1.11 TS 0-20CM	4.5
368031	5	1.12 TS 0-20CM	4.2
368032	6	1.13 TS 0-20CM	5.1

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **29th April 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68620/25

LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **29th April 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

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Reference: **68620/368027/25**	Field Name: **1.05N TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		30	
Silt (0.063 - 0.002mm) %		45	
Clay (< 0.002mm) %		25	
Textural Classification		Clay Loam	1

Reference: **68620/368028/25**	Field Name: **1.05S TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		27	
Silt (0.063 - 0.002mm) %		45	
Clay (< 0.002mm) %		28	
Textural Classification		Clay Loam	1

Reference: **68620/368029/25**	Field Name: **1.06 TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		29	
Silt (0.063 - 0.002mm) %		35	
Clay (< 0.002mm) %		36	
Textural Classification		Clay	1

Reference: **68620/368030/25**	Field Name: **1.11 TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		23	
Silt (0.063 - 0.002mm) %		44	
Clay (< 0.002mm) %		33	
Textural Classification		Clay Loam	1

Reference: **68620/368031/25**	Field Name: **1.12 TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		35	
Silt (0.063 - 0.002mm) %		36	
Clay (< 0.002mm) %		29	
Textural Classification		Clay Loam	1

Reference: **68620/368032/25**	Field Name: **1.13 TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		21	
Silt (0.063 - 0.002mm) %		42	
Clay (< 0.002mm) %		37	
Textural Classification		Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	29th April 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-14-2025
SAMPLED BY	
Report reference	68620/25

LDCL LTD
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Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.05N TS 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**44**	**68**		*T/Ac*	**0**
368027 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**85**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.05S TS 0-20CM	**Not Given / Ploughed**	*Units/Acre*				*T/Ac*	**0**
368028 / Medium		*Kg/Ha*				*Te/Ha*	**0**

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.06 TS 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**92**	**92**		*T/Ac*	**0**
368029 / Heavy	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**115**	**115**		*Te/Ha*	**0**

Please see previous sample for crop specific notes.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.11 TS 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
368030 / Medium		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	29th April 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-14-2025
SAMPLED BY	
Report reference	68620/25

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Fertiliser Recommendations

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.12 TS 0-20CM	**Not Given / Wint. Rape**	*Units/Acre*	**0**	**56**	**0**	*T/Ac*	**2.5**
368031 / Medium	**(Yield: 3.5 t/ha) / Straw Returned**	*Kg/Ha*	**0**	**70**	**0**	*Te/Ha*	**6.3**

Recommendations are for winter oilseed rape. Please contact the laboratory for recommendations for spring oilseed rape.

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1 soils they should be applied and worked into the seedbed. At Mg Index 0 and 1, magnesium fertiliser at 50 to 100 kg MgO/ha should be applied every 3 or 4 years.
The yield of most winter and spring sown oil seed rape grown on mineral soils will increase in response to an application of sulphur which will also help to minimise green seeds. Apply 50-80 kg SO3/ha as a sulphate containing fertiliser to all winter and spring sown oilseed rape grown on mineral soils, in late February to early March. Later, severely sulphur deficient oilseed rape crops will have pale flowers, however by this stage it will be too late to correct the deficiency.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.13 TS 0-20CM	**Not Given / Wint. Rape**	*Units/Acre*	**64**	**32**	**0**	*T/Ac*	**1.3**
368032 / Heavy	**(Yield: 3.5 t/ha) / Straw Returned**	*Kg/Ha*	**80**	**40**	**0**	*Te/Ha*	**3.2**

Please see previous sample for crop specific notes.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

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Tel. : 01377 236010

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Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
20-01-2026

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64505/26

Date Received 12-Feb-26
Date Reported 19-Feb-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
349689/26	1	**FIELD 1.10** *Into Sugar Beet*	**7.8**	**2**	**2-**	**4**	**17.8**	**128**	**236**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 19/02/26.....

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64505/26

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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
349689	1	FIELD 1.10	7.1

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64505/26

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64505/349689/26** Field Name: **FIELD 1.10**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	25	
Silt (0.063 - 0.002mm) %	50	
Clay (< 0.002mm) %	25	
Textural Classification	Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th February 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64505/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 1.10	**Not Given / S Beet**	*Units/Acre*	**40**	**80**	**0**	*T/Ac*	**0**
349689 / Medium	**(Yield: 60 t/ha)**	*Kg/Ha*	**50**	**100**	**0**	*Te/Ha*	**0**

Recommendations assumes tops ploughed in.
Sodium can partly replace potash in the nutrition of sugarbeet when soils contain too little crop-available potash. An application of 200 kg Na2O/ha is recommended for beet grown on soils at K Index 0 and 1.On K Index 2 soils it is only necessary to apply 100 kg Na2O/ha when the soil contains less than 25 mg Na/kg. Fen peats, silts and clays usually contain sufficient sodium and no fertiliser sodium is recommended.
If inorganic fertilisers containing potash and sodium are applied just before sowing and too close to the seed, plant populations can be reduced in dry conditions, especially on sandy soils. To minimise this risk, all inorganic fertilisers should be applied at least two weeks before sowing and incorporated into the soil. They may be applied in autumn or winter and ploughed in except on light sand soils where there is a risk of some nutrient loss by leaching. On the latter soils, the fertilisers can be applied in January/February just before ploughing or cultivating.
Boron deficiency can adversely affect sugar beet yields. An application of boron may be required where soil analysis indicates that available boron in the soil (hot water extraction) is less than 0.8 ppm. The uptake of sulphur by well-grown crops is around 50-70 kg S/ha and those of high-yielding crops closer to 100 kg S/ha. Crops may suffer from sulphur deficiency especially higher-yielding crops grown on sensitive soils (sands, sandy loams and shallow soils) and where there is no routine use of organic manures in the rotation. However, sulphate-containing fertilisers only need be applied if deficiency symptoms consistently appear in other, more sensitive crops within the rotation, such as oil seed rape and barley. Where deficiency is possible, 25 kg SO3/ha is effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-14-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 68623/25

Date Received 23-Apr-25
Date Reported 01-May-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
368044/25	1	**1.15 TS 0-20CM** *Into Oilseed Rape*	**6.3**	**2**	**1**	**3**	**17.8**	**97**	**167**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] ..... On behalf of NRM Date 01/05/25

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68623/25

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COWSLIP OFFICE
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EAST YORKSHIRE
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Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
368044	1	1.15 TS 0-20CM	4.1

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68623/25

LDCL LTD
COWSLIP OFFICE
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Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **68623/368044/25** Field Name: **1.15 TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	38	
Silt (0.063 - 0.002mm) %	32	
Clay (< 0.002mm) %	30	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	1st May 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-14-2025
SAMPLED BY	
Report reference	68623/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.15 TS 0-20CM	**Not Given / Wint. Rape**	*Units/Acre*	**40**	**56**	**0**	*T/Ac*	**1.1**
368044 / Medium	**(Yield: 3.5 t/ha) / Straw Returned**	*Kg/Ha*	**50**	**70**	**0**	*Te/Ha*	**2.8**

Recommendations are for winter oilseed rape. Please contact the laboratory for recommendations for spring oilseed rape.

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1 soils they should be applied and worked into the seedbed. At Mg Index 0 and 1, magnesium fertiliser at 50 to 100 kg MgO/ha should be applied every 3 or 4 years.
The yield of most winter and spring sown oil seed rape grown on mineral soils will increase in response to an application of sulphur which will also help to minimise green seeds. Apply 50-80 kg SO3/ha as a sulphate containing fertiliser to all winter and spring sown oilseed rape grown on mineral soils, in late February to early March. Later, severely sulphur deficient oilseed rape crops will have pale flowers, however by this stage it will be too late to correct the deficiency.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-14-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 68623/25

Date Received 23-Apr-25
Date Reported 01-May-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
368045/25	1	**1.16 TS 0-20CM** *Into Oilseed Rape*	**6.6**	**2**	**1**	**4**	**15.6**	**115**	**239**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] ..... On behalf of NRM Date 01/05/25

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68623/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
368045	1	1.16 TS 0-20CM	5.4

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68623/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **68623/368045/25** Field Name: **1.16 TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	24	
Silt (0.063 - 0.002mm) %	38	
Clay (< 0.002mm) %	38	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	1st May 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-14-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	68623/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.16 TS 0-20CM	**Not Given / Wint. Rape**	*Units/Acre*	**40**	**56**	**0**	*T/Ac*	**0**
368045 / Heavy	**(Yield: 3.5 t/ha) / Straw Returned**	*Kg/Ha*	**50**	**70**	**0**	*Te/Ha*	**0**

Recommendations are for winter oilseed rape. Please contact the laboratory for recommendations for spring oilseed rape.

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1 soils they should be applied and worked into the seedbed. At Mg Index 0 and 1, magnesium fertiliser at 50 to 100 kg MgO/ha should be applied every 3 or 4 years.
The yield of most winter and spring sown oil seed rape grown on mineral soils will increase in response to an application of sulphur which will also help to minimise green seeds. Apply 50-80 kg SO3/ha as a sulphate containing fertiliser to all winter and spring sown oilseed rape grown on mineral soils, in late February to early March. Later, severely sulphur deficient oilseed rape crops will have pale flowers, however by this stage it will be too late to correct the deficiency.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-14-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 68623/25

Date Received 23-Apr-25
Date Reported 01-May-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
368046/25	1	**1.17 TS 0-20CM** *Into Grassland*	**6.8**	**2**	**2-**	**5**	**16.4**	**126**	**293**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 01/05/25

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68623/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
368046	1	1.17 TS 0-20CM	5.5

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68623/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **68623/368046/25** Field Name: **1.17 TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	19	
Silt (0.063 - 0.002mm) %	40	
Clay (< 0.002mm) %	41	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	1st May 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-14-2025
SAMPLED BY	
Report reference	68623/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
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Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.17 TS 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
368046 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-14-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 68623/25

Date Received 23-Apr-25
Date Reported 01-May-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
368047/25	1	**1.18 TS 0-20CM** *Into Other Crop*	**7.0**	**1**	**1**	**5**	**14.2**	**108**	**344**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 01/05/25

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68623/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
368047	1	1.18 TS 0-20CM	5.5

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68623/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **68623/368047/25** Field Name: **1.18 TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	21	
Silt (0.063 - 0.002mm) %	39	
Clay (< 0.002mm) %	40	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	1st May 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-14-2025
SAMPLED BY	
Report reference	68623/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.18 TS 0-20CM	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
368047 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
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EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
20-01-2026

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64506/26

Date Received 12-Feb-26
Date Reported 19-Feb-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
349691/26	1	**FIELD 1.19N** *Into Winter Wheat*	**7.3**	**3**	**2-**	**4**	**26.6**	**180**	**228**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 19/02/26

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64506/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
349691	1	FIELD 1.19 N	9.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64506/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64506/349691/26** Field Name: **FIELD 1.19N**	**Result(*)**	
Sand (2.00 - 0.063mm) %	18	
Silt (0.063 - 0.002mm) %	55	
Clay (< 0.002mm) %	27	
Textural Classification	Silty Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th February 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64506/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 1.19	**Not Given / W Wheat**	*Units/Acre*	**0**	**68**		*T/Ac*	**0**
349691 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**0**	**85**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

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Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
20-01-2026

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64506/26

Date Received 12-Feb-26
Date Reported 19-Feb-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
349690/26	1	**FIELD 1.19S** *Into Winter Wheat*	**7.5**	**3**	**1**	**3**	**29.0**	**108**	**156**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 19/02/26

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64506/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
349690	1	FIELD 1.19S	6.5

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64506/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64506/349690/26** Field Name: **FIELD 1.19S**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	31	
Silt (0.063 - 0.002mm) %	39	
Clay (< 0.002mm) %	30	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th February 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026
SAMPLED BY	
Report reference	64506/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 1.19S	**Not Given / W Wheat**	*Units/Acre*	**0**	**92**		*T/Ac*	**0**
349690 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**0**	**115**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
20-01-2026

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64506/26

Date Received 12-Feb-26
Date Reported 19-Feb-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
349692/26	1	**FIELD 1.20** *Into Perm Pasture*	**7.6**	**3**	**2-**	**5**	**30.0**	**136**	**270**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 19/02/26.....

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64506/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
349692	1	FIELD 1.20	6.8

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64506/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64506/349692/26** Field Name: **FIELD 1.20**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	21	
Silt (0.063 - 0.002mm) %	52	
Clay (< 0.002mm) %	27	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th February 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64506/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 1.20	**Not Given / P Pasture**	*Units/Acre*	**0**	**0**		*T/Ac*	**0**
349692 / Medium		*Kg/Ha*	**0**	**0**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	19th February 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026
SAMPLED BY	
Report reference	64506/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
20-01-2026

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64499/26

Date Received 12-Feb-26
Date Reported 19-Feb-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
349657/26	1	**FIELD 1.21** *Into Perm Pasture*	**7.8**	**2**	**2+**	**5**	**20.6**	**183**	**329**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 19/02/26

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64499/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
349657	1	FIELD 1.21	7.7

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64499/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64499/349657/26** Field Name: **FIELD 1.21**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	36	
Silt (0.063 - 0.002mm) %	36	
Clay (< 0.002mm) %	28	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th February 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64499/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 1.21	**Not Given / P Pasture**	*Units/Acre*	**16**	**0**		*T/Ac*	**0**
349657 / Medium		*Kg/Ha*	**20**	**0**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	19th February 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026
SAMPLED BY	
Report reference	64499/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-14-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 68622/25

Date Received 23-Apr-25
Date Reported 01-May-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
368038/25	1	**1.22N TS 0-20CM** *Into Grassland*	**7.9**	**1**	**2-**	**5**	**13.6**	**179**	**295**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] ..... On behalf of NRM Date 01/05/25

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68622/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
368038	1	1.22N TS 0-20CM	5.7

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68622/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **68622/368038/25** Field Name: **1.22N TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	24	
Silt (0.063 - 0.002mm) %	39	
Clay (< 0.002mm) %	37	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	1st May 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-14-2025
SAMPLED BY	
Report reference	68622/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.22N TS 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
368038 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-14-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 68622/25

Date Received 23-Apr-25
Date Reported 01-May-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
368039/25	1	**1.22S TS 0-20CM** *Into Grassland*	**7.7**	**1**	**2-**	**5**	**9.8**	**135**	**326**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 01/05/25

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68622/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
368039	1	1.22S TS 0-20CM	6.2

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68622/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **68622/368039/25** Field Name: **1.22S TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	20	
Silt (0.063 - 0.002mm) %	40	
Clay (< 0.002mm) %	40	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	1st May 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-14-2025
SAMPLED BY	
Report reference	68622/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
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Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.22S TS 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
368039 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-14-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 68622/25

Date Received 23-Apr-25
Date Reported 01-May-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
368040/25	1	**1.23 TS 0-20CM** *Into Oilseed Rape*	**6.8**	**1**	**2-**	**5**	**13.2**	**136**	**330**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] ..... On behalf of NRM Date 01/05/25

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68622/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
368040	1	1.23 TS 0-20CM	6.5

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68622/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **68622/368040/25** Field Name: **1.23 TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	13	
Silt (0.063 - 0.002mm) %	42	
Clay (< 0.002mm) %	45	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	1st May 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-14-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	68622/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.23 TS 0-20CM	**Not Given / Wint. Rape**	*Units/Acre*	**64**	**32**	**0**	*T/Ac*	**0**
368040 / Heavy	**(Yield: 3.5 t/ha) / Straw Returned**	*Kg/Ha*	**80**	**40**	**0**	*Te/Ha*	**0**

Recommendations are for winter oilseed rape. Please contact the laboratory for recommendations for spring oilseed rape.

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1 soils they should be applied and worked into the seedbed. At Mg Index 0 and 1, magnesium fertiliser at 50 to 100 kg MgO/ha should be applied every 3 or 4 years.
The yield of most winter and spring sown oil seed rape grown on mineral soils will increase in response to an application of sulphur which will also help to minimise green seeds. Apply 50-80 kg SO3/ha as a sulphate containing fertiliser to all winter and spring sown oilseed rape grown on mineral soils, in late February to early March. Later, severely sulphur deficient oilseed rape crops will have pale flowers, however by this stage it will be too late to correct the deficiency.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-14-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 68622/25

Date Received 23-Apr-25
Date Reported 01-May-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
368041/25	1	**1.24 TS 0-20CM** *Into Grassland*	**7.1**	**1**	**1**	**6**	**12.0**	**111**	**392**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 01/05/25

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68622/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
368041	1	1.24 TS 0-20CM	6.1

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68622/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **68622/368041/25** Field Name: **1.24 TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	13	
Silt (0.063 - 0.002mm) %	43	
Clay (< 0.002mm) %	44	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	1st May 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-14-2025
SAMPLED BY	
Report reference	68622/25

LDCL LTD
COWSLIP OFFICE
FIMBER
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.24 TS 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
368041 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
20-01-2026

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64499/26

Date Received 12-Feb-26
Date Reported 19-Feb-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
349659/26	1	**FIELD 1.25** *Into Winter Wheat*	**7.6**	**2**	**2-**	**5**	**20.0**	**159**	**269**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 19/02/26 .....

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64499/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
349659	1	FIELD 1.25	6.5

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
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ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64499/26

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
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Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

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Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

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MICRO NUTRIENT REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64499/349659/26** Field Name: **FIELD 1.25**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	26	
Silt (0.063 - 0.002mm) %	37	
Clay (< 0.002mm) %	37	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th February 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026
SAMPLED BY	
Report reference	64499/26

LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
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Fertiliser Recommendations

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All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 1.25	**Not Given / W Wheat**	*Units/Acre*	**44**	**68**		*T/Ac*	**0**
349659 / Heavy	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**85**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
20-01-2026

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64499/26

Date Received 12-Feb-26
Date Reported 19-Feb-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
349660/26	1	**FIELD 1.26** *Into Winter Wheat*	**7.6**	**2**	**2-**	**4**	**23.8**	**143**	**210**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 19/02/26

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64499/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
349660	1	FIELD 1.26	5.6

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64499/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64499/349660/26** Field Name: **FIELD 1.26**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	24	
Silt (0.063 - 0.002mm) %	55	
Clay (< 0.002mm) %	21	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th February 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026
SAMPLED BY	
Report reference	64499/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 1.26	**Not Given / W Wheat**	*Units/Acre*	**44**	**68**		*T/Ac*	**0**
349660 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**85**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
09-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 77061/25

Date Received 15-Dec-25
Date Reported 24-Dec-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
406569/25	1	**FIELD 1.27** *Into Winter Wheat*	**7.4**	**3**	**1**	**5**	**30.2**	**118**	**265**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 24/12/25.....

ANALYSIS REPORT

DATE **24th December 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 09-12-2025**

Report Reference: 77061/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
406569	1	FIELD 1.27	6.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **24th December 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 09-12-2025**

Report Reference: 77061/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **24th December 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 09-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **77061/406569/25** Field Name: **FIELD 1.27**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	29	
Silt (0.063 - 0.002mm) %	32	
Clay (< 0.002mm) %	39	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	24th December 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 09-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	77061/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 1.27	**Not Given / W Wheat**	*Units/Acre*	**0**	**92**		*T/Ac*	**0**
406569 / Heavy	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**0**	**115**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
20-01-2026

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64499/26

Date Received 12-Feb-26
Date Reported 19-Feb-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
349662/26	1	**FIELD 1.28** *Into Winter Wheat*	**7.1**	**2**	**1**	**4**	**25.2**	**92**	**194**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 19/02/26.....

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64499/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
349662	1	FIELD 1.28	5.5

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64499/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64499/349662/26** Field Name: **FIELD 1.28**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	23	
Silt (0.063 - 0.002mm) %	59	
Clay (< 0.002mm) %	18	
Textural Classification	Sandy Silt Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th February 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026
SAMPLED BY	
Report reference	64499/26

LDCL LTD
COWSLIP OFFICE
FIMBER
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 1.28	**Not Given / W Wheat**	*Units/Acre*	**44**	**92**		*T/Ac*	**0**
349662 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**115**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
20-01-2026

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64498/26

Date Received 12-Feb-26
Date Reported 19-Feb-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
349652/26	1	**FIELD 1.29** *Into Winter Wheat*	**7.4**	**3**	**2-**	**3**	**28.8**	**147**	**139**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 19/02/26

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64498/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
349652	1	FIELD 1.29	5.9

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64498/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64498/349652/26** Field Name: **FIELD 1.29**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	36	
Silt (0.063 - 0.002mm) %	35	
Clay (< 0.002mm) %	29	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th February 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64498/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 1.29	**Not Given / W Wheat**	*Units/Acre*	**0**	**68**		*T/Ac*	**0**
349652 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**0**	**85**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
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Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
20-01-2026

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64498/26

Date Received 12-Feb-26
Date Reported 19-Feb-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
349653/26	1	**FIELD 1.30** *Into Winter Wheat*	**7.0**	**2**	**2-**	**4**	**17.6**	**151**	**215**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 19/02/26.....

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64498/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
349653	1	FIELD 1.30	6.1

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
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ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64498/26

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64498/349653/26** Field Name: **FIELD 1.30**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	31	
Silt (0.063 - 0.002mm) %	49	
Clay (< 0.002mm) %	20	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th February 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026
SAMPLED BY	
Report reference	64498/26

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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 1.30	**Not Given / W Wheat**	*Units/Acre*	**44**	**68**		*T/Ac*	**0**
349653 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**85**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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Tel. : 01377 236010

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Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-14-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 68622/25

Date Received 23-Apr-25
Date Reported 01-May-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
368042/25	1	**1.31 TS 0-20CM** *Into Grassland*	**7.8**	**1**	**2-**	**5**	**13.6**	**162**	**323**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 01/05/25

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68622/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
368042	1	1.31 TS 0-20CM	5.7

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

Report Reference: 68622/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **1st May 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-14-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **68622/368042/25** Field Name: **1.31 TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	14	
Silt (0.063 - 0.002mm) %	44	
Clay (< 0.002mm) %	42	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	1st May 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-14-2025
SAMPLED BY	
Report reference	68622/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
1.31 TS 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
368042 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
20-01-2026

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64498/26

Date Received 12-Feb-26
Date Reported 19-Feb-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
349654/26	1	**FIELD 1.32** *Into Winter Wheat*	**7.3**	**3**	**2-**	**4**	**27.8**	**138**	**186**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] On behalf of NRM Date 19/02/26

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64498/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
349654	1	FIELD 1.32	5.8

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

Report Reference: 64498/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th February 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 20-01-2026**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64498/349654/26** Field Name: **FIELD 1.32**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	18	
Silt (0.063 - 0.002mm) %	56	
Clay (< 0.002mm) %	26	
Textural Classification	Silty Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th February 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 20-01-2026	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64498/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 1.32	**Not Given / W Wheat**	*Units/Acre*	**0**	**68**		*T/Ac*	**0**
349654 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**0**	**85**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

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Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64668/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350844/25	1	**2.01E T/S 0-20CM** *Into Winter Wheat*	**6.8**	**1**	**1**	**4**	**12.2**	**110**	**192**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64668/25

LDCL LTD
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350844	1	2.01E T/S 0-20CM	3.7

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64668/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64668/350844/25** Field Name: **2.01E T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	59	
Silt (0.063 - 0.002mm) %	22	
Clay (< 0.002mm) %	19	
Textural Classification	Sandy Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64668/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
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Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
2.01E T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**68**	**92**		*T/Ac*	**0**
350844 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**85**	**115**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64668/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350845/25	1	**2.02 T/S 0-20CM** *Into Winter Wheat*	**6.6**	**2**	**2-**	**3**	**17.4**	**121**	**160**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64668/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350845	1	2.02 T/S 0-20CM	3.6

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64668/25

LDCL LTD
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64668/350845/25** Field Name: **2.02 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	56	
Silt (0.063 - 0.002mm) %	24	
Clay (< 0.002mm) %	20	
Textural Classification	Sandy Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64668/25

LDCL LTD
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Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
2.2 T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**44**	**68**		*T/Ac*	**0**
350845 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**85**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-03-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 67663/25

Date Received 28-Mar-25
Date Reported 14-Apr-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
364064/25	1	**2.03 TS 0-20CM** *Into Winter Wheat*	**6.6**	**1**	**1**	**4**	**12.6**	**111**	**250**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 14/04/25

ANALYSIS REPORT

DATE **14th April 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 67663/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
364064	1	2.03 TS 0-20CM	5.2

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **14th April 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 67663/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **14th April 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **67663/364064/25** Field Name: **2.03 TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	23	
Silt (0.063 - 0.002mm) %	40	
Clay (< 0.002mm) %	37	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	14th April 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-03-2025
SAMPLED BY	
Report reference	67663/25

LDCL LTD
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Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
2.03 TS 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**68**	**92**		*T/Ac*	**0**
364064 / Heavy	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**85**	**115**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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Tel. : 01377 236010

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Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64662/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350813/25	1	**4.02E T/S 0-20CM** *Into Oilseed Rape*	**8.0**	**1**	**1**	**3**	**13.0**	**78**	**103**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64662/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350813	1	4.02E T/S 0-20CM	5.1

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64662/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
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Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64662/350813/25** Field Name: **4.02E T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	23	
Silt (0.063 - 0.002mm) %	42	
Clay (< 0.002mm) %	35	
Textural Classification	Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64662/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
4.2E T/S 0-20CM	**Not Given / Wint. Rape**	*Units/Acre*	**64**	**56**	**0**	*T/Ac*	**0**
350813 / Medium	**(Yield: 3.5 t/ha) / Straw Returned**	*Kg/Ha*	**80**	**70**	**0**	*Te/Ha*	**0**

Recommendations are for winter oilseed rape. Please contact the laboratory for recommendations for spring oilseed rape.

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1 soils they should be applied and worked into the seedbed. At Mg Index 0 and 1, magnesium fertiliser at 50 to 100 kg MgO/ha should be applied every 3 or 4 years.
The yield of most winter and spring sown oil seed rape grown on mineral soils will increase in response to an application of sulphur which will also help to minimise green seeds. Apply 50-80 kg SO3/ha as a sulphate containing fertiliser to all winter and spring sown oilseed rape grown on mineral soils, in late February to early March. Later, severely sulphur deficient oilseed rape crops will have pale flowers, however by this stage it will be too late to correct the deficiency.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64662/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350814/25	1	**4.02W T/S 0-20CM** *Into Oilseed Rape*	**8.0**	**1**	**0**	**2**	**15.4**	**55**	**51**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] ..... On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64662/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350814	1	4.02W T/S 0-20CM	4.5

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64662/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64662/350814/25** Field Name: **4.02W T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	37	
Silt (0.063 - 0.002mm) %	35	
Clay (< 0.002mm) %	28	
Textural Classification	Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025	LDCL LTD
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64662/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
4.2W T/S 0-20CM	**Not Given / Wint. Rape**	*Units/Acre*	**64**	**80**	**0**	*T/Ac*	**0**
350814 / Medium	**(Yield: 3.5 t/ha) / Straw Returned**	*Kg/Ha*	**80**	**100**	**0**	*Te/Ha*	**0**

Recommendations are for winter oilseed rape. Please contact the laboratory for recommendations for spring oilseed rape.

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1 soils they should be applied and worked into the seedbed. At Mg Index 0 and 1, magnesium fertiliser at 50 to 100 kg MgO/ha should be applied every 3 or 4 years.
The yield of most winter and spring sown oil seed rape grown on mineral soils will increase in response to an application of sulphur which will also help to minimise green seeds. Apply 50-80 kg SO3/ha as a sulphate containing fertiliser to all winter and spring sown oilseed rape grown on mineral soils, in late February to early March. Later, severely sulphur deficient oilseed rape crops will have pale flowers, however by this stage it will be too late to correct the deficiency.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64662/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350815/25	1	**4.03 T/S 0-20CM** *Into Winter Barley*	**7.5**	**2**	**1**	**2**	**18.4**	**84**	**59**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64662/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350815	1	4.03 T/S 0-20CM	3.7

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64662/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64662/350815/25** Field Name: **4.03 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	65	
Silt (0.063 - 0.002mm) %	18	
Clay (< 0.002mm) %	17	
Textural Classification	Sandy Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025	LDCL LTD
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64662/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
4.3 T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**44**	**80**		*T/Ac*	**0**
350815 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**100**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64654/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350790/25	1	**4.05 N T/S 0-20CM** *Into Grassland*	**6.4**	**1**	**1**	**4**	**11.2**	**68**	**235**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64654/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350790	1	4.05 N T/S 0-20CM	6.8

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64654/25

LDCL LTD
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FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64654/350790/25** Field Name: **4.05 N T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	34	
Silt (0.063 - 0.002mm) %	34	
Clay (< 0.002mm) %	32	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64654/25

LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
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Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
4.5 N T/S 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
350790 / Medium		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64654/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350791/25	1	**4.05 S T/S 0-20CM** *Into Grassland*	**6.5**	**1**	**1**	**4**	**10.4**	**71**	**198**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64654/25

LDCL LTD
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350791	1	4.05 S T/S 0-20CM	6.2

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64654/25

LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64654/350791/25** Field Name: **4.05 S T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	48	
Silt (0.063 - 0.002mm) %	28	
Clay (< 0.002mm) %	24	
Textural Classification	Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64654/25

LDCL LTD
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EAST YORKSHIRE
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Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
4.5 S T/S 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
350791 / Medium		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64654/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350792/25	1	**4.06 T/S 0-20CM** *Into Winter Wheat*	**7.5**	**2**	**1**	**3**	**15.8**	**93**	**146**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64654/25

LDCL LTD
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350792	1	4.06 T/S 0-20CM	5.1

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64654/25

LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64654/350792/25** Field Name: **4.06 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	44	
Silt (0.063 - 0.002mm) %	31	
Clay (< 0.002mm) %	25	
Textural Classification	Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025	LDCL LTD
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64654/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
4.6 T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**44**	**92**		*T/Ac*	**0**
350792 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**115**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64654/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350794/25	1	**4.07 N T/S 0-20CM** *Into Winter Barley*	**8.1**	**1**	**1**	**3**	**13.0**	**104**	**106**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64654/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350794	1	4.07 N T/S 0-20CM	5.4

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64654/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64654/350794/25** Field Name: **4.07 N T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	25	
Silt (0.063 - 0.002mm) %	39	
Clay (< 0.002mm) %	36	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64654/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
4.7 N T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**68**	**80**		*T/Ac*	**0**
350794 / Heavy	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**85**	**100**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64654/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350795/25	1	**4.07SE T/S 0-20CM** *Into Winter Barley*	**7.8**	**0**	**2-**	**2**	**9.4**	**123**	**89**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64654/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350795	1	4.07SE T/S 0-20CM	5.7

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
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ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64654/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64654/350795/25** Field Name: **4.07SE T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	30	
Silt (0.063 - 0.002mm) %	37	
Clay (< 0.002mm) %	33	
Textural Classification	Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64654/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
4.7SE T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**92**	**56**		*T/Ac*	**0**
350795 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**115**	**70**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64654/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350793/25	1	**4.07SW T/S 0-20CM** *Into Winter Barley*	**7.8**	**1**	**2-**	**3**	**12.0**	**137**	**146**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 21/02/25 .....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64654/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350793	1	4.07SW T/S 0-20CM	5.9

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64654/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64654/350793/25** Field Name: **4.07SW T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	19	
Silt (0.063 - 0.002mm) %	40	
Clay (< 0.002mm) %	41	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64654/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
4.7SW T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**68**	**56**		*T/Ac*	**0**
350793 / Heavy	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**85**	**70**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64655/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350796/25	1	**4.08 T/S 0-20CM** *No cropping details given*	**7.3**	**1**	**1**	**5**	**10.8**	**93**	**252**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 21/02/25 .....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64655/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350796	1	4.08 T/S 0-20CM	9.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64655/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64655/350796/25** Field Name: **4.08 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	30	
Silt (0.063 - 0.002mm) %	36	
Clay (< 0.002mm) %	34	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64655/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*	*Lime (Arable)*	*(Grass)*
4.8 T/S 0-20CM	**Not Given / Not Given**	*Units/Acre*				*T/Ac* **0**	**0**
350796 / Medium		*Kg/Ha*				*Te/Ha* **0**	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64655/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350797/25	1	**5.01N T/S 0-20CM** *Into Other Crop*	**7.1**	**2**	**2-**	**4**	**19.2**	**160**	**233**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64655/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350797	1	5.01N T/S 0-20CM	6.9

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64655/25

LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64655/350797/25** Field Name: **5.01N T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	22	
Silt (0.063 - 0.002mm) %	40	
Clay (< 0.002mm) %	38	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64655/25

LDCL LTD
COWSLIP OFFICE
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Fertiliser Recommendations

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The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
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For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
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Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.1N T/S 0-20CM	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
350797 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64655/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350798/25	1	**5.01S T/S 0-20CM** *Into Other Crop*	**7.2**	**2**	**2-**	**5**	**21.4**	**150**	**264**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64655/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350798	1	5.01S T/S 0-20CM	6.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64655/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64655/350798/25** Field Name: **5.01S T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	24	
Silt (0.063 - 0.002mm) %	40	
Clay (< 0.002mm) %	36	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64655/25

LDCL LTD
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Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.1S T/S 0-20CM	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
350798 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64655/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350799/25	1	**5.02 T/S 0-20CM** *Into Winter Barley*	**6.9**	**2**	**2-**	**4**	**25.2**	**169**	**215**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64655/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350799	1	5.02 T/S 0-20CM	5.3

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64655/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64655/350799/25** Field Name: **5.02 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	26	
Silt (0.063 - 0.002mm) %	39	
Clay (< 0.002mm) %	35	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64655/25

LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
YO25 9LY
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Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.2 T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**44**	**56**		*T/Ac*	**0**
350799 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**70**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

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Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
12-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 65085/25

Date Received 19-Feb-25
Date Reported 28-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
352614/25	1	**5.3 T/S 0-20CM** *Into Winter Barley*	**7.9**	**1**	**2-**	**2**	**12.0**	**136**	**83**
352615/25	2	**5.31 T/S 0-20CM** *Into Winter Barley*	**7.7**	**3**	**2-**	**3**	**35.2**	**144**	**153**
352616/25	3	**5.32 T/S 0-20CM** *Into Winter Barley*	**7.5**	**3**	**1**	**3**	**31.6**	**115**	**152**
352617/25	4	**5.33 T/S 0-20CM** *Into Winter Barley*	**7.7**	**2**	**1**	**3**	**20.2**	**91**	**145**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 28/02/25.....

ANALYSIS REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65085/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
352614	1	5.3 T/S 0-20CM	4.8
352615	2	5.31 T/S 0-20CM	4.3
352616	3	5.32 T/S 0-20CM	3.6
352617	4	5.33 T/S 0-20CM	2.9

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65085/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **65085/352614/25**	Field Name: **5.3 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		32	
Silt (0.063 - 0.002mm) %		38	
Clay (< 0.002mm) %		30	
Textural Classification		Clay Loam	1

Reference: **65085/352615/25**	Field Name: **5.31 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		53	
Silt (0.063 - 0.002mm) %		23	
Clay (< 0.002mm) %		24	
Textural Classification		Sandy Clay Loam	1

Reference: **65085/352616/25**	Field Name: **5.32 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		58	
Silt (0.063 - 0.002mm) %		21	
Clay (< 0.002mm) %		21	
Textural Classification		Sandy Clay Loam	1

Reference: **65085/352617/25**	Field Name: **5.33 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		67	
Silt (0.063 - 0.002mm) %		16	
Clay (< 0.002mm) %		17	
Textural Classification		Sandy Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	28th February 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 12-02-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	65085/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.3 T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**68**	**56**		*T/Ac*	**0**
352614 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**85**	**70**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.31 T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**0**	**56**		*T/Ac*	**0**
352615 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**0**	**70**		*Te/Ha*	**0**

Please see previous sample for crop specific notes.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.32 T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**0**	**80**		*T/Ac*	**0**
352616 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**0**	**100**		*Te/Ha*	**0**

Please see previous sample for crop specific notes.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.33 T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**44**	**80**		*T/Ac*	**0**
352617 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**100**		*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	28th February 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 12-02-2025
SAMPLED BY	
Report reference	65085/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

Please see previous sample for crop specific notes.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64655/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
350799/25	1	**5.05 T/S 0-20CM** *Into Winter Barley*	**7.2**	**2**	**2-**	**4**	**16.4**	**146**	**217**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64655/25

LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350799	1	5.05 T/S 0-20CM	5.8

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64655/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64655/350799/25** Field Name: **5.05 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	17	
Silt (0.063 - 0.002mm) %	41	
Clay (< 0.002mm) %	42	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64655/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
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Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*	*Lime*	*(Arable)*	*(Grass)*
5.05 T/S 0-20CM	**Not Given / Not Given**	*Units/Acre*				*T/Ac*	**0**	**0**
352440 / Heavy		*Kg/Ha*				*Te/Ha*	**0**	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

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Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
12-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 65091/25

Date Received 19-Feb-25
Date Reported 28-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
352646/25	1	**5.11 T/S 0-20CM** *Into Field Beans*	**7.4**	**2**	**2-**	**4**	**18.4**	**125**	**216**
352647/25	2	**5.12 T/S 0-20CM** *Into Field Beans*	**7.5**	**2**	**2-**	**3**	**21.0**	**162**	**138**
352648/25	3	**5.28 T/S 0-20CM** *Into Field Beans*	**7.4**	**2**	**1**	**5**	**16.8**	**79**	**316**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 28/02/25

ANALYSIS REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65091/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
352646	1	5.11 T/S 0-20CM	5.4
352647	2	5.12 T/S 0-20CM	5.0
352648	3	5.28 T/S 0-20CM	5.4

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65091/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **65091/352646/25**	Field Name: **5.11 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		32	
Silt (0.063 - 0.002mm) %		39	
Clay (< 0.002mm) %		29	
Textural Classification		Clay Loam	1

Reference: **65091/352647/25**	Field Name: **5.12 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		36	
Silt (0.063 - 0.002mm) %		38	
Clay (< 0.002mm) %		26	
Textural Classification		Clay Loam	1

Reference: **65091/352648/25**	Field Name: **5.28 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		23	
Silt (0.063 - 0.002mm) %		38	
Clay (< 0.002mm) %		39	
Textural Classification		Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	28th February 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 12-02-2025
SAMPLED BY	
Report reference	65091/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.11 T/S 0-20CM	**Not Given / Field Bean**	*Units/Acre*	**32**	**32**	**0**	*T/Ac*	**0**
352646 / Medium	**(Yield: 3.5 t/ha)**	*Kg/Ha*	**40**	**40**	**0**	*Te/Ha*	**0**

Seedbed phosphate and potash is only needed at Index 0 and 1.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.12 T/S 0-20CM	**Not Given / Field Bean**	*Units/Acre*	**32**	**32**	**0**	*T/Ac*	**0**
352647 / Medium	**(Yield: 3.5 t/ha)**	*Kg/Ha*	**40**	**40**	**0**	*Te/Ha*	**0**

Please see previous sample for crop specific notes.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.28 T/S 0-20CM	**Not Given / Field Bean**	*Units/Acre*	**32**	**56**	**0**	*T/Ac*	**0**
352648 / Heavy	**(Yield: 3.5 t/ha)**	*Kg/Ha*	**40**	**70**	**0**	*Te/Ha*	**0**

Please see previous sample for crop specific notes.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63697/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346240/26	1	**FIELD 5.13** *Into Perm Pasture*	**6.8**	**3**	**3**	**5**	**41.6**	**298**	**266**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346240	1	FIELD 5.13	5.8

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63697/346240/26** Field Name: **FIELD 5.13**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	37	
Silt (0.063 - 0.002mm) %	35	
Clay (< 0.002mm) %	28	
Textural Classification	Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63697/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 5.13	**Not Given / P Pasture**	*Units/Acre*	**0**	**0**		*T/Ac*	**0**
346240 / Medium		*Kg/Ha*	**0**	**0**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63696/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346227/26	1	**FIELD 5.14** *Into Other Crop*	**6.4**	**3**	**2+**	**4**	**31.4**	**198**	**200**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63696/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346227	1	FIELD 5.14	5.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63696/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63696/346227/26** Field Name: **FIELD 5.14**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	42	
Silt (0.063 - 0.002mm) %	29	
Clay (< 0.002mm) %	29	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63696/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 5.14	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0.8**
346227 / Medium		*Kg/Ha*				*Te/Ha*	**2.1**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-03-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 66509/25

Date Received 11-Mar-25
Date Reported 19-Mar-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
358913/25	1	**FLD 5.15 TS0-20CM** *Into Other Crop*	**6.2**	**2**	**1**	**4**	**6.2**	**87**	**229**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] On behalf of NRM Date 19/03/25

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66509/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
358913	1	FLD 5.15 TS0-20CM	5.9

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66509/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **66509/358913/25** Field Name: **FLD 5.15 TS0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	42	
Silt (0.063 - 0.002mm) %	30	
Clay (< 0.002mm) %	28	
Textural Classification	Heavy Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th March 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-03-2025	COWSLIP OFFICE FIMBER DRIFFIELD
SAMPLED BY		EAST YORKSHIRE YO25 9LY
Report reference	66509/25	Tel: 01377 236010 Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FLD 5.15 TS0-20CM	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
358913 / Medium		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63697/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346241/26	1	**FIELD 5.15W** *Into Perm Pasture*	**6.2**	**1**	**1**	**5**	**10.6**	**81**	**328**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346241	1	FIELD 5.15W	8.7

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
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		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63697/346241/26** Field Name: **FIELD 5.15W**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	17	
Silt (0.063 - 0.002mm) %	44	
Clay (< 0.002mm) %	39	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63697/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 5.15W	**Not Given / P Pasture**	*Units/Acre*	**40**	**24**		*T/Ac*	**0**
346241 / Heavy		*Kg/Ha*	**50**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63696/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346229/26	1	**FIELD 5.19E** *Into Other Crop*	**6.6**	**1**	**1**	**4**	**15.2**	**88**	**208**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63696/26

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346229	1	FIELD 5.19E	4.9

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63696/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63696/346229/26** Field Name: **FIELD 5.19E**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	32	
Silt (0.063 - 0.002mm) %	38	
Clay (< 0.002mm) %	30	
Textural Classification	Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63696/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 5.19E	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
346229 / Medium		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63696/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346230/26	1	**FIELD 5.19W** *Into Blackcurrants Established*	**7.0**	**1**	**2-**	**5**	**10.6**	**125**	**292**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63696/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346230	1	FIELD 5.19W	5.4

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63696/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63696/346230/26** Field Name: **FIELD 5.19W**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	21	
Silt (0.063 - 0.002mm) %	43	
Clay (< 0.002mm) %	36	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63696/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
The exception is the protocol for liming for planting fruit, vines and hops because acidity problems occur in patches and acidity can develop rapidly when herbicides are used. Thus the whole of the plough layer should be limed to maintain a pH value of 6.5 in the early years of fruit or hops. It will be impossible to correct any acidity at depth by later lime incorporation so the quantity of lime applied before planting should be calculated to correct the pH of the top 40cm of soil.
Where lime is needed to correct acidity in the subsoil, it should be ploughed down. Where sampling has only been carried out to 15cm depth, the lime requirement using this pH result should be doubled. If the total lime requirement is more than 7.5 t/ha, half should be deeply cultivated into the soil and ploughed down, with the remainder applied and worked in after ploughing. If less the 7.5 t/ha of lime is needed, the whole requirement should be applied after ploughing and cultivated in.
For Fruit, Vines and Hops:
Most fruit crops are tolerant of slight acidity and grow best at around pH 6.0 to 6.5. (6.5-6.8 before planting). Soil pH levels below about 5.5 can give rise to manganese toxicity, causing measley bark in apples and purple veining in some strawberry varieties. Blackcurrants are more susceptible to soil acidity and a pH of at least 6.5 should be maintained.
Blueberries are an exception to other fruit as they require a soil pH 4.5-5.5.
Mature hops can tolerate a considerable degree of soil acidity but some varieties may suffer from manganese toxicity if the soil becomes too acid. Young hop plants are more sensitive to acidity. It is important that soils used for fruit, vines and hops are not over limed as this may lead to micronutrient deficiencies such as iron and manganese.
Fruit crops are not generally thought to respond to sulphur. However, atmospheric sulphur emissions have declined significantly and a yield response to sulphur is possible in some circumstances. Where sulphur deficiency has been recognised or is expected, apply 15-25 kg/ha SO3. Sulphur should be applied as a sulphate containing fertiliser in the spring. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 5.19W	**Not Given / Blkcnt Est**	*Units/Acre*	**56**	**96**	**0**	*T/Ac*	**0**
346230 / Heavy		*Kg/Ha*	**70**	**120**	**0**	*Te/Ha*	**0**

For established crops, the timing of phosphate, potash and magnesium applications is not critical.
To avoid inducing magnesium deficiency, the soil K: Mg ratio (based on soil mg/litre K and Mg) should be no greater than 3: 1.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
12-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 65144/25

Date Received 19-Feb-25
Date Reported 28-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
352910/25	1	**5.2 T/S 0-20CM** *Into Field Beans*	**6.4**	**2**	**3**	**3**	**19.0**	**323**	**168**
352911/25	2	**5.23 T/S 0-20CM** *No cropping details given*	**6.3**	**1**	**2-**	**4**	**12.2**	**135**	**216**
352912/25	3	**5.24 T/S 0-20CM** *Into Ploughed/Fallow*	**6.3**	**2**	**1**	**4**	**16.8**	**95**	**176**
352913/25	4	**5.25 T/S 0-20CM** *No cropping details given*	**7.0**	**2**	**1**	**4**	**23.2**	**79**	**204**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] ..... On behalf of NRM Date 28/02/25

ANALYSIS REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65144/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
352910	1	5.2 T/S 0-20CM	7.9
352911	2	5.23 T/S 0-20CM	6.3
352912	3	5.24 T/S 0-20CM	4.3
352913	4	5.25 T/S 0-20CM	3.9

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65144/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **65144/352910/25**	Field Name: **5.2 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		23	
Silt (0.063 - 0.002mm) %		41	
Clay (< 0.002mm) %		36	
Textural Classification		Clay	1

Reference: **65144/352911/25**	Field Name: **5.23 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		23	
Silt (0.063 - 0.002mm) %		40	
Clay (< 0.002mm) %		37	
Textural Classification		Clay	1

Reference: **65144/352912/25**	Field Name: **5.24 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		33	
Silt (0.063 - 0.002mm) %		34	
Clay (< 0.002mm) %		33	
Textural Classification		Clay Loam	1

Reference: **65144/352913/25**	Field Name: **5.25 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		47	
Silt (0.063 - 0.002mm) %		29	
Clay (< 0.002mm) %		24	
Textural Classification		Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	28th February 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 12-02-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	65144/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.2 T/S 0-20CM	**Not Given / Field Bean**	*Units/Acre*	**32**	**0**	**0**	*T/Ac*	**1.0**
352910 / Heavy	**(Yield: 3.5 t/ha)**	*Kg/Ha*	**40**	**0**	**0**	*Te/Ha*	**2.4**

Seedbed phosphate and potash is only needed at Index 0 and 1.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*	*Lime (Arable)*	*(Grass)*
5.23 T/S 0-20CM	**Not Given / Not Given**	*Units/Acre*			*T/Ac*	**1.3**	**0**
352911 / Heavy		*Kg/Ha*			*Te/Ha*	**3.2**	**0**

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.24 T/S 0-20CM	**Not Given / Ploughed**	*Units/Acre*				*T/Ac*	**1.1**
352912 / Medium		*Kg/Ha*				*Te/Ha*	**2.8**

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*	*Lime (Arable)*	*(Grass)*
5.25 T/S 0-20CM	**Not Given / Not Given**	*Units/Acre*				*T/Ac* **0**	**0**
352913 / Medium		*Kg/Ha*				*Te/Ha* **0**	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-03-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 66509/25

Date Received 11-Mar-25
Date Reported 19-Mar-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
358915/25	1	**FLD 5.21TS0-20CM** *Into Ploughed/Fallow*	**7.0**	**3**	**1**	**3**	**31.2**	**102**	**172**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] On behalf of NRM Date 19/03/25.....

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66509/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
358915	1	FLD 5.21TS0-20CM	4.9

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66509/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **66509/358915/25** Field Name: **FLD 5.21TS0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	34	
Silt (0.063 - 0.002mm) %	36	
Clay (< 0.002mm) %	30	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th March 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-03-2025
SAMPLED BY	
Report reference	66509/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FLD 5.21TS0-20CM	**Not Given / Ploughed**	*Units/Acre*				*T/Ac*	**0**
358915 / Medium		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-03-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 66509/25

Date Received 11-Mar-25
Date Reported 19-Mar-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
358916/25	1	**FLD 5.22TS0-20CM** *No cropping details given*	**7.3**	**3**	**2+**	**5**	**35.2**	**222**	**279**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 19/03/25.....

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66509/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
358916	1	FLD 5.22TS0-20CM	6.4

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66509/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

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OM = Organic Matter, **SOM** = Soil Organic Matter

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MICRO NUTRIENT REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **66509/358916/25** Field Name: **FLD 5.22TS0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	10	
Silt (0.063 - 0.002mm) %	47	
Clay (< 0.002mm) %	43	
Textural Classification	Silty Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th March 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-03-2025
SAMPLED BY	
Report reference	66509/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

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All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
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Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*	*Lime (Arable)*	*(Grass)*
FLD 5.22TS0-20CM	**Not Given / Not Given**	*Units/Acre*				*T/Ac* **0**	**0**
358916 / Heavy		*Kg/Ha*				*Te/Ha* **0**	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63696/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346231/26	1	**FIELD 5.26** *Into Other Crop*	**7.2**	**0**	**1**	**5**	**9.4**	**120**	**273**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63696/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346231	1	FIELD 5.26	5.6

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63696/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63696/346231/26** Field Name: **FIELD 5.26**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	29	
Silt (0.063 - 0.002mm) %	38	
Clay (< 0.002mm) %	33	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63696/26

LDCL LTD
COWSLIP OFFICE
FIMBER
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 5.26	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
346231 / Medium		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63697/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346238/26	1	**FIELD 5.27E** *Into Perm Pasture*	**6.5**	**0**	**1**	**5**	**8.2**	**66**	**333**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346238	1	FIELD 5.27E	8.1

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63697/346238/26** Field Name: **FIELD 5.27E**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	29	
Silt (0.063 - 0.002mm) %	38	
Clay (< 0.002mm) %	33	
Textural Classification	Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63697/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 5.27E	**Not Given / P Pasture**	*Units/Acre*	**64**	**24**		*T/Ac*	**0**
346238 / Medium		*Kg/Ha*	**80**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
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EAST YORKSHIRE
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Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
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EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63697/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346237/26	1	**FIELD 5.27W** *Into Perm Pasture*	**5.8**	**1**	**1**	**5**	**10.0**	**76**	**288**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346237	1	FIELD 5.27W	10.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63697/346237/26** Field Name: **FIELD 5.27W**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	28	
Silt (0.063 - 0.002mm) %	37	
Clay (< 0.002mm) %	35	
Textural Classification	Organic Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63697/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 5.27W	**Not Given / P Pasture**	*Units/Acre*	**40**	**24**		*T/Ac*	**0**
346237 / Organ.		*Kg/Ha*	**50**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63696/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346232/26	1	**FIELD 5.29** *Into Perm Pasture*	**6.9**	**1**	**1**	**5**	**10.0**	**73**	**320**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 26/01/26.....

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63696/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346232	1	FIELD 5.29	7.4

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63696/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63696/346232/26** Field Name: **FIELD 5.29**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	23	
Silt (0.063 - 0.002mm) %	39	
Clay (< 0.002mm) %	38	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63696/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 5.29	**Not Given / P Pasture**	*Units/Acre*	**40**	**24**		*T/Ac*	**0**
346232 / Heavy		*Kg/Ha*	**50**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63696/26

LDCL LTD
COWSLIP OFFICE
FIMBER
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
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ANALYSIS REPORT

Contact : LDCL LTD
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EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63696/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346233/26	1	**FIELD 5.30** *Into Other Crop*	**7.3**	**2**	**3**	**5**	**24.2**	**344**	**332**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63696/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346233	1	FIELD 5.30	7.4

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63696/26

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63696/346233/26** Field Name: **FIELD 5.30**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	24	
Silt (0.063 - 0.002mm) %	37	
Clay (< 0.002mm) %	39	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63696/26

LDCL LTD
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EAST YORKSHIRE
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Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 5.30	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
346233 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
12-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 65038/25

Date Received 19-Feb-25
Date Reported 28-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
352422/25	1	**5.34 T/S 0-20CM** *Into Winter Barley*	**7.5**	**2**	**1**	**3**	**20.4**	**94**	**130**
352423/25	2	**5.35 T/S 0-20CM** *Into Winter Barley*	**7.6**	**3**	**1**	**3**	**33.4**	**110**	**135**
352424/25	3	**5.36 T/S 0-20CM** *No cropping details given*	**6.8**	**1**	**1**	**3**	**10.8**	**64**	**141**
352425/25	4	**5.37 T/S 0-20CM** *Into Winter Barley*	**6.9**	**2**	**1**	**4**	**21.4**	**92**	**243**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 28/02/25

ANALYSIS REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65038/25

LDCL LTD
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Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
352422	1	5.34 T/S 0-20CM	3.2
352423	2	5.35 T/S 0-20CM	2.8
352424	3	5.36 T/S 0-20CM	4.1
352425	4	5.37 T/S 0-20CM	5.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65038/25

LDCL LTD
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

LDCL LTD
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EAST YORKSHIRE
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Tel: 01377 236010

Reference: **65038/352422/25**	Field Name: **5.34 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		66	
Silt (0.063 - 0.002mm) %		19	
Clay (< 0.002mm) %		15	
Textural Classification		Sandy Loam	1

Reference: **65038/352423/25**	Field Name: **5.35 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		65	
Silt (0.063 - 0.002mm) %		18	
Clay (< 0.002mm) %		17	
Textural Classification		Sandy Loam	1

Reference: **65038/352424/25**	Field Name: **5.36 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		60	
Silt (0.063 - 0.002mm) %		23	
Clay (< 0.002mm) %		17	
Textural Classification		Sandy Loam	1

Reference: **65038/352425/25**	Field Name: **5.37 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		31	
Silt (0.063 - 0.002mm) %		37	
Clay (< 0.002mm) %		32	
Textural Classification		Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	28th February 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 12-02-2025
SAMPLED BY	
Report reference	65038/25

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Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.34 T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**44**	**80**		*T/Ac*	**0**
352422 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**100**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.35 T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**0**	**80**		*T/Ac*	**0**
352423 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**0**	**100**		*Te/Ha*	**0**

Please see previous sample for crop specific notes.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*	*Lime (Arable)*	*(Grass)*
5.36 T/S 0-20CM	**Not Given / Not Given**	*Units/Acre*				*T/Ac* **0**	**0**
352424 / Medium		*Kg/Ha*				*Te/Ha* **0**	**0**

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.37 T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**44**	**80**		*T/Ac*	**0**
352425 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**100**		*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	28th February 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 12-02-2025
SAMPLED BY	
Report reference	65038/25

LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

Please see previous sample for crop specific notes.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
12-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 65110/25

Date Received 19-Feb-25
Date Reported 28-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
352730/25	1	**5.38E T/S 0-20CM** *Into Winter Barley*	**8.0**	**2**	**2+**	**3**	**24.6**	**223**	**139**
352731/25	2	**5.38W T/S 0-20CM** *Into Winter Barley*	**7.6**	**2**	**2-**	**4**	**16.4**	**163**	**202**
352732/25	3	**5.39 T/S 0-20CM** *Into Winter Barley*	**7.4**	**1**	**2-**	**5**	**13.4**	**142**	**266**
352733/25	4	**5.4 T/S 0-20CM** *Into Winter Barley*	**7.4**	**1**	**1**	**3**	**10.2**	**109**	**139**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 28/02/25

ANALYSIS REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65110/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
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Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
352730	1	5.38E T/S 0-20CM	4.0
352731	2	5.38W T/S 0-20CM	4.7
352732	3	5.39 T/S 0-20CM	4.6
352733	4	5.4 T/S 0-20CM	4.8

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65110/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **65110/352730/25**	Field Name: **5.38E T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		50	
Silt (0.063 - 0.002mm) %		29	
Clay (< 0.002mm) %		21	
Textural Classification		Clay Loam	1

Reference: **65110/352731/25**	Field Name: **5.38W T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		38	
Silt (0.063 - 0.002mm) %		34	
Clay (< 0.002mm) %		28	
Textural Classification		Clay Loam	1

Reference: **65110/352732/25**	Field Name: **5.39 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		35	
Silt (0.063 - 0.002mm) %		35	
Clay (< 0.002mm) %		30	
Textural Classification		Clay Loam	1

Reference: **65110/352733/25**	Field Name: **5.4 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		35	
Silt (0.063 - 0.002mm) %		34	
Clay (< 0.002mm) %		31	
Textural Classification		Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	28th February 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 12-02-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	65110/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.38E T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**44**	**32**		*T/Ac*	**0**
352730 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**40**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.38W T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**44**	**56**		*T/Ac*	**0**
352731 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**70**		*Te/Ha*	**0**

Please see previous sample for crop specific notes.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.39 T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**68**	**56**		*T/Ac*	**0**
352732 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**85**	**70**		*Te/Ha*	**0**

Please see previous sample for crop specific notes.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.4 T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**68**	**80**		*T/Ac*	**0**
352733 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**85**	**100**		*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	28th February 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 12-02-2025
SAMPLED BY	
Report reference	65110/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

Please see previous sample for crop specific notes.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63697/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346234/26	1	**FIELD 5.40N** *Into Blackcurrants Established*	**6.7**	**1**	**1**	**4**	**13.2**	**117**	**198**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346234	1	FIELD 5.40N	4.2

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63697/346234/26** Field Name: **FIELD 5.40N**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	42	
Silt (0.063 - 0.002mm) %	31	
Clay (< 0.002mm) %	27	
Textural Classification	Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
The exception is the protocol for liming for planting fruit, vines and hops because acidity problems occur in patches and acidity can develop rapidly when herbicides are used. Thus the whole of the plough layer should be limed to maintain a pH value of 6.5 in the early years of fruit or hops. It will be impossible to correct any acidity at depth by later lime incorporation so the quantity of lime applied before planting should be calculated to correct the pH of the top 40cm of soil.
Where lime is needed to correct acidity in the subsoil, it should be ploughed down. Where sampling has only been carried out to 15cm depth, the lime requirement using this pH result should be doubled. If the total lime requirement is more than 7.5 t/ha, half should be deeply cultivated into the soil and ploughed down, with the remainder applied and worked in after ploughing. If less the 7.5 t/ha of lime is needed, the whole requirement should be applied after ploughing and cultivated in.
For Fruit, Vines and Hops:
Most fruit crops are tolerant of slight acidity and grow best at around pH 6.0 to 6.5. (6.5-6.8 before planting). Soil pH levels below about 5.5 can give rise to manganese toxicity, causing measley bark in apples and purple veining in some strawberry varieties. Blackcurrants are more susceptible to soil acidity and a pH of at least 6.5 should be maintained.
Blueberries are an exception to other fruit as they require a soil pH 4.5-5.5.
Mature hops can tolerate a considerable degree of soil acidity but some varieties may suffer from manganese toxicity if the soil becomes too acid. Young hop plants are more sensitive to acidity. It is important that soils used for fruit, vines and hops are not over limed as this may lead to micronutrient deficiencies such as iron and manganese.
Fruit crops are not generally thought to respond to sulphur. However, atmospheric sulphur emissions have declined significantly and a yield response to sulphur is possible in some circumstances. Where sulphur deficiency has been recognised or is expected, apply 15-25 kg/ha SO3. Sulphur should be applied as a sulphate containing fertiliser in the spring. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 5.40N	**Not Given / Blkcnt Est**	*Units/Acre*	**56**	**144**	**0**	*T/Ac*	**0**
346234 / Medium		*Kg/Ha*	**70**	**180**	**0**	*Te/Ha*	**0**

For established crops, the timing of phosphate, potash and magnesium applications is not critical.
To avoid inducing magnesium deficiency, the soil K: Mg ratio (based on soil mg/litre K and Mg) should be no greater than 3: 1.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63697/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346236/26	1	**FIELD 5.40S** *Into Other Crop*	**6.8**	**1**	**2-**	**4**	**14.0**	**143**	**177**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346236	1	FIELD 5.40S	4.4

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63697/346236/26** Field Name: **FIELD 5.40S**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	35	
Silt (0.063 - 0.002mm) %	35	
Clay (< 0.002mm) %	30	
Textural Classification	Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 5.40S	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
346236 / Medium		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63697/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346239/26	1	**FIELD 5.41** *Into Perm Pasture*	**6.8**	**0**	**1**	**5**	**8.0**	**97**	**309**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346239	1	FIELD 5.41	6.6

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63697/346239/26** Field Name: **FIELD 5.41**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	24	
Silt (0.063 - 0.002mm) %	37	
Clay (< 0.002mm) %	39	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63697/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 5.41	**Not Given / P Pasture**	*Units/Acre*	**64**	**24**		*T/Ac*	**0**
346239 / Heavy		*Kg/Ha*	**80**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63694/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346218/26	1	**FIELD 5.42** *Into Perm Pasture*	**6.1**	**1**	**1**	**5**	**11.8**	**71**	**256**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63694/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346218	1	FIELD 5.42	9.1

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63694/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63694/346218/26** Field Name: **FIELD 5.42**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	13	
Silt (0.063 - 0.002mm) %	46	
Clay (< 0.002mm) %	41	
Textural Classification	Silty Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63694/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 5.42	**Not Given / P Pasture**	*Units/Acre*	**40**	**24**		*T/Ac*	**0**
346218 / Heavy		*Kg/Ha*	**50**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63694/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63697/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346235/26	1	**FIELD 5.43** *Into Other Crop*	**7.2**	**2**	**2+**	**5**	**18.8**	**183**	**283**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346235	1	FIELD 5.43	5.5

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63697/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63697/346235/26** Field Name: **FIELD 5.43**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	32	
Silt (0.063 - 0.002mm) %	32	
Clay (< 0.002mm) %	36	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD
SAMPLED BY		EAST YORKSHIRE YO25 9LY
Report reference	63697/26	Tel: 01377 236010 Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 5.43	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
346235 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
12-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 65024/25

Date Received 19-Feb-25
Date Reported 25-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	**Soil pH**	P	K	Mg	P	K	Mg
352356/25	1	**5.44 T/S 0-20CM** *Into Winter Wheat*	**6.6**	**2**	**1**	**4**	**29**	**102**	**249**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] On behalf of NRM Date 25/02/25

ANALYSIS REPORT

DATE **25th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65024/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
352356	1	5.44 T/S 0-20CM	3.9

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **25th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65024/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **25th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **65024/352356/25** Field Name: **5.44 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	25	
Silt (0.063 - 0.002mm) %	39	
Clay (< 0.002mm) %	36	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	25th February 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 12-02-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	65024/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.44 T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*				*T/Ac*	**0**
352356 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
12-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 65024/25

Date Received 19-Feb-25
Date Reported 25-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
352356/25	1	**5.45 T/S 0-20CM** *Into Winter Wheat*	**7.0**	**0**	**0**	**3**	**7.8**	**53**	**169**
352357/25	2	**5.46S T/S 0-20CM** *Into Winter Wheat*	**6.8**	**1**	**1**	**4**	**13.4**	**77**	**182**
352358/25	3	**5.46N T/S 0-20CM** *Into Grassland*	**7.0**	**1**	**1**	**4**	**12.4**	**88**	**196**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 25/02/25

ANALYSIS REPORT

DATE **25th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65024/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
352356	1	5.45 T/S 0-20CM	7.5
352357	2	5.46S T/S 0-20CM	6.2
352358	3	5.46N T/S 0-20CM	6.1

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **25th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65024/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **25th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **65024/352356/25**	Field Name: **5.45 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		41	
Silt (0.063 - 0.002mm) %		33	
Clay (< 0.002mm) %		26	
Textural Classification		Clay Loam	1

Reference: **65024/352357/25**	Field Name: **5.46S T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		31	
Silt (0.063 - 0.002mm) %		35	
Clay (< 0.002mm) %		34	
Textural Classification		Clay Loam	1

Reference: **65024/352358/25**	Field Name: **5.46N T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		22	
Silt (0.063 - 0.002mm) %		36	
Clay (< 0.002mm) %		42	
Textural Classification		Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	25th February 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 12-02-2025
SAMPLED BY	
Report reference	65024/25

LDCL LTD
COWSLIP OFFICE
FIMBER
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EAST YORKSHIRE
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Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.45 T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**92**	**116**		*T/Ac*	**0**
352356 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**115**	**145**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.46S T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**68**	**92**		*T/Ac*	**0**
352357 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**85**	**115**		*Te/Ha*	**0**

Please see previous sample for crop specific notes.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
5.46N T/S 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
352358 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-03-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 66524/25

Date Received 11-Mar-25
Date Reported 19-Mar-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
359001/25	1	**FLD 6.01 TS0-20** *Into Winter Wheat*	**7.3**	**2**	**1**	**5**	**17.0**	**77**	**264**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 19/03/25

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66524/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
359001	1	FLD 6.01 TS0-20	5.6

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66524/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **66524/359001/25** Field Name: **FLD 6.01 TS0-20**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	33	
Silt (0.063 - 0.002mm) %	35	
Clay (< 0.002mm) %	32	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th March 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-03-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	66524/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FLD 6.01 TS0-20	**Not Given / W Wheat**	*Units/Acre*	**44**	**92**		*T/Ac*	**0**
359001 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**115**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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Client : WHITESTONE
TOPSOIL 0-20CM
04-03-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 66524/25

Date Received 11-Mar-25
Date Reported 19-Mar-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
359002/25	1	**FLD 6.02 TS0-20** *Into Winter Barley*	**6.8**	**2**	**2-**	**4**	**23.2**	**130**	**238**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] ..... On behalf of NRM Date 19/03/25

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66524/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
359002	1	FLD 6.02 TS0-20	5.6

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66524/25

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COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **66524/359002/25** Field Name: **FLD 6.02 TS0-20**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	27	
Silt (0.063 - 0.002mm) %	38	
Clay (< 0.002mm) %	35	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th March 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-03-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	66524/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FLD 6.02 TS0-20	**Not Given / W Barley**	*Units/Acre*	**44**	**56**		*T/Ac*	**0**
359002 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**70**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-03-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 66524/25

Date Received 11-Mar-25
Date Reported 19-Mar-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
359003/25	1	**FLD 6.03 TS0-20** *Into Grassland*	**6.8**	**3**	**1**	**4**	**28.6**	**102**	**249**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] ..... On behalf of NRM Date 19/03/25

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66524/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
359003	1	FLD 6.03 TS0-20	7.1

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66524/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **66524/359003/25** Field Name: **FLD 6.03 TS0-20**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	25	
Silt (0.063 - 0.002mm) %	39	
Clay (< 0.002mm) %	36	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th March 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-03-2025
SAMPLED BY	
Report reference	66524/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FLD 6.03 TS0-20	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
359003 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63695/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346219/26	1	**FIELD 6.10** *No cropping details given*	**5.5**	**2**	**1**	**4**	**17.0**	**114**	**241**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346219	1	FIELD 6.10	8.8

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63695/346219/26** Field Name: **FIELD 6.10**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	32	
Silt (0.063 - 0.002mm) %	37	
Clay (< 0.002mm) %	31	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
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All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime (Arable)*	*(Grass)*
FIELD 6.10	**Not Given / Not Given**	*Units/Acre*				*T/Ac*	**3.4**	**1.5**
346219 / Medium		*Kg/Ha*				*Te/Ha*	**8.4**	**3.7**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63695/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346220/26	1	**FIELD 6.16** *No cropping details given*	**5.7**	**2**	**2+**	**5**	**18.2**	**189**	**268**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 26/01/26 .....

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346220	1	FIELD 6.16	9.2

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63695/346220/26** Field Name: **FIELD 6.16**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	33	
Silt (0.063 - 0.002mm) %	37	
Clay (< 0.002mm) %	30	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime (Arable)*	*(Grass)*
FIELD 6.16	**Not Given / Not Given**	*Units/Acre*				*T/Ac*	**2.8**	**1.1**
346220 / Medium		*Kg/Ha*				*Te/Ha*	**7.0**	**2.6**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63695/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346226/26	1	**FIELD 6.20** *Into Perm Pasture*	**6.1**	**2**	**1**	**5**	**24.6**	**79**	**316**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted].... On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346226	1	FIELD 6.20	10.7

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63695/346226/26** Field Name: **FIELD 6.20**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	17	
Silt (0.063 - 0.002mm) %	34	
Clay (< 0.002mm) %	49	
Textural Classification	Organic Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63695/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 6.20	**Not Given / P Pasture**	*Units/Acre*	**16**	**24**		*T/Ac*	**0**
346226 / Organ.		*Kg/Ha*	**20**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-03-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 66524/25

Date Received 11-Mar-25
Date Reported 19-Mar-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
359004/25	1	**FLD 6.21 TS0-20** *Into Grassland*	**7.1**	**3**	**1**	**5**	**41.8**	**95**	**257**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 19/03/25

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66524/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
359004	1	FLD 6.21 TS0-20	8.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66524/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **66524/359004/25** Field Name: **FLD 6.21 TS0-20**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	16	
Silt (0.063 - 0.002mm) %	42	
Clay (< 0.002mm) %	42	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th March 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-03-2025
SAMPLED BY	
Report reference	66524/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FLD 6.21 TS0-20	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
359004 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63695/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346221/26	1	**FIELD 6.22** *No cropping details given*	**5.9**	**3**	**1**	**5**	**36.4**	**102**	**291**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 26/01/26 .....

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346221	1	FIELD 6.22	9.1

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63695/346221/26** Field Name: **FIELD 6.22**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	24	
Silt (0.063 - 0.002mm) %	38	
Clay (< 0.002mm) %	38	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime (Arable)*	*(Grass)*
FIELD 6.22	**Not Given / Not Given**	*Units/Acre*				*T/Ac*	**2.6**	**0.7**
346221 / Heavy		*Kg/Ha*				*Te/Ha*	**6.4**	**1.8**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-03-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 66524/25

Date Received 11-Mar-25
Date Reported 19-Mar-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
359005/25	1	**FLD 6.23 TS0-20** *Into Grassland*	**6.8**	**3**	**2-**	**4**	**38.0**	**140**	**216**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 19/03/25

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66524/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
359005	1	FLD 6.23 TS0-20	6.9

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66524/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **66524/359005/25** Field Name: **FLD 6.23 TS0-20**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	33	
Silt (0.063 - 0.002mm) %	33	
Clay (< 0.002mm) %	34	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th March 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-03-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	66524/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FLD 6.23 TS0-20	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
359005 / Medium		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-03-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 66524/25

Date Received 11-Mar-25
Date Reported 19-Mar-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
359006/25	1	**FLD 6.24 TS0-20** *Into Grassland*	**6.7**	**3**	**1**	**4**	**28.0**	**98**	**184**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 19/03/25

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66524/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
359006	1	FLD 6.24 TS0-20	7.8

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66524/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **66524/359006/25** Field Name: **FLD 6.24 TS0-20**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	27	
Silt (0.063 - 0.002mm) %	33	
Clay (< 0.002mm) %	40	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th March 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-03-2025	COWSLIP OFFICE FIMBER DRIFFIELD
SAMPLED BY		EAST YORKSHIRE YO25 9LY
Report reference	66524/25	Tel: 01377 236010 Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FLD 6.24 TS0-20	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
359006 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63694/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346216/26	1	**FIELD 6.25** *Into Perm Pasture*	**6.6**	**2**	**1**	**3**	**18.2**	**75**	**155**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted]..... On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63694/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346216	1	FIELD 6.25	7.5

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63694/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63694/346216/26** Field Name: **FIELD 6.25**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	24	
Silt (0.063 - 0.002mm) %	40	
Clay (< 0.002mm) %	36	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63694/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 6.25	**Not Given / P Pasture**	*Units/Acre*	**16**	**24**		*T/Ac*	**0**
346216 / Heavy		*Kg/Ha*	**20**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63694/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63695/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346222/26	1	**FIELD 6.26** *Into Perm Pasture*	**6.2**	**2**	**1**	**5**	**20.6**	**62**	**270**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 26/01/26.....

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346222	1	FIELD 6.26	5.9

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63695/346222/26** Field Name: **FIELD 6.26**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	30	
Silt (0.063 - 0.002mm) %	39	
Clay (< 0.002mm) %	31	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63695/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 6.26	**Not Given / P Pasture**	*Units/Acre*	**16**	**24**		*T/Ac*	**0**
346222 / Medium		*Kg/Ha*	**20**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63695/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346223/26	1	**FIELD 6.27** *Into Perm Pasture*	**6.1**	**1**	**1**	**5**	**11.8**	**76**	**324**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 26/01/26 .....

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346223	1	FIELD 6.27	10.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63695/346223/26** Field Name: **FIELD 6.27**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	21	
Silt (0.063 - 0.002mm) %	40	
Clay (< 0.002mm) %	39	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63695/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 6.27	**Not Given / P Pasture**	*Units/Acre*	**40**	**24**		*T/Ac*	**0**
346223 / Heavy		*Kg/Ha*	**50**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63695/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346224/26	1	**FIELD 6.28** *Into Perm Pasture*	**6.2**	**0**	**1**	**5**	**8.6**	**71**	**288**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 26/01/26 .....

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346224	1	FIELD 6.28	7.4

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63695/346224/26** Field Name: **FIELD 6.28**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	25	
Silt (0.063 - 0.002mm) %	42	
Clay (< 0.002mm) %	33	
Textural Classification	Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63695/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 6.28	**Not Given / P Pasture**	*Units/Acre*	**64**	**24**		*T/Ac*	**0**
346224 / Medium		*Kg/Ha*	**80**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63695/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346225/26	1	**FIELD 6.29** *Into Perm Pasture*	**6.3**	**0**	**1**	**5**	**7.6**	**83**	**300**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346225	1	FIELD 6.29	8.3

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63695/346225/26** Field Name: **FIELD 6.29**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	17	
Silt (0.063 - 0.002mm) %	43	
Clay (< 0.002mm) %	40	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63695/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 6.29	**Not Given / P Pasture**	*Units/Acre*	**64**	**24**		*T/Ac*	**0**
346225 / Heavy		*Kg/Ha*	**80**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63695/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63693/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346207/26	1	**FIELD 6.31** *Into Perm Pasture*	**6.3**	**0**	**1**	**5**	**9.4**	**87**	**273**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346207	1	FIELD 6.31	9.6

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63693/346207/26** Field Name: **FIELD 6.31**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	20	
Silt (0.063 - 0.002mm) %	40	
Clay (< 0.002mm) %	40	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63693/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 6.31	**Not Given / P Pasture**	*Units/Acre*	**64**	**24**		*T/Ac*	**0**
346207 / Heavy		*Kg/Ha*	**80**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63693/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346208/26	1	**FIELD 6.32** *Into Perm Pasture*	**6.1**	**0**	**1**	**4**	**8.2**	**66**	**215**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 26/01/26 .....

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346208	1	FIELD 6.32	7.7

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63693/346208/26** Field Name: **FIELD 6.32**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	21	
Silt (0.063 - 0.002mm) %	42	
Clay (< 0.002mm) %	37	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63693/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 6.32	**Not Given / P Pasture**	*Units/Acre*	**64**	**24**		*T/Ac*	**0**
346208 / Heavy		*Kg/Ha*	**80**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63693/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346209/26	1	**FIELD 6.33E** *Into Winter Wheat*	**6.4**	**2**	**2-**	**3**	**21.0**	**137**	**162**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346209	1	FIELD 6.33E	4.2

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63693/346209/26** Field Name: **FIELD 6.33E**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	51	
Silt (0.063 - 0.002mm) %	26	
Clay (< 0.002mm) %	23	
Textural Classification	Sandy Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63693/26

LDCL LTD
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Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 6.33E	**Not Given / W Wheat**	*Units/Acre*	**44**	**68**		*T/Ac*	**0.8**
346209 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**85**		*Te/Ha*	**2.1**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63693/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346210/26	1	**FIELD 6.33W** *Into Blackcurrants Established*	**6.9**	**1**	**2-**	**4**	**11.0**	**155**	**245**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346210	1	FIELD 6.33W	5.4

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63693/346210/26** Field Name: **FIELD 6.33W**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	36	
Silt (0.063 - 0.002mm) %	33	
Clay (< 0.002mm) %	31	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
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Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
The exception is the protocol for liming for planting fruit, vines and hops because acidity problems occur in patches and acidity can develop rapidly when herbicides are used. Thus the whole of the plough layer should be limed to maintain a pH value of 6.5 in the early years of fruit or hops. It will be impossible to correct any acidity at depth by later lime incorporation so the quantity of lime applied before planting should be calculated to correct the pH of the top 40cm of soil.
Where lime is needed to correct acidity in the subsoil, it should be ploughed down. Where sampling has only been carried out to 15cm depth, the lime requirement using this pH result should be doubled. If the total lime requirement is more than 7.5 t/ha, half should be deeply cultivated into the soil and ploughed down, with the remainder applied and worked in after ploughing. If less the 7.5 t/ha of lime is needed, the whole requirement should be applied after ploughing and cultivated in.
For Fruit, Vines and Hops:
Most fruit crops are tolerant of slight acidity and grow best at around pH 6.0 to 6.5. (6.5-6.8 before planting). Soil pH levels below about 5.5 can give rise to manganese toxicity, causing measley bark in apples and purple veining in some strawberry varieties. Blackcurrants are more susceptible to soil acidity and a pH of at least 6.5 should be maintained.
Blueberries are an exception to other fruit as they require a soil pH 4.5-5.5.
Mature hops can tolerate a considerable degree of soil acidity but some varieties may suffer from manganese toxicity if the soil becomes too acid. Young hop plants are more sensitive to acidity. It is important that soils used for fruit, vines and hops are not over limed as this may lead to micronutrient deficiencies such as iron and manganese.
Fruit crops are not generally thought to respond to sulphur. However, atmospheric sulphur emissions have declined significantly and a yield response to sulphur is possible in some circumstances. Where sulphur deficiency has been recognised or is expected, apply 15-25 kg/ha SO3. Sulphur should be applied as a sulphate containing fertiliser in the spring. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 6.33W	**Not Given / Blkcnt Est**	*Units/Acre*	**56**	**96**	**0**	*T/Ac*	**0**
346210 / Medium		*Kg/Ha*	**70**	**120**	**0**	*Te/Ha*	**0**

For established crops, the timing of phosphate, potash and magnesium applications is not critical.
To avoid inducing magnesium deficiency, the soil K: Mg ratio (based on soil mg/litre K and Mg) should be no greater than 3: 1.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63693/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346211/26	1	**FIELD 6.34** *Into Perm Pasture*	**6.0**	**1**	**2-**	**4**	**12.8**	**122**	**228**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ... On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346211	1	FIELD 6.34	7.6

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63693/346211/26** Field Name: **FIELD 6.34**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	26	
Silt (0.063 - 0.002mm) %	40	
Clay (< 0.002mm) %	34	
Textural Classification	Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63693/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 6.34	**Not Given / P Pasture**	*Units/Acre*	**40**	**0**		*T/Ac*	**0**
346211 / Medium		*Kg/Ha*	**50**	**0**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63693/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346212/26	1	**FIELD 6.35** *Into Perm Pasture*	**6.3**	**0**	**1**	**4**	**8.6**	**105**	**224**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346212	1	FIELD 6.35	9.8

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63693/346212/26** Field Name: **FIELD 6.35**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	24	
Silt (0.063 - 0.002mm) %	42	
Clay (< 0.002mm) %	34	
Textural Classification	Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	63693/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 6.35	**Not Given / P Pasture**	*Units/Acre*	**64**	**24**		*T/Ac*	**0**
346212 / Medium		*Kg/Ha*	**80**	**30**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
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ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64667/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350839/25	1	**6.36 T/S 0-20CM** *Into Winter Wheat*	**6.3**	**1**	**1**	**4**	**15.0**	**109**	**233**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by ..... [redacted] On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64667/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350839	1	6.36 T/S 0-20CM	7.6

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64667/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64667/350839/25** Field Name: **6.36 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	14	
Silt (0.063 - 0.002mm) %	43	
Clay (< 0.002mm) %	43	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64667/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
6.36 T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**68**	**92**		*T/Ac*	**1.3**
350839 / Heavy	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**85**	**115**		*Te/Ha*	**3.2**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64667/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350840/25	1	**6.37 T/S 0-20CM** *Into Winter Wheat*	**5.7**	**0**	**2-**	**3**	**8.0**	**160**	**138**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted]..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64667/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350840	1	6.37 T/S 0-20CM	5.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64667/25

LDCL LTD
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DRIFFIELD
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Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64667/350840/25** Field Name: **6.37 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	29	
Silt (0.063 - 0.002mm) %	38	
Clay (< 0.002mm) %	33	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025	LDCL LTD
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64667/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
6.37 T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**92**	**68**		*T/Ac*	**2.8**
350840 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**115**	**85**		*Te/Ha*	**7.0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63693/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346213/26	1	**FIELD 6.38** *Into Winter Wheat*	**6.9**	**1**	**1**	**5**	**13.6**	**100**	**321**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 26/01/26 .....

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63693/26

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346213	1	FIELD 6.38	6.3

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63693/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
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FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63693/346213/26** Field Name: **FIELD 6.38**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	14	
Silt (0.063 - 0.002mm) %	41	
Clay (< 0.002mm) %	45	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63693/26

LDCL LTD
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Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 6.38	**Not Given / W Wheat**	*Units/Acre*	**68**	**92**		*T/Ac*	**0**
346213 / Heavy	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**85**	**115**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

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Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64667/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350841/25	1	**6.39 T/S 0-20CM** *Into Grassland*	**6.4**	**2**	**0**	**5**	**15.6**	**55**	**269**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64667/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350841	1	6.39 T/S 0-20CM	8.9

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64667/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64667/350841/25** Field Name: **6.39 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	24	
Silt (0.063 - 0.002mm) %	41	
Clay (< 0.002mm) %	35	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64667/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
6.39 T/S 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
350841 / Medium		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64669/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350846/25	1	**6.42 T/S 0-20CM** *Into Grassland*	**6.6**	**3**	**2+**	**5**	**28.4**	**184**	**300**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted]..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64669/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350846	1	6.42 T/S 0-20CM	8.1

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64669/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64669/350846/25** Field Name: **6.42 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	30	
Silt (0.063 - 0.002mm) %	35	
Clay (< 0.002mm) %	35	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64669/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
6.42 T/S 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
350846 / Medium		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64669/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350847/25	1	**6.42W T/S 0-20CM** *Into Grassland*	**6.6**	**0**	**1**	**5**	**9.0**	**84**	**284**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted]..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64669/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350847	1	6.42W T/S 0-20CM	6.2

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64669/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

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Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64669/350847/25** Field Name: **6.42W T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	29	
Silt (0.063 - 0.002mm) %	36	
Clay (< 0.002mm) %	35	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64669/25

LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
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Tel: 01377 236010
Fax:

Fertiliser Recommendations

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The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
6.42W T/S 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
350847 / Medium		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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Tel. : 01377 236010

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Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64669/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350849/25	1	**6.44E T/S 0-20CM** *Into Grassland*	**6.1**	**2**	**2-**	**4**	**21.0**	**125**	**243**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64669/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350849	1	6.44E T/S 0-20CM	6.8

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64669/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64669/350849/25** Field Name: **6.44E T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	29	
Silt (0.063 - 0.002mm) %	37	
Clay (< 0.002mm) %	34	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64669/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
6.44E T/S 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
350849 / Medium		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64669/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350850/25	1	**6.44W T/S 0-20CM** *Into Winter Wheat*	**6.3**	**2**	**2-**	**4**	**17.2**	**171**	**241**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64669/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350850	1	6.44W T/S 0-20CM	10.3

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64669/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64669/350850/25** Field Name: **6.44W T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	20	
Silt (0.063 - 0.002mm) %	41	
Clay (< 0.002mm) %	39	
Textural Classification	Organic Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64669/25

LDCL LTD
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Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
6.44W T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**44**	**68**		*T/Ac*	**0**
350850 / Organ.	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**85**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64666/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350831/25	1	**6.45 T/S 0-20CM** *Into Other Crop*	**6.4**	**1**	**2-**	**5**	**12.6**	**123**	**254**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ... On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64666/25

LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
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Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350831	1	6.45 T/S 0-20CM	5.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64666/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64666/350831/25** Field Name: **6.45 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	32	
Silt (0.063 - 0.002mm) %	36	
Clay (< 0.002mm) %	32	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64666/25

LDCL LTD
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Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
6.45 T/S 0-20CM	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0.8**
350831 / Medium		*Kg/Ha*				*Te/Ha*	**2.1**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64666/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350832/25	1	**6.46 T/S 0-20CM** *Into Grassland*	**6.6**	**1**	**1**	**5**	**10.8**	**84**	**294**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted]..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64666/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350832	1	6.46 T/S 0-20CM	5.2

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64666/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64666/350832/25** Field Name: **6.46 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	27	
Silt (0.063 - 0.002mm) %	39	
Clay (< 0.002mm) %	34	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64666/25

LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
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Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
6.46 T/S 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
350832 / Medium		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64666/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350833/25	1	**6.47 T/S 0-20CM** *Into Winter Barley*	**6.6**	**0**	**0**	**5**	**4.6**	**60**	**306**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 21/02/25 .....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64666/25

LDCL LTD
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EAST YORKSHIRE
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Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350833	1	6.47 T/S 0-20CM	6.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64666/25

LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
YO25 9LY
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Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
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YO25 9LY
Tel: 01377 236010

Reference: **64666/350833/25** Field Name: **6.47 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	18	
Silt (0.063 - 0.002mm) %	45	
Clay (< 0.002mm) %	37	
Textural Classification	Silty Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64666/25

LDCL LTD
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EAST YORKSHIRE
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Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
6.47 T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**92**	**104**		*T/Ac*	**0**
350833 / Heavy	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**115**	**130**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
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Tel. : 01377 236010

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Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64666/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350834/25	1	**6.48 T/S 0-20CM** *Into Other Crop*	**6.8**	**1**	**2-**	**5**	**13.2**	**145**	**326**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted]..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64666/25

LDCL LTD
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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350834	1	6.48 T/S 0-20CM	5.7

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64666/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64666/350834/25** Field Name: **6.48 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	29	
Silt (0.063 - 0.002mm) %	37	
Clay (< 0.002mm) %	34	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 05-02-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64666/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
6.48 T/S 0-20CM	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
350834 / Medium		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64666/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350835/25	1	**6.49 T/S 0-20CM** *Into Grassland*	**6.5**	**1**	**1**	**5**	**9.8**	**91**	**252**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted]..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64666/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350835	1	6.49 T/S 0-20CM	5.7

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64666/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64666/350835/25** Field Name: **6.49 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	29	
Silt (0.063 - 0.002mm) %	38	
Clay (< 0.002mm) %	33	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64666/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
6.49 T/S 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
350835 / Medium		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64666/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350836/25	1	**6.50 T/S 0-20CM** *Into Winter Wheat*	**6.8**	**0**	**1**	**5**	**8.6**	**116**	**259**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 21/02/25 .....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64666/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350836	1	6.50 T/S 0-20CM	6.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64666/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64666/350836/25** Field Name: **6.50 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	24	
Silt (0.063 - 0.002mm) %	38	
Clay (< 0.002mm) %	38	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 05-02-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64666/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
6.50 T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**92**	**92**		*T/Ac*	**0**
350836 / Heavy	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**115**	**115**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64666/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350837/25	1	**6.51 T/S 0-20CM** *Into Grassland*	**6.6**	**0**	**1**	**5**	**6.8**	**61**	**323**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted]..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64666/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350837	1	6.51 T/S 0-20CM	7.4

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64666/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64666/350837/25** Field Name: **6.51 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	16	
Silt (0.063 - 0.002mm) %	43	
Clay (< 0.002mm) %	41	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64666/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
6.51 T/S 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
350837 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64665/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350827/25	1	**6.52 T/S 0-20CM** *Into Winter Barley*	**6.8**	**1**	**2+**	**5**	**10.8**	**197**	**313**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64665/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350827	1	6.52 T/S 0-20CM	5.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64665/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64665/350827/25** Field Name: **6.52 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	35	
Silt (0.063 - 0.002mm) %	36	
Clay (< 0.002mm) %	29	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025	LDCL LTD
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64665/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
6.52 T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**68**	**32**		*T/Ac*	**0**
350827 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**85**	**40**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64665/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350828/25	1	**7.02 T/S 0-20CM** *Into Winter Wheat*	**7.0**	**0**	**1**	**5**	**6.6**	**104**	**283**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted]..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64665/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350828	1	7.02 T/S 0-20CM	5.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64665/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64665/350828/25** Field Name: **7.02 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	37	
Silt (0.063 - 0.002mm) %	36	
Clay (< 0.002mm) %	27	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64665/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
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Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
7.02 T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**92**	**92**		*T/Ac*	**0**
350828 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**115**	**115**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64665/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350829/25	1	**7.03 T/S 0-20CM** *Into Winter Wheat*	**7.0**	**1**	**2-**	**5**	**10.8**	**127**	**340**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64665/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350829	1	7.03 T/S 0-20CM	4.6

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64665/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64665/350829/25** Field Name: **7.03 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	37	
Silt (0.063 - 0.002mm) %	35	
Clay (< 0.002mm) %	28	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025	LDCL LTD
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64665/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
7.03 T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**68**	**68**		*T/Ac*	**0**
350829 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**85**	**85**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64665/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350830/25	1	**7.04 T/S 0-20CM** *Into Other Crop*	**6.3**	**1**	**1**	**6**	**10.0**	**114**	**419**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted]..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64665/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350830	1	7.04 T/S 0-20CM	8.7

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64665/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64665/350830/25** Field Name: **7.04 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	29	
Silt (0.063 - 0.002mm) %	37	
Clay (< 0.002mm) %	34	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64665/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
7.04 T/S 0-20CM	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**1.1**
350830 / Medium		*Kg/Ha*				*Te/Ha*	**2.8**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64686/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350912/25	1	**7.05E T/S 0-20CM** *Into Winter Wheat*	**7.6**	**2**	**1**	**5**	**17.6**	**68**	**265**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64686/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350912	1	7.05E T/S 0-20CM	3.7

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64686/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64686/350912/25** Field Name: **7.05E T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	62	
Silt (0.063 - 0.002mm) %	19	
Clay (< 0.002mm) %	19	
Textural Classification	Sandy Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025	LDCL LTD
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64686/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
7.05E T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**44**	**92**		*T/Ac*	**0**
350912 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**115**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63694/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346215/26	1	**FIELD 7.06** *Into Winter Wheat*	**7.1**	**2**	**1**	**5**	**16.6**	**94**	**323**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 26/01/26 .....

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63694/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346215	1	FIELD 7.06	5.2

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63694/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63694/346215/26** Field Name: **FIELD 7.06**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	27	
Silt (0.063 - 0.002mm) %	37	
Clay (< 0.002mm) %	36	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025
SAMPLED BY	
Report reference	63694/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 7.06	**Not Given / W Wheat**	*Units/Acre*	**44**	**92**		*T/Ac*	**0**
346215 / Heavy	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**115**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64686/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350913/25	1	**8.01 T/S 0-20CM** *Into Winter Wheat*	**7.1**	**2**	**2-**	**5**	**21.8**	**126**	**265**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted]..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64686/25

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350913	1	8.01 T/S 0-20CM	5.6

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64686/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64686/350913/25** Field Name: **8.01 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	38	
Silt (0.063 - 0.002mm) %	33	
Clay (< 0.002mm) %	29	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64686/25

LDCL LTD
COWSLIP OFFICE
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Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
8.01 T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**44**	**68**		*T/Ac*	**0**
350913 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**85**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64686/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350914/25	1	**8.02 T/S 0-20CM** *Into Other Crop*	**7.0**	**3**	**1**	**5**	**29.8**	**116**	**289**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted]..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64686/25

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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350914	1	8.02 T/S 0-20CM	5.9

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64686/25

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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64686/350914/25** Field Name: **8.02 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	28	
Silt (0.063 - 0.002mm) %	37	
Clay (< 0.002mm) %	35	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64686/25

LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
YO25 9LY
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Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
8.02 T/S 0-20CM	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
350914 / Medium		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

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Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64663/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350818/25	1	**8.03 T/S 0-20CM** *Into Winter Wheat*	**6.2**	**2**	**1**	**3**	**15.6**	**91**	**159**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64663/25

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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350818	1	8.03 T/S 0-20CM	4.5

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64663/25

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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

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YO25 9LY
Tel: 01377 236010

Reference: **64663/350818/25** Field Name: **8.03 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	35	
Silt (0.063 - 0.002mm) %	35	
Clay (< 0.002mm) %	30	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64663/25

LDCL LTD
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Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
8.03 T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**44**	**92**		*T/Ac*	**1.4**
350818 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**115**		*Te/Ha*	**3.5**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
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YO25 9LY
Tel. : 01377 236010

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Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64663/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350817/25	1	**8.03SE TS 0-20CM** *Into Winter Wheat*	**6.2**	**2**	**2-**	**3**	**19.6**	**129**	**106**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted]..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64663/25

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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350817	1	8.03SE TS 0-20CM	4.2

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64663/25

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Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

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YO25 9LY
Tel: 01377 236010

Reference: **64663/350817/25** Field Name: **8.03SE TS 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	60	
Silt (0.063 - 0.002mm) %	20	
Clay (< 0.002mm) %	20	
Textural Classification	Sandy Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64663/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
8.03SE TS 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**44**	**68**		*T/Ac*	**1.4**
350817 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**85**		*Te/Ha*	**3.5**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
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EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64663/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350819/25	1	**8.04 T/S 0-20CM** *Into Grassland*	**6.7**	**2**	**1**	**6**	**16.6**	**68**	**372**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 21/02/25.....

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64663/25

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YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350819	1	8.04 T/S 0-20CM	7.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64663/25

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EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64663/350819/25** Field Name: **8.04 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	24	
Silt (0.063 - 0.002mm) %	41	
Clay (< 0.002mm) %	35	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64663/25

LDCL LTD
COWSLIP OFFICE
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EAST YORKSHIRE
YO25 9LY
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Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
8.04 T/S 0-20CM	**Not Given / Grassland**	*Units/Acre*				*T/Ac*	**0**
350819 / Medium		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
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EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : NG EGL 3-4
TOPSOIL 0-20CM
27-01-2026

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64507/26

Date Received 12-Feb-26
Date Reported 19-Feb-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
349697/26	1	**8.05** *Into Perm Pasture*	**7.4**	**1**	**2-**	**3**	**12.6**	**142**	**138**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] ..... On behalf of NRM Date 19/02/26 .....

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **NG EGL 3-4, TOPSOIL 0-20CM, 27-01-2026**

Report Reference: 64507/26

LDCL LTD
COWSLIP OFFICE
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DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
349697	1	8.05	6.3

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
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		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
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		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th February 2026**

SAMPLES FROM **NG EGL 3-4, TOPSOIL 0-20CM, 27-01-2026**

LDCL LTD
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FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Report Reference: 64507/26

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

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Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

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MICRO NUTRIENT REPORT

DATE **19th February 2026**

SAMPLES FROM **NG EGL 3-4, TOPSOIL 0-20CM, 27-01-2026**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64507/349697/26** Field Name: **8.05**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	26	
Silt (0.063 - 0.002mm) %	41	
Clay (< 0.002mm) %	33	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th February 2026	LDCL LTD
SAMPLES FROM	NG EGL 3-4, TOPSOIL 0-20CM, 27-01-2026	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	64507/26	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
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Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
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(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
8.05	**Not Given / P Pasture**	*Units/Acre*	**40**	**0**		*T/Ac*	**0**
349697 / Medium		*Kg/Ha*	**50**	**0**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO_3/ha before each cut of silage or 20-30kg SO_3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO_3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na_2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na_2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	19th February 2026
SAMPLES FROM	NG EGL 3-4, TOPSOIL 0-20CM, 27-01-2026
SAMPLED BY	
Report reference	64507/26

LDCL LTD
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Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE-ROTHERHAM
TOPSOIL 0-20CM
05-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 64653/25

Date Received 12-Feb-25
Date Reported 21-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
350788/25	1	**8.23 T/S 0-20CM** *Grassland into Grassland*	**6.6**	**0**	**1**	**6**	**7.8**	**87**	**360**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 21/02/25

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

Report Reference: 64653/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
350788	1	8.23 T/S 0-20CM	7.7

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Report Reference: 64653/25

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **21st February 2025**

SAMPLES FROM **WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **64653/350788/25** Field Name: **8.23 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	18	
Silt (0.063 - 0.002mm) %	39	
Clay (< 0.002mm) %	43	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	21st February 2025
SAMPLES FROM	WHITESTONE-ROTHERHAM, TOPSOIL 0-20CM, 05-02-2025
SAMPLED BY	
Report reference	64653/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
8.23 T/S 0-20CM	**Grassland / Grassland**	*Units/Acre*				*T/Ac*	**0**
350788 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

In the first season after Autumn or Spring sowing, deduct the amount of phosphate and potash applied to the seedbed from the recommendations.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
14-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 63694/26

Date Received 19-Jan-26
Date Reported 26-Jan-26

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
346214/26	1	**FIELD 8.26** *Into Other Crop*	**6.9**	**2**	**1**	**5**	**15.6**	**118**	**306**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted]. On behalf of NRM Date 26/01/26

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63694/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
346214	1	FIELD 8.26	5.8

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

Report Reference: 63694/26

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **26th January 2026**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 14-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **63694/346214/26** Field Name: **FIELD 8.26**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	25	
Silt (0.063 - 0.002mm) %	36	
Clay (< 0.002mm) %	39	
Textural Classification	Clay	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	26th January 2026	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 14-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD
SAMPLED BY		EAST YORKSHIRE YO25 9LY
Report reference	63694/26	Tel: 01377 236010 Fax:

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD 8.26	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
346214 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
12-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 65037/25

Date Received 19-Feb-25
Date Reported 28-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
352418/25	1	**9.01 T/S 0-20CM** *Into Winter Barley*	**7.9**	**2**	**2-**	**3**	**21.4**	**160**	**115**
352419/25	2	**9.02S T/S 0-20CM** *Into Other Crop*	**7.3**	**1**	**1**	**3**	**11.8**	**118**	**149**
352420/25	3	**9.03 T/S 0-20CM** *Into Winter Barley*	**7.0**	**1**	**2-**	**3**	**12.0**	**127**	**139**
352421/25	4	**9.06 T/S 0-20CM** *Into Other Crop*	**6.5**	**1**	**1**	**3**	**13.6**	**82**	**127**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted]..... On behalf of NRM Date 28/02/25.....

ANALYSIS REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65037/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
352418	1	9.01 T/S 0-20CM	5.2
352419	2	9.02S T/S 0-20CM	6.0
352420	3	9.03 T/S 0-20CM	5.2
352421	4	9.06 T/S 0-20CM	4.8

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65037/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **65037/352418/25**	Field Name: **9.01 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		23	
Silt (0.063 - 0.002mm) %		45	
Clay (< 0.002mm) %		32	
Textural Classification		Clay Loam	1

Reference: **65037/352419/25**	Field Name: **9.02S T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		20	
Silt (0.063 - 0.002mm) %		43	
Clay (< 0.002mm) %		37	
Textural Classification		Clay	1

Reference: **65037/352420/25**	Field Name: **9.03 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		29	
Silt (0.063 - 0.002mm) %		38	
Clay (< 0.002mm) %		33	
Textural Classification		Clay Loam	1

Reference: **65037/352421/25**	Field Name: **9.06 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		33	
Silt (0.063 - 0.002mm) %		37	
Clay (< 0.002mm) %		30	
Textural Classification		Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	28th February 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 12-02-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	65037/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
9.01 T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**44**	**56**		*T/Ac*	**0**
352418 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**70**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
9.02S T/S 0-20CM	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
352419 / Heavy		*Kg/Ha*				*Te/Ha*	**0**

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
9.03 T/S 0-20CM	**Not Given / W Barley**	*Units/Acre*	**68**	**56**		*T/Ac*	**0**
352420 / Medium	**(Yield: 6.5 t/ha) / Straw Removed**	*Kg/Ha*	**85**	**70**		*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE	28th February 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 12-02-2025
SAMPLED BY	
Report reference	65037/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

Please see previous sample for crop specific notes.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
9.06 T/S 0-20CM	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
352421 / Medium		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
12-02-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 65045/25

Date Received 19-Feb-25
Date Reported 28-Feb-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
352459/25	1	**9.07 T/S 0-20CM** *Into Winter Wheat*	**7.6**	**2**	**2-**	**3**	**19.0**	**165**	**107**
352460/25	2	**9.08 T/S 0-20CM** *Into Winter Wheat*	**7.3**	**2**	**1**	**3**	**19.4**	**117**	**136**
352461/25	3	**9.09 T/S 0-20CM** *No cropping details given*	**7.0**	**2**	**1**	**2**	**24.6**	**87**	**100**
352462/25	4	**9.10S T/S 0-20CM** *Into Other Crop*	**6.9**	**2**	**1**	**3**	**17.0**	**98**	**125**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by .....[redacted] On behalf of NRM Date 28/02/25

ANALYSIS REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65045/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
352459	1	9.07 T/S 0-20CM	4.2
352460	2	9.08 T/S 0-20CM	4.8
352461	3	9.09 T/S 0-20CM	4.9
352462	4	9.10S T/S 0-20CM	5.0

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

Report Reference: 65045/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **28th February 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 12-02-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **65045/352459/25**	Field Name: **9.07 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		42	
Silt (0.063 - 0.002mm) %		36	
Clay (< 0.002mm) %		22	
Textural Classification		Clay Loam	1

Reference: **65045/352460/25**	Field Name: **9.08 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		40	
Silt (0.063 - 0.002mm) %		32	
Clay (< 0.002mm) %		28	
Textural Classification		Clay Loam	1

Reference: **65045/352461/25**	Field Name: **9.09 T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		39	
Silt (0.063 - 0.002mm) %		32	
Clay (< 0.002mm) %		29	
Textural Classification		Clay Loam	1

Reference: **65045/352462/25**	Field Name: **9.10S T/S 0-20CM**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %		35	
Silt (0.063 - 0.002mm) %		34	
Clay (< 0.002mm) %		31	
Textural Classification		Clay Loam	1

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	28th February 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 12-02-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	65045/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
9.07 T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**44**	**68**		*T/Ac*	**0**
352459 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**85**		*Te/Ha*	**0**

At Index 2, phosphate and potash can be applied when convenient during the year but at Index 0 and 1, they should be applied and worked into the seedbed.
At Mg Index 0, magnesium fertiliser should be applied every 3-4 years at 50 to 100 kg MgO/ha.
Monitoring sulphur requirements of crops is advisable because the risk of deficiency is increasing, as atmospheric deposition of sulphur declines. Not all cereal crops will require sulphur and the responsiveness of a crop to the application of sulphur is dependant on soil texture and winter rainfall. Where deficiency has been recognised or is expected in winter or spring-sown cereals, apply 25-50 kg SO3/ha as a sulphate-containing fertiliser in early March to end of April for all cereals, taking into account the drilling date.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
9.08 T/S 0-20CM	**Not Given / W Wheat**	*Units/Acre*	**44**	**92**		*T/Ac*	**0**
352460 / Medium	**(Yield: 8 t/ha) / Straw Removed**	*Kg/Ha*	**55**	**115**		*Te/Ha*	**0**

Please see previous sample for crop specific notes.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

DATE 28th February 2025
SAMPLES FROM WHITESTONE, TOPSOIL 0-20CM, 12-02-2025

SAMPLED BY

Report reference 65045/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*	*Lime (Arable)*	*(Grass)*
9.09 T/S 0-20CM	**Not Given / Not Given**	*Units/Acre*				*T/Ac* **0**	**0**
352461 / Medium		*Kg/Ha*				*Te/Ha* **0**	**0**

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*	*Lime*
9.10S T/S 0-20CM	**Not Given / Other Crop**	*Units/Acre*				*T/Ac* **0**
352462 / Medium		*Kg/Ha*				*Te/Ha* **0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
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ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
04-03-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 66524/25

Date Received 11-Mar-25
Date Reported 19-Mar-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
359000/25	1	**FLD 9.10N TS0-20** *Into Other Crop*	**7.3**	**1**	**1**	**3**	**13.8**	**118**	**163**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 19/03/25

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66524/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
359000	1	FLD 9.10N TS0-20	5.3

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

Report Reference: 66524/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **19th March 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 04-03-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **66524/359000/25** Field Name: **FLD 9.10N TS0-20**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	37	
Silt (0.063 - 0.002mm) %	32	
Clay (< 0.002mm) %	31	
Textural Classification	Clay Loam	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	19th March 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 04-03-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY
SAMPLED BY		Tel: 01377 236010 Fax:
Report reference	66524/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.
For Vegetables and Bulbs:
There are instances where small amounts of phosphate fertiliser placed beneath seedlings or transplants can improve establishment, early growth and subsequent use of nutrients. The use of thses techniques is encouraged but the amount in any starter close applied should be deducted from the total application required.
Some vegetable crops are susceptible to magnesium deficiency and may show yield responses to magnesium fertiliser on soils at Mg Index 0 and 1. Magnesium recommendations for all field vegetable crops are for 150kg MgO/ha at Index 0 and 100kg MgO/ha at Index 1.
There is evidence that Brassica crops respond to Sulphur. Where sulphur deficiency has been recognised or is expected in vegetable Brassicas, apply 50-75 kg/ha SO3. For other vegetable crops there have been no UK trials, but because of the decline in atmospheric sulphur emissions a yield response is possible. Where sulphur deficiency has been recognised or is expected in other vegetable crops, apply 25 kg/ha SO3. Sulphur should be applied as a sulphate-containing fertiliser at or soon after planting. Crops are most at risk of sulphur deficiency where they are grown on light sandy soils, soils with a low organic matter content, and in high rainfall areas.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FLD 9.10N TS0-20	**Not Given / Other Crop**	*Units/Acre*				*T/Ac*	**0**
359000 / Medium		*Kg/Ha*				*Te/Ha*	**0**

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

ANALYSIS REPORT

Contact : LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel. : 01377 236010

J143

Please quote the above code for all enquiries

Client : WHITESTONE
TOPSOIL 0-20CM
09-12-2025

Sample Matrix : Agricultural Soil

Laboratory Reference
Card Number 77061/25

Date Received 15-Dec-25
Date Reported 24-Dec-25

SOIL ANALYSIS REPORT

Laboratory Sample Reference	Field Details			Index			mg/l (Available)		
	No.	Name or O.S. Reference with Cropping Details	Soil pH	P	K	Mg	P	K	Mg
406567/25	1	**FIELD W2P2** *Into Perm Pasture*	**7.0**	**3**	**2-**	**5**	**28.0**	**126**	**329**

If general fertiliser and lime recommendations have been requested, these are given on the following sheets.
The analytical methods used are as described in DEFRA Reference Book 427
The index values are determined from the AHDB Fertiliser Recommendations RB209 9th Edition.

Released by [redacted] On behalf of NRM Date 24/12/25

ANALYSIS REPORT

DATE **24th December 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 09-12-2025**

Report Reference: 77061/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Lab Ref.	Field Details		Soil Organic Matter [LOI%] Result
	No.	Field Name or Reference	
406567	1	FIELD W2P2	6.5

Your Organic Matter Results Interpretation

Land use	Rainfall	Soil type	Very Low	Low	Target	High
Arable	Low <650mm	Light	<=1.0	1.1-2.1	2.2-3.2	>=3.3
		Medium	<=1.7	1.8-3.3	3.4-5.0	>=5.1
		Heavy	<=2.2	2.3-4.4	4.5-6.5	>=6.6
	Moderate 650-800mm	Light	<=1.0	1.1-3.0	3.1-4.5	>=4.6
		Medium	<=1.9	2.0-4.0	4.1-6.0	>=6.1
		Heavy	<= 2.7	2.8-5.2	5.3-7.6	>=7.7
	High 800-1100mm	Light	<=1.3	1.4-3.7	3.8-6.1	>=6.2
		Medium	<=2.5	2.6-5.0	5.1-7.5	>=7.6
		Heavy	<=3.6	3.7-6.2	6.3-8.8	>=8.9
Grassland (Lowland)	All	Light	<=2.1	2.2-4.9	5.0-7.9	8.0-14.9
		Medium	<=3.4	3.5-6.4	6.5-9.3	9.3-19.9
		Heavy	<=4.6	4.7-7.6	7.7-10.5	10.6-19.9

ANALYSIS REPORT

DATE **24th December 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 09-12-2025**

Report Reference: 77061/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Explanatory Note: Cropping

High	Above average and associated with crop residues returns and regular OM inputs, including ley-arable rotations. Organic and conservation agricultural systems would appear in this group.	On target --- **Continue Rotational Monitoring**
Typical	Typical levels and is associated with crop residue returns and regular OM inputs, such as cover crops, compost or FYM.	
Low	Lower than average associated with intensive cropping & few organic matter inputs. Plan to add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Lower than average --- **Review**
Very Low	Very low associated with very intensive cropping and very few organic matter returns. Plan to regularly add OM inputs and retain crop residues in the field. **Be aware: changes in SOM as a result of a change in practice can take a long time.**	Very Low --- **Investigate**

Explanatory Note: Grassland Fields [Lowland]

High	Above average for the climate and soil type. Well drained, near neutral pH, well managed returns through grazing and inputs. Be aware that high levels could suggest an accumulation of undecomposed SOM near the soil surface due to a deteriorating pH and drainage, for example due to compaction.	On target --- **Continue Rotational Monitoring**
Typical	Typical for the climate and soil type. Associated with well drained near neutral pH, well managed returns through grazing and inputs.	
Low	Lower than average for the climate and soil type, intensively managed or recently reseeded and/or low OM inputs. If the soil is compacted and regularly poached by livestock, then OM soil incorporation by biological activity will have been reduced.	Lower than average --- **Review**
Very Low	Very low for climate/soil type. Intensively managed or recently reseeded and/or very low OM inputs. If the soil is compact and regularly poached by livestock, then OM incorporation by biological activity will have been reduced. Add more OM inputs to build SOM levels.	Very Low --- **Investigate**

Traffic light system: These advisory categories only apply to mineral soils. The benchmarks **are not appropriate for peats/ organic soils, i.e. soils with >20% organic matter to 40cm depth.**

In grassland situations only: SOM results >=15% on light & >=20% on med/heavy soil types suggest accumulation at the soil surface often indicating poor biological activity due to soil acidity or wetness on mineral soils.

Cropping & grassland: There is no defined **critical SOM value to aim for,** feeding the soil with organic inputs is more important than reaching an absolute target value.

Please note: A different set of benchmarks would also be required for upland grass and semi-natural systems.

OM = Organic Matter, **SOM** = Soil Organic Matter

Reference: ADHB-BBRO Soil Biology & Soil Health Partnership protocol and benchmarking document July 2022. Rainfall categories for the SOM benchmarks in AHDB report:91140002 final report 02.pdf (windows.net) see pages 7-11, based on work originally in Defra project SP0310

MICRO NUTRIENT REPORT

DATE **24th December 2025**

SAMPLES FROM **WHITESTONE, TOPSOIL 0-20CM, 09-12-2025**

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010

Reference: **77061/406567/25** Field Name: **FIELD W2P2**	**Result**	**(*)**
Sand (2.00 - 0.063mm) %	25	
Silt (0.063 - 0.002mm) %	35	
Clay (< 0.002mm) %	40	
Textural Classification	Clay	**1**

Notes (*)

(1) In calcareous soils the sand, silt and clay sized fractions are likely to contain particles of carbonate which may result in the incorrect classification of soil type.

ANALYSIS REPORT

DATE	24th December 2025	LDCL LTD
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 09-12-2025	COWSLIP OFFICE FIMBER DRIFFIELD EAST YORKSHIRE YO25 9LY Tel: 01377 236010 Fax:
SAMPLED BY		
Report reference	77061/25	

Fertiliser Recommendations

The phosphate and potash recommendations shown below, are those required to replace the offtake and maintain target soil indices. The larger recommended applications for soils below target index will allow the soil to build up to this target index over a number of years. Not applying fertiliser to soils which are above target index will allow the soil to run down over a number of years to the target index.
The recommendation should be increased or decreased where yields are substantially more or less than that specified. The amount to apply can be calculated using the expected yield and values for the offtake of phosphate and potash per tonne of yield given in the RB209 9th edition.
All recommendations are given for the mid-point of each Index.
Where a soil analysis value (as given by the laboratory) is close to the range of an adjacent Index, the recommendation may be reduced or increased slightly taking account of the recommendation given for the adjacent Index. Small adjustments of less than 10 kg/ha are generally not justified.
Efficient use of P and K is most likely to be achieved on soils that are well structured and enable good rooting.
For visual evaluation of soil structure (VESS), a score on 1 or 2 would be considered adequate.
Don't forget to deduct nutrients applied as organic manures.
For Nitrogen recommendations please refer to the RB209 9th edition or seek advice from an FACTS qualified adviser.
Target Indices:
Arable, Forage, Grassland and Potato Crops: P Index 2, K Index 2-
(In rotations where most crops are Autumn-sown, soils are in good condition and P is applied annually, high index 1 can be an adequate target.)
Vegetables and Bulbs: P Index 3, K Index 2+
(If vegetables are only grown occasionally as part of an arable rotation, it would be most economic to target index 2 for arable and forage crops.)
Fruit Vines and Hops: P Index 2, K Index 2, Mg Index 2
(Note: Cider apples respond to K Index 3, Mg Index 3)
A lime recommendation is usually for a 20cm depth of cultivated soil or a 15cm depth of grassland soil. Where soil is acid below 20 cm and soils are ploughed for arable crops, a proportionately larger quantity of lime should be applied. However, if more than 10 t/ha is needed, half should be deeply cultivated into the soil and ploughed down, with the remainder applied to the surface and worked in.
For established grassland or other situations where there is no, or only minimal soil cultivation, no more than 7.5 t/ha of lime should be applied in one application.
In these situations, applications of lime change the pH below the surface very slowly. Consequently, the underlying soil should not be allowed to become too acidic because this will affect the root growth and thus limit nutrient and water uptake, which will adversely affect yield.

Field Name / Ref / Soil Type	*Last Crop / Next Crop*		*P2O5*	*K2O*	*MgO*		*Lime*
FIELD W2P2	**Not Given / P Pasture**	*Units/Acre*	**0**	**0**		*T/Ac*	**0**
406567 / Heavy		*Kg/Ha*	**0**	**0**		*Te/Ha*	**0**

Grass/clover swards are more sensitive to phosphate and potash shortages than pure grass swards. Phosphate may be applied in several small applications during the season, though there may be a small response if it all applied in early spring for the 1st grazing. Potash maybe applied in one application in June or July, or in several small applications during the season. At index 0, apply 30kg K2O/ha for the first grazing. Herbage analysis can also be useful to assess the adequacy of recent phosphate and potash applications. Phosphorus deficiency is indicated if the P concentration is below 0.35% and potassium deficiency is indicated if the herbage potassium is below 2.5% (DM basis) or the N:K ratio of the herbage is above 1:1.3.
Where there is a known risk of hypomagnesaemia, application of potash in spring should be avoided. Grass swards must contain a sufficiently high level of magnesium if the risk of hypomagnesaemia (grass staggers) is to be reduced. At soil Mg Index 0, apply 50 to 100 kg MgO/ha every three or four years. However the uptake of herbage magnesium decreases as nitrogen and potash increase: consequently hypomagnesaemia can occur when soil magnesium appears adequate. If there is a risk of hypomagnesaemia, 100kg/ha MgO may be justified to maintain soil Mg Index 2. Direct treatment of livestock may also be needed to avoid hypomagnesaemia. Where liming is also needed, use of magnesian limestone may be most cost effective. Herbage analysis is a useful indicator of the need for additional magnesium and for assessing the risk of hypomagnesaemia. Maintain magnesium concentrations above 0.20% (DM basis) and ensure the K:Mg ratio does not exceed 20:1.
Sulphur is an essential nutrient in maximising dry matter yield protein levels in both grazed and conserved grass. Sulphur deficiency is increasingly common in grassland, especially at second and later cuts in multi-cut silage systems using high rates of nitrogen, but also sometimes at first cut. Sulphur deficiency is indicated by yellowing of the sward. In contrast to N deficiency where the older leaves are most affected, sulphur deficiency can be identified by yellowing of the youngest leaves. Analysis of uncontaminated herbage sampled just before cutting is a useful indicator of deficiency. The information can be used to assess the need for sulphur for future cuts. The critical level is 0.25% total sulphur or an N:S ratio greater than 13:1.
Some soils are more at risk of sulphur deficiency than others. Apply sulphur to all grass grown on sandy and shallow soils, loamy and coarse silty soils in areas with >200mm rainfall between November and February, or clay, fine silty or peat soils in areas with >400 rainfall between November and February. On soils at risk of sulphur deficiency apply 40kg/ SO3/ha before each cut of silage or 20-30kg SO3/ha when up to 100kg N/ha is applied and an additional 20-30kg SO3/ha for each additional 100kg N/ha .
Sodium will not have any effect on grass growth but an adequate amount in the diet is essential for livestock health (0.15% DM basis) and can improve the palatability of grass. Herbage analysis is useful to assess the sodium status of grass and its balance with potassium. Where sodium levels are low (below 0.15%) or the K:Na ratio is higher than 20:1, mineral supplements may be required for some classes of stock or a sodium containing fertiliser may be used. Apply sodium in fertiliser at 140kg/ha Na2O in early spring, either in a single or split application, to improve herbage mineral balances. To improve pasture palatability, apply regular dressings of 10kg/ha Na2O throughout the season.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025

Report continued.....

ANALYSIS REPORT

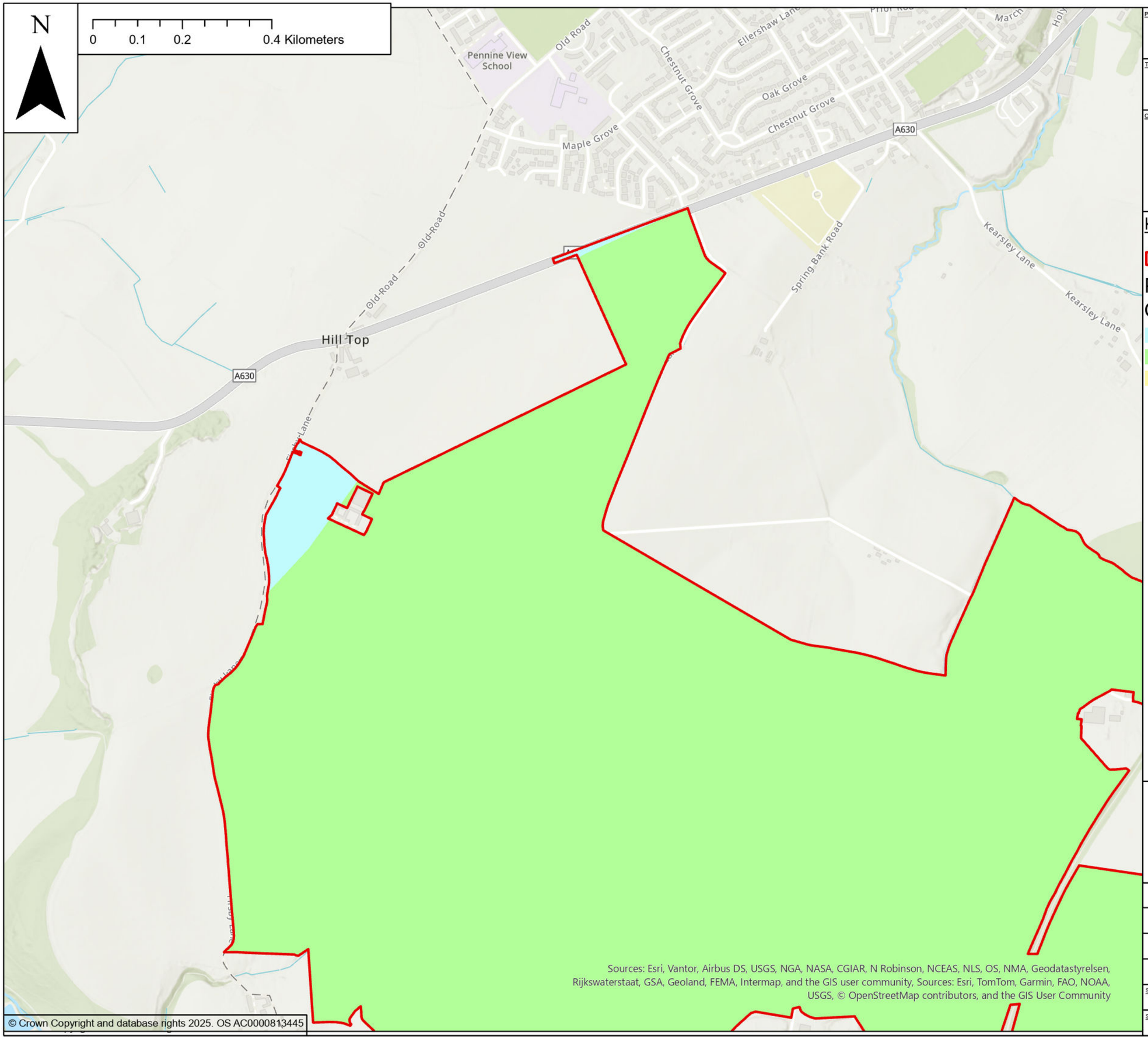
DATE	24th December 2025
SAMPLES FROM	WHITESTONE, TOPSOIL 0-20CM, 09-12-2025
SAMPLED BY	
Report reference	77061/25

LDCL LTD
COWSLIP OFFICE
FIMBER
DRIFFIELD
EAST YORKSHIRE
YO25 9LY
Tel: 01377 236010
Fax:

Fertiliser Recommendations

The amount of phosphate and potash applied for establishment may be deducted from the first season's grazing or silage/hay requirement.
Liming fields above pH 7 should be avoided as it can induce deficiencies of trace elements such as copper,cobalt and selenium which can adversely affect livestock growth but will not affect grass growth. Where a deficiency does occur, treatment of the animal with the appropriate trace element is usually the most effective means of control, though application of cobalt and selenium to grazing pastures can be effective.

Fertiliser recommendations are based on **AHDB RB209 (Ninth Edition).** If a nutrient is deficient and no recommendation is given, either no recommendation is given in RB209 or we have insufficient data to give a recommendation. Apply Lime to the nearest half Ton / Tonne.
NRM is a UKAS accredited laboratory to ISO/IEC 17025



Project:

Whitestone Solar Farm

Title:

APPENDIX 7: PROVISIONAL AGRICULTURAL LAND CLASSIFICATION

Client:

ERM

Key:

Order Limits

Provisional ALC Grades

Grade 2

Grade 3

Grade 4

LDC Land & Drainage Consultancy

Revision	Amendments	Date
1	First Issue	13/06/2025
2	Second Issue	11/07/2025
3	Third Issue	10/03/2026

Size:	Drawn:	Checked:	Approved:
A3	NS	LW	AS
Scale: 1:5,000	Revision: 3	Date: 10/03/2026	Page 1 of 12

N

0 0.1 0.2 0.4 Kilometers

Hoobin Brook

Arbour Lane

St James's Church

Garden Lane

Main Street

Park Lane

Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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Project:

Whitestone Solar Farm

Title:

APPENDIX 7: PROVISIONAL AGRICULTURAL LAND CLASSIFICATION

Client:

ERM

Key:

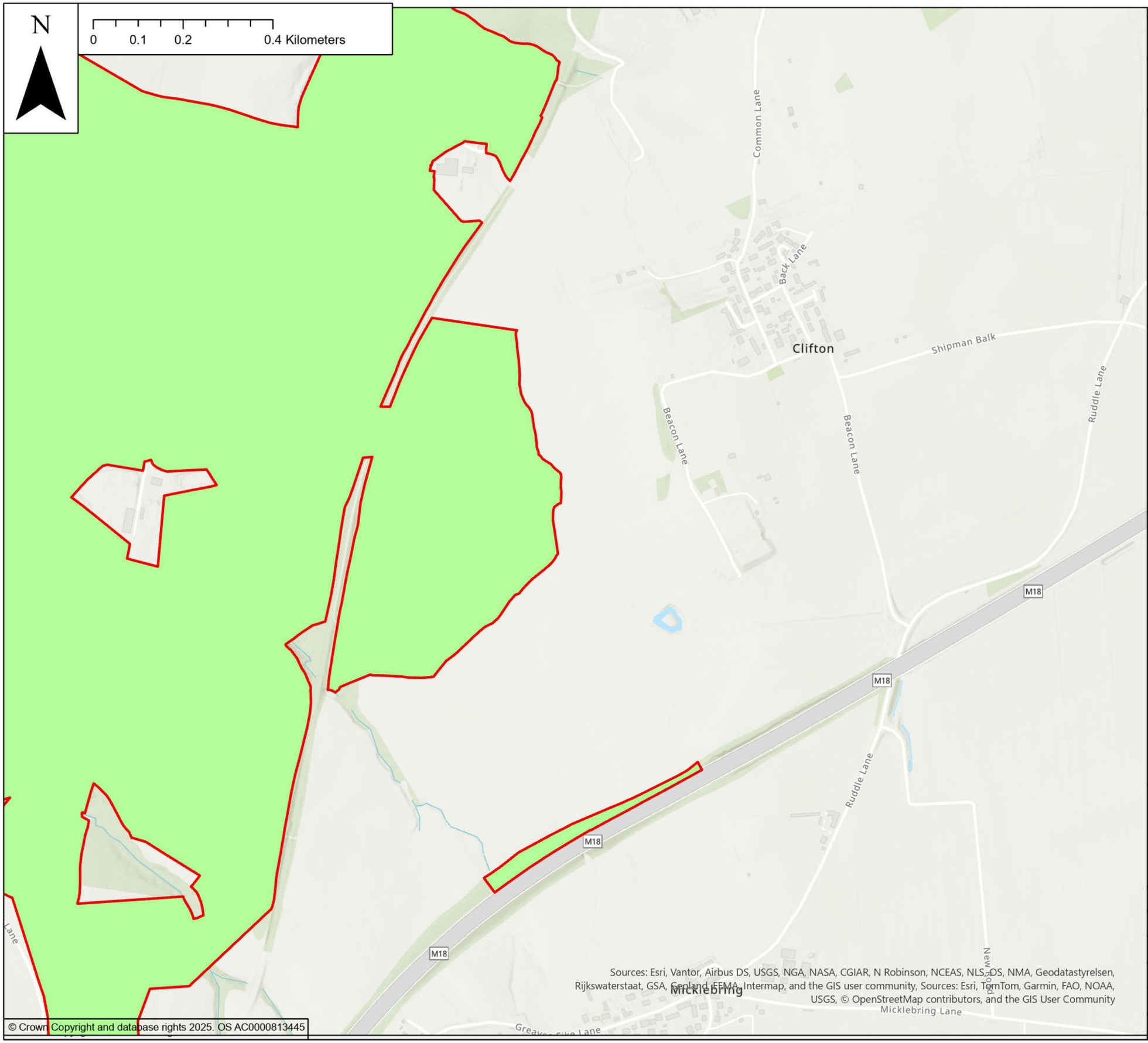
- Order Limits

Provisional ALC Grades

- Grade 2
- Grade 3
- Grade 4

LDC Land & Drainage Consultancy

Revision	Amendments		Date
1	First Issue		13/06/2025
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Scale: 1:5,000	Revision: 3	Date: 10/03/2026	



Project:

Whitestone Solar Farm

Title:

APPENDIX 7: PROVISIONAL AGRICULTURAL LAND CLASSIFICATION

Client:

ERM

Key:

- Order Limits

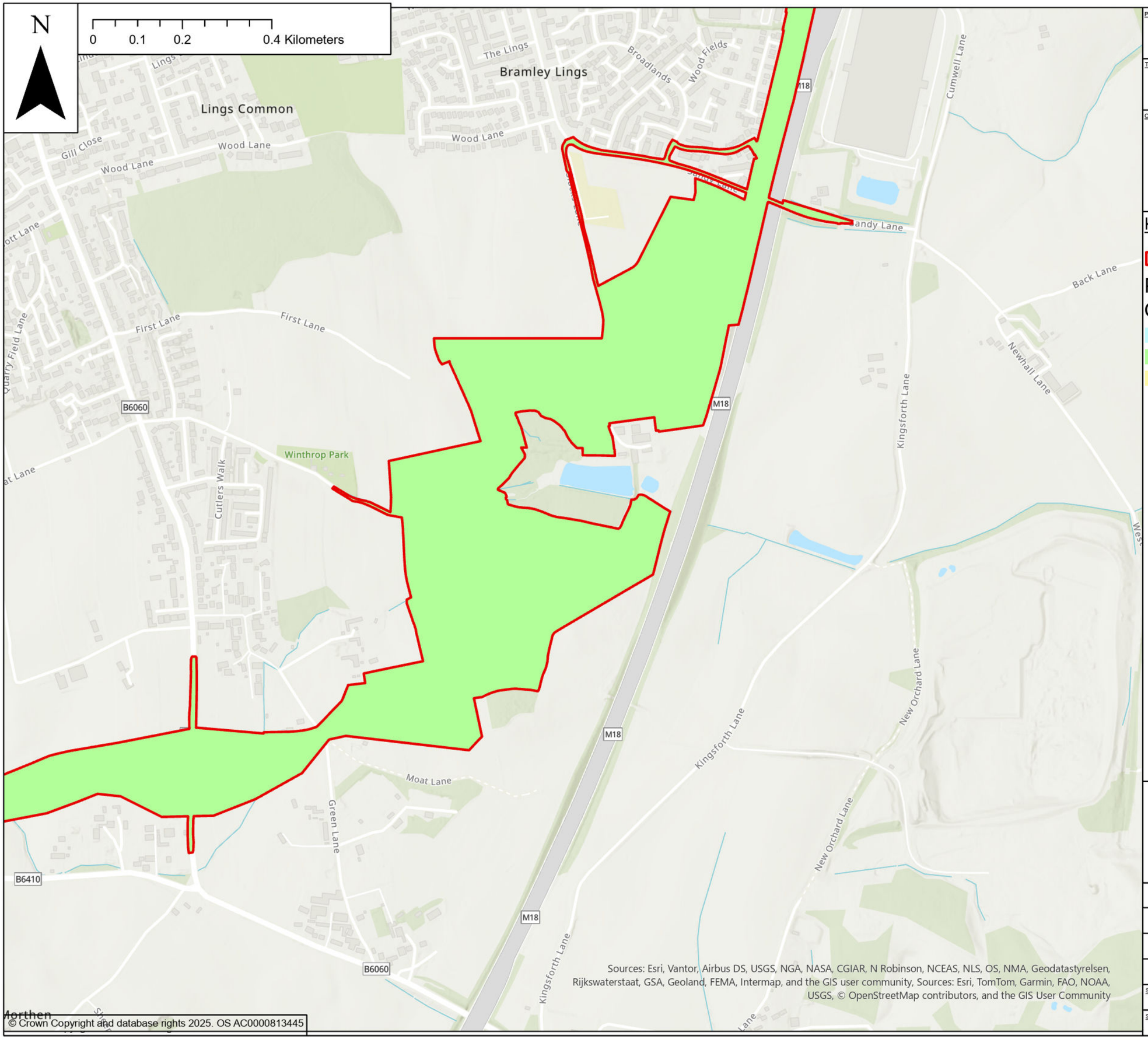
Provisional ALC Grades

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LDC Land & Drainage Consultancy

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A3	NS	LW	AS
Scale: 1:5,000	Revision: 3	Date: 10/03/2026	Page 3 of 12



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Project:

Whitestone Solar Farm

Title:

APPENDIX 7: PROVISIONAL AGRICULTURAL LAND CLASSIFICATION

Client:

ERM

Key:

- Order Limits

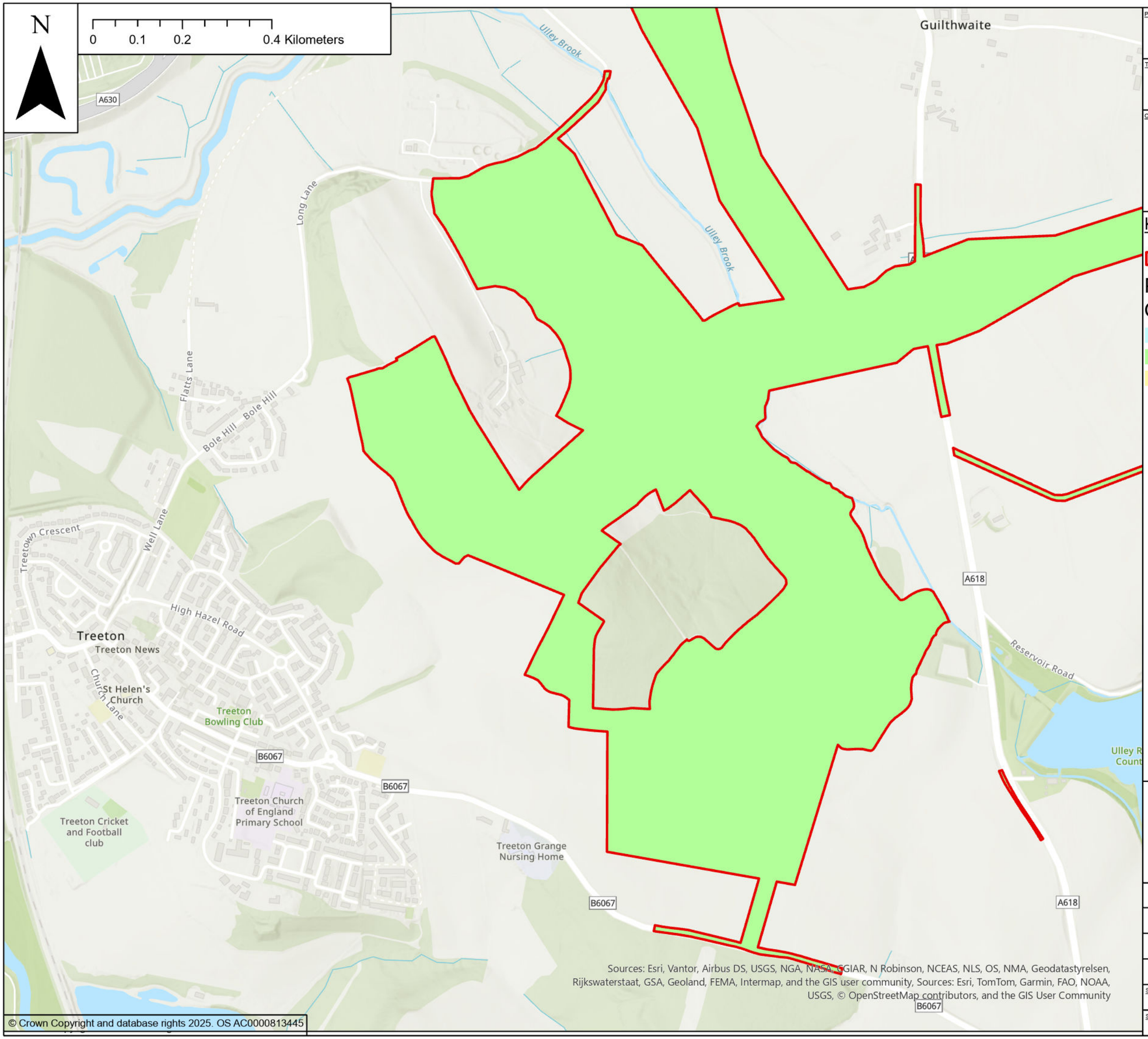
Provisional ALC Grades

- Grade 2
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LDC Land & Drainage Consultancy

Revision	Amendments	Date
1	First Issue	13/06/2025
2	Second Issue	11/07/2025
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Size:	Drawn:	Checked:	Approved:
A3	NS	LW	AS
Scale: 1:5,000	Revision: 3	Date: 10/03/2026	Page 4 of 12



Project:

Whitestone Solar Farm

Title:

APPENDIX 7: PROVISIONAL AGRICULTURAL LAND CLASSIFICATION

Client:

ERM

Key:

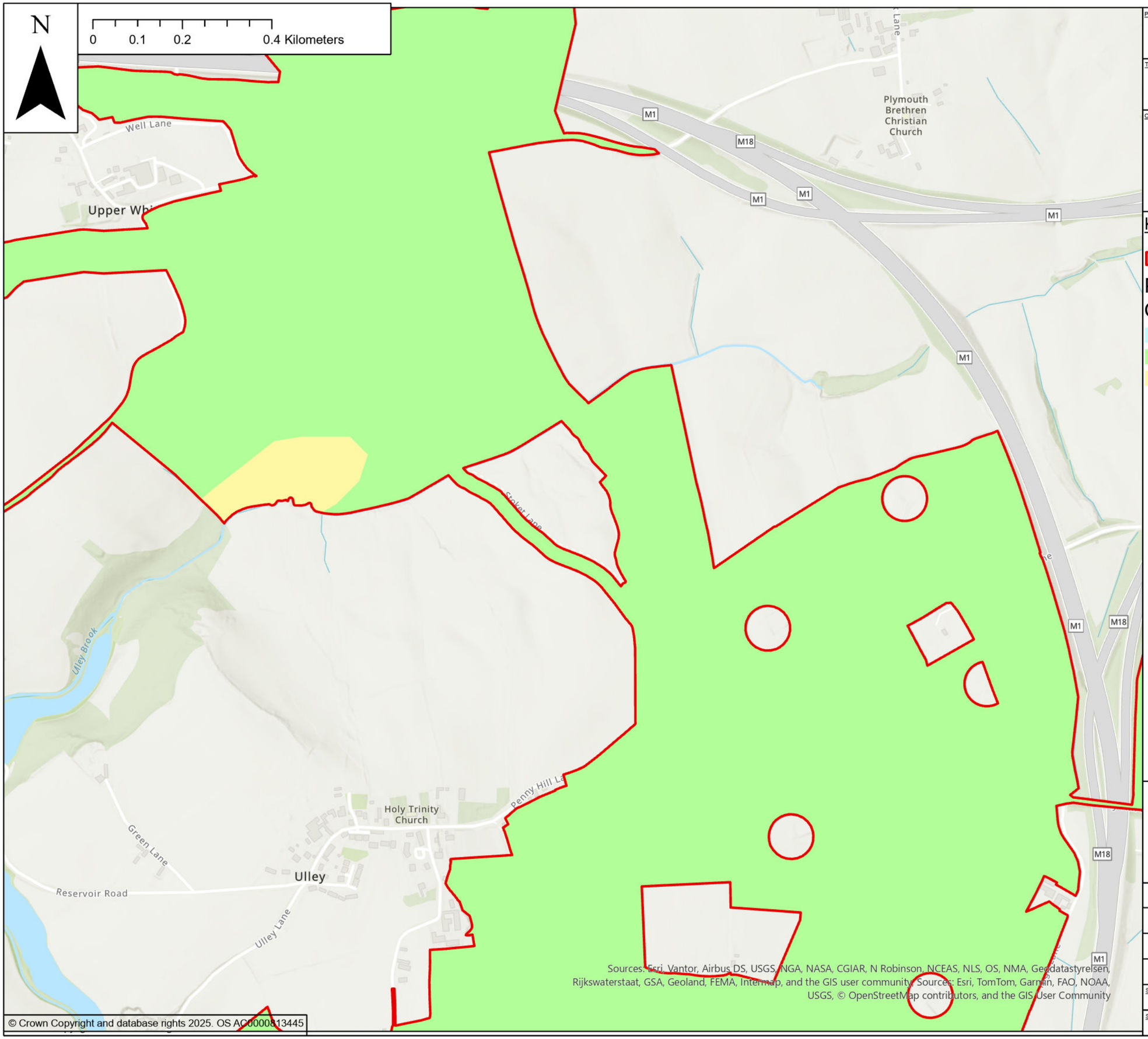
- Order Limits

Provisional ALC Grades

- Grade 2
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LDC Land & Drainage Consultancy

Revision	Amendments		Date
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Project:

Whitestone Solar Farm

Title:

APPENDIX 7: PROVISIONAL AGRICULTURAL LAND CLASSIFICATION

Client:

ERM

Key:

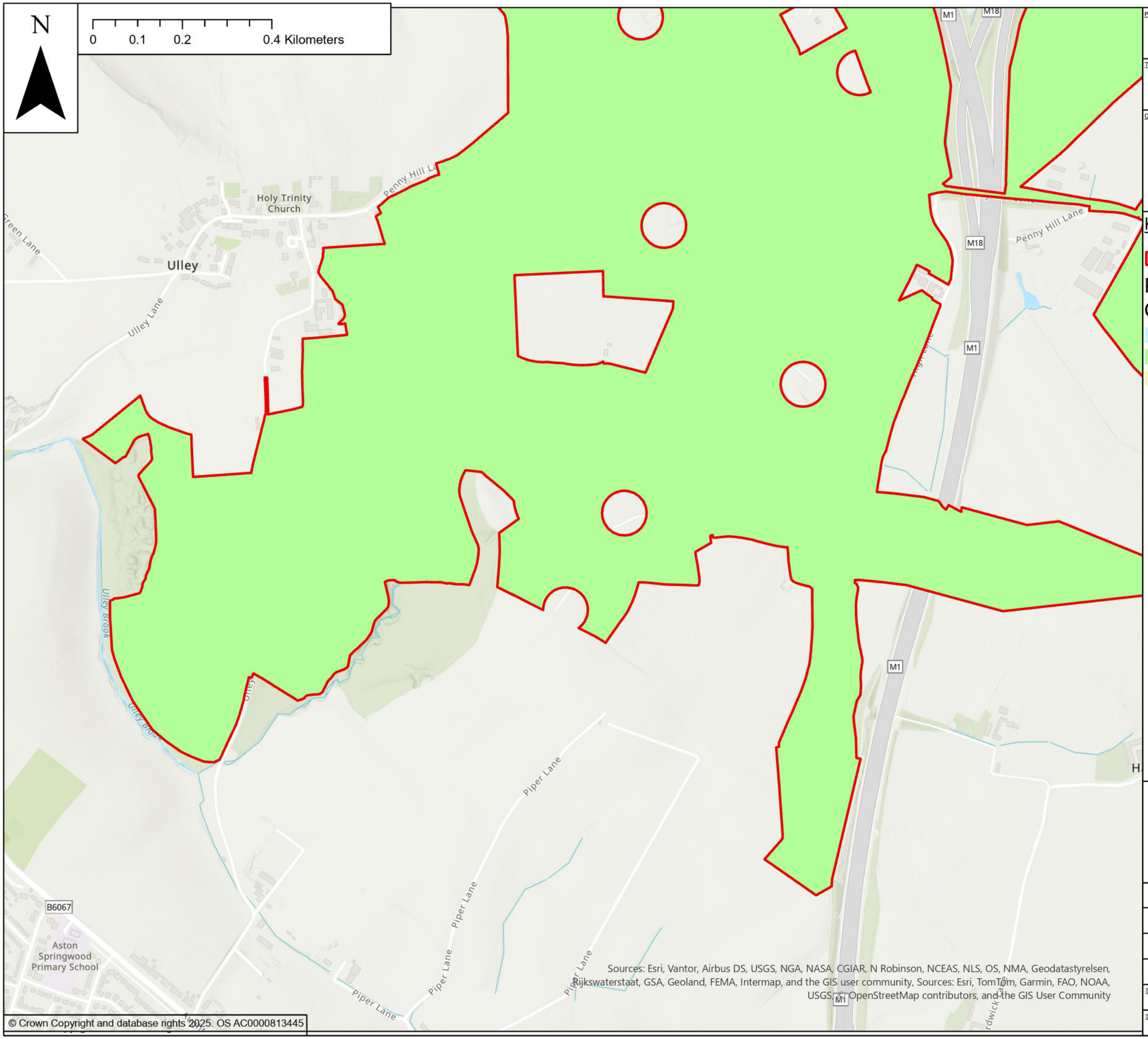
- Order Limits

Provisional ALC Grades

- Grade 2
- Grade 3
- Grade 4

LDC Land & Drainage Consultancy

Revision	Amendments		Date
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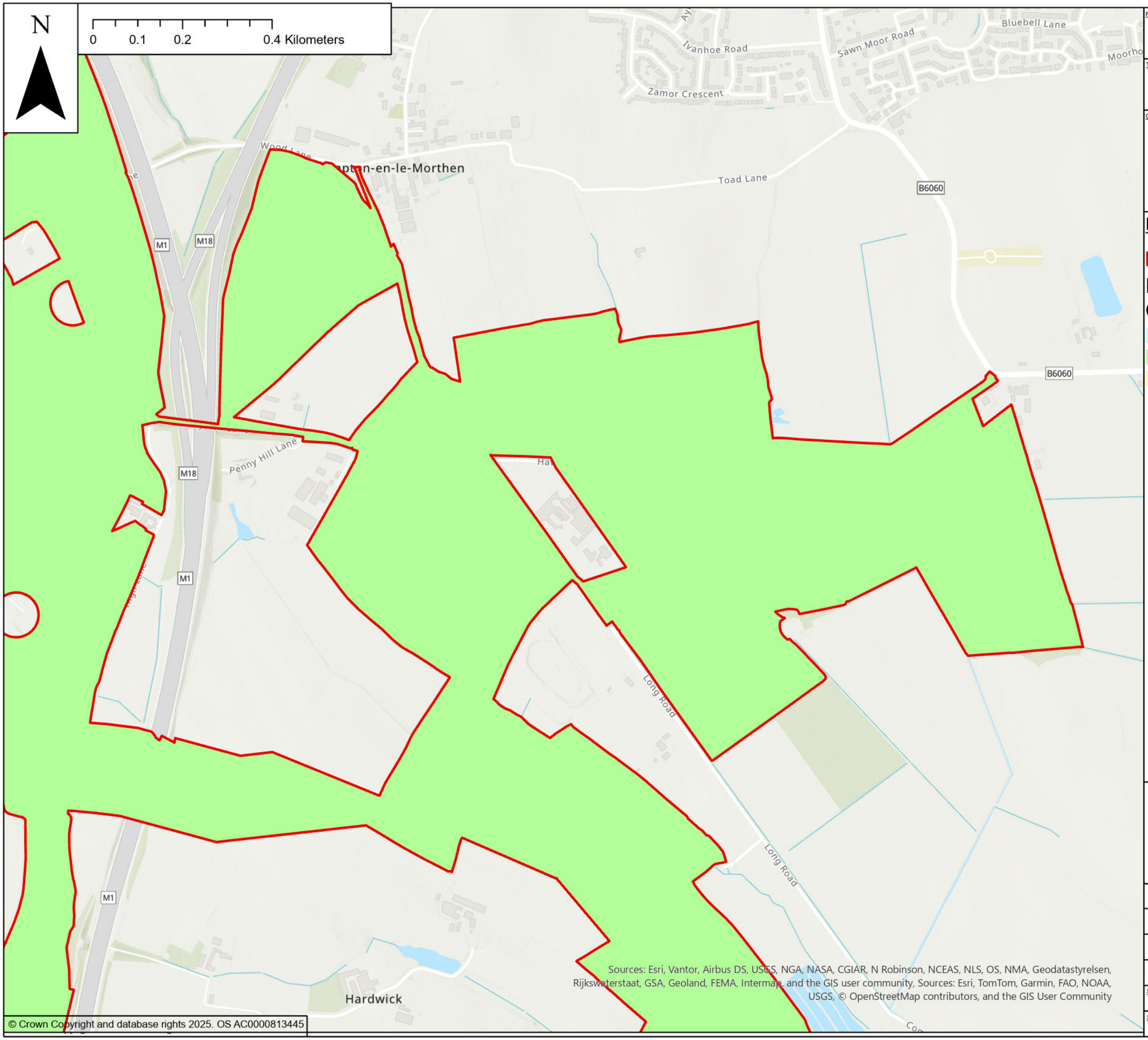
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N

0 0.1 0.2 0.4 Kilometers

Long Road

Long Road

Common Road

Common Road

Anston Brook

B6463

Hardwick

Hardwick Lane

A57

A57

A57

Sheffield Road

Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community. Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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Provisional ALC Grades

Grade 2

Grade 3

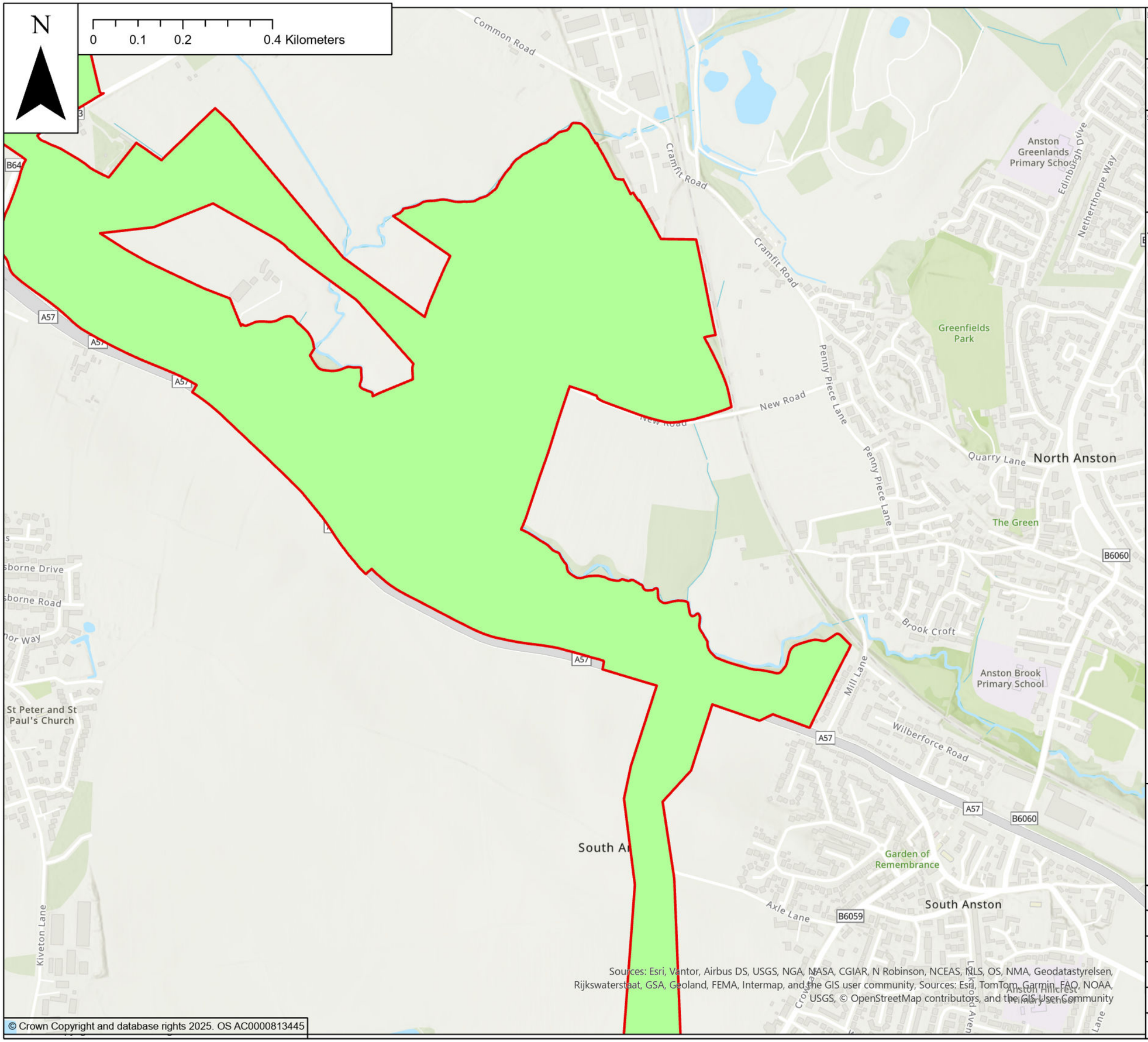
Grade 4

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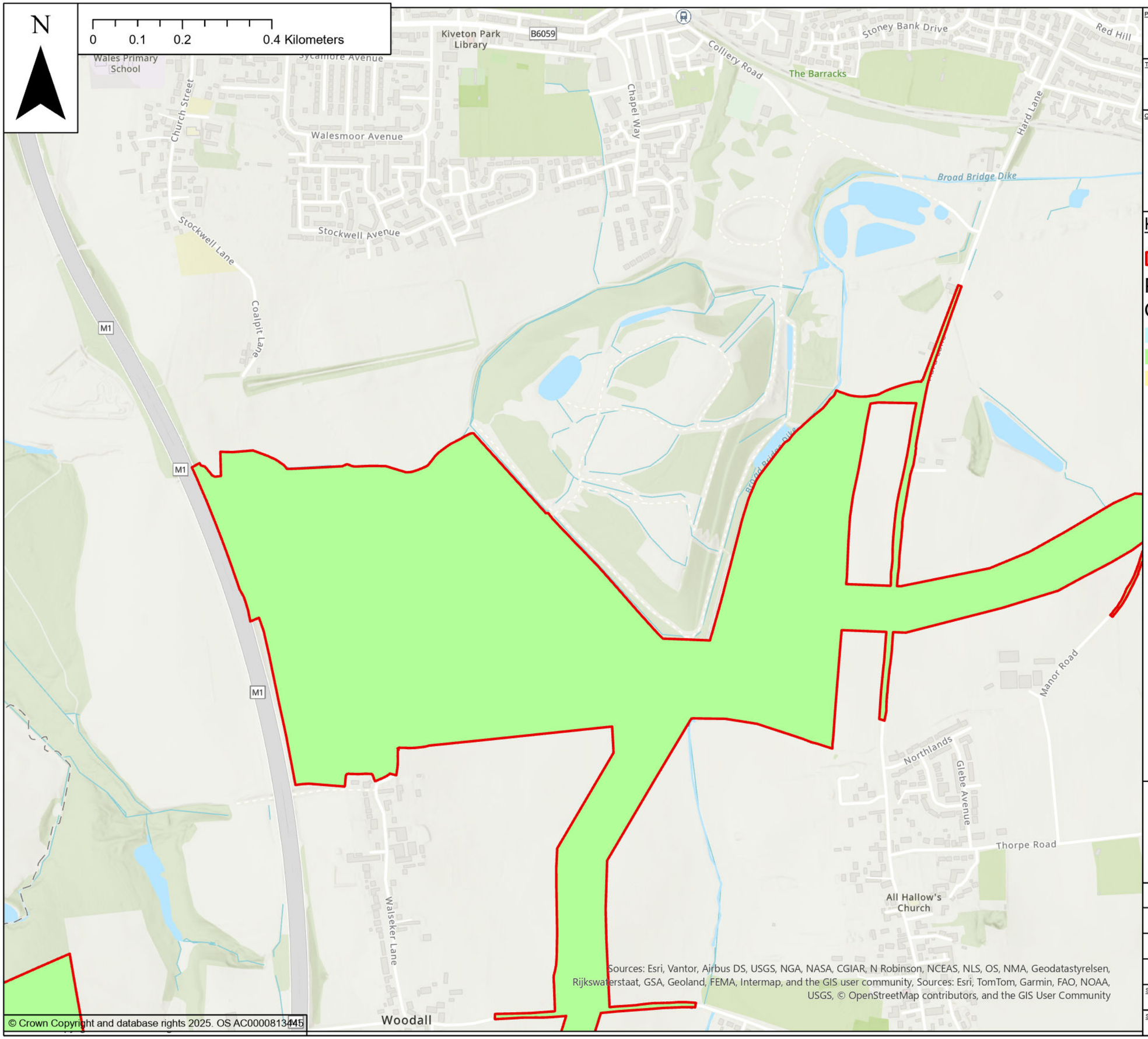
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N

0 0.1 0.2 0.4 Kilometers

awber lDawber Lane

A618

A618

Mansfield Road

Hut Lane

M1

Woodall

Walseker Lane

Dowcarr Lane

Woodall Services Area

M1

A618

M1

A618

Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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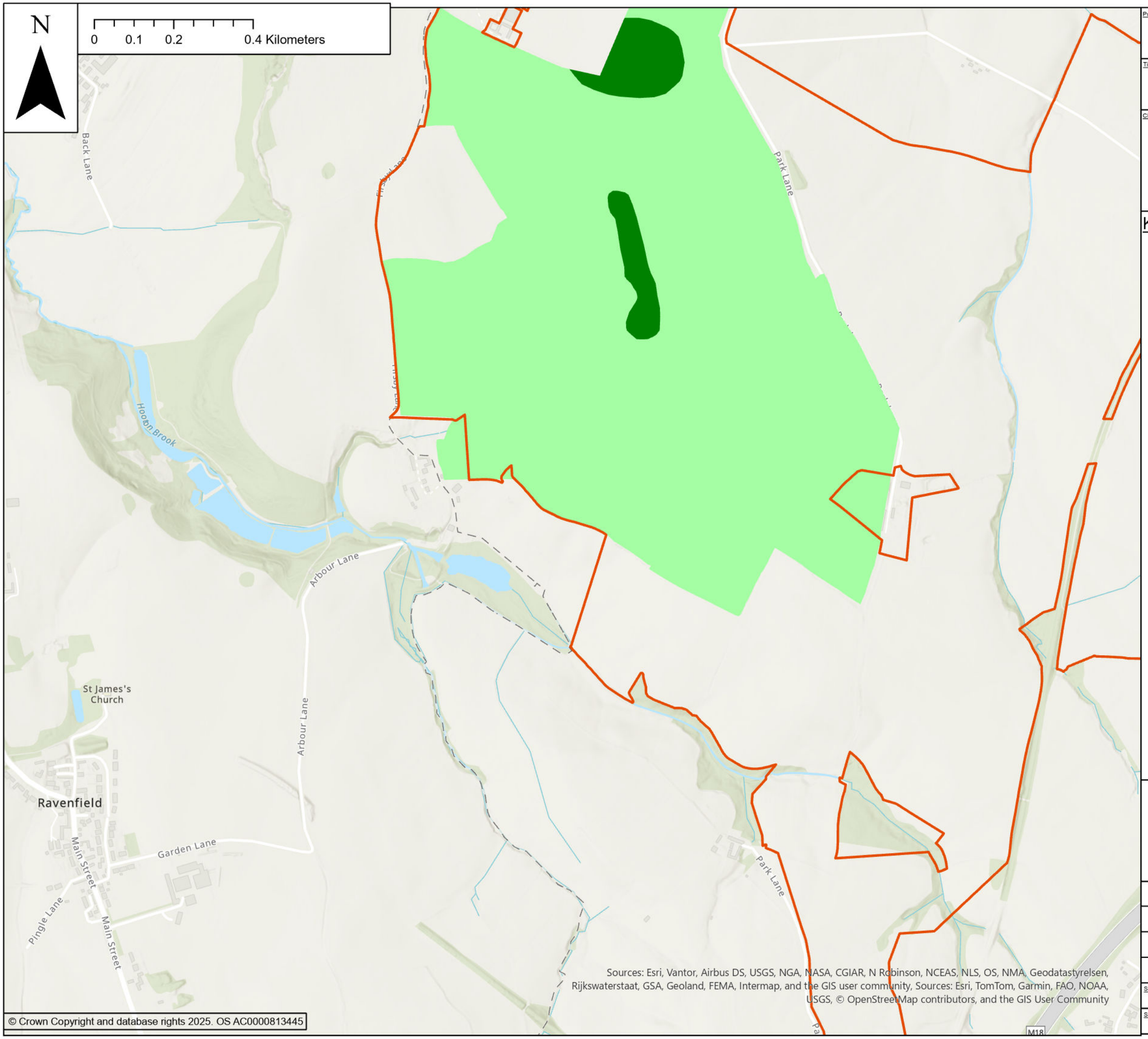
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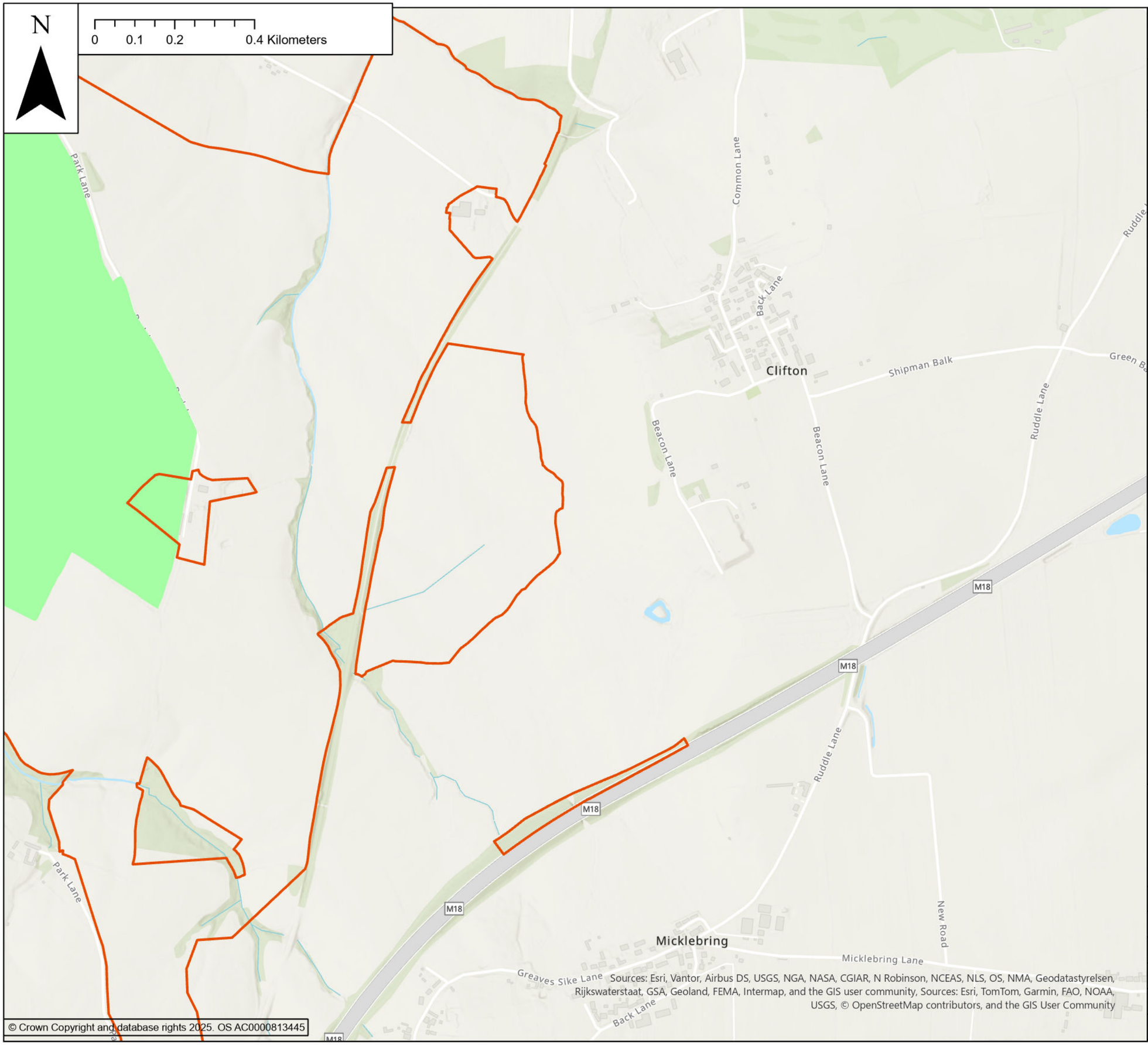
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ALC Grades (Post 1988) © ADAS & Defra

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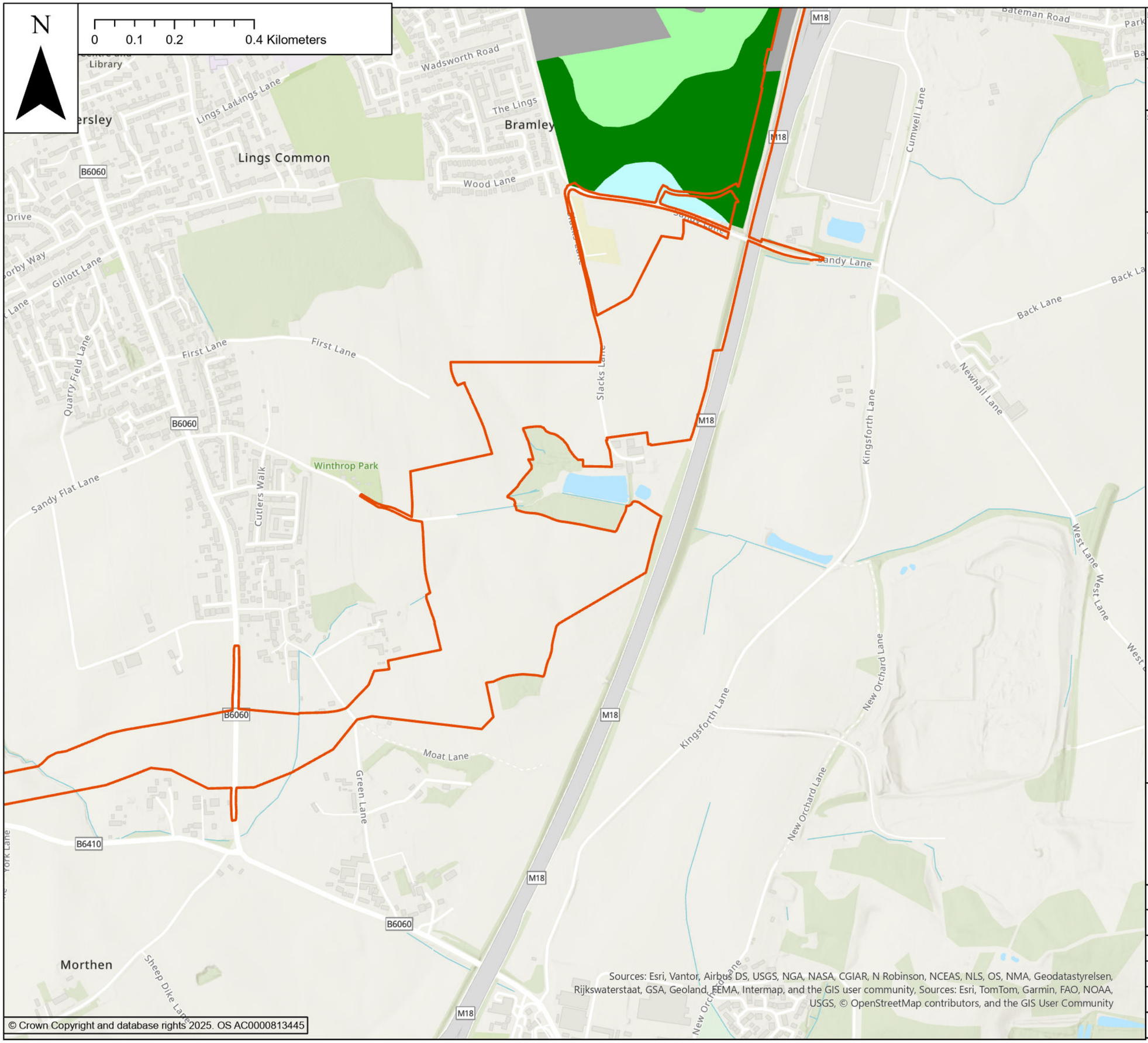
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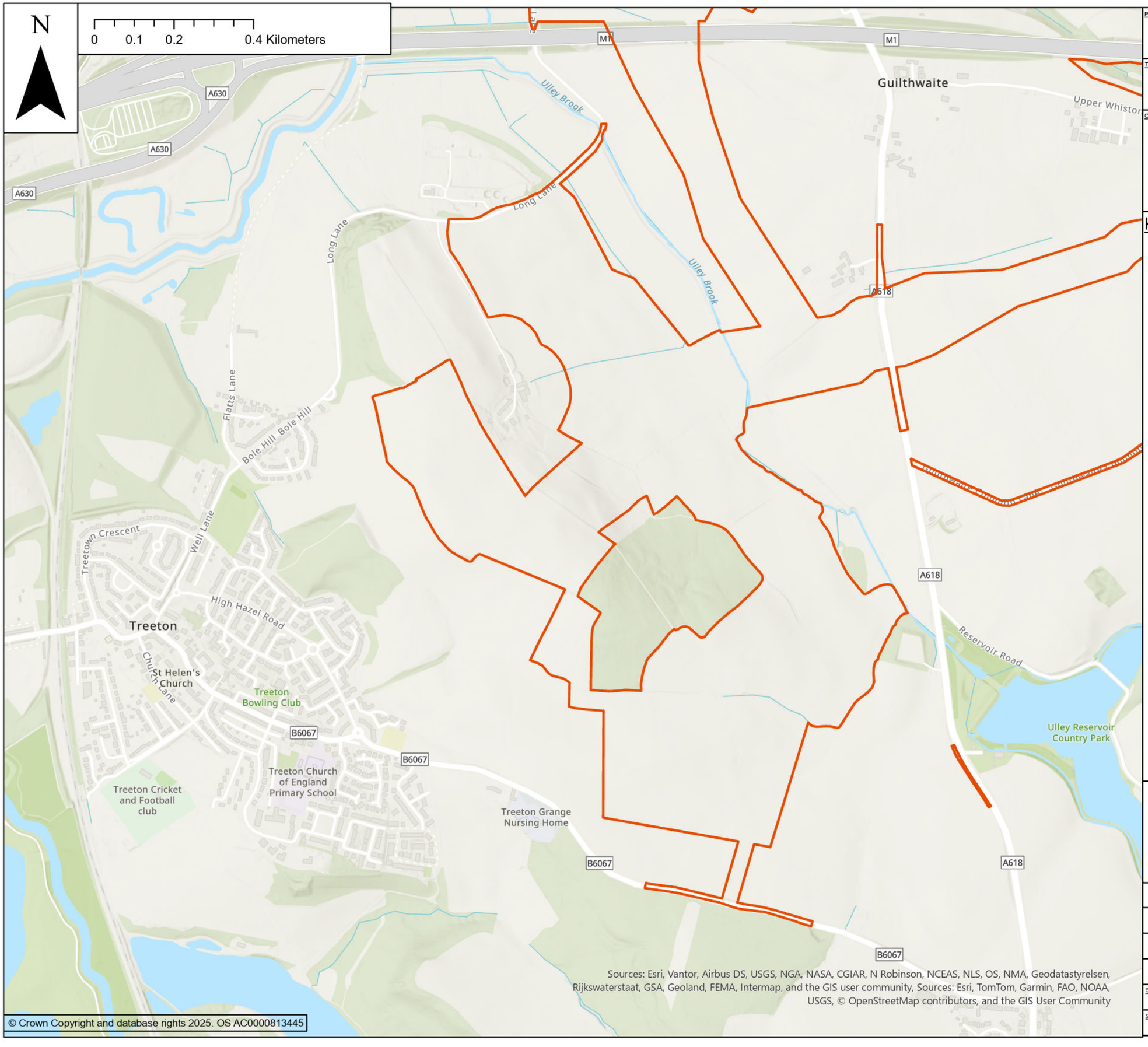
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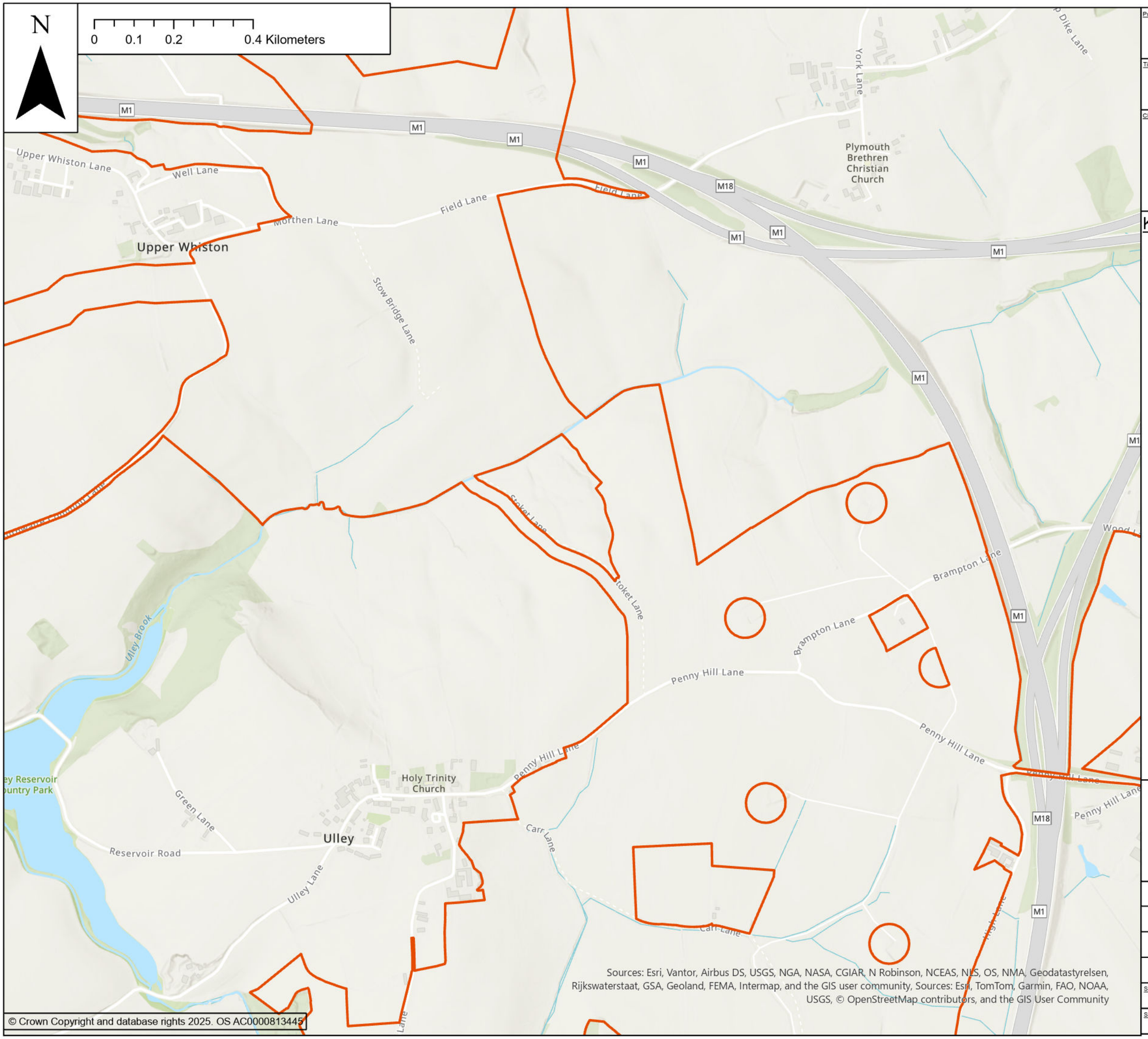
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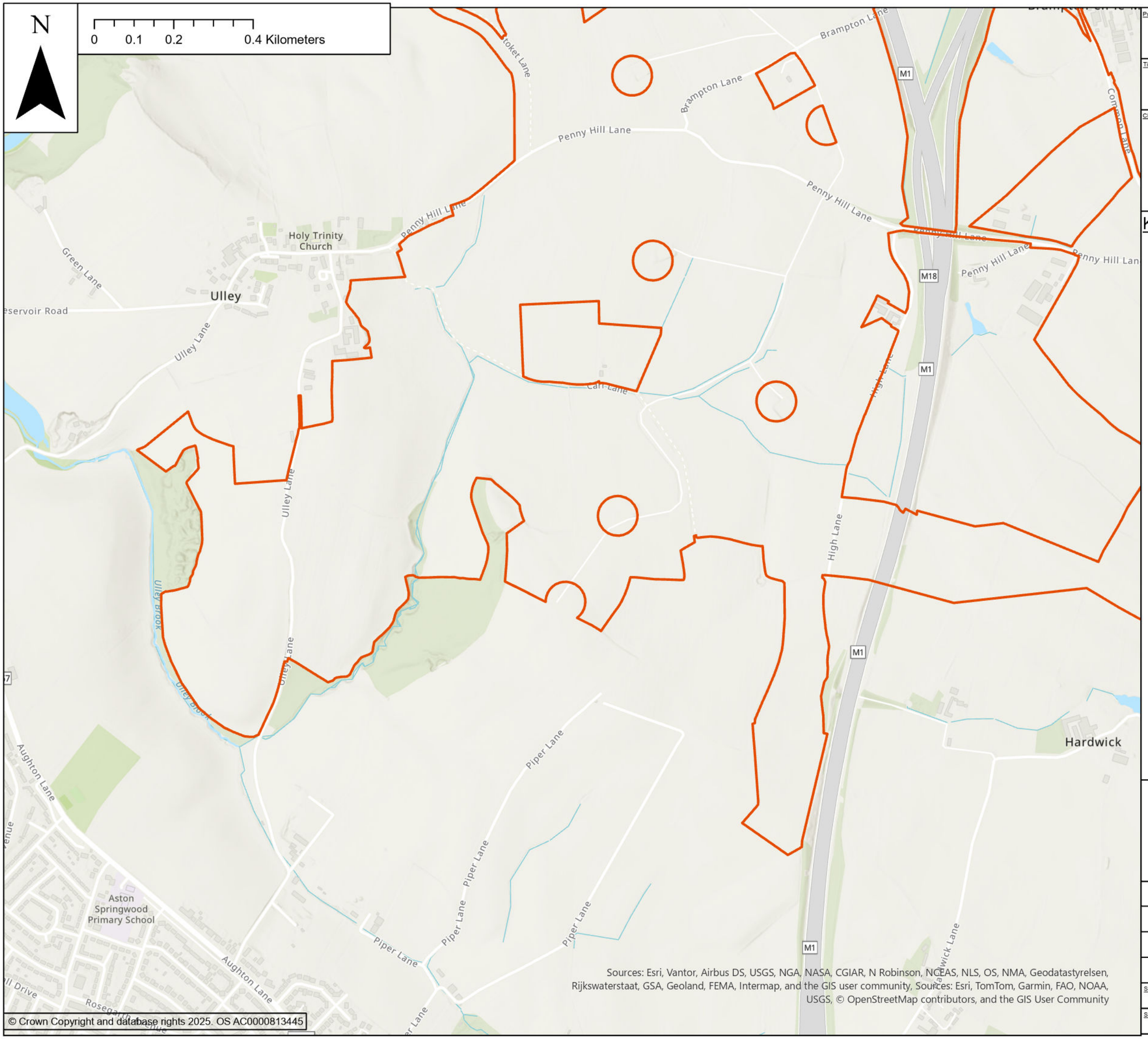
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N

0 0.1 0.2 0.4 Kilometers

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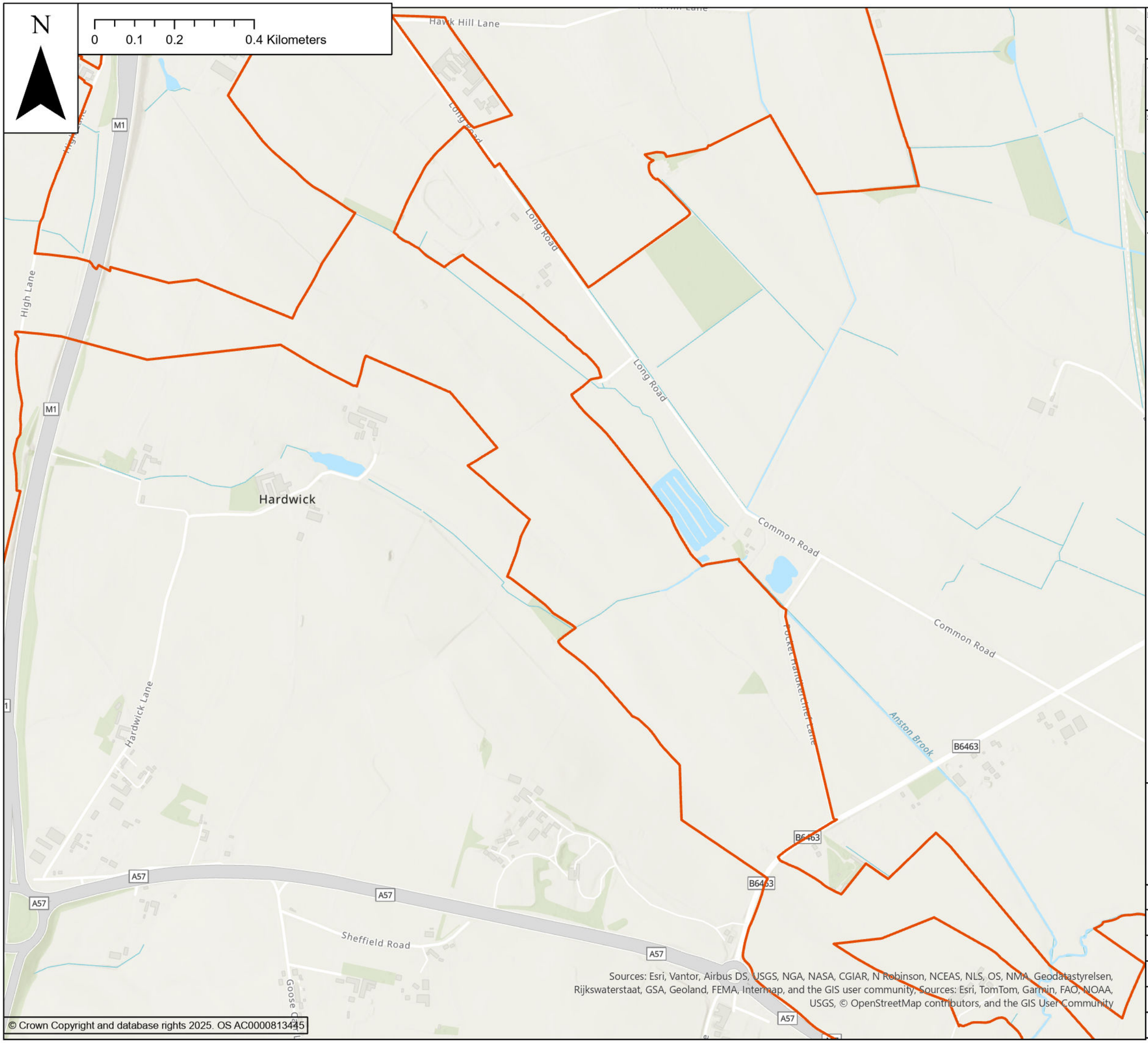
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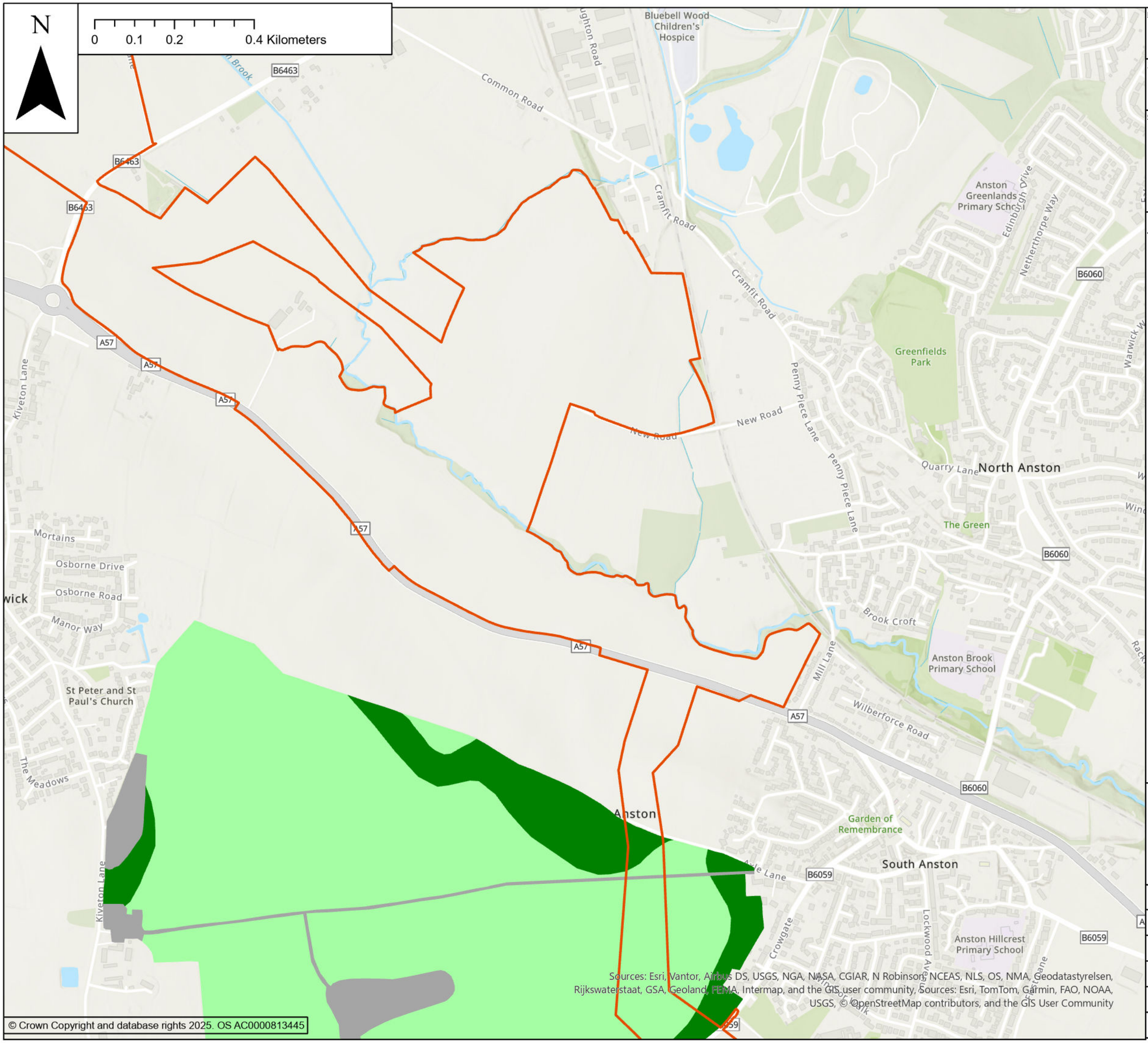
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APPENDIX 9: FLOOD ZONES

Client:

ERM

Key:

Order Limits

Flood Zones:

Zone 1
Less than 1 in 1000 (0.1% chance of flooding each year from Rivers and the Sea.

Zone 2
Greater than 1 in 1000 (0.1%) chance of flooding each year from Rivers and the Sea.

Zone 3
1 in 100 (1%) or greater chance of flooding each year from Rivers; or with a 1 in 200 (0.5%) or greater chance of flooding each year from the Sea.

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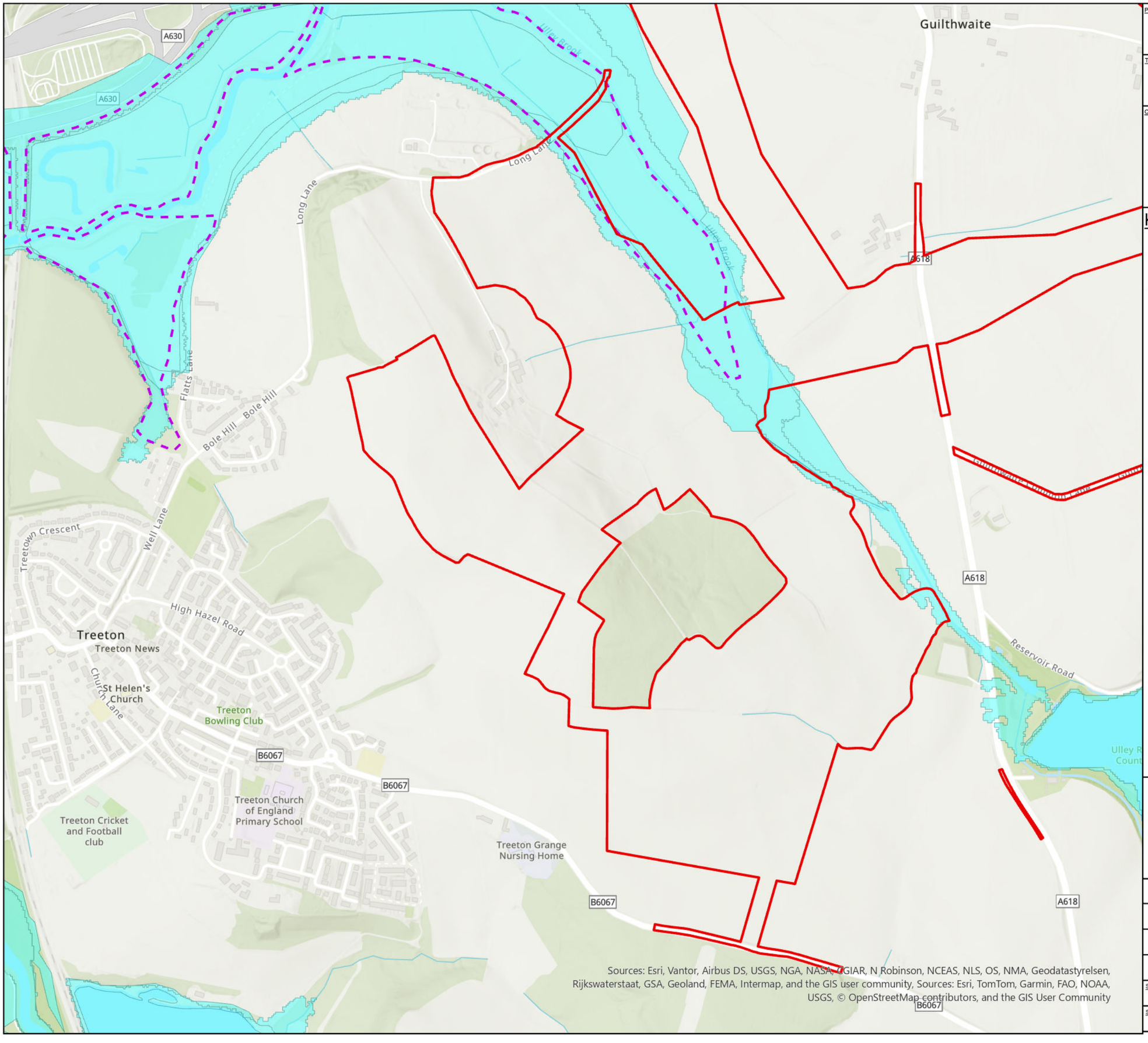
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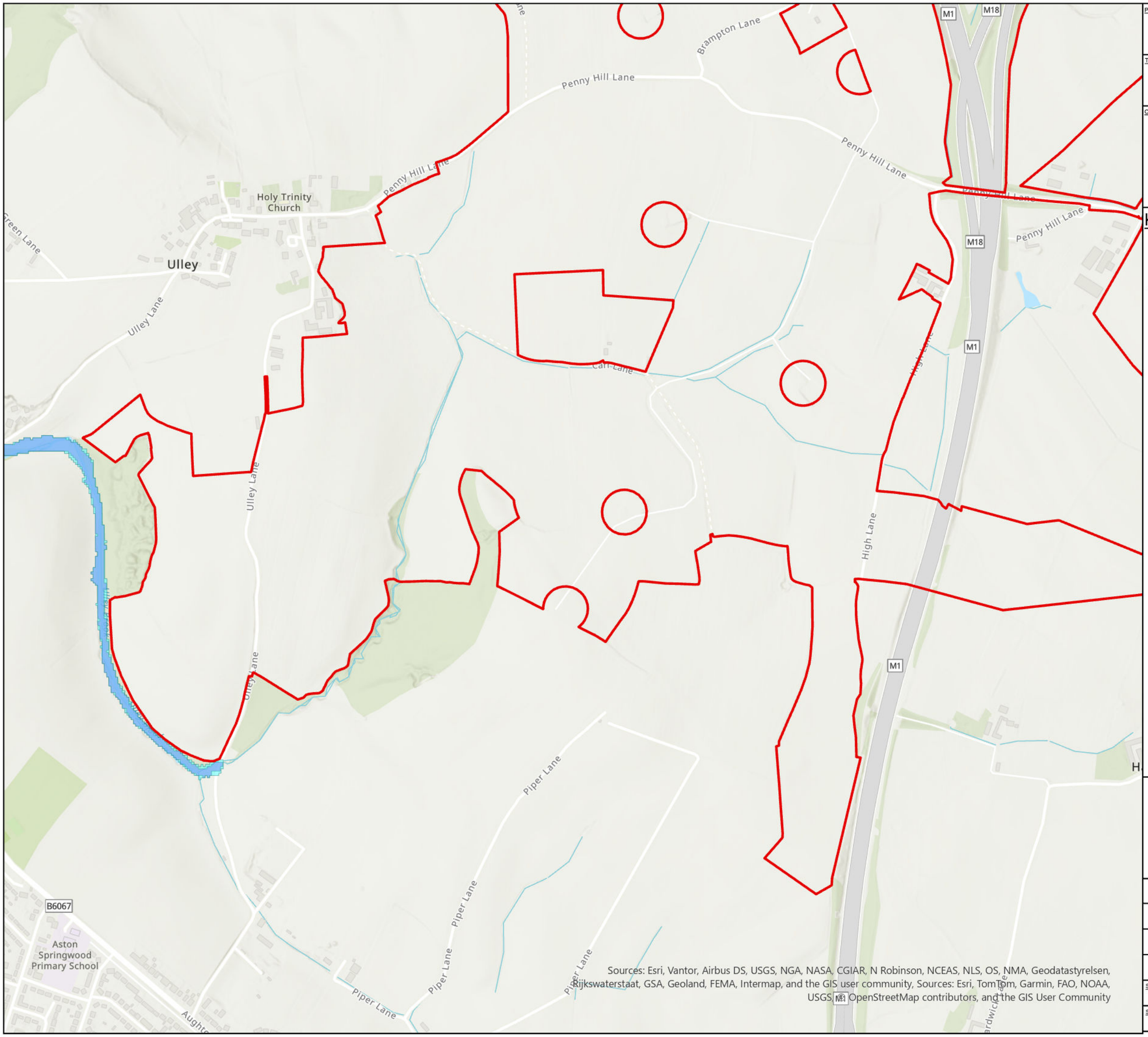
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1 in 100 (1%) or greater chance of flooding each year from Rivers; or with a 1 in 200 (0.5%) or greater chance of flooding each year from the Sea.

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1	First Issue	13/06/2025
2	Second Issue	11/07/2025
3	Third Issue	10/03/2026

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Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Project:

WHITESTONE

Title:

APPENDIX 9: FLOOD ZONES

Client:

ERM

Key:

Order Limits

Flood Zones:

Zone 1
Less than 1 in 1000 (0.1% chance of flooding each year from Rivers and the Sea.

Zone 2
Greater than 1 in 1000 (0.1%) chance of flooding each year from Rivers and the Sea.

Zone 3
1 in 100 (1%) or greater chance of flooding each year from Rivers; or with a 1 in 200 (0.5%) or greater chance of flooding each year from the Sea.

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Whitestone Solar Farm

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APPENDIX 10: SLOPE INDEX

Client:

ERM

Key:

- Auger Boring Locations
- Order Limits
- Sample/Field Number

Slope gradient (degrees)

- 0.001 - 1
- 1.001 - 4
- 4.001 - 7
- 7.001 - 11
- 11.001 - 18
- 18.001 - 90

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WHITESTONE
solar farm

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